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Population Division
Ministry of Health and Population
Government of Nepal
Kathmandu, Nepal

New ERA
Kathmandu, Nepal

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CONTENTS

TABLES AND FIGURES ix
FOREWORD xv
ACKNOWLEDGMENTS xvii
2006 NDHS TECHNICAL ADVISORY COMMITTEE xix
CONTRIBUTORS TO THE REPORT xxi
SUMMARY OF FINDINGS xxiii
MILLENNIUM DEVELOPMENT GOALS xxix
MAP OF NEPAL xxx

CHAPTER 1 INTRODUCTION

1.1 History, Geography, and Economy 1
1.2 Population 3
1.3 Population and Reproductive Health Policies and Programs 3
1.4 Objectives of the Survey 5
1.5 Organization of the Survey 6
1.6 Sample Design 6
1.7 Questionnaires 7
1.8 Hemoglobin Testing 8
1.9 Listing, Pretest, Training and Fieldwork 8
1.9.1 Listing 8
1.9.2 Pretest 8
1.9.3 Training 8
1.9.4 Fieldwork 9
1.10 Data Processing 9
1.11 Response Rates 10

CHAPTER 2 HOUSEHOLD POPULATION AND HOUSING CHARACTERISTICS

2.1 Household Population by Age and Sex 11
2.2 Household Composition 14
2.3 Household Characteristics 16
2.4 Household Possessions 20
2.5 Socioeconomic Status Index 21
2.6 Possession of Mosquito Nets 22
2.7 Education of Household Population 23
2.7.1 Educational Attainment of Household Population 23
2.7.2 School Attendance Ratios 27
2.8 Birth Registration 32

CHAPTER 3 CHARACTERISTICS OF RESPONDENTS

3.1 Characteristics of Survey Respondents 35
3.2 Educational Attainment and Literacy 37

3.3 Access to Mass Media 43
3.3.1 Access to Specific Radio and Television Programs 45
3.4 Employment 48
3.4.1 Employment Status 48
3.4.2 Occupation 51
3.4.3 Earnings, Employers, and Continuity of Employment 54
3.5 Knowledge and Attitudes Concerning Tuberculosis 55
3.6 Use of Tobacco 58
3.7 Hand Washing Practices 61

CHAPTER 4 FERTILITY

4.1 Current Fertility 63
4.2 Fertility Differentials 64
4.3 Fertility Trends 66
4.4 Pregnancy Outcomes 68
4.5 Children Ever Born and Surviving 69
4.6 Birth Intervals 70
4.7 Age at First Birth 72
4.8 Adolescent Pregnancy and Motherhood 73

CHAPTER 5 FAMILY PLANNING

5.1 Knowledge of Contraceptive Methods 75
5.2 Ever Use of Contraception 76
5.3 Current Use of Contraception 78
5.4 Current Use of Contraception by Background Characteristics 79
5.5 Trends in Current Use of Family Planning 81
5.6 Number of Children at First Use of Contraception 82
5.7 Knowledge of Fertile Period 83
5.8 Sterilization 83
5.9 Source of Contraception 86
5.10 Payment of Fees for Modern Contraceptive Methods 87
5.11 Informed Choice 88
5.12 Contraceptive Discontinuation 89
5.13 Future Use of Contraception 89
5.14 Reasons for Nonuse of Contraception 90
5.15 Preferred Method of Contraception for Future Use 90
5.16 Exposure to Family Planning Messages 91
5.17 Contact of Nonusers with Family Planning Providers 93
5.18 Men's Attitudes toward Contraception 94
5.19 Husband's Knowledge of Wife's Use of Contraception 97
5.20 Discussion of Family Planning Between Spouses 97

CHAPTER 6 PROXIMATE DETERMINANTS OF FERTILITY

6.1 Current Marital Status 99
6.2 Polygyny 100
6.3 Age at First Marriage 102
6.4 Age at First Sexual Intercourse 105

6.5 Recent Sexual Activity 106
6.6 Postpartum Amenorrhea, Abstinence, and Insusceptibility 109
6.7 Menopause 112

CHAPTER 7 FERTILITY PREFERENCES

7.1 Desire for More Children 113
7.2 Desire to Limit Childbearing by Background Characteristics 115
7.3 Need for Family Planning Services 116
7.4 Ideal Family Size 118
7.5 Fertility Planning 121

CHAPTER 8 INFANT AND CHILD MORTALITY

8.1 Assessment of Data Quality 124
8.2 Levels and Trends in Infant and Child Mortality 125
8.3 Socioeconomic Differentials in Childhood Mortality 126
8.4 Demographic Differentials in Mortality 127
8.5 Perinatal Mortality 128
8.6 High-risk Fertility Behavior 129

CHAPTER 9 ADULT AND MATERNAL MORTALITY

9.1 Data Quality Issues 131
9.2 Adult Mortality 132
9.3 Maternal Mortality 132

CHAPTER 10 MATERNAL HEALTH

10.1 Antenatal Care 135
10.2 Delivery Care 140
10.3 Postnatal Care 147
10.4 Newborn Care 150
10.5 Problems in Accessing Health Care 154

CHAPTER 11 CHILD HEALTH

11.1 Child's Weight and Size at Birth 157
11.2 Immunization Coverage 160
11.3 Acute Respiratory Infections 163
11.4 Fever 165
11.5 Prevalence of Diarrhea 167
11.6 Diarrhea Treatment 168
11.7 Feeding Practices During Diarrhea 170
11.8 Knowledge of ORS Packets 171
11.9 Stool Disposal 171

CHAPTER 12 NUTRITION OF CHILDREN AND WOMEN

12.1 Initiation of Breastfeeding 173

12.2 Breastfeeding Status by Age 175
12.3 Duration and Frequency of Breastfeeding 177
12.4 Types of Complementary Foods 179
12.5 Foods Consumed by Mothers 182
12.6 Micronutrient Intake 182
12.6.1 Micronutrient Intake among Children 183
12.6.2 Micronutrient Intake among Mothers 185
12.7 Prevalence of Anemia 188
12.7.1 Prevalence of Anemia in Children 188
12.7.2 Prevalence of Anemia in Women 190
12.8 Nutritional Status 192
12.8.1 Nutritional Status of Children 192
12.8.2 Trends in Children's Nutritional Status 196
12.8.3 Nutritional Status of Women 196

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

13.1 Knowledge of HIV/AIDS and of Transmission and Prevention Methods 200
13.1.1 Knowledge of AIDS 200
13.1.2 Knowledge of HIV/AIDS Prevention Methods 202
13.1.3 Comprehensive Knowledge of HIV/AIDS Transmission 204
13.2 Attitudes toward People Living with HIV/AIDS 207
13.3 Attitudes toward Negotiating Safer Sex 210
13.4 Higher-risk Sexual Intercourse 210
13.4.1 Multiple Sexual Partners and Higher-risk Sexual Intercourse 211
13.4.2 Paid Sex 213
13.5 Knowledge on HIV Testing 213
13.6 Reports of Recent Sexually Transmitted Infections 215
13.7 HIV/AIDS-related Knowledge and Behavior among Youth 217
13.7.1 Comprehensive Knowledge about HIV/AIDS and Source for Condoms 217
13.7.2 Age at First Sex and Condom Use at First Sexual Intercourse 219
13.7.3 Recent Sexual Activity among Never-married Youth 222
13.7.4 Higher-risk Sexual Intercourse 222

CHAPTER 14 WOMEN'S EMPOWERMENT AND DEMOGRAPHIC AND HEALTH OUTCOMES

14.1 Employment and Form of Earnings 225
14.2 Control Over and Relative Magnitude of Women's Earnings 226
14.3 Woman's Participation in Decisionmaking 228
14.4 Attitudes toward Wife Beating 233
14.5 Attitudes toward Refusing Sex with Husband 236
14.6 Current Use of Contraception by Women's Status 241
14.7 Ideal Family Size and Unmet Need by Women's Status 242
14.8 Reproductive Health Care by Women's Status 243

REFERENCES 245

APPENDIX A CAUSES OF UNDER-FIVE MORTALITY 249

APPENDIX B **SAMPLE IMPLEMENTATION** 263

APPENDIX C **ESTIMATES OF SAMPLING ERRORS** 265

APPENDIX D **DATA QUALITY TABLES** 281

APPENDIX E **PERSONS INVOLVED IN THE 2006 NEPAL DEMOGRAPHIC AND HEALTH SURVEY** 289

APPENDIX F **QUESTIONNAIRES** 293

TABLES AND FIGURES

Page

CHAPTER 1 INTRODUCTION

Table 1.1 Basic demographic indicators....3
Table 1.2 Results of household and individual interviews....10

CHAPTER 2 HOUSEHOLD POPULATION AND HOUSING CHARACTERISTICS

Table 2.1 Household population by age, sex, and residence....11
Table 2.2.1 Migration status: Men....13
Table 2.2.2 Migration status: Women....14
Table 2.3 Household composition....15
Table 2.4 Children's living arrangements and orphanhood....16
Table 2.5 Household drinking water....17
Table 2.6 Household sanitation facilities....18
Table 2.7 Housing characteristics....19
Table 2.8 Household possessions....20
Table 2.9 Wealth quintiles....21
Table 2.10 Possession of mosquito nets....22
Table 2.11.1 Educational attainment of household population: Male....24
Table 2.11.2 Educational attainment of household population: Female....25
Table 2.12 Children enrolled in school-based pre-primary classes and early childhood development centers....26
Table 2.13.1 School attendance ratios: primary school....28
Table 2.13.2 School attendance ratios: secondary school....29
Table 2.14.1 Grade repetition rates....30
Table 2.14.2 Grade dropout rates....31
Table 2.15 Birth registration....33

Figure 2.1 Population pyramid....12
Figure 2.2 Age-specific attendance rates....32

CHAPTER 3 CHARACTERISTICS OF RESPONDENTS

Table 3.1 Background characteristics of respondents....36
Table 3.2.1 Educational attainment: Women....38
Table 3.2.2 Educational attainment: Men....39
Table 3.3.1 Literacy: Women....41
Table 3.3.2 Literacy: Men....42
Table 3.4.1 Exposure to mass media: Women....43
Table 3.4.2 Exposure to mass media: Men....44
Table 3.5.1 Exposure to specific health programs on radio and television: Women....46
Table 3.5.2 Exposure to specific health programs on radio and television: Men....47
Table 3.6.1 Employment status: Women....49
Table 3.6.2 Employment status: Men....50

Table 3.7.1 Occupation: Women 52
Table 3.7.2 Occupation: Men 53
Table 3.8.1 Type of employment: Women 54
Table 3.8.2 Type of employment: Men 55
Table 3.9.1 Knowledge and attitudes concerning tuberculosis: Women 56
Table 3.9.2 Knowledge and attitudes concerning tuberculosis: Men 57
Table 3.10.1 Use of tobacco: Women 59
Table 3.10.2 Use of tobacco: Men 60
Table 3.11 Hand washing practices 62

CHAPTER 4 FERTILITY

Table 4.1 Current fertility 63
Table 4.2 Fertility by background characteristics 65
Table 4.3 Trends in age-specific fertility rates 66
Table 4.4 Trends in fertility 67
Table 4.5 Pregnancy outcome 68
Table 4.6 Children ever born and living 69
Table 4.7 Birth intervals 71
Table 4.8 Age at first birth 72
Table 4.9 Median age at first birth 73
Table 4.10 Adolescent pregnancy and motherhood 74

Figure 4.1 Age-specific fertility rates by urban-rural residence 64
Figure 4.2 Total fertility rates by background characteristics 66
Figure 4.3 Trends in total fertility rates 1993-2005 67

CHAPTER 5 FAMILY PLANNING

Table 5.1 Knowledge of contraceptive methods 76
Table 5.2.1 Ever use of contraception: Women 77
Table 5.2.2 Ever use of contraception: Men 78
Table 5.3 Current use of contraception by age 79
Table 5.4 Current use of contraception by background characteristics 80
Table 5.5 Trends in current use of modern contraceptive methods 81
Table 5.6 Number of children at first use of contraception 82
Table 5.7 Knowledge of fertile period 83
Table 5.8 Timing of sterilization 84
Table 5.9 Sterilization regret 85
Table 5.10 Source of modern methods of contraception 86
Table 5.11 Payment for modern contraceptive methods 87
Table 5.12 Informed choice 88
Table 5.13 First-year contraceptive discontinuation rates 89
Table 5.14 Future use of contraception 89
Table 5.15 Reason for not intending to use contraception in the future 90
Table 5.16 Preferred method of contraception for future use 90
Table 5.17 Exposure to family planning messages 92
Table 5.18 Contact of nonusers with family planning providers 94
Table 5.19 Men's attitudes toward contraceptive use 95
Table 5.20 Discussion of family planning with spouse 97

Figure 5.1 Trends in contraceptive use among currently married women, Nepal 1996-2006 82

CHAPTER 6 PROXIMATE DETERMINANTS OF FERTILITY

Table 6.1 Current marital status 99
Table 6.2 Trend in proportion never married 100
Table 6.3 Number of co-wives and wives 101
Table 6.4 Age at first marriage 102
Table 6.5.1 Median age at first marriage: Women 103
Table 6.5.2 Median age at first marriage: Men 104
Table 6.6 Age at first sexual intercourse 105
Table 6.7 Median age at first intercourse for men 106
Table 6.8.1 Recent sexual activity: Women 107
Table 6.8.2 Recent sexual activity: Men 108
Table 6.9 Postpartum amenorrhea, abstinence, and insusceptibility 110
Table 6.10 Median duration of amenorrhea, postpartum abstinence, and postpartum insusceptibility 111
Table 6.11 Menopause 112

CHAPTER 7 FERTILITY PREFERENCES

Table 7.1 Fertility preferences by number of living children 114
Table 7.2 Desire for more children among monogamous couples 115
Table 7.3 Desire to limit childbearing 116
Table 7.4 Need and demand for family planning among currently married women 117
Table 7.5 Ideal number of children 119
Table 7.6 Mean ideal number of children by background characteristics 120
Table 7.7 Fertility planning status 121
Table 7.8 Wanted fertility rates 122

CHAPTER 8 INFANT AND CHILD MORTALITY

Table 8.1 Early childhood mortality rates 125
Table 8.2 Early childhood mortality rates by socioeconomic characteristics 126
Table 8.3 Early childhood mortality rates by demographic characteristics 127
Table 8.4 Perinatal mortality 129
Table 8.5 High-risk fertility behavior 130

Figure 8.1 Trends in childhood mortality, Nepal 1990-2005 126
Figure 8.2 Under-five mortality by selected demographic characteristics 128

CHAPTER 9 ADULT AND MATERNAL MORTALITY

Table 9.1 Adult mortality rates 132
Table 9.2 Direct estimates of maternal mortality 133

CHAPTER 10 MATERNAL HEALTH

Table 10.1 Antenatal care 136

Table 10.2 Number of antenatal care visits and timing of first visit 137
Table 10.3 Components of antenatal care 138
Table 10.4 Tetanus toxoid injections 140
Table 10.5 Place of delivery 142
Table 10.6 Assistance during delivery 144
Table 10.7.1 Birth preparedness: Women 145
Table 10.7.2 Birth preparedness: Men 146
Table 10.8 Timing of first postnatal checkup 148
Table 10.9 Provider at first postnatal checkup 149
Table 10.10 Use of clean home delivery kits and other instruments to cut the umbilical cord 151
Table 10.11 Newborn care practices 152
Table 10.12 Abortion and associated complications 153
Table 10.13 Problems in accessing health care 155

CHAPTER 11 CHILD HEALTH

Table 11.1 Child's weight and size at birth 159
Table 11.2 Immunization by source of information 161
Table 11.3 Immunization by background characteristics 162
Table 11.4 Prevalence and treatment of symptoms of ARI 164
Table 11.5 Prevalence and treatment of fever 166
Table 11.6 Prevalence of diarrhea 167
Table 11.7 Diarrhea treatment 169
Table 11.8 Feeding practices during diarrhea 170
Table 11.9 Disposal of children's stools 172

Figure 11.1 Trends in immunization coverage among children 12-23 months 163

CHAPTER 12 NUTRITION OF CHILDREN AND WOMEN

Table 12.1 Initial breastfeeding 174
Table 12.2 Breastfeeding status by age 176
Table 12.3 Median duration and frequency of breastfeeding 178
Table 12.4 Foods and liquids consumed by children in the day and night preceding the survey 179
Table 12.5 Infant and young child feeding (IYCF) practices 181
Table 12.6 Foods consumed by mothers in the day and night preceding the survey 182
Table 12.7 Micronutrient intake among children 184
Table 12.8 Micronutrient intake among mothers 186
Table 12.9 Prevalence of anemia in children 189
Table 12.10 Prevalence of anemia in women 191
Table 12.11 Nutritional status of children 194
Table 12.12 Nutritional status of women 198

Figure 12.1 Trends in anemia status among children 6-59 months 190
Figure 12.2 Nutritional status of children under age five 195
Figure 12.3 Trends in nutritional status of children under five years 196

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

Table 13.1 Knowledge of AIDS 201
Table 13.2 Knowledge of HIV prevention methods 203
Table 13.3.1 Comprehensive knowledge about AIDS: Women 205
Table 13.3.2 Comprehensive knowledge about AIDS: Men 206
Table 13.4.1 Accepting attitudes toward those living with HIV/AIDS: Women 208
Table 13.4.2 Accepting attitudes toward those living with HIV/AIDS: Men 209
Table 13.5 Attitudes toward negotiating safer sexual relations with husband 210
Table 13.6 Multiple sexual partners and higher-risk sexual intercourse in the past 12 months 212
Table 13.7 Payment for sexual intercourse 213
Table 13.8 Knowledge of source for HIV testing and women ever tested 214
Table 13.9 Self-reported prevalence of sexually transmitted infections (STIs) and STI symptoms 216
Table 13.10 Comprehensive knowledge about AIDS and knowledge of a source for condoms among youth 218
Table 13.11 Age at first sexual intercourse among youth 220
Table 13.12 Condom use at first sexual intercourse among youth 221
Table 13.13 Premarital sexual intercourse among male youth 222
Table 13.14 Higher-risk sexual intercourse among male youth 223

Figure 13.1 Trend in HIV/AIDS knowledge, Ever-married Women 15-49 and Men 15-59, 1996-2006 202
Figure 13.2 Women and men seeking advice or treatment for STIs 217
Figure 13.3 Abstinence, being faithful, and condom use (ABC) among male youth 224

CHAPTER 14 WOMEN'S EMPOWERMENT AND DEMOGRAPHIC AND HEALTH OUTCOMES

Table 14.1 Employment and cash earnings of currently married women and men 226
Table 14.2 Control over women's cash earnings and relative magnitude of women's earnings 227
Table 14.3.1 Participation in decisionmaking: Women 228
Table 14.3.2 Participation in decisionmaking: Men 229
Table 14.4.1 Women's participation in decisionmaking by background characteristics 230
Table 14.4.2 Men's attitude toward wives' participation in decisionmaking 232
Table 14.5.1 Attitudes toward wife beating: Women 234
Table 14.5.2 Attitudes toward wife beating: Men 235
Table 14.6.1 Attitudes toward refusing sexual intercourse with husband: Women 237
Table 14.6.2 Attitudes toward refusing sexual intercourse with husband: Men 238
Table 14.7 Men's attitudes toward a husband's rights when his wife refuses to have sexual intercourse 240
Table 14.8 Indicators of women's empowerment 241
Table 14.9 Current use of contraception by women's empowerment 242
Table 14.10 Women's empowerment according to ideal number of children and unmet need for family planning 243
Table 14.11 Reproductive health care by women's empowerment 244

Figure 14.1 Number of decisions in which currently married women participate 231

APPENDIX A CAUSES OF DEATH IN CHILDREN UNDER FIVE YEARS OF AGE IN NEPAL

Table A.1 Cause of death among children under five 253
Table A.2 Cause of death among children under five by sex of child 255
Table A.3 Cause of death among children under five by mother's education 256
Table A.4 Cause of death among children under five by birth order 256
Table A.5 Cause of death among children under five by urban-rural residence 257
Table A.6 Cause of death among children under five by ecological zone 257
Table A.7 Cause of death among children under five by development region 258
Table A.8 Cause of death among children under five by wealth quintile 258

Figure A.1 Cause of death hierarchy 251
Figure A.2 Distribution of the verbal autopsy sample 253

APPENDIX B SAMPLE IMPLEMENTATION

Table B.1 Sample implementation: Women 263
Table B.2 Sample implementation: Men 264

APPENDIX C ESTIMATES OF SAMPLING ERRORS

Table C.1 List of selected variables for sampling errors 268
Table C.2 Sampling errors for national sample 269
Table C.3 Sampling errors for urban sample 270
Table C.4 Sampling errors for rural sample 271
Table C.5 Sampling errors for Mountain region 272
Table C.6 Sampling errors for Hill region 273
Table C.7 Sampling errors for Terai region 274
Table C.8 Sampling errors for Eastern region 275
Table C.9 Sampling errors for Central region 276
Table C.10 Sampling errors for Western region 277
Table C.11 Sampling errors for Mid-western region 278
Table C.12 Sampling errors for Far-western region 279

APPENDIX D DATA QUALITY TABLES

Table D.1 Household age distribution 281
Table D.2.1 Age distribution of eligible and interviewed women 282
Table D.2.2 Age distribution of eligible and interviewed men 282
Table D.3 Completeness of reporting 283
Table D.4 Births by calendar years 284
Table D.5 Reporting of age at death in days 285
Table D.6 Reporting of age at death in months 286
Table D.7 Data on siblings 287
Table D.8 Indicators on data quality 287
Table D.9 Sibship size and sex ratio of siblings 287

FOREWORD

The 2006 Nepal Demographic and Health Survey (NDHS) is the seventh in a series of demographic surveys conducted in the country and is the third survey conducted as part of the worldwide Demographic and Health Surveys (DHS) program. The survey was conducted under the aegis of the Population Division of the Ministry of Health and Population and implemented by New ERA. Technical support for the survey was provided by Macro International Inc., and financial support was provided by the United States Agency for International Development through its mission in Nepal.

The 2006 NDHS supplements and complements the information collected through the censuses, updates the available information on population and health issues, and provides guidance in planning, implementing, monitoring and evaluating Nepal's health programs. Further, the results of the survey assist in the monitoring of the progress made towards meeting the Millennium Development Goals (MDGs).

The 2006 NDHS includes topics related to fertility levels and determinants, family planning, fertility preferences, infant, child, adult and maternal mortality, maternal and child health, nutrition, knowledge of HIV/AIDS and women's empowerment. The 2006 NDHS for the first time also includes anemia testing among women age 15-49 and children age 6-59 months. As well as providing national estimates, the survey also provides disaggregated data at the level of various domains such as ecological region, development region, as well as for urban and rural areas. This being the third survey of its kind, there is considerable trend information on reproductive and health care over the past 10 years.

This survey is the result of concerted effort on the part of various individuals and institutions, and it is with great pleasure that I would like to acknowledge the work put in to produce this useful document. The participation and cooperation that was extended by the members of the Technical Advisory Committee in the different phases of the survey is greatly appreciated.

I would like to extend my appreciation to USAID/Nepal for providing financial support for the survey. I would like to extend my sincere thanks to Macro International Inc. for their technical support. The earnest effort put forth by the New ERA study team in the timely completion of the survey is highly appreciated. I also would like to thank the Population Division of the Ministry of Health and Population for its efforts and dedication in the successful completion of the 2006 NDHS. This report serves not only as a valuable reference, but is a call for effective action.

Ram Chandra Man Singh
Secretary
Ministry of Health and Population

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The 2006 Nepal Demographic and Health Survey (NDHS) is the result of earnest effort put forth by different individuals and organizations. The survey was conducted under the aegis of the Population Division, Ministry of Health and Population of the Government of Nepal. The United States Agency for International Development (USAID) provided financial support through its mission in Nepal while technical assistance was provided by Macro International Inc. The survey was implemented by New ERA, a local research firm having wide experience in conducting such surveys in the past.

We express our deep sense of appreciation to the technical experts in the different fields of population and health for their valuable input in the various phases of the survey including the finalization of the questionnaires, training of field staff, reviewing the draft tables and providing valuable inputs towards finalizing the report. The input provided by the Technical Advisory Committee is highly appreciated.

We would like to extend our appreciation to the USAID mission in Nepal. The technical input provided by Dr. John Quinley, former Health and Child Survival Advisor is highly appreciated. We also acknowledge the support provided by Ms. Anne Peniston, Deputy Health Office Director, Ms. Sharon Arscott-Mills, Team Leader and Senior Technical Advisor HIV/AIDS and Dr. Debendra Karki, HIV-AIDS Senior Programme Management Specialist.

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SUMMARY OF FINDINGS

The 2006 Nepal Demographic and Health Survey (NDHS) is a nationally representative survey of 10,793 women age 15-49 and 4,397 men age 15-59. The 2006 NDHS is the third comprehensive survey conducted in Nepal as part of the worldwide Demographic and Health Surveys (DHS) project. The primary purpose of the 2006 NDHS is to furnish policymakers and planners with detailed information on fertility, family planning, infant, child, adult and maternal mortality, maternal and child health, nutrition and knowledge of HIV/AIDS and other sexually transmitted infections. In addition, the 2006 NDHS is the first DHS survey in Nepal to provide population-based prevalence estimates for anemia among women age 15-49 and children age 6-59 months.

FERTILITY

Survey results indicate that there has been an unprecedented decline in fertility from 4.6 births per woman in 1996 to 3.1 births per woman in 2006, a drop of one and a half births per woman in the past ten years. The decline is more pronounced in the five years between 2001 and 2006 (a one child or 24 percent decline) than between 1996 and 2001, with declines observed in every age group over the past ten years, and larger declines seen in the older than younger age cohorts. Fertility is considerably higher in rural (3.3 births per woman) than in urban areas (2.1 births per woman). There are noticeable differentials in fertility among ecological zones and development regions, ranging from a low of 3.0 births per woman in the hills to a high of 4.1 births per woman in the mountains, and from a low of 3.0 births per woman in the Central region to a high of 3.5 births per woman in the Mid- and Far-western regions. Education and wealth have a marked effect on fertility, uneducated mothers having twice as many births as women with SLC and higher education and women in the lowest wealth quintile having two and a half times as many births as women in the highest wealth quintile.

Childbearing begins early. Almost one-quarter of Nepalese women have given birth before reaching age 18, and more than half have had a birth by age 20. The median age at first birth is about 20 years for all age cohorts, indicating virtually no change in the age at first birth over the past few decades.

Marriage patterns are an important determinant of fertility levels in a population. Data from the 1996 NFHS, the 2001 NDHS and the 2006 NDHS indicate that the proportion never married among women age 15-19 and 20-24 increased by 21 percent each over the past ten years, with the decline more pronounced in the past five years than in the previous five years. A similar pattern of decline in nuptiality is observed among men as well in the past five years, although the decline is much smaller among men than women.

Nepalese women generally begin sexual intercourse at the time of their first marriage. This can be seen from the identical medians for age at first marriage and age at first sexual intercourse (17.2 years) among women age 20-49. Men, on the other hand, are sexually active before marriage, although the difference in age at first intercourse and age at first marriage has narrowed over the past five years. The median age at first sexual intercourse for men age 25-49 is 19.6 years, while the median age at first marriage is 20.2 years. In general, Nepalese men marry about three years later than women.

The median age at marriage among women age 20-49 increased by nearly a year over the past ten years but this increase was small over the past five years. However, the median age at marriage among men rose by nearly a year in the last five years.

Data from the 2006 NDHS show that 4 percent of currently married women are married to men who are in a polygynous union. Older women, urban women, women residing in the Far-western terai, uneducated women, and women in the highest wealth quintile are more likely to be in a polygynous union than other women. Two percent of men report having two or more wives.

The median age at first birth is about 20 years across all age cohorts, indicating virtually no change in the age at first birth over the past two decades. More than 70 percent of women in all age cohorts had their first birth by age 22, with the

proportion of women having their first birth by age 22 declining with increasing age of the mother. About 90 percent of Nepalese women have their first birth by age 25. One in five adolescent women age 15-19 are already mothers or pregnant with their first child. The proportion of teenage women who have started childbearing increases from 1 percent among women age 15 to 41 percent among women age 19.

The interval between births is relatively long in Nepal. Half of all births occur just under three years (33.6 months) after a previous birth. The median birth interval increased by nearly two months in the past five years. The long period of breastfeeding in Nepal (34.3 months) and the corresponding long period of postpartum insusceptibility (10.5 months) are factors contributing to the long birth interval.

Data from the three NDHS surveys show that the desire to stop childbearing continues to increase, from 59 percent among currently married women in 1996 to 66 percent in 2001 and 71 percent in 2006. In addition, the data show a steady decline in the mean ideal number of children among currently married women over the past ten years, from 2.9 children in 1996 to 2.6 children in 2001 and to 2.4 children in 2006. These findings could also explain the declining total fertility rate in Nepal.

As in the previous two DHS surveys, the 2006 NDHS gathered complete pregnancy histories from women and hence provides information on pregnancy outcomes. One in ten pregnancies that occurred in the ten years preceding the survey did not end in a live birth, with pregnancy losses highest among women age 35-39 (14 percent) and noticeably higher among urban (13 percent) than rural women (9 percent). This latter difference is attributed primarily to more reporting of induced abortions in urban areas than rural areas.

FAMILY PLANNING

Nearly all Nepalese women and men know of at least one method of contraception. Injectables, female sterilization, condoms, male sterilization, and the contraceptive pill are known to most (95 percent and higher) currently married women and men, with somewhat lower proportions reporting knowledge of implants and IUDs. A higher proportion of respondents reported knowing a modern method than a traditional method.

Nearly one in two currently married women is using a method of contraception, with most women using a modern method (44 percent). The two most popular modern methods are female sterilization (18 percent) and injectables (10 percent). The use of modern contraceptive methods among currently married women increased by 70 percent in the past ten years from 26 percent in 1996 to 44 percent in 2006, with much of this increase attributed to the rise in the use of female sterilization, the pill, condoms and injectables. Overall, there has been a 36 percent increase in the share of temporary methods over permanent methods in the past decade.

The government sector remains the major source of contraceptive methods providing methods to nearly four in five female users, with nearly one in three users obtaining their method from government hospitals and another one in five from mobile camps (serving sterilization users alone). Twelve percent of female users obtain their method from sub-health posts. The non-government sector, primarily Family Planning Association of Nepal (FPAN) and Marie Stopes, supplies 6 percent of users, while the private medical sector supplies contraceptives to 14 percent of users, most of whom (10 percent) obtain their supplies from pharmacies.

Nearly three-quarters of currently married women who were not using any family planning method at the time of the survey say they intend to use a method in the future. The majority of prospective users prefer injectables and female sterilization.

Nearly two-thirds of currently married nonusers cited fertility-related reasons, primarily subfecundity or infecundity, for not intending to use a method of contraception in the future. Twelve percent of women cited opposition to use, especially religious opposition, for not wanting to use a method in the future, while about one in ten were not intending to use because of method-related reasons, primarily fear of side effects.

In spite of the marked increase in the use of contraceptives in Nepal, there continues to be considerable scope for increased use of family planning. Twenty-five percent of currently

married women in Nepal have an unmet need for family planning services, of which 9 percent have a need for spacing and 15 percent have a need for limiting. At the same time, among women currently using a method, 43 percent are using for limiting and 5 percent are using for spacing. Taken together, nearly three in four Nepalese women have a demand for family planning. However, only two-thirds of these women's demand is currently being met. If all women with unmet need were to use family planning, the contraceptive prevalence rate would increase from 48 percent to 73 percent.

Family planning information is largely received through the radio with limited exposure through the television and print media. Sixty-eight percent of women heard about family planning on the radio compared with 40 percent who heard about it from the television, 40 percent who have seen a message on a poster or billboard, 15 percent who read about it in newspapers or magazines and 6 percent who saw a family planning message at a street drama.

CHILD HEALTH

At current mortality levels, one in every 21 Nepalese children dies before reaching age one, while one in every sixteen does not survive to the fifth birthday. Data from the 2006 NDHS show that infant mortality has declined by 41 percent over the past 15 years from 82 deaths per 1,000 live births to 48. Under-five mortality has gone down by 48 percent from 117 deaths per 1,000 live births to 61. The corresponding declines in neonatal and postneonatal mortality over the 15-year period are 33 percent and 55 percent, respectively.

Mortality is consistently lower in urban areas than in rural areas. Wide differentials are also observed by ecological zones (being lowest in the hills and highest in the mountains), and by development regions, with children living in the Eastern region faring much better than children living in the other regions. This is similar to findings from the 1996 NFHS and 2001 NDHS surveys.

Eighty-three percent of children age 12-23 months had been fully immunized at the time of the survey. Ninety-three percent have received the BCG vaccination, and 85 percent have been immunized against measles. The coverage for the first dose of DPT is very high (93 percent). However, only 89 percent go on to receive the third dose of DPT. Polio coverage is much higher than DPT coverage because of the success of the national immunization day campaigns during which polio vaccines are administered. Nevertheless, the dropout between the first and subsequent doses of polio is noticeable—a 6 percent decline between the first and third dose. Seventy-six percent of children age 12-23 months received the first dose of the Hepatitis B vaccine, but coverage dropped to 69 percent for the third dose. Immunization coverage in Nepal has improved over the past ten years. The percentage of children 12-23 months fully immunized at the time of the survey almost doubled from 43 percent in 1996 to 83 percent in 2006, with the increase in coverage higher in the first five years than in the second five years, primarily due to the marked increase in polio vaccine coverage between 1996 and 2001. The percentage who did not receive any of the six basic immunizations also decreased from 20 percent to 3 percent over the same ten-year period.

Five percent of children under age five showed symptoms of acute respiratory infection (ARI) in the two weeks before the survey. Forty-three percent of children under five with symptoms of ARI were taken to a health facility or provider.

Seventeen percent of children under five were reported to have had fever. One in three children was taken to a health facility or provider for treatment. Twenty percent of children with fever received antibiotics and almost no children received antimalarial drugs.

The 2006 NDHS gathered information on the use of mosquito nets. The data show that about three-fifths of households in Nepal have mosquito nets, with households in the terai much more likely to possess mosquito nets than households in the mountains and hills. More than 90 percent of households in the Far-western terai have mosquito nets. One in two households have 2-3 nets.

Nationally, 12 percent of children under age five had diarrhea in the two weeks before the survey, while 2 percent had diarrhea with blood during the same period. The proportion of

children with diarrhea taken to a health provider for treatment has increased from 14 percent in 1996 to 21 percent in 2001 and 27 percent in 2006. The percentage of children who were treated with oral rehydration salts (ORS) increased from 26 percent in 1996 to 32 percent in 2001, but dropped to 29 percent in 2006.

MATERNAL HEALTH

Forty-four percent of mothers received antenatal care from skilled birth attendants (SBAs) for their most recent birth in the five years preceding the survey. In addition, 28 percent received antenatal care from trained health workers such as a health assistant or auxiliary health worker, a maternal and child health worker (MCHW), or a village health worker (VHW). Less than 2 percent of women received antenatal care from a traditional birth attendant or a female community health volunteer (FCHV). One in four births received no antenatal care at all. There has been a significant improvement over the past ten years in the proportion of mothers who receive antenatal care from an SBA, increasing from 24 percent in 1996, to 28 percent in 2001 and 44 percent in 2006. About three in ten women make four or more antenatal care visits during their entire pregnancy. The percentage of women who made four or more antenatal visits during their pregnancy tripled during the past ten years. The median duration of pregnancy for the first antenatal visit is 4.6 months, indicating that Nepalese women start antenatal care at a relatively later stage of their pregnancy.

Among mothers who received antenatal care more than half (57 percent) reported that they were informed about pregnancy complications during their antenatal care visits. Fifty-nine percent took iron tablets and 20 percent took intestinal parasite drugs while pregnant with their last birth. About three-fourths of pregnant women who sought antenatal care were weighed, and had their blood pressure taken. About three in ten women gave urine and blood samples for testing.

Nearly four out of five mothers with a live birth in the five years preceding the survey were protected against neonatal tetanus. However, less than two-thirds of pregnant women received two or more tetanus injections during their last pregnancy. The percentage of mothers who received at least two tetanus toxoid injections for their last birth has increased by 40 percent over the past five years.

An overwhelming majority of births in the five years before the survey were delivered at home (81 percent). Thirteen percent of births were delivered in a public facility, 4 percent in a non-government health facility and 1 percent in a private facility. The percentage of births taking place in a health facility has doubled in the past five years. Less than one-fifth of births take place with the assistance of an SBA. Health assistants or health workers assist in the delivery of 4 percent of births, FCHVs assist in 2 percent of births, and traditional birth attendants assist in 19 percent of births. Seven percent of births were delivered without any type of assistance at all.

One-third of women received postnatal care for their last birth that occurred in the five years before the survey. One in five women received care within the first 24 hours, and 4 percent of women were seen within 1-2 days of delivery. Nineteen percent of mothers received postnatal care from an SBA. One in five mothers had a pelvic examination during their postnatal checkup.

BREASTFEEDING AND NUTRITION

Breastfeeding is nearly universal in Nepal, and the median duration of any breastfeeding is long (34.3 months). Exclusive breastfeeding, on the other hand, is relatively short, with a median duration of 2.5 months. Contrary to UNICEF and WHO recommendations, only around one in two children less than age 6 months are exclusively breastfed. The data also show that complementary foods are not introduced in a timely fashion for all children. At 6-9 months, three in four children are receiving complementary foods. The use of a bottle with a nipple is not widespread in Nepal. However, the proportion of children who are bottle-fed rises from 2 percent among children age less than 2 months to 6 percent among children age 8-9 months, after which it declines gradually. Nearly all children age 6-23 months are breastfed or given milk products, about three out of five children are given the recommended number of foods, and more than four out of five children are fed at

least as often as recommended by the Infant and Young Child Feeding (IYCF) practices.

Micronutrient deficiency is an important cause of childhood morbidity and mortality. Information gathered in the 2006 NDHS shows that 64 percent of last-born children age 6-35 months living with the mother consumed vitamin A-rich foods in the 24 hours preceding the survey and 24 percent consumed foods rich in iron. Eighty-eight percent of children age 6-59 months was given vitamin A supplements in the six months preceding the survey. In addition, 82 percent of children 12-59 months were given deworming medication in the six months before the survey.

Nearly one in two Nepalese children age 6-59 months are classified as anemic, with 26 percent mildly anemic, 22 percent moderately anemic, and less than 1 percent severely anemic.

According to the new WHO Child Growth Standards, undernutrition is significant in Nepal, with one in two Nepalese children under five years of age stunted (short for their age), 13 percent wasted (thin for their age), and 39 percent underweight. A comparison of the 2006 NDHS data with data collected in the 2001 NDHS using the new WHO Child Growth Standards for both the surveys shows that there has been a marked decline in the level of stunting in the last five years, a modest decline in the level of children underweight, but a very small increase in the level of wasting over the same period. A similar trend is also seen when using the old NCHS/CDC/WHO reference population to calculate the nutritional status of children under five years.

The 2006 NDHS also collected information on the nutritional status of women age 15-49 and measured their anemia status. Survey results show that 24 percent of Nepalese women were malnourished, that is, they fall below the cutoff of 18.5 for the body mass index (BMI), which utilizes both height and weight to measure thinness ($kg/m^{2)}$. Nine percent of women were overweight or obese. Women's nutritional status has improved only slightly over the years. Thirty-six percent of women age 15-49 are anemic, with 29 percent mildly anemic, 6 percent moderately anemic, and less than 1 percent severely anemic. Overall, 76 percent of mothers with a child below three years living with her consumed vitamin A-rich foods and 30 percent consumed iron-rich foods. Twenty-three percent of mothers with a child born in the five years before the survey received iron tablets postpartum while 29 percent received a vitamin A dose postpartum. Five percent of women reported night blindness during their last pregnancy. Two in five women who gave birth in the five years preceding the survey did not take iron supplementation tablets during their most recent pregnancy, while only 7 percent reported taking these tablets for the recommended 180 days or longer. The proportion of women receiving iron supplements during pregnancy has risen from 23 percent in 2001 to 59 percent in 2006.

HIV/AIDS AND STIs

Knowledge of AIDS is widespread in Nepal. Seventy-three percent of women age 15-49 and 92 percent of men age 15-49 have heard of AIDS. Women are most aware that the chances of getting the AIDS virus can be reduced by limiting sex to one uninfected partner who has no other partners (65 percent) or by abstaining from sexual intercourse (60 percent). Among men, the most commonly known prevention methods are use of condoms (84 percent) and limiting sex to one uninfected partner (83 percent). Knowledge of condoms and the role they can play in preventing transmission of the AIDS virus is much less common, particularly among women.

Only 59 percent of women and 75 percent of men age 15-49 know that a healthy-looking person can have the AIDS virus. Also, many women and men erroneously believe that AIDS can be transmitted by mosquito bites. Larger proportions of respondents are aware that the AIDS virus cannot be transmitted by sharing food with a person who has AIDS or by touching someone with AIDS. The 2006 NDHS results also show that a minority of women (20 percent) and men (36 percent) have comprehensive knowledge of HIV/AIDS transmission, that is, they know that both condom use and limiting sex partners to one uninfected partner are HIV prevention methods; that a healthy-looking person can have HIV; and reject the two most common local misconceptions about HIV/AIDS—that AIDS can be transmitted through mosquito bites and by sharing food with an infected person. Fifty-six percent of women and

61 percent of men expressed accepting attitudes toward people living with HIV/AIDS. Twenty-eight percent of women and forty-four percent of men age 15-24 have comprehensive knowledge about HIV/AIDS.

Information on higher-risk sex (sexual intercourse with a partner who is neither a spouse nor a cohabiting partner) indicates that less than 1 percent of women and 3 percent of men had two or more partners in the 12 months preceding the survey; 6 percent of men had higher-risk sexual intercourse. Among male respondents who engaged in higher-risk sexual intercourse, 71 percent of men reported condom use the last time they had sexual intercourse.

Among women age 15-49, about 1 percent reported that they had been tested for HIV at some time. Thirty-five percent of women and 70 percent of men age 15-49 know where to go to get an HIV test.

Seven percent of sexually active women and 2 percent of sexually active men reported that they had had an STI and/or STI symptoms in the 12 months prior to the survey. Forty-two percent of women and 61 percent of men age 15-49 reported that they had sought advice or treatment from a health facility or provider.

WOMEN'S STATUS

Data from the 2006 NDHS show that women in Nepal are generally less educated than men at all levels of education, with a median of less than 1 year of schooling compared with 2.8 years among males. However, this gender gap has narrowed in recent years. Nevertheless, more than one in two women age 15-49 has never been to school, compared with one in five men in the same age group.

Although female employment is high in Nepal, with 71 percent employed in the 12 months preceding the survey, the majority (86 percent) are employed in the agricultural sector. This compares with 86 of men age 15-49 currently employed, with just over one in two (52 percent) employed in agriculture. The majority (68 percent) of working women are not paid at all or are paid in kind only. In contrast, most men (70 percent) earn cash or cash and in-kind earnings.

The proportion of currently married women who say that they alone decide how their earnings are used decreased from 39 percent in 2001 to 31 percent in 2006. On the other hand, the percentage of currently married women who say that they jointly decide with their husband on how their earnings are used increased from 38 percent to 56 percent over the same period.

Thirty-seven percent of currently married women participate in all four important household decisions: own health care, major household purchases, purchases of daily household needs, and visits to her family or relatives; 31 percent do not participate in any of the decisions. Although one in five women report that they alone make decisions on their own health care, one in three says that her husband makes such decisions mainly by himself.

Twenty-three percent of women and 22 percent of men age 15-49 believe that a husband is justified in beating his wife for at least one of five specified reasons: if she burns the food. if she argues with him, if she goes out without telling him, if she neglects the children, and if she refuses to have sexual intercourse with her husband. The majority of women (83 percent) and men (79 percent) agree that a wife is justified in refusing to have sexual intercourse with her husband for three specified reasons: if she knows that her husband has a sexually transmitted disease, if she knows that her husband has sexual intercourse with other women, and, if she is tired or not in the mood.

Data from the 2006 NDHS indicate that there is a positive relationship between contraceptive use and participation in household decision-making. In addition, the data show that women who believe that wife beating is justified for all of the five specified reasons are least likely to use a method of contraception. However, a similar association is not seen between contraceptive use and a woman's right to refuse sexual intercourse with her husband.

Millennium Development Goal Indicators, Nepal 2006

Goal	Indicator	Value		
		Male	Female	Total
1. Eradicate extreme poverty and hunger	4. Prevalence of underweight children under five years of age	37.5	39.7	38.6
2. Achieve universal primary education	6. Net enrolment ratio in primary education	88.8	84.2	86.6
	8. Literacy rate of 15-24 year-olds	90.9	75.2	79.4
3. Promote gender equality and empower women	9. Ratio of girls to boys in primary education	na	na	0.98
	9. Ratio of girls to boys in secondary education	na	na	0.87
	10. Ratio of literate women to men, 15-24 years old	na	na	0.83
	11. Share of women in wage employment in the non-agricultural sector	na	na	92.1
4. Reduce child mortality	13. Under-five mortality rate (per 1,000 live births)			61
	14. Infant mortality rate (per 1,000 live births)			48
	15. Percentage of 1 year-old children immunized against measles	87.1	82.8	85.0
5. Improve maternal health	16. Maternal mortality ratio (per 100,000 live births)	na	na	281
	17. Percentage of births attended by skilled birth attendant	na	na	18.7
6. Combat HIV/AIDS, malaria and other diseases	19. Percentage of current users of contraception who are using condoms	na	1.09	na
	19A. Condom use at last high-risk sex	71.2	na	na
	19B. Percentage of population aged 15-24 years with comprehensive knowledge of HIV/AIDS	43.6	27.6	na
	19C. Contraceptive prevalence rate	na	44.2	na
		Urban	Rural	Total
7. Ensure environmental sustainability	29. Percentage of population using solid fuels	39.1	92.3	83.3
	30. Percentage of population with sustainable access to an improved water source, urban and rural	89.5	80.2	81.8
	31. Percentage of population with access to improved sanitation, urban and rural	36.9	19.8	22.7

na = Not applicable

NEPAL

FAR-WESTERN REGION
MID-WESTERN REGION
CHINA
WESTERN REGION
CENTRAL REGION
EASTERN REGION
INDIA
HUMLA
DARCHULA
BAJHANG
BAITADI
BAJURA
MUGU
DADELDHURA
DOTI
ACHHAM
JUMLA
KALIKOT
DOLPA
KANCHANPUR
KAILALI
DAILEKH
JAJARKOT
MUSTANG
RUKUM
MANANG
SURKHET
MYAGDI
BARDIYA
SALYAN
ROLPA
KASKI
GORKHA
BAGLUNG
PARBAT
LAMJUNG
BANKE
PYUTHAN
GULMI
SYANGJA
TANAHU
DANGDEOKHURI
ARGHAKHANCHI
PALPA
KAPILVASTU
RUPANDEHI
NAWALPARASI
CHITWAN
RASUWA
DHADING
NUWAKOT
SINDHUPALCHOK
DOLAKHA
KABHREPALANCHOK
RAMECHHAP
MAKAWANPUR
PARSA
BARA
RAUTAHAT
SINDHULI
SARLAHI
MAHOTTARI
DHANUSHA
KATHMANDU
BHAKTAPUR
LALITPUR
SANKHUWASABHA
TAPLEJUNG
SOLUKHUMBU
OKHALDHUNGA
KHOTANG
BHOJPUR
TERHATHUM
PANCHTHAR
DHANKUTA
ILAM
UDAYAPUR
SIRAHA
SAPTARI
SUNSARI
MORANG
JHAPA
Ecological Regions
Mountains
Hills
Terai

INTRODUCTION 1

1.1 History, Geography, and Economy

History

The history of Nepal can be traced back thousands of years to the dynasties of Ahirs and Gopalas, Kirants, Licchavis and Thakuris, which ruled the country before the Malla period began in the 12th century. Modern Nepal is an amalgamation of a number of principalities that were independent entities in the past. Before the campaign of national integration launched by King Prithivi Narayan Shah—the first Shah King of Nepal, the Kathmandu Valley was ruled by the Malla Kings, famous for their contribution to art and culture. The Malla era is considered to be the golden age of Nepal. In 1768 A.D., the Shah King defeated the Malla Kings and unified the country that was divided into small independent kingdoms.

In 1951, the Nepalese monarch ended the century-old system of rule by hereditary premiers and instituted a cabinet system of government. Reforms in 1990 established a multiparty democracy within the framework of a constitutional monarchy. However, despite the declaration of multiparty democracy, economic progress continued to stagnate. The Maoist movement which began in early 1996 in the countryside capitalized on the growing dissatisfaction among the general population with the lack of reforms expected from a democratically elected government. The constant conflict between the Maoists and the elected government resulted in the displacement of the population. Growing numbers of people began migrating out of their usual place of residence to urban centers and neighboring countries to escape the conflict and to search for employment. As a consequence of the conflict-led migration, both internal and international, large numbers of couples have been compelled to live separately for extended periods of time.

Citing dissatisfaction with the government's lack of progress in addressing the Maoist insurgency, the king, in February 2005, dissolved the government, declared a state of emergency, imprisoned party leaders, and assumed power. The king's government subsequently released party leaders and officially ended the state of emergency in May 2005, but the monarch retained absolute power until April 2006. After nearly three weeks of mass protests organized by the seven-party opposition and the Maoists, the king allowed parliament to reconvene on 28 April 2006.

Geography

Nepal is a land-locked country nestled in the foothills of the Himalayas. It occupies an area from 26º 22' to 30º 27' north latitude and 80º 4' to 88º 12' east longitude with elevation ranging from 90 meters to 8,848 meters. The country is sandwiched between the two most populous countries of the world, India to the east, south, and west and China to the north. Nepal is rectangular in shape and stretches 885 kilometers in length (east to west) and 193 kilometers in width (north to south). The total land area of the country is 147,181 square kilometers. According to the 2001 Census, the population of Nepal is just over 23 million (Central Bureau of Statistics, 2006a).

Topographically, Nepal is divided into three distinct ecological zones. These are the mountain, hill, and *terai* (or plains). The mountain zone, which accounts for 35 percent of the total land area, ranges in altitude from 4,877 meters to 8,848 meters above sea level and covers a land area of 51,817 square kilometers. Because of the harsh terrain, transportation and communication facilities in this zone are very limited and only about 7 percent of the total population lives here. In contrast, the hill ecological zone, which ranges in altitude from 610 meters to 4,876 meters above sea level, is densely populated. About 44 percent of the total population lives in the hill zone, which covers an

area of 61,345 square kilometers and occupies 42 percent of the total area. This zone includes the Kathmandu Valley, the country's most fertile and urbanized area. Although the terrain is also rugged in this zone, because of the higher concentration of people, transportation and communication facilities are much more developed here than in the mountains. Despite its geographical isolation and limited economic potential, the region always has been the political and cultural center of Nepal. Unlike the mountain and hill, the terai zone in the southern part of the country can be regarded as an extension of the relatively flat Gangetic plains of alluvial soil. The terai consists of dense forest area, national parks, wildlife reserves, and conservation areas. This area, which covers 34,019 square kilometers, is the most fertile part of the country. While it constitutes only 23 percent of the total land area in Nepal, 48 percent of the population lives here. Because of its relatively flat terrain, transportation and communication facilities are more developed in this zone than in the other two zones of the country and this has attracted newly emerging industries (Central Bureau of Statistics, 2006b).

In Nepal, climatic conditions vary substantially by altitude. Nepal has five climatic zones, broadly corresponding to altitude. The tropical and subtropical zones lie below 1,200 meters, the temperate zone 1,200 to 2,400 meters, the cold zone 2,400 to 3,600 meters, the subarctic zone 3,600 to 4,400 meters, and the arctic zone above 4,400 meters. In the terai, temperatures can go up to 44º Celsius in the summer and fall to 1º Celsius in the winter. The corresponding temperatures for the hill and mountain areas are 43º Celsius and 29º Celsius, respectively, in the summer, and -1º Celsius and far below 0º Celsius, respectively, in the winter. The annual mean rainfall in the country is around 1,500 millimeters (Central Bureau of Statistics, 2006b).

For administrative purposes there are five development regions in Nepal - Eastern, Central, Western, Mid-western and Far-western. Nepal is divided into 14 zones and 75 administrative districts. Districts are further divided into smaller units, called village development committees (VDCs) and municipalities. Currently there are 3915 VDCs and 58 municipalities. Each VDC is composed of nine wards, with the number of wards in each municipality ranging from 9 to 35. Kathmandu is the capital city as well as the principal urban center of Nepal (Central Bureau of Statistics, 2006a).

The 2001 Census listed 103 diverse ethnic/caste groups, each with its own distinct language and culture (Central Bureau of Statistics, 2003). The percentage breakdown by size of some of these major groups are as follows: Chhetri (16 percent), Brahmins (13 percent), Magar (7 percent), Tharu (7 percent), Tamang (6 percent), and Newar (5 percent).

The 2001 Census has also identified about 92 mother tongues. Most of these languages originated from two major groups: the Indo-Europeans, who constitute about 79 percent of the population, and the Sino-Tibetans, who constitute about 18 percent of the population. Nepali is the official language of the country and is the mother tongue of about half of the population. However, it is used and understood by most people in the country. The other two major languages are Maithili and Bhojpuri, spoken by about 12 percent and 8 percent of the population, respectively. According to the 2001 Census, the majority of Nepalese are Hindus (81 percent), while 11 percent are Buddhist, 4 percent are Muslims and 4 percent are Kirant (Central Bureau of Statistics, 2003).

Economy

Nepal thus far has not benefited fully from the rapid economic growth of its immediate neighbors China and India, primarily due to internal conflict, political instability, absence of a democratic government, ineffective policies and weak implementation of programs benefiting the country. The continued internal conflict not only stalled the creation of new infrastructure but also destroyed many existing ones. Thus, Nepal remains among the poorest and least developed countries in the world with almost one-third of its population living below the poverty line (Ministry of Finance, 2006). Agriculture is the mainstay of the economy, providing a livelihood for three-fourths of the population and accounting for 38 percent of the Gross Domestic Product (Ministry of Finance, 2006). Industrial activity mainly involves the processing of agricultural produce including jute,

sugarcane, tobacco, and grain. Nepal has considerable scope for exploiting its potential in hydropower and tourism, areas of recent foreign investment interest. Prospects for foreign trade or investment in other sectors will remain poor, however, because of the small size of the economy, Nepal's technological backwardness, remoteness, landlocked geographic location, civil strife, and susceptibility to natural disaster.

1.2 POPULATION

Population censuses have been carried out in Nepal since 1911 at decennial intervals. However, detailed information about the size and structure of the population was provided only since the 1952/54 census. Table 1.1 provides a summary of the basic demographic indicators for Nepal from the census data for 1971, 1981, 1991 and 2001. Nepal's population doubled in the last 30 years from around 12 million in 1971 to 23 million in 2001. The population grew at a rapid rate between 1971 and 1981 from 2.1 percent to 2.6 percent, but the population growth rate has slowed since 1981 to just over 2 percent (Central Bureau of Statistics, 2003). The population density has doubled over the three decades from 79 persons per square kilometer in 1971 to 157 persons per square kilometer in 2001. Nepal is predominantly rural. Nevertheless, the proportion of the urban population has increased steadily over the last 30 years from about 4 percent in 1971 to 14 percent in 2001. Life expectancy in Nepal is improving, increasing by about 20 years for males and females between 1971 and 2001. Female life expectancy is slightly higher than male life expectancy (60.7 years versus 60.1 years).

Table 1.1 Basic demographic indicators

Selected demographic indicators for Nepal, 1971-2001

Indicator	1971 Census	1981 Census	1991 Census	2001 Census
Population (millions)	11.6	15.0	18.5	23.2
Intercensal growth rate (percent)	2.1	2.6	2.1	2.2
Density (pop./km^2)	79	102	126	157
Percent urban	4.0	6.4	9.2	13.9
Life expectancy (years)				
Male	42.0	50.9	55.0	60.1
Female	40.0	48.1	53.5	60.7

Source: Central Bureau of Statistics, 2003:3, 383; Ministry of Population and Environment and Central Bureau of Statistics, 2003:8

1.3 POPULATION AND REPRODUCTIVE HEALTH POLICIES AND PROGRAMS

Evolution of Population Policy

Family planning emerged as one of the major components of Nepal's planned development activities in 1968 with the implementation of the Third Development Plan (1965-70) and the launching of the Nepal Family Planning and Maternal and Child Health Project (FP/MCH) under the Ministry of Health. Until then, family planning activities were undertaken by the Family Planning Association of Nepal (FPAN), a nongovernmental organization, established in 1959 to create awareness among the people about the need for and importance of family planning.

The Fourth Development Plan (1970-1975) targeted the provision of family planning services to 15 percent of married couples by the end of the plan period. From the Fifth Development Plan (1975-80) onwards, family planning services were greatly expanded through outreach workers, and serious attempts were made to reduce the birth rate by direct and indirect means. To coordinate the government's multisectoral activities in population and reproductive health, a population policy

coordinating board was established in 1975 under the National Planning Commission (NPC). In 1978, this board was upgraded to become the National Commission on Population (NCP).

Subsequent development plans dealt with the population issue from both a policy and programmatic point of view. From the Fifth Development Plan until the end of the Seventh Development Plan (1985-1990) population policies and programs not only emphasized family planning issues in the short run, but also focused on long-term concerns to encourage the small family norm through education and employment programs aimed at raising women's status and decreasing infant mortality. This included launching population-related programs in reproductive health, agriculture, forestry, urbanization, manpower and employment, education and women's development, as well as community development programs. In 1990, the NCP was dissolved and its role was given to the Population Division of the National Planning Commission.

In 1995, the Ministry of Population and Environment (MOPE) was established as a separate ministry for population-related activities and reflected the government's commitment to population programs. The ministry was primarily responsible for formulating and implementing population policies, plans, and programs, and for monitoring and evaluating these programs. This ministry, along with the other sectoral ministries, was responsible for implementing programs of action recommended by the International Conference on Population and Development (ICPD) and to achieve the Millennium Development Goals (MDGs).

Of the eight MDG goals, three are related to health (child mortality, maternal health, HIV/AIDS and malaria) that have direct relevance to the Nepalese population. Furthermore, three other goals (universal primary education, poverty eradication, and gender equity) are also of immediate concern for human resource development.

In 1996, the government established a National Population Committee comprised of ministers from various ministries and chaired by the Prime Minister, to provide strong political leadership and guidance in formulating population policies and coordinating, implementing, monitoring, and evaluating population activities.

The Eighth Development Plan (1992-97) continued with the integrated development approach taken in earlier plans. The Ninth Development Plan (1997-2002) was developed as a 20-year, long-term plan. The plan's major strategies included reduction in population growth through social awareness, expansion of education and family planning programs. The long-term objective of the plan is to lower fertility to replacement level in the next 20 years. The current Tenth Development Plan (2002-2007) builds on the long-term projected targets of the Ninth Development Plan. The primary objectives of population management in the Tenth Development Plan are to encourage a small family norm, promote the development of an educated and healthy population, and discourage the out-migration of skilled labor.

In 2005, MOPE was dissolved and its Population Division was merged into the Ministry of Health, which was renamed the Ministry of Health and Population (MOHP). Although the Population Division has merged with the Ministry of Health its mandate has not changed.

Family Planning Programs

Family planning services in Nepal were initially limited to the Kathmandu Valley. The pioneering work of the FPAN led to the establishment of the semiautonomous Nepal Family Planning and Maternal Child Health Project in November 1968 at the government level. This project was gradually expanded to cover all 75 districts in Nepal.

Family planning services have become an integral part of government health services. Currently, temporary modern family planning methods (male condoms, contraceptive pills and injectables) are provided on a regular basis through national, regional, zonal and district hospitals,

primary health care centers/health centers, health posts and sub-health posts by peripheral health workers and volunteers. Services such as Norplant implants and IUD insertions are available only at a limited number of hospitals, health centers, and selected health posts where trained personnel are available. Depending on the district, sterilization services are provided at static sites (21 districts) through scheduled "seasonal" or mobile outreach services. A number of local nongovernmental organizations (NGOs) and international nongovernmental organizations (INGOs) also currently are involved in the delivery of family planning services at the grass roots level.

1.4 OBJECTIVES OF THE SURVEY

The principal objective of the 2006 Nepal Demographic and Health Survey (NDHS) is to provide current and reliable data on fertility and family planning behavior, child mortality, adult and maternal mortality, children's nutritional status, the utilization of maternal and child health services, and knowledge of HIV/AIDS. For the first time, the 2006 NDHS conducted anemia testing at the household level for the country as a whole to provide information on the prevalence of anemia at the population level. The specific objectives of the survey are to:

- collect data at the national level which will allow the calculation of key demographic rates;
- analyze the direct and indirect factors which determine the level and trends of fertility;
- measure the level of contraceptive knowledge and practice among women and men by method, urban-rural residence and region,
- collect high-quality data on family health including immunization coverage among children, prevalence and treatment of diarrhea and other diseases among children under five, and maternity care indicators including antenatal visits, assistance at delivery, and postnatal care;
- collect data on infant and child mortality, and maternal and adult mortality;
- obtain data on child feeding practices including breastfeeding, and collect anthropometric measures to use in assessing the nutritional status of women and children;
- collect data on knowledge and attitudes of women and men about sexually transmitted infections and HIV/AIDS and evaluate patterns of recent behavior regarding condom use;
- conduct hemoglobin testing on women age 15-49 and children age 6-59 months in the households selected for the survey to provide information on the prevalence of anemia among women in the reproductive ages and young children.

This information is essential for informed policy decisions, planning, monitoring, and evaluation of programs on health in general and reproductive health in particular at both the national and regional levels. A long-term objective of the survey is to strengthen the technical capacity of government organizations to plan, conduct, process, and analyze data from complex national population and health surveys. Moreover, the 2006 NDHS provides national, regional and sub-regional estimates on population and health that are comparable to data collected in similar surveys in other developing countries. The first Demographic and Health Survey (DHS) in Nepal was the 1996 Nepal Family Health Survey (NFHS) conducted as part of the worldwide DHS program, and was followed five years later by the 2001 Nepal Demographic and Health Survey (NDHS). Data from the 2006 NDHS survey, the third such survey, allow for comparison of information gathered over a longer period of time and add to the vast and growing international database on demographic and health variables.

Wherever possible, the 2006 NDHS data are compared with data from the two earlier DHS surveys—the 2001 NDHS and the 1996 NFHS—which also sampled women age 15-49. Additionally,

men age 15-59 were interviewed in the 2001 NDHS and the 2006 NDHS to provide comparable data for men over the last five years.

1.5 ORGANIZATION OF THE SURVEY

The 2006 NDHS was carried out under the aegis of the Population Division of the Ministry of Health and Population and was implemented by New ERA, a local research organization, which also conducted the 1996 NFHS and the 2001 NDHS. Macro International Inc. provided technical assistance through its MEASURE DHS project. The survey was funded by the U.S. Agency for International Development (USAID) through its mission in Nepal.

A steering committee was formed to be responsible for coordination, oversight, advice and decisionmaking on all major aspects of the survey. The steering committee was composed of representatives from various ministries and key stakeholders including MOHP, NPC, Central Bureau of Statistics (CBS), USAID, and local and international NGOs. A technical advisory committee and technical subcommittee were also formed.

1.6 SAMPLE DESIGN

The primary focus of the 2006 NDHS was to provide estimates of key population and health indicators, including fertility and mortality rates, for the country as a whole and for urban and rural areas separately. In addition, the sample was designed to provide estimates of most key indicators for the 13 domains obtained by cross-classifying the three ecological zones (mountain, hill and terai) with the five development regions (East, Central, West, Mid-west, and Far-west).[1]

The 2006 NDHS used the sampling frame provided by the list of census enumeration areas with population and household information from the 2001 Population Census. Each of the 75 districts in Nepal is subdivided into Village Development Committees (VDCs), and each VDC into wards. The primary sampling unit (PSU) for the 2006 NDHS is a ward, subward, or group of wards in rural areas, and subwards in urban areas. In rural areas, the ward is small enough in size for a complete household listing, but in urban areas the ward is large. It was therefore necessary to subdivide each urban ward into subwards. Information on the subdivision of the urban wards was obtained from the updated Living Standards Measurement Survey. The sampling frame is representative of 96 percent of the noninstitutional population.[2]

The sample for the survey is based on a two-stage, stratified, nationally representative sample of households. At the first stage of sampling, 260 PSUs (82 in urban areas and 178 in rural areas) were selected using systematic sampling with probability proportional to size. A complete household listing operation was then carried out in all the selected PSUs to provide a sampling frame for the second stage selection of households. At the second stage of sampling, systematic samples of about 30 households per PSU on average in urban areas and about 36 households per PSU on average in rural areas were selected in all the regions, in order to provide statistically reliable estimates of key demographic and health variables. However, since Nepal is predominantly rural, in order to obtain statistically reliable estimates for urban areas, it was necessary to oversample the urban areas. As such, the total sample is weighted and a final weighting procedure was applied to provide estimates for the different domains, and for the urban and rural areas of the country as a whole.

The survey was designed to obtain completed interviews of 8,600 women age 15-49. In addition, males age 15-59 in every second household were interviewed. To take nonresponse into account, a total of 9,036 households nationwide were selected.

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[1] Because of their small size, the mountain areas of the West, Mid-west and Far-west were combined.

[2] The sampling frame has 36,010 noninstitutional wards of which 1,840 were excluded because of incomplete information or security concerns.

1.7 QUESTIONNAIRES

Three questionnaires were administered for the 2006 NDHS: the Household Questionnaire, the Women's Questionnaire, and the Men's Questionnaire. These questionnaires were adapted to reflect the population and health issues relevant to Nepal at a series of meetings with various stakeholders from government ministries and agencies, NGOs and international donors. The final draft of the questionnaires was discussed at a questionnaire design workshop organized by MOHP in September 2005 in Kathmandu. The survey questionnaires were then translated into the three main local languages—Nepali, Bhojpuri and Maithili and pretested from November 16 to December 13, 2005.

The Household Questionnaire was used to list all the usual members and visitors in the selected households and to identify women and men who were eligible for the individual interview. Some basic information was collected on the characteristics of each person listed, including age, sex, education, and relationship to the head of the household. For children under age 18, the survival status of the parents was determined. The Household Questionnaire also collected information on characteristics of the household's dwelling unit, such as the source of water, type of toilet facilities, materials used for the floor of the house, ownership of various durable goods, and ownership of mosquito nets. Additionally, the Household Questionnaire was used to record height, weight, and hemoglobin measurements of women age 15-49 and children age 6-59 months.

The Women's Questionnaire was used to collect information from all women age 15-49. These women were asked questions on the following topics:

- respondent's characteristics such as education, residential history, media exposure,
- pregnancy history, childhood mortality,
- knowledge and use of family planning methods,
- fertility preferences,
- antenatal, delivery, and postnatal care,
- breastfeeding and infant feeding practices,
- immunization and childhood illnesses,
- marriage and sexual activity,
- woman's work and husband's background characteristics,
- awareness and behavior regarding AIDS and other sexually transmitted infections (STIs), and
- maternal mortality.

The Men's Questionnaire was administered to all men age 15-59 living in every second household in the 2006 NDHS sample. The Men's Questionnaire collected much of the same information found in the Women's Questionnaire, but was shorter because it did not contain a detailed reproductive history or questions on maternal and child health or nutrition.

In addition, the Verbal Autopsy Module into the causes of under-five mortality was administered to all women age 15-49 (and anyone else who remembered the circumstances surrounding the reported death) who reported a death or stillbirth in the five years preceding the survey to children under five years of age. The analysis of this data is discussed in detail in Appendix A.

1.8 HEMOGLOBIN TESTING

In all households selected for the 2006 NDHS, women age 15-49 and children age 6-59 months were tested for anemia. Anemia testing was only carried out if consent was provided by the respondent and in the case of a minor, by the parent or guardian. The protocol for hemoglobin testing was approved by the Nepal Health Research Council (NHRC), and the Macro Institutional Review Board in Calverton, Maryland, USA.

Hemoglobin testing is the primary method of anemia diagnosis. In the 2006 NDHS, testing was done using the HemoCue system. A consent statement was read to the eligible woman and to the parent or responsible adult of young children and women age 15-17. This statement explained the purpose of the test, informed prospective subjects and/or their caretakers that the results would be made available as soon as the test was completed, and requested permission for the test to be carried out.

Before the blood was taken, the finger was wiped with an alcohol prep swab and allowed to air-dry. Then the palm side of the end of a finger was punctured with a sterile, nonreusable, self-retractable lancet. A drop of blood was collected with a HemoCue microcuvette and placed in a HemoCue photometer where the results were displayed. For children 6-11 months who were particularly undernourished and bony, a heel puncture was made to draw a drop of blood. The results were recorded in the Household Questionnaire, as well as on a brochure given to each woman, parent, or responsible adult, explaining what the results meant.

1.9 LISTING, PRETEST, TRAINING AND FIELDWORK

1.9.1 Listing

After the selection of the 260 clusters throughout the 13 subregions, a listing operation was carried out in the selected clusters starting from September 2005. For this purpose, training was conducted for 53 listers and mappers who had been recruited from all the regions to do the listing of households and delineation of EAs. A manual that described the listing procedure was prepared as a guideline and the training was conducted using classroom demonstrations and field practices. Instructions were given on the use of Global Positioning System (GPS) units to obtain location coordinates for selected clusters. The listing was performed by teams composed of one lister and one mapper. Five core team members were also assigned to perform quality checks and handle all the administrative and financial issues of the listing staff.

1.9.2 Pretest

Prior to the start of the fieldwork, the questionnaires were pretested in all the three local languages, Nepali, Bhojpuri and Maithali, to make sure that the questions were clear and could be understood by the respondents. In order to conduct the pilot survey, 14 interviewers were recruited to interview in the three local languages. The pilot survey was conducted from November 16 to December 13, 2005, in three selected sites. The areas selected for the pretest were Kathmandu for the Nepali language, Parsa district for the Bhojpuri language and Dhanusha district for the Maithili language. Both rural and urban households were selected for the pretest in all three districts. Based on the findings of the pretest, the Household, the Women's and Men's Questionnaires were further refined in all the three local languages.

1.9.3 Training

The training of interviewers, editors, supervisors, quality control staff and reserves was conducted from January 4 to February 3, 2006. The Nepali questionnaires were used during the training, while the Bhojpuri and Maithali versions were simultaneously checked against the Nepali questionnaires to ensure accurate translation. In addition to classroom training, trainees did several

days of field practice to gain more experience on interviewing in the three local languages and fieldwork logistics.

A total of 86 trainees were trained in two classrooms. In each class the training was conducted by two senior staff members of New ERA. The Population Division of MOHP, and staff of the Department of Health Services conducted different sessions on population and health issues. After the training on how to complete the Household, Women's and Men's Questionnaires was completed, all trainees were given written and oral tests to gauge their understanding of the DHS questionnaires and interviewing techniques. On the basis of the scores on the exam and overall performance in the classroom, 78 trainees were selected to participate in the main fieldwork. From the group, 6 of the best trainees were selected as quality control staff, 12 of the best male trainees were selected as supervisors and 12 of the best female interviewers were identified as field editors. The remaining 48 trainees were selected to be interviewers. The trainees not selected to participate in the fieldwork were kept as reserves.

After completing the interviewers' training, the field editors and supervisors were trained for an additional three days on how to supervise the fieldwork and edit questionnaires in the field, in order to ensure data quality. The participants also received training on anthropometric measurements and hemoglobin testing.

1.9.4 Fieldwork

Data collection began on February 5, 2006 by 12 field teams each consisting of three female interviewers, one male interviewer, a male supervisor and a female field editor. Fieldwork was completed on August 18, 2006. Fieldwork supervision was coordinated by New ERA; 3 quality control teams made up of one male and one female member each monitored data quality. Additionally, close contact between New ERA and the field teams was maintained through field visits by senior staff, members of the steering committee and Macro International Inc. staff. Regular communication was also maintained through cell phones.

1.10 Data Processing

The processing of the 2006 NDHS results began soon after the start of fieldwork. Completed questionnaires were returned periodically from the field to the New ERA data processing center in Kathmandu, where they were entered and edited by 17 data processing personnel who were specially trained for this task. The data processing personnel included a supervisor, a questionnaire administrator, 4 office editors and 11 data entry operators. The concurrent processing of the data was an advantage since field check tables were generated early on to monitor various data quality parameters. As a result, specific and ongoing feedback was given to the field teams to improve performance. The data entry and editing of the questionnaires was completed by September 17, 2006.

1.11 RESPONSE RATES

Table 1.2 shows household and individual response rates for the 2006 NDHS. A total of 9,036 households were selected, of which 8,742 were found to be occupied during data collection. Of these existing households, 8,707 were successfully interviewed, giving a household response rate of nearly 100 percent.

In the selected households, 10,973 women were identified as eligible for the individual interview. Interviews were completed for 10,793 women, yielding a response rate of 98 percent. Of the 4,582 eligible men identified in the selected subsample of households, 4,397 were successfully interviewed, giving a 96 percent response rate. Response rates were higher in rural than urban areas, especially for eligible men.

Table 1.2 Results of household and individual interviews

Number of households, number of interviews, and response rates, according to residence (unweighted), Nepal 2006

	Residence		
Result	Urban	Rural	Total
Household interviews			
Households selected	2,534	6,502	9,036
Households occupied	2,433	6,309	8,742
Households interviewed	2,422	6,285	8,707
Household response rate[1]	99.5	99.6	99.6
Interviews with women age 15-49			
Number of eligible women	3,016	7,957	10,973
Number of eligible women interviewed	2,949	7,844	10,793
Eligible women response rate[2]	97.8	98.6	98.4
Interviews with men age 15-59			
Number of eligible men	1,403	3,179	4,582
Number of eligible men interviewed	1,300	3,097	4,397
Eligible men response rate[2]	92.7	97.4	96.0

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

HOUSEHOLD POPULATION AND HOUSING CHARACTERISTICS

2

This chapter provides basic information on demographic and socioeconomic characteristics of the household population. It also provides information on household facilities and assets, which is important for studying and identifying major indicators like wealth quintile that reflect the status of households as well as the characteristics associated with the population residing in the households. A household in the DHS survey is defined as a person or group of related and unrelated persons who live together in the same dwelling unit(s) or in connected premises, who acknowledge one adult member as head of the household, and who have common arrangements for cooking and eating.

The 2006 NDHS collected information from all usual residents of a selected household (the de jure population) and persons who had stayed in the selected household the night before the interview (the de facto population). The difference between these two populations is very small, and all tables in this report refer to the de facto population unless otherwise specified, to maintain comparability with other DHS reports.

2.1 HOUSEHOLD POPULATION BY AGE AND SEX

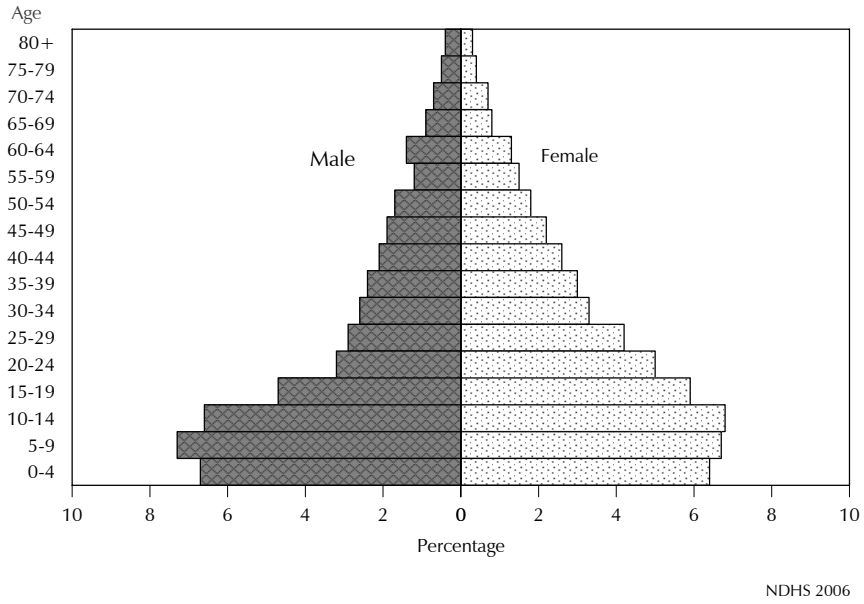
Table 2.1 shows the distribution of the de facto household population by age and sex according to urban and rural residence. The 2006 NDHS enumerated a total of 41,947 persons, with females outnumbering males at 53 percent. Because of relatively high fertility in the past, a large proportion of Nepal's population (41 percent) is under 15 years of age, with 13 percent under age five. Persons age 65 and over account for just 4 percent of the total population (Figure 2.1). There is a smaller proportion of children under age five in urban areas, suggesting that recent declines in fertility are more evident in urban than rural areas and that the transition to lower fertility began with the urban population. A similar finding was observed in the 1996 NFHS and the 2001 NDHS surveys.

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, Nepal 2006

	Urban			Rural			Total		
Age	Male	Female	Total	Male	Female	Total	Male	Female	Total
<5	11.1	10.6	10.8	14.9	12.2	13.5	14.3	12.0	13.1
5-9	12.1	11.8	11.9	16.2	12.9	14.4	15.5	12.7	14.0
10-14	11.9	10.5	11.2	14.6	13.1	13.8	14.1	12.8	13.4
15-19	12.4	11.6	12.0	9.5	11.1	10.4	10.0	11.2	10.6
20-24	10.9	11.8	11.4	5.9	9.0	7.6	6.7	9.4	8.2
25-29	8.9	9.9	9.4	5.6	7.7	6.7	6.1	8.0	7.1
30-34	6.8	6.7	6.8	5.2	6.2	5.8	5.5	6.3	5.9
35-39	5.5	6.0	5.7	5.0	5.6	5.3	5.0	5.6	5.4
40-44	4.0	5.5	4.7	4.6	4.8	4.7	4.5	4.9	4.7
45-49	4.2	3.7	4.0	4.1	4.3	4.2	4.1	4.2	4.2
50-54	3.4	2.9	3.2	3.7	3.5	3.6	3.6	3.4	3.5
55-59	2.6	3.0	2.8	2.5	2.9	2.7	2.5	2.9	2.7
60-64	2.2	2.4	2.3	3.0	2.5	2.7	2.9	2.5	2.7
65-69	1.5	1.2	1.3	1.9	1.6	1.7	1.8	1.5	1.6
70-74	0.7	1.0	0.9	1.5	1.3	1.4	1.4	1.3	1.3
75-79	0.7	0.8	0.7	1.0	0.7	0.8	1.0	0.7	0.8
80+	1.1	0.8	0.9	0.8	0.6	0.7	0.8	0.6	0.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	3,198	3,173	6,370	16,503	19,074	35,577	19,700	22,247	41,947

Figure 2.1 Population Pyramid



The overall sex ratio—the number of males per 100 females—is 89, similar to the sex ratio obtained in the 2001 NDHS but lower than that obtained in the 2001 Census (100) and the 1996 NFHS (93).[1] The sex ratio differs by residence. Urban areas have a higher sex ratio (101) than rural areas (87). The lower proportion of males in the rural population could be attributed to greater out-migration of men than women from rural areas—in search of jobs—to urban centers within the country, as well as to other countries, including India.

The 2006 NDHS collected additional information on usual residents who had traveled away from their household in the 12 months prior to the survey. Thirty-seven percent of households reported that at least one person had traveled away from the household at some time in the past 12 months. Among households that reported migration of usual residents, on average at least two persons were likely to have migrated. Men were nearly three times as likely to have migrated as women (data not shown).

Table 2.2.1 shows the migration status among men. Data show that among male migrants, two-thirds have been away for at least 6 months in the past 12 months. Men who have migrated out of rural areas, the hill zone, and the Western development region are more likely to have been away for at least six months, with out-migration for six months or longer most obvious in the Western hill subregion (82 percent). One in two migrants has moved to places within Nepal, more than one in three (37 percent) has moved to India, and about one in seven has moved to other countries (e.g., Malaysia, Qatar and Saudi Arabia).

Table 2.2.2 shows the status of female migrants. Among female migrants, about three-fifths have been away for at least 6 months in the past 12 months. Migrants who were 20 years or older, had never been married, had migrated out of rural areas, and the Western development region, and were highly educated (SLC and above) were more likely to have been away for at least six months. The majority (86 percent) of women who migrated moved to places within the country, whereas 12 percent moved to India. It is noteworthy to point out that about 16 percent of female migrants from the *terai* moved to India.

[1] The marked difference in the sex ratio between the 2001 Census and the NDHS surveys could be due to the fact that the sex ratio from the census is based on the de jure population, whereas the sex ratio obtained from the NDHS surveys is based on the de facto household population.

Table 2.2.1 Migration status: Men

Percent distribution of migrants by months since migration in the past 12 months and percentage of migrants who went to specific countries, according to background characteristics, Nepal 2006

Background characteristic	Months since migration		Total	Country of migration[1]			Number of migrants
	<6 months	6-12 months		Within Nepal	India	Other country	
Age							
15-19	41.1	58.7	100.0	58.8	37.2	5.2	671
20-24	32.4	67.6	100.0	50.0	34.8	16.3	799
25-29	30.4	69.6	100.0	46.7	33.4	22.4	557
30-34	28.4	71.6	100.0	41.4	38.5	22.0	413
35-39	31.4	68.6	100.0	45.6	40.8	16.8	252
40-44	32.1	67.9	100.0	43.8	49.6	10.9	174
45-49	31.1	68.9	100.0	49.4	43.4	7.1	107
50+	35.6	63.6	100.0	61.5	36.2	2.3	181
Marital status							
Never married	32.1	67.8	100.0	60.7	29.9	10.8	1,091
Married	34.1	65.9	100.0	44.5	41.0	16.4	2,034
Divorced/separated/widowed	(37.8)	(62.2)	(100.0)	(42.7)	(50.0)	(7.4)	29
Residence							
Urban	38.2	61.8	100.0	48.4	24.3	28.4	305
Rural	32.9	67.0	100.0	50.3	38.6	12.9	2,849
Ecological zone							
Mountain	41.4	58.6	100.0	65.9	24.6	10.3	212
Hill	28.4	71.4	100.0	56.3	31.1	14.0	1,461
Terai	37.3	62.7	100.0	41.7	45.1	15.4	1,480
Development region							
Eastern	35.6	64.4	100.0	52.3	21.4	28.2	512
Central	37.2	62.7	100.0	59.3	30.9	11.9	1,102
Western	22.6	77.4	100.0	42.5	40.7	18.8	714
Mid-western	31.4	68.3	100.0	45.1	46.5	9.4	384
Far-western	41.0	59.0	100.0	41.5	57.6	1.9	443
Subregion							
Eastern mountain	27.2	72.8	100.0	70.5	4.7	26.5	39
Central mountain	37.6	62.4	100.0	79.7	11.7	8.6	67
Western mountain	48.9	51.1	100.0	55.5	39.8	5.4	107
Eastern hill	41.0	59.0	100.0	63.1	18.9	19.7	133
Central hill	34.0	65.7	100.0	79.0	9.7	12.5	459
Western hill	17.8	82.2	100.0	43.1	37.7	21.2	499
Mid-western hill	31.8	67.6	100.0	48.8	45.4	6.1	229
Far-western hill	30.1	69.9	100.0	35.6	66.0	0.9	141
Eastern terai	34.4	65.6	100.0	45.9	24.3	31.7	340
Central terai	39.6	60.4	100.0	41.1	50.1	11.9	576
Western terai	33.1	66.9	100.0	40.4	48.6	13.6	211
Mid-western terai	30.9	69.1	100.0	34.9	51.6	14.9	142
Far-western terai	43.9	56.1	100.0	42.2	57.1	1.0	212
Education							
No education	47.6	51.8	100.0	32.9	58.9	10.0	454
Primary	33.9	66.1	100.0	42.7	50.0	10.2	815
Some secondary	34.1	65.9	100.0	49.0	35.6	16.6	1,095
SLC and above	23.9	76.1	100.0	69.2	13.9	18.3	789
Total	33.4	66.5	100.0	50.1	37.2	14.4	3,154

Note: Total includes men missing information on migration status not shown separately. Figures in parentheses are based on 25-49 unweighted cases.

[1] Total exceeds 100 percent because a small percentage of men have moved to more than one place in the past 12 months.

Table 2.2.2 Migration status: Women

Percent distribution of migrants by months since migration in the past 12 months and percentage of migrants who went to specific countries, according to background characteristics, Nepal 2006

Background characteristic	Months since migration		Total	Country of migration			Number of migrants
	<6 months	6-12 months		Within Nepal	India	Other country	
Age							
15-19	48.3	51.7	100.0	91.5	7.9	0.7	435
20-24	41.9	58.1	100.0	84.0	12.7	3.2	326
25+	39.8	59.6	100.0	80.9	15.1	4.2	354
Marital status							
Never married	33.9	66.1	100.0	90.8	5.0	4.3	341
Married	47.9	51.8	100.0	83.3	15.2	1.5	735
Divorced/separated/widowed	(51.1)	(48.9)	(100.0)	(92.5)	(1.4)	(6.1)	39
Residence							
Urban	47.2	52.1	100.0	78.1	14.1	7.7	109
Rural	43.4	56.5	100.0	86.8	11.3	2.0	1,006
Ecological zone							
Mountain	44.9	55.1	100.0	90.4	2.5	7.5	102
Hill	44.5	55.5	100.0	87.8	10.3	1.9	604
Terai	42.4	57.1	100.0	82.1	15.7	2.2	409
Development region							
Eastern	46.5	53.5	100.0	85.0	10.5	4.4	217
Central	41.4	58.2	100.0	88.4	7.5	4.2	398
Western	36.5	63.5	100.0	84.8	14.4	0.8	235
Mid-western	54.2	45.8	100.0	86.8	13.5	0.0	136
Far-western	48.4	51.1	100.0	81.1	18.9	0.0	128
Education							
No education	51.6	47.7	100.0	79.5	18.3	2.2	293
Primary	45.2	54.8	100.0	85.3	13.1	1.6	200
Some secondary	48.3	51.7	100.0	88.5	9.6	2.0	363
SLC and above	26.8	73.2	100.0	90.1	5.6	4.5	256
Total	43.7	56.1	100.0	85.9	11.6	2.5	1,115

Note: Total includes women missing information on migration not shown separately. Figures in parentheses are based on 25-49 unweighted cases.

2.2 HOUSEHOLD COMPOSITION

Table 2.3 presents information on the household composition. The majority (77 percent) of households are headed by men, although the proportion of female-headed households has risen from 16 percent in 2001 to 23 percent in 2006, with the rise more marked in rural than urban areas. This could be attributed in part to the sizeable out-migration of the male population in rural areas. The proportion of female-headed households in rural areas increased by 49 percent (from 16 percent to 24 percent) compared with a 20 percent increase (from 17 percent to 20 percent) in urban areas between 2001 and 2006. Household size is smaller in urban areas than in rural areas (4.4 persons versus 5.0 persons), with single member households substantially higher in urban than in rural areas. It is interesting to note that there are more households with foster children in urban than in rural areas.

Table 2.3 Household composition

Percent distribution of households by sex of head of household and by household size; mean size of household, and percentage of households with orphans and foster children under 18 years of age, according to residence, Nepal 2006

Characteristic	Residence		Total
	Urban	Rural	
Household headship			
Male	79.9	76.0	76.6
Female	20.1	24.0	23.4
Total	100.0	100.0	100.0
Number of usual members			
1	7.3	4.6	5.0
2	12.7	10.5	10.9
3	17.1	14.0	14.5
4	22.1	19.4	19.9
5	16.7	17.1	17.1
6	10.4	13.8	13.3
7	5.4	8.2	7.8
8	3.6	4.6	4.4
9+	4.6	7.7	7.1
Total	100.0	100.0	100.0
Mean size of households	4.4	5.0	4.9
Percentage of households with orphans and foster children under 18 years of age			
Foster children[1]	15.8	11.5	12.2
Double orphans	0.3	0.5	0.5
Single orphans	5.6	6.6	6.4
Number of households	1,473	7,234	8,707

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

[1] Foster children are those under age 18 living in households with neither their mother nor their father present.

Table 2.4 provides additional information on children's living arrangements and orphanhood. More than two-thirds (67 percent) of children under age 18 live with both parents, about one-fourth (23 percent) live with only their mother, and 2 percent live with only their father. Seven percent of children do not live with either parent, with 6 percent not living with either parent even though both of their parents are alive. The percentage of children not living with their parents increases with age. Rural children are more likely to live with either parent than urban children. The highest proportion of children not living with either parent occurs in the Mid-western development region (9 percent), while the lowest (5 percent) proportion is found in the Far-western development region. One in twenty children under 18 is an orphan.

Table 2.4 Children's living arrangements and orphanhood

Percent distribution of de jure children under age 18 years of age by living arrangements and survival status of parents, the percentage of children not living with a biological parent, and the percentage of children with one or both parents dead, according to background characteristics, Nepal 2006

Background characteristic	Living with both parents	Living with mother but not with father		Living with father but not with mother		Not living with either parent					Total	Percentage not living with a biological parent	Percentage with one or both parents dead	Number of children
		Father alive	Father dead	Mother alive	Mother dead	Both alive	Only father alive	Only mother alive	Both dead	Missing information on father/mother				
Age														
0-4	69.0	27.9	0.8	0.3	0.3	1.3	0.2	0.0	0.0	0.0	100.0	1.6	1.4	5,439
<2	71.5	27.7	0.4	0.1	0.0	0.2	0.1	0.0	0.0	0.0	100.0	0.3	0.5	2,046
2-4	67.6	28.0	1.0	0.5	0.5	2.0	0.3	0.1	0.0	0.0	100.0	2.4	1.9	3,393
5-9	67.4	23.2	2.0	0.8	0.9	4.5	0.5	0.4	0.1	0.2	100.0	5.4	3.8	5,890
10-14	67.8	16.7	3.9	1.3	1.7	6.2	0.7	0.8	0.4	0.4	100.0	8.1	7.5	5,699
15-17	61.3	10.4	4.5	1.0	2.7	15.8	1.1	1.2	0.8	1.2	100.0	18.9	10.2	2,778
Sex														
Male	67.8	20.8	2.8	1.0	1.4	4.7	0.5	0.4	0.3	0.3	100.0	5.8	5.4	9,935
Female	66.5	20.8	2.3	0.7	1.1	6.7	0.7	0.6	0.3	0.4	100.0	8.2	4.9	9,871
Residence														
Urban	67.5	15.6	2.0	1.2	1.2	10.1	0.9	0.8	0.2	0.5	100.0	12.0	5.1	2,611
Rural	67.1	21.6	2.6	0.8	1.2	5.0	0.5	0.5	0.3	0.4	100.0	6.3	5.1	17,195
Ecological zone														
Mountain	69.7	19.1	2.4	2.3	1.1	3.7	0.3	0.7	0.3	0.4	100.0	5.0	4.9	1,516
Hill	63.6	22.6	2.9	1.0	1.2	6.8	0.7	0.6	0.3	0.3	100.0	8.4	5.8	8,224
Terai	69.7	19.6	2.3	0.5	1.3	5.1	0.5	0.4	0.2	0.4	100.0	6.2	4.6	10,066
Development region														
Eastern	69.2	17.4	2.5	0.8	1.4	6.5	0.5	0.8	0.3	0.6	100.0	8.0	5.4	4,259
Central	68.1	19.1	2.8	1.1	1.6	5.7	0.6	0.4	0.3	0.2	100.0	7.1	5.8	6,361
Western	62.9	26.9	2.3	0.3	0.9	5.2	0.5	0.1	0.3	0.4	100.0	6.2	4.3	3,757
Mid-western	65.1	21.2	2.4	0.9	0.9	7.4	0.7	1.0	0.0	0.2	100.0	9.1	5.1	2,520
Far-western	69.1	21.4	2.6	0.8	0.9	3.8	0.4	0.3	0.3	0.5	100.0	4.8	4.4	2,908
Subregion														
Eastern mountain	66.3	23.3	2.1	1.8	1.5	2.9	0.5	1.2	0.3	0.1	100.0	4.8	5.6	363
Central mountain	68.8	16.7	2.2	4.7	2.3	4.1	0.0	0.2	0.2	0.9	100.0	4.5	4.8	404
Western mountain	71.8	18.3	2.7	1.3	0.3	3.8	0.3	0.8	0.5	0.3	100.0	5.3	4.5	750
Eastern hill	72.1	15.7	2.3	0.4	1.5	6.0	0.4	0.9	0.6	0.2	100.0	7.8	5.6	1,236
Central hill	68.5	15.2	3.5	1.5	1.3	7.9	1.0	0.6	0.3	0.3	100.0	9.8	6.6	2,653
Western hill	56.8	32.6	2.8	0.3	1.0	5.1	0.4	0.1	0.4	0.5	100.0	6.0	4.7	2,262
Mid-western hill	59.8	23.7	2.2	1.4	0.8	9.5	0.9	1.5	0.0	0.3	100.0	11.8	5.4	1,359
Far-western hill	59.0	28.2	3.6	1.2	2.2	4.6	0.5	0.4	0.4	0.0	100.0	5.8	7.0	714
Eastern terai	68.3	17.5	2.6	0.9	1.3	7.2	0.5	0.6	0.2	0.9	100.0	8.5	5.3	2,661
Central terai	67.7	22.5	2.4	0.4	1.8	4.2	0.4	0.3	0.3	0.1	100.0	5.2	5.2	3,305
Western terai	72.2	18.3	1.5	0.4	0.9	5.4	0.7	0.1	0.2	0.3	100.0	6.4	3.4	1,473
Mid-western terai	66.9	22.2	2.5	0.4	1.2	5.6	0.6	0.4	0.0	0.1	100.0	6.7	4.7	876
Far-western terai	74.5	17.5	2.3	0.4	0.5	3.4	0.4	0.2	0.2	0.7	100.0	4.1	3.5	1,752
Total <18	67.1	20.8	2.6	0.8	1.2	5.7	0.6	0.5	0.3	0.4	100.0	7.0	5.1	19,806
Total <15	68.1	22.5	2.3	0.8	1.0	4.1	0.5	0.4	0.2	0.2	100.0	5.1	4.3	17,028

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

2.3 HOUSEHOLD CHARACTERISTICS

Information on access to electricity, source and access to drinking water and water treatment, type of sanitation facility in the household, main material of the floor, sleeping space, place for cooking and type of fuel used for cooking are physical characteristics of a household that are used to assess the general well being and socioeconomic status of household members.

Table 2.5 presents information on the distribution of households and the de jure population by source of drinking water, and time taken to fetch drinking water. Eighty-two percent of households obtain drinking water from an improved source. Households in urban areas have higher access to an

improved source of drinking water than households in rural areas (90 percent compared with 80 percent). The most common source of drinking water in urban areas is piped water, with about two-fifths of households having this source. On the other hand, tube well or borehole is the most common source of drinking water in rural areas. Urban households are more likely to have a source of drinking water within their premises (72 percent) than rural households (41 percent). Nearly one in ten households in rural areas takes half an hour or longer to access their drinking water. Adult women are mostly responsible for fetching drinking water in both urban and rural areas.

Table 2.5 Household drinking water

Percent distribution of households and de jure population by source, time to collect, and person who usually collects drinking water; and percentage of households and de jure population by treatment of drinking water, according to residence, Nepal 2006

	Households			Population		
Characteristic	Urban	Rural	Total	Urban	Rural	Total
Source of drinking water						
Improved source	89.5	80.2	81.8	90.0	81.1	82.5
Piped water into house/yard/plot	39.9	9.5	14.6	37.1	8.9	13.2
Public tap/standpipe	10.6	29.4	26.2	10.9	27.0	24.5
Tube well or borehole	30.6	39.3	37.8	34.0	43.3	41.9
Protected dug well	6.1	0.3	1.3	5.6	0.2	1.0
Protected spring	2.2	1.8	1.9	2.3	1.7	1.8
Rainwater	0.1	0.0	0.0	0.1	0.0	0.0
Nonimproved source	9.8	19.6	17.9	9.7	18.7	17.3
Unprotected dug well	2.5	2.8	2.7	2.5	2.8	2.7
Unprotected spring	0.9	10.1	8.5	0.9	9.3	8.1
Tanker truck	0.1	0.0	0.0	0.2	0.0	0.0
Surface water	6.2	6.7	6.6	6.0	6.6	6.5
Bottled water, improved source for cooking/washing[1]	0.5	0.0	0.1	0.2	0.0	0.0
Bottled water, nonimproved source for cooking/washing[1]	0.1	0.0	0.0	0.1	0.0	0.0
Other sources	0.1	0.2	0.2	0.1	0.2	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0
Percentage using any improved source of water	90.0	80.2	81.9	90.2	81.1	82.5
Time to obtain drinking water (round trip)						
Water on premises	72.1	40.8	46.1	72.1	44.4	48.6
Less than 30 minutes	21.5	49.8	45.0	21.4	46.6	42.8
30 minutes or longer	6.4	9.4	8.9	6.5	9.0	8.6
Total	100.0	100.0	100.0	100.0	100.0	100.0
Person who usually collects drinking water						
Adult female 15+	20.3	51.5	46.2	21.0	49.2	44.9
Adult male 15+	5.7	4.0	4.3	4.6	2.6	2.9
Female child under age 15	1.5	2.9	2.7	2.1	3.1	2.9
Male child under age 15	0.3	0.8	0.8	0.3	0.8	0.7
Water on premises	72.1	40.8	46.1	72.1	44.4	48.6
Total	100.0	100.0	100.0	100.0	100.0	100.0
Water treatment prior to drinking[2]						
Boiled	22.9	5.8	8.7	21.7	4.7	7.3
Bleach/chlorine added	5.1	0.4	1.2	5.2	0.3	1.1
Strained through cloth	2.9	3.2	3.1	3.2	3.0	3.0
Ceramic, sand, or other filter	25.7	2.4	6.3	24.2	2.1	5.4
Solar disinfection	0.6	0.1	0.2	0.6	0.0	0.1
Other	0.5	0.2	0.3	0.4	0.2	0.2
No treatment	58.3	89.8	84.5	59.8	91.3	86.5
Percentage using an appropriate treatment method[3]	41.3	10.0	15.3	39.8	8.6	13.3
Number	1,473	7,234	8,707	6,415	35,841	42,256

[1] Because the quality of bottled water is not known, households using bottled water for drinking are classified as using an improved or nonimproved source according to their water source for cooking and washing.
[2] Respondents may report multiple treatment methods so the sum of treatment may exceed 100 percent.
[3] Appropriate water treatment methods include boiling, bleaching, straining, filtering and solar disinfecting.

The majority of households (85 percent) do not treat drinking water. However, more than two in five households in urban areas treat water prior to drinking. About one-fourth of urban households treat drinking water by using ceramic, sand or other filters, while 23 percent boil the water before drinking.

Table 2.6 presents information on household sanitation facilities by type of toilet/latrine. Overall, half of Nepalese households do not have a toilet facility. About 23 percent of households have an improved toilet facility while 27 percent have nonimproved toilet facility. Nearly two in five urban households have improved toilet facilities compared with only one in five rural households. There has been an improvement in household sanitation over the past five years. Data from the 2001 NDHS showed that about 70 percent of households did not have a toilet facility.

Table 2.6 Household sanitation facilities

Percent distribution of households and de jure population by type of toilet/latrine facilities, according to residence, Nepal 2006

	Households			Population		
Type of toilet/latrine facility	Urban	Rural	Total	Urban	Rural	Total
Improved, not shared facility	36.9	19.8	22.7	42.1	21.3	24.5
Flush to piped sewer system	8.3	0.2	1.6	8.7	0.4	1.7
Flush to septic tank	26.2	12.3	14.7	30.7	13.3	16.0
Flush to pit latrine	0.1	0.7	0.6	0.1	0.7	0.6
Ventilated improved pit (VIP) latrine	0.2	0.9	0.7	0.3	1.0	0.9
Pit latrine with slab	2.1	5.2	4.7	2.3	5.4	4.9
Composting toilet	0.0	0.5	0.4	0.0	0.5	0.4
Nonimproved facility	63.3	80.3	77.4	57.7	78.7	75.5
Any facility shared with other households	42.0	10.6	15.9	34.4	8.0	12.0
Flush not to sewer/septic tank/pit latrine	2.2	0.2	0.6	2.0	0.2	0.5
Pit latrine without slab/open pit	3.6	12.3	10.8	3.9	12.3	11.0
No facility/bush/field	15.3	57.2	50.1	17.4	58.2	52.0
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number	1,473	7,234	8,707	6,415	35,841	42,256

Table 2.7 presents information on the availability of electricity, type of flooring material, number of rooms for sleeping, type of fuel used for cooking, place where cooking is done and the type of fire/stove used for cooking. The table shows that more than one in two households in Nepal has access to electricity. Access to electricity has doubled in the past five years, with data from the 2001 NDHS showing only 25 percent of households having electricity. A nationwide study conducted in 2003/04 also indicated that 40 percent of the households in the country had access to electricity (Central Bureau of Statistics, 2004). However, access to electricity varies largely between urban areas (90 percent) and rural areas (43 percent).

Three in four households use earth, mud, and dung as the main material for flooring material. These materials are more common in rural than in urban areas. The percentage of households using cement as the main flooring material has increased slightly over the years.

Two-fifths of households use only one room for sleeping, one-third of households have two rooms, and nearly one-fourth have three or more rooms for sleeping.

Table 2.7 Housing characteristics

Percent distribution of households and de jure population by housing characteristics and percentage using solid fuel for cooking; and among those using solid fuel, percent distribution by type of fire/stove, according to residence, Nepal 2006

Housing characteristic	Households			Population		
	Urban	Rural	Total	Urban	Rural	Total
Electricity						
Yes	90.1	43.2	51.2	89.7	42.2	49.5
No	9.9	56.8	48.8	10.3	57.8	50.5
Total	100.0	100.0	100.0	100.0	100.0	100.0
Flooring material						
Earth/mud	24.8	74.7	66.3	26.8	76.9	69.3
Dung	2.2	8.3	7.2	2.5	8.2	7.3
Wood planks	1.3	4.7	4.1	1.5	4.3	3.8
Palm/bamboo	0.0	0.0	0.0	0.0	0.0	0.0
Parquet/polished wood	0.4	0.1	0.1	0.5	0.1	0.1
Vinyl/asphalt strips	21.3	2.8	6.0	18.4	2.1	4.6
Ceramic tiles	1.1	0.0	0.2	1.3	0.0	0.2
Cement	31.7	7.0	11.2	32.8	6.5	10.5
Carpet	15.1	0.9	3.3	14.9	0.7	2.9
Other	2.0	1.4	1.5	1.4	1.2	1.3
Missing	0.1	0.1	0.1	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0
Rooms used for sleeping						
One	47.8	40.9	42.1	35.9	31.6	32.2
Two	27.5	34.7	33.5	29.3	34.3	33.6
Three or more	24.7	24.4	24.4	34.8	34.1	34.2
Total	100.0	100.0	100.0	100.0	100.0	100.0
Place for cooking						
In the house	75.8	79.5	78.9	72.0	77.7	76.8
In a separate building	17.0	15.9	16.1	20.4	18.0	18.4
Outdoors	6.7	4.3	4.7	7.4	4.2	4.7
Missing	0.5	0.3	0.3	0.2	0.1	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0
Cooking fuel						
Electricity	0.4	0.0	0.1	0.3	0.0	0.1
LPG, natural gas, Biogas	43.6	6.3	12.6	42.8	5.4	11.1
Kerosene	15.8	1.0	3.5	11.1	0.5	2.1
Coal, lignite, charcoal, wood	35.7	78.7	71.4	40.8	79.2	73.4
Agricultural crops/straw/ shrubs/grass	0.8	4.5	3.9	0.8	4.7	4.1
Dung	2.5	9.1	8.0	3.2	9.9	8.9
No food cooked in household	0.5	0.3	0.3	0.2	0.1	0.1
Other	0.6	0.1	0.2	0.8	0.1	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0
Percentage using solid fuel for cooking[1]	39.1	92.3	83.3	44.8	93.8	86.4
Number of households/population	1,473	7,234	8,707	6,415	35,841	42,256
Type of fire/stove among households using solid fuel[1]						
Chulo with chimney	4.1	6.4	6.2	4.3	5.9	5.8
Open fire/stove with chimney/hood	0.3	0.2	0.2	0.2	0.2	0.2
Open fire/stove/chulo without chimney or hood	95.6	93.4	93.5	95.5	93.9	94.0
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of households/ population using solid fuel[1]	576	6,675	7,251	2,871	33,635	36,505

LPG = Liquid petroleum gas

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

Indoor pollution has important implications for the health of household members. The survey collected information on the type of fuel used for cooking, the place where cooking is done and whether households have a chimney or hood to ventilate cooking fumes. Nearly four in five households cook in the house. About 38 percent of all households do not have a separate kitchen for cooking and possibly are subject to the risk of indoor pollution (data not shown). An overwhelming majority of households (71 percent) use, coal, lignite, charcoal, or wood for cooking. While liquid petroleum gas (LPG), natural gas and biogas are commonly used in urban areas (44 percent), coal, lignite, charcoal, or wood are more common in rural areas (79 percent). Of the total households, 83 percent use solid fuel for cooking, which includes coal/lignite, charcoal, wood/straw/shrubs, agricultural crops and animal dung. These households were asked for the type of fire/stove used for cooking. Only 6 percent of these households have a chulo or open fire/stove with a chimney/hood while the rest do not have any system for ventilating the indoor pollution from cooking fumes.

2.4 HOUSEHOLD POSSESSIONS

Table 2.8 shows the percentage of households possessing various durable goods and means of transportation, by residence. Information on the ownership of durable goods and other possessions reflects the socioeconomic status of households. Radio is a very common possession in most households with 70 percent of households in urban areas and 59 percent of households in rural areas possessing it. Slightly more than one-fourth of households have a television, which is considered a luxury item and is found mostly in urban households (63 percent). Overall, 6 percent of households have a telephone and a similar proportion have a mobile telephone. Less than 5 percent of households have a refrigerator. Except for a *dhiki* (rice grinder), animal-drawn cart, agricultural land, and farm animals, which are more common in rural areas, the rest of the items listed are more common in urban than rural areas.

Table 2.8 Household possessions

Percentage of households and de jure population possessing various household effects, means of transportation, agricultural land and livestock/farm animals, by residence, Nepal 2006

	Households			Population		
Possession	Urban	Rural	Total	Urban	Rural	Total
Household effects						
Radio	69.7	59.2	61.0	70.3	62.8	63.9
Television	62.9	20.8	27.9	67.6	23.4	30.1
Mobile telephone	22.5	2.1	5.5	23.6	2.0	5.3
Non-mobile telephone	27.2	2.1	6.3	31.1	2.0	6.4
Refrigerator	18.8	1.4	4.3	22.0	1.2	4.4
Table	68.1	36.0	41.5	70.9	38.6	43.5
Chair	58.4	31.4	36.0	63.3	34.3	38.7
Bed	95.1	85.6	87.2	95.7	86.7	88.1
Sofa	29.7	5.7	9.7	33.7	6.0	10.2
Cupboard	57.1	27.4	32.4	61.2	29.1	34.0
Computer	7.9	0.7	1.9	10.2	0.7	2.1
Clock	87.8	69.7	72.8	89.4	73.7	76.1
Fan	50.4	13.5	19.7	55.8	13.5	19.9
Dhiki	15.0	46.3	41.0	18.5	50.2	45.4
Means of transport						
Bicycle	38.9	31.4	32.7	45.9	37.8	39.0
Animal-drawn cart	1.2	5.6	4.8	2.5	9.4	8.4
Motorcycle/scooter	14.1	2.0	4.1	17.2	2.4	4.6
Car/truck/tempo	3.2	0.9	1.3	4.4	1.4	1.9
Ownership of agricultural land	43.6	73.1	68.1	46.4	76.4	71.8
Ownership of farm animals[1]	34.1	85.6	76.9	41.2	90.1	82.6
Number	1,473	7,234	8,707	6,415	35,841	42,256

[1] Buffalo, milk cows, bulls, horses, donkeys, mules, goats, sheep, chickens, ducks, pigs, or yaks

2.5 SOCIOECONOMIC STATUS INDEX

One of the background characteristics used throughout this report is an index of socioeconomic status. The economic index used in this study was developed and tested in a large number of countries in relation to inequalities in household income, use of health services and health outcomes (Rutstein et al., 2000). It is an indicator of the level of wealth that is consistent with expenditure and income measures (Rutstein, 1999). The economic index was constructed using household asset data including ownership of a number of consumer items ranging from a television to a bicycle or car, as well as dwelling characteristics, such as source of drinking water, sanitation facilities and type of material used for flooring.

Each asset is assigned a weight (factor score) generated through principal components analysis, and the resulting asset scores were standardized in relation to a normal distribution with a mean of zero and standard deviation of one (Gwatkin et al., 2000). Each household was then assigned a score for each asset and the scores were summed for each household; individuals were ranked according to the score of the household in which they resided. The sample was then divided into quintiles from one (lowest) to five (highest). A single asset index was developed for the whole sample; no separate indices were prepared for the urban and rural population. This classification of population by quintiles is used as a background variable in the following sections to assess the demographic and health outcomes in relation to socioeconomic status.

Table 2.9 presents the wealth quintiles by residence and regions. An overwhelming majority of the population residing in urban areas are from the richest quintile. Among the three ecological zones, the population in the hills is more likely to fall in the highest wealth quintile than the population living in the terai and mountain zones. Within the hill zone, nearly one in two households (47 percent) in the Central hills, which includes the Kathmandu Valley, is in the wealthiest quintile. On the other hand, the Western mountain subregion has the highest proportion of the population in the lowest wealth quintile (61 percent).

Table 2.9 Wealth quintiles

Percent distribution of de jure population by wealth quintiles, according to residence and region, Nepal 2006

Residence/region	Wealth quintile					Total	Number of population
	Lowest	Second	Middle	Fourth	Highest		
Residence							
Urban	2.3	5.5	5.1	15.6	71.5	100.0	6,415
Rural	23.2	22.6	22.7	20.8	10.8	100.0	35,841
Ecological zone							
Mountain	46.6	22.3	16.4	13.4	1.2	100.0	3,166
Hill	28.0	15.6	13.9	17.6	24.9	100.0	17,990
Terai	9.2	23.4	25.8	23.0	18.6	100.0	21,100
Development region							
Eastern	15.0	19.5	23.2	27.5	14.8	100.0	9,226
Central	15.1	18.1	18.4	18.7	29.7	100.0	14,170
Western	14.7	17.1	20.9	24.8	22.6	100.0	8,110
Mid-western	32.8	25.3	17.3	15.5	9.0	100.0	4,956
Far-western	36.3	25.2	19.7	8.4	10.4	100.0	5,794
Subregion							
Eastern mountain	37.9	27.8	20.4	13.6	0.2	100.0	748
Central mountain	28.4	19.3	23.0	25.4	3.9	100.0	872
Western mountain	61.1	21.3	10.8	6.6	0.2	100.0	1,546
Eastern hill	35.2	19.7	16.0	21.2	7.9	100.0	2,608
Central hill	15.6	10.5	9.3	17.7	46.9	100.0	6,560
Western hill	20.5	19.0	18.7	20.9	20.8	100.0	4,865
Mid-western hill	50.7	19.1	12.7	11.6	5.8	100.0	2,596
Far-western hill	57.6	13.7	16.9	9.3	2.6	100.0	1,363
Eastern terai	3.1	18.3	26.8	32.0	19.7	100.0	5,870
Central terai	12.9	25.3	26.8	18.8	16.3	100.0	6,738
Western terai	6.2	13.7	23.7	30.7	25.7	100.0	3,174
Mid-western terai	7.4	29.9	23.6	22.3	16.8	100.0	1,768
Far-western terai	15.6	33.7	24.9	9.8	16.0	100.0	3,550
Total	20.0	20.0	20.0	20.0	20.0	100.0	42,256

2.6 POSSESSION OF MOSQUITO NETS

Since 1954, USAID has promoted malaria control programs through the Insect Borne Disease Control Program. The malaria eradication program, launched in 1958, reverted to a malaria control program in 1978. In 1993, the WHO initiated the Global Malaria Control Strategy (GMCS) to focus on problem areas. Areas with a high incidence of malaria were identified, and 12 priority districts in the forest area, foothills and inner terai were identified for focused initiative under the Roll Back Malaria (RBM) strategy. Currently, malaria control activities are in place in 65 out of the 75 districts in the country (Ministry of Health and Population, 2006).

An important strategy in the control of malaria is the promotion of personal protection measures, including the use of simple mosquito nets or insecticide-treated mosquito nets.

The 2006 NDHS collected information on the possession and number of mosquito nets in the households. Table 2.10 shows that about three-fifths (61 percent) of households have mosquito nets. Households in the terai (85 percent) are much more likely to possess mosquito nets than households in the mountains (14 percent) and hills (47 percent), as this zone is a high risk area for malaria. More than 90 percent of households in the Far-western terai have mosquito nets. Among households with nets, three in ten own one net, one in two owns two to three nets, and one in five owns at least four nets.

Table 2.10 Possession of mosquito nets

Percentage of households with mosquito nets, and among households with mosquito nets, the percent distribution by number of nets in the household, according to background characteristics, Nepal 2006

Background characteristic	Percentage of households with nets	Number of households	Number of nets in household				Number of households with nets
			1	2-3	4+	Total	
Residence							
Urban	74.9	1,473	30.0	52.8	17.2	100.0	1,104
Rural	58.5	7,234	29.4	50.2	20.4	100.0	4,234
Ecological zone							
Mountain	14.4	700	35.8	50.9	13.3	100.0	101
Hill	46.6	4,069	32.8	53.1	14.1	100.0	1,895
Terai	84.9	3,938	27.5	49.4	23.2	100.0	3,342
Region							
Eastern	66.1	1,911	30.8	49.7	19.6	100.0	1,264
Central	66.0	3,079	33.3	51.1	15.6	100.0	2,031
Western	63.5	1,680	24.5	55.3	20.2	100.0	1,067
Mid-western	46.3	1,043	30.2	55.4	14.5	100.0	483
Far-western	49.6	994	21.0	37.7	41.3	100.0	493
Subregion							
Eastern mountain	19.7	162	30.7	43.8	25.4	100.0	32
Central mountain	26.6	209	30.7	59.8	9.4	100.0	56
Western mountain	4.0	329	*	*	*	*	13
Eastern hill	36.0	571	35.5	49.6	14.8	100.0	206
Central hill	58.7	1,554	31.4	52.8	15.8	100.0	913
Western hill	54.0	1,089	30.5	56.5	13.0	100.0	588
Mid-western hill	30.2	573	41.6	49.8	8.6	100.0	173
Far-western hill	5.6	282	(70.0)	(26.9)	(3.1)	(100.0)	16
Eastern terai	87.1	1,178	29.8	49.8	20.3	100.0	1,026
Central terai	80.7	1,316	35.1	49.2	15.8	100.0	1,063
Western terai	84.0	570	17.2	53.8	29.0	100.0	479
Mid-western terai	84.9	358	23.3	58.6	18.1	100.0	304
Far-western terai	91.3	515	18.3	38.5	43.3	100.0	470
Wealth quintile							
Lowest	23.3	1,726	49.5	45.4	5.1	100.0	402
Second	55.8	1,732	42.0	43.4	14.6	100.0	967
Middle	68.2	1,605	29.7	52.0	18.3	100.0	1,094
Fourth	78.6	1,697	21.7	54.2	24.1	100.0	1,333
Highest	79.2	1,947	23.2	52.8	24.0	100.0	1,541
Total	61.3	8,707	29.5	50.7	19.7	100.0	5,338

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.

2.7 EDUCATION OF HOUSEHOLD POPULATION

Studies have shown that education is one of the major socioeconomic factors that influence a person's behavior and attitudes. In general, the higher the level of education of a woman, the more knowledgeable she is about the use of health facilities, family planning methods, and the health of her children. Inspired by the collective commitment expressed in the Dakar Framework for Action (DFA) 2000, Nepal has already adopted the "Education for All" (EFA) strategy. To achieve this, a National Plan of Action, (NPA, EFA 2001-2015) has been in place since 2001 (Department of Education, 2004). In order to meet the target of the MDGs, Nepal is committed to ensuring that by 2015, all children, particularly girls, children in difficult situations, and children from ethnic minority groups, have access to complete, free, compulsory, and good quality primary education (UNICEF, 2006a).

To cope with the demand for education, the government of Nepal has opened investment in the education sector to private parties. Education is divided into two broad categories, primary and secondary (Department of Education, 2004). Besides these levels, private parties have also invested in opening up non-graded level schools, known as pre-primary schools, such as nursery, lower kindergarten (KG) and upper KG. To gauge the spread of pre-primary schools in Nepal, the 2006 NDHS included some additional questions on pre-primary school attendance. Secondary level schooling includes lower secondary and upper secondary schools where students can get an education up to grade 10. More recently, the government has encouraged existing high schools to add two additional years of school (10+2). In order to promote job-oriented education, skill development schools with a vocational and technical focus have increased over the years in various parts of the country.

2.7.1 Educational Attainment of Household Population

Tables 2.11.1 and 2.11.2 show the percent distribution of the male and female household population age six years and above by level of education according to age, residence, ecological zone, development region, subregion, and wealth quintile. Survey results show that about one in four men and about one in two women have never attended school. Additionally, 35 percent of males and 26 percent of females have only some primary education. Eight percent of men and 5 percent of women have completed primary education only, and 22 percent of males and 15 percent of females have attended but not completed secondary education. More than twice as many men as women have completed secondary school or higher (12 percent and 5 percent, respectively). It must be noted that the percentage of men and women with no education has declined since 2001 from 32 percent to 23 percent among men and from 60 percent to 49 percent among women, with the improvement observed across all education categories. The gender gap in educational attainment has also narrowed over the years. For instance, among the age group 6-9 years, 21 percent of males and 34 percent of females had no education in 2001, and this declined to 10 percent and 16 percent, respectively, in 2006. This decline is the result of various interventions by the government to enhance the overall quality of education and improve school enrollment. Initiatives include the "Welcome to School" Program and the introduction of scholarship schemes to encourage enrolment of students, especially girls and those belonging to the *Dalit* (Untouchables) group (Department of Education, 2004).

An investigation of the changes in educational attainment by successive age groups indicates the long-term trend of the country's educational achievement. Survey results show that there has been a marked improvement in the educational attainment of both men and women over the years. The proportion of the male population with no education is significantly higher (84 percent) among the oldest age group (65 years or more) than among boys age 10-14 years (4 percent). Similarly, 98 percent of the female population age 65 and over has no education compared with 11 percent among girls age 10-14.

Table 2.11.1 Educational attainment of household population: Male

Percent distribution of the de facto male household population age six and over by highest level of schooling attended or completed and median years of schooling completed, according to background characteristics, Nepal 2006

Background characteristic	No education[1]	Some primary[2]	Completed primary[3]	Some secondary	Completed secondary[4]	More than secondary	Don't know/ missing	Total	Number	Median years of schooling
Age										
6-9	10.4	89.0	0.6	0.0	0.0	0.0	0.0	100.0	2,458	0.0
10-14	4.0	56.4	16.9	22.6	0.0	0.0	0.1	100.0	2,782	3.4
15-19	4.5	15.2	10.5	54.2	7.9	7.7	0.0	100.0	1,965	6.8
20-24	9.6	14.3	9.9	35.3	10.0	20.8	0.0	100.0	1,323	7.2
25-29	19.5	17.6	9.1	29.5	10.1	14.2	0.1	100.0	1,203	5.9
30-34	21.7	21.0	5.9	29.0	7.5	14.8	0.1	100.0	1,082	5.3
35-39	28.2	21.3	6.5	23.4	10.4	10.2	0.0	100.0	993	4.1
40-44	32.1	22.5	5.4	23.0	8.1	8.8	0.0	100.0	888	3.1
45-49	39.1	22.2	9.4	16.1	5.6	7.5	0.0	100.0	810	1.8
50-54	43.4	23.3	10.4	13.8	4.3	4.6	0.1	100.0	718	1.0
55-59	52.6	21.8	4.6	11.1	5.4	4.3	0.3	100.0	499	0.0
60-64	73.4	9.3	4.6	6.8	3.7	2.2	0.1	100.0	572	0.0
65+	83.9	6.4	3.1	3.6	2.0	1.0	0.0	100.0	988	0.0
Residence										
Urban	14.2	26.7	6.7	23.7	9.8	18.9	0.1	100.0	2,761	5.5
Rural	24.9	36.5	8.5	22.0	4.0	4.1	0.0	100.0	13,520	2.3
Ecological zone										
Mountain	27.5	36.9	9.0	20.7	3.1	2.8	0.0	100.0	1,135	1.8
Hill	19.4	34.2	8.2	23.3	5.5	9.3	0.1	100.0	6,867	3.5
Terai	25.5	35.0	8.1	21.7	4.8	4.9	0.0	100.0	8,278	2.3
Development region										
Eastern	24.4	33.8	8.5	23.3	4.9	5.1	0.0	100.0	3,621	2.7
Central	25.2	33.0	6.7	19.7	6.0	9.3	0.1	100.0	5,617	2.6
Western	21.2	35.7	9.3	22.9	4.8	6.1	0.0	100.0	3,022	3.1
Mid-western	20.1	40.0	8.7	21.3	4.1	5.8	0.0	100.0	1,811	2.7
Far-western	20.4	35.5	9.7	27.2	3.6	3.5	0.0	100.0	2,209	3.1
Subregion										
Eastern mountain	28.2	36.4	9.4	19.7	3.1	3.2	0.0	100.0	267	2.1
Central mountain	30.6	39.7	7.1	16.6	2.7	3.3	0.0	100.0	333	1.5
Western mountain	25.3	35.4	10.0	23.7	3.3	2.4	0.0	100.0	535	2.0
Eastern hill	21.3	36.4	7.8	24.5	4.8	5.3	0.0	100.0	1,015	2.9
Central hill	19.0	29.4	7.1	23.2	6.8	14.3	0.2	100.0	2,717	4.2
Western hill	20.0	34.2	9.5	24.2	5.6	6.4	0.0	100.0	1,746	3.4
Mid-western hill	18.6	41.3	8.9	20.6	3.9	6.7	0.0	100.0	903	2.8
Far-western hill	16.7	43.8	10.1	22.2	2.7	4.4	0.0	100.0	486	2.8
Eastern terai	25.4	32.5	8.7	23.1	5.1	5.2	0.1	100.0	2,338	2.7
Central terai	31.1	35.9	6.3	16.3	5.5	4.9	0.0	100.0	2,567	1.1
Western terai	22.5	37.7	8.7	21.5	3.9	5.6	0.1	100.0	1,249	2.7
Mid-western terai	22.2	38.0	9.0	21.5	4.1	5.2	0.0	100.0	697	2.7
Far-western terai	20.1	33.6	9.2	29.2	4.1	3.7	0.1	100.0	1,428	3.4
Wealth quintile										
Lowest	31.4	43.7	7.9	15.1	1.2	0.7	0.0	100.0	2,910	0.7
Second	31.6	38.0	8.1	18.7	2.7	0.9	0.0	100.0	3,129	1.2
Middle	24.8	38.6	9.5	22.3	2.7	2.1	0.0	100.0	3,283	2.3
Fourth	20.6	31.0	8.8	28.0	5.6	6.0	0.0	100.0	3,359	3.8
Highest	9.6	25.0	6.8	25.8	11.6	21.0	0.2	100.0	3,600	6.7
Total	23.1	34.8	8.2	22.3	5.0	6.6	0.1	100.0	16,281	2.8

[1] Includes those who have never attended school and those in Early Childhood Development (ECD) centers
[2] Includes those who have completed 0-4 years of school and those in school-based pre-primary classes
[3] Completed grade 5 at the primary level
[4] Completed grade 10 grade at the secondary level

Table 2.11.2 Educational attainment of household population: Female

Percent distribution of the de facto female household population age six and over by highest level of schooling attended or completed, according to background characteristics, Nepal 2006

Background characteristic	No education[1]	Some primary[2]	Completed primary[3]	Some secondary	Completed secondary[4]	More than secondary	Don't know/ missing	Total	Number
Age									
6-9	16.4	83.4	0.3	0.0	0.0	0.0	0.0	100.0	2,284
10-14	11.3	55.5	15.3	17.7	0.0	0.0	0.1	100.0	2,839
15-19	21.3	15.5	9.4	44.3	5.1	4.4	0.0	100.0	2,489
20-24	37.2	14.8	6.3	26.3	5.8	9.6	0.0	100.0	2,097
25-29	53.5	12.0	5.0	17.3	6.5	5.6	0.0	100.0	1,782
30-34	64.5	12.0	4.2	11.4	5.0	2.9	0.0	100.0	1,397
35-39	76.1	9.3	3.4	7.2	2.6	1.5	0.0	100.0	1,257
40-44	85.0	6.4	1.7	3.4	1.6	1.8	0.0	100.0	1,084
45-49	88.4	6.9	0.8	3.1	0.6	0.2	0.0	100.0	938
50-54	91.8	3.6	0.9	1.9	0.7	1.1	0.0	100.0	767
55-59	93.1	2.8	0.7	2.1	0.2	1.1	0.1	100.0	649
60-64	97.8	0.9	0.2	0.5	0.1	0.6	0.0	100.0	545
65+	97.9	1.4	0.3	0.1	0.4	0.0	0.0	100.0	903
Residence									
Urban	32.1	24.1	5.5	21.4	7.2	9.7	0.0	100.0	2,762
Rural	51.7	25.9	5.4	13.7	1.9	1.5	0.0	100.0	16,270
Ecological zone									
Mountain	56.5	26.2	5.2	9.8	1.2	1.2	0.0	100.0	1,405
Hill	42.9	26.6	6.3	17.0	3.4	3.7	0.1	100.0	8,208
Terai	52.9	24.7	4.7	13.6	2.2	2.0	0.0	100.0	9,419
Development region									
Eastern	47.2	25.6	5.9	16.0	2.5	2.8	0.0	100.0	4,176
Central	51.8	24.4	4.3	12.2	3.6	3.7	0.1	100.0	6,254
Western	43.1	26.5	6.5	18.8	2.4	2.8	0.0	100.0	3,739
Mid-western	47.3	28.3	5.6	14.8	2.4	1.6	0.0	100.0	2,219
Far-western	53.9	24.8	5.9	13.4	1.1	0.9	0.0	100.0	2,644
Subregion									
Eastern mountain	43.1	26.8	7.8	17.9	1.6	2.9	0.0	100.0	340
Central mountain	54.1	28.2	4.7	10.6	1.5	1.0	0.0	100.0	399
Western mountain	64.8	24.6	4.1	5.1	0.7	0.6	0.0	100.0	666
Eastern hill	41.8	28.6	7.7	15.7	2.9	3.2	0.0	100.0	1,163
Central hill	43.2	24.4	5.3	15.7	5.0	6.2	0.1	100.0	2,927
Western hill	38.7	26.4	7.0	22.3	2.7	2.8	0.0	100.0	2,308
Mid-western hill	44.3	29.7	5.4	16.8	2.5	1.4	0.0	100.0	1,176
Far-western hill	56.2	27.7	7.9	6.7	0.9	0.6	0.0	100.0	634
Eastern terai	50.0	24.1	4.8	15.9	2.5	2.7	0.0	100.0	2,673
Central terai	60.1	24.0	3.1	8.8	2.5	1.5	0.0	100.0	2,928
Western terai	50.0	26.7	5.4	13.4	1.8	2.6	0.0	100.0	1,394
Mid-western terai	46.4	27.0	6.4	15.0	2.9	2.3	0.0	100.0	808
Far-western terai	50.2	23.9	5.9	17.9	1.2	1.0	0.0	100.0	1,616
Wealth quintile									
Lowest	57.9	29.5	4.8	7.1	0.3	0.4	0.0	100.0	3,761
Second	56.4	27.6	5.2	9.8	0.7	0.3	0.0	100.0	3,826
Middle	56.4	24.3	5.3	12.3	0.9	0.7	0.0	100.0	3,828
Fourth	45.1	24.2	6.2	19.6	2.8	2.0	0.0	100.0	3,872
Highest	28.1	22.3	5.6	25.1	8.5	10.2	0.1	100.0	3,744
Total	48.8	25.6	5.4	14.8	2.6	2.7	0.0	100.0	19,032

Note: Median years of schooling was not calculated for women because in most categories, less than 50 percent have ever attended school.

[1] Includes those who have never attended school and those in Early Childhood Development (ECD) centers

[2] Includes those who have completed 0-4 years of school and those in school-based pre-primary classes

[3] Completed grade 5 at the primary level

[4] Completed grade 10 grade at the secondary level

Educational attainment varies widely by residence with higher proportions of males and females in rural areas having no education compared with urban areas. For example, one in two rural women has no education compared with one in three urban women. Similarly, more women and men residing in the hills have at least some education, compared with those residing in the mountains and terai. The proportion of female and male household members who have never attended school decreases with wealth. For example, one in three men in the lowest wealth quintile has no education compared with one in ten men in the highest wealth quintile.

Early Childhood Development Center

In order to promote pre-primary education to children below eight years the government has introduced Early Childhood Development (ECD) centers under the Preliminary Child Education regulation. Data collected from all 75 districts show that a total of 7,426 early childhood development centers and school-based pre-primary classes were operational in the school year 2005-2006 (Department of Education, 2006). The school-based centers are mostly managed by the government while the other community-based early childhood development centers are mostly supported by NGOs. The 2006 NDHS collected information on the percentage of children 3-4 years enrolled in these centers.

Table 2.12 Children enrolled in school-based pre-primary classes and early childhood development centers

Percentage of de facto children age 3-4 years enrolled in school-based pre-primary classes and early childhood development centers (ECD), by background characteristics, Nepal 2006

Background characteristic	Children 3-4 years enrolled in school-based pre-primary classes	Children 3-4 years enrolled in ECD centers	Total	Number of children
Age				
3	12.6	4.8	17.4	1,085
4	23.2	5.0	28.2	1,172
Sex				
Male	19.4	4.9	24.2	1,177
Female	16.8	4.9	21.7	1,080
Residence				
Urban	49.6	3.3	53.0	293
Rural	13.4	5.1	18.6	1,963
Ecological zone				
Mountain	9.8	7.9	17.8	184
Hill	22.5	5.7	28.1	928
Terai	16.0	3.8	19.7	1,145
Development region				
Eastern	10.9	5.9	16.8	495
Central	23.8	1.9	25.7	773
Western	24.2	7.5	31.7	405
Mid-western	18.2	6.1	24.3	280
Far-western	7.2	6.2	13.4	304
Subregion				
Eastern mountain	5.8	10.0	15.8	44
Central mountain	7.4	1.7	9.1	39
Western mountain	12.5	9.4	22.0	101
Eastern hill	9.8	1.4	11.1	149
Central hill	33.2	4.1	37.3	306
Western hill	28.6	11.0	39.6	237
Mid-western hill	13.4	5.3	18.7	150
Far-western hill	4.9	4.9	9.8	85
Eastern terai	12.2	7.6	19.8	301
Central terai	18.6	0.4	19.0	427
Western terai	18.5	2.7	21.2	163
Mid-western terai	20.4	8.8	29.1	90
Far-western terai	10.9	4.1	14.9	163
Wealth quintile				
Lowest	6.8	4.7	11.5	547
Second	7.6	3.4	10.9	491
Middle	8.1	5.2	13.3	468
Fourth	21.8	7.8	29.6	394
Highest	59.1	3.7	62.8	357
Total	18.1	4.9	23.0	2,257

Table 2.12 shows that nearly one-fourth of children age 3-4 years are enrolled in school-based pre-primary classes and in ECD centers. School-based pre-primary classes are relatively more widespread, with 18 percent of all children age 3-4 years enrolled in these classes compared with only 5 percent of children age 3-4 years enrolled in ECD centers.

Young children in urban areas are more likely to be enrolled in school-based pre-primary classes (50 percent) than in rural areas (13 percent), while the proportion of children enrolled in ECD centers is slightly higher in rural than in urban areas (5 percent versus 3 percent). Children in the hills are more likely to be enrolled in pre-primary classes or ECD centers (28 percent) compared with those in the other ecological zones, with most children from the Western hills (40 percent) and Central hills

(37 percent) having access to early education. Children in the richest households are significantly more likely to have access to early education than those in other households.

2.7.2 School Attendance Ratios

The net attendance ratio (NAR) indicates participation in primary schooling for the population age 6-10 years and secondary schooling for the population age 11-15 years. The gross attendance ratio (GAR) measures participation at each level of schooling among those of any age from 5 to 24 years. The GAR is almost 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.[2] A NAR of 100 percent would indicate that all those in the official age range for that 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.

Tables 2.13.1 and 2.13.2 provide data on net attendance ratios (NARs) and gross attendance ratios (GARs) by sex and level of schooling. There has been a rise in the NAR at the primary level from 73 percent in 2001 to 87 percent in 2006, while at the secondary level it has gone up from 31 percent to 47 percent over the same period. The rise in NAR and GAR has been more pronounced in rural areas than in urban areas. For instance, the rural primary school NAR increased from 72 percent in 2001 to 86 percent in 2006 while the rise was from 89 percent to 91 percent in the urban areas over the same period. This could be explained by the fact that primary school NAR and GAR were already high in the urban areas and therefore, the rise is not substantial. Similarly, the rise in NAR and GAR at the secondary level is also more marked in the rural areas. Attendance ratios at the primary and secondary levels are highest in the hills. Among the subregions, the Central terai has the lowest attendance ratio at the primary as well as at the secondary level.

Over the past five years, the rise in the NAR and GAR at the primary as well as the secondary levels has been more substantial among females than males. For instance, the NAR at the primary school level for females was 67 percent in 2001, and increased to 84 percent in 2006, while the rise in male NAR during the same period was from 79 percent to 89 percent. This increase in the female attendance ratio has been more obvious in rural areas. Interventions by the government through the provision of specific scholarship schemes for girls (whereby 50 percent of the girls enrolled receive scholarships), for Dalit students, for children with various disabilities, for children of martyrs, and for other groups of needy children, have contributed to this progress.

Tables 2.13.1 and 2.13.2 also show the Gender Parity Index (GPI) which represents the ratio of the NAR and GAR for females to the NAR and GAR for males. It is a more precise indicator of the gender differences in the schooling system. A GPI less than one indicates that a smaller proportion of females than males attend school. The index for NAR and GAR at the primary and secondary school is slightly less than one (0.9) indicating that the gender gap is very narrow. It is worth noting here that the gender gap in attendance has narrowed over the years. The 2001 NDHS indicated the GAR at the primary school to be 0.8 and at the secondary school to be 0.7.

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

Table 2.13.1 School attendance ratios: Primary school

Net attendance ratios (NAR) and gross attendance ratios (GAR) for the de facto household population by sex and level of schooling; and the Gender Parity Index (GPI), according to background characteristics, Nepal 2006

Background characteristic	Net attendance ratio[1]				Gross attendance ratio[2]			
	Male	Female	Total	Gender Parity Index[3]	Male	Female	Total	Gender Parity Index[3]
Residence								
Urban	92.8	88.1	90.5	0.95	137.4	135.7	136.5	0.99
Rural	88.3	83.6	86.0	0.95	134.1	130.8	132.5	0.98
Ecological zone								
Mountain	87.7	80.2	83.7	0.91	138.1	123.6	130.4	0.90
Hill	91.4	90.5	90.9	0.99	140.6	139.0	139.8	0.99
Terai	87.1	79.5	83.5	0.91	129.5	126.3	128.0	0.98
Development region								
Eastern	87.9	83.8	86.0	0.95	128.1	127.3	127.7	0.99
Central	85.1	77.9	81.6	0.92	128.9	125.9	127.5	0.98
Western	91.3	88.8	90.1	0.97	141.6	136.5	139.1	0.96
Mid-western	92.9	91.2	92.1	0.98	146.3	136.9	141.5	0.94
Far-western	91.7	85.8	88.9	0.94	137.0	138.0	137.5	1.01
Subregion								
Eastern mountain	78.7	80.3	79.5	1.02	130.4	132.4	131.4	1.01
Central mountain	91.7	85.9	88.6	0.94	157.1	140.2	148.2	0.89
Western mountain	90.0	77.1	82.9	0.86	130.8	110.9	120.0	0.85
Eastern hill	88.5	88.5	88.5	1.00	137.5	140.9	139.1	1.03
Central hill	91.5	88.6	90.1	0.97	139.6	143.1	141.3	1.03
Western hill	92.1	92.2	92.1	1.00	138.8	136.5	137.7	0.98
Mid-western hill	89.9	94.0	92.0	1.04	141.3	136.0	138.6	0.96
Far-western hill	96.7	87.6	91.9	0.91	154.3	136.4	145.0	0.88
Eastern terai	88.8	82.1	85.6	0.93	123.6	120.3	122.0	0.97
Central terai	80.0	69.2	74.8	0.86	118.7	111.8	115.4	0.94
Western terai	89.9	83.2	86.8	0.93	145.2	136.9	141.4	0.94
Mid-western terai	96.2	89.2	92.9	0.93	150.0	142.1	146.3	0.95
Far-western terai	91.1	88.7	90.0	0.97	135.9	149.5	142.0	1.10
Wealth quintile								
Lowest	83.6	78.0	80.6	0.93	135.2	124.5	129.6	0.92
Second	85.0	83.5	84.3	0.98	127.8	130.2	129.0	1.02
Middle	92.0	82.1	87.4	0.89	137.4	126.1	132.1	0.92
Fourth	90.4	87.4	89.0	0.97	137.6	138.0	137.8	1.00
Highest	94.7	94.3	94.5	1.00	135.2	144.0	139.2	1.06
Total	88.8	84.2	86.6	0.95	134.5	131.4	133.0	0.98

[1] The NAR for primary school is the percentage of the primary-school age (6-10 years) population that is attending primary 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. 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.

Table 2.13.2 School attendance ratios: Secondary school

Net attendance ratios (NAR) and gross attendance ratios (GAR) for the de facto household population by sex and level of schooling; and the Gender Parity Index (GPI), according to background characteristics, Nepal 2006

Background characteristic	Net attendance ratio[1]				Gross attendance ratio[2]			
	Male	Female	Total	Gender Parity Index[3]	Male	Female	Total	Gender Parity Index[3]
Residence								
Urban	57.5	55.5	56.6	0.97	83.4	88.1	85.6	1.06
Rural	49.2	41.4	45.2	0.84	75.2	63.9	69.3	0.85
Ecological zone								
Mountain	50.7	33.5	42.2	0.66	77.2	49.7	63.5	0.64
Hill	56.3	53.2	54.7	0.95	82.9	79.8	81.3	0.96
Terai	45.4	36.3	40.7	0.80	70.8	58.6	64.5	0.83
Development region								
Eastern	49.8	44.2	46.9	0.89	82.6	75.0	78.6	0.91
Central	45.2	37.0	41.0	0.82	62.0	54.8	58.3	0.88
Western	55.5	47.7	51.5	0.86	80.8	70.3	75.5	0.87
Mid-western	52.5	53.3	52.9	1.01	78.0	75.3	76.6	0.97
Far-western	54.2	40.1	47.1	0.74	92.3	69.7	80.9	0.76
Subregion								
Eastern mountain	50.9	44.9	47.8	0.88	74.9	76.9	76.0	1.03
Central mountain	44.5	47.0	45.7	1.06	68.5	63.5	66.1	0.93
Western mountain	55.1	17.5	36.6	0.32	84.6	24.6	55.0	0.29
Eastern hill	46.6	49.7	48.2	1.07	91.4	85.3	88.2	0.93
Central hill	55.5	50.0	52.8	0.90	75.7	78.3	77.0	1.03
Western hill	66.4	59.0	62.6	0.89	93.3	84.3	88.7	0.90
Mid-western hill	54.4	61.2	58.2	1.13	82.6	86.0	84.5	1.04
Far-western hill	45.7	34.5	40.1	0.75	66.8	46.7	56.8	0.70
Eastern terai	51.1	41.6	46.1	0.81	79.6	69.9	74.6	0.88
Central terai	35.0	24.8	29.5	0.71	46.9	34.1	40.1	0.73
Western terai	39.9	31.6	35.7	0.79	63.4	50.4	56.7	0.80
Mid-western terai	53.4	47.0	50.3	0.88	70.0	66.5	68.3	0.95
Far-western terai	54.6	47.3	50.8	0.87	103.0	87.8	95.2	0.85
Wealth quintile								
Lowest	37.6	25.2	31.2	0.67	53.7	39.0	46.1	0.73
Second	44.7	35.5	39.7	0.79	69.6	52.3	60.2	0.75
Middle	48.8	41.0	45.1	0.84	75.2	68.9	72.2	0.92
Fourth	58.1	53.3	55.7	0.92	91.1	85.3	88.2	0.94
Highest	64.9	65.1	65.0	1.00	95.4	95.2	95.3	1.00
Total	50.4	43.1	46.7	0.86	76.4	66.8	71.5	0.87

[1] The NAR for secondary school is the percentage of the secondary-school age (11-15 years) population that is attending secondary school. By definition the NAR cannot exceed 100 percent.
[2] 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 secondary school is the ratio of the secondary school NAR (GAR) for females to the NAR (GAR) for males.

Tables 2.14.1 and 2.14.2 present data on grade repetition and dropout rates for the household population age 5-24 who attended primary school in the previous school year by school grade, according to background characteristics. The repetition rate is the percentage of students in a given grade in the previous school year repeating that grade in the current school year. Likewise, the dropout rate is the percentage of students in a given grade in the previous school year not attending school. School attendance ratios combined with repetition and dropout rates describe the flow of students in the schooling system.

Table 2.14.1 shows that repetitions rates are higher at lower grades than at higher grades, both for males and females. For example, less than one-tenth of students repeat grade five, whereas about three-tenths repeat grade one.

Table 2.14.2 shows that as the school grade rises, the dropout rate generally increases. Less than 1 percent of children drop out of school after attending grade one compared with a dropout rate of 4 percent at grade five. This represents a rise from a dropout rate of 3 percent at grade five as reported in the 2001 NDHS. One of the contributing factors for school dropouts and suspension of education has been the Maoist insurgency that contributed to the displacement of families.

Repetition among rural children is higher than among urban children at all grade levels. Children from the terai are less likely to repeat a grade at every level, consistent with the findings of the 2001 NDHS.

Tables 2.14.1 and 2.14.2 also indicate that there is an inverse relationship between grade repetition and dropout rates and wealth, with children in lower wealth quintiles more likely to repeat a grade at all levels than other children.

Figure 2.2 shows the percentage of the de jure household population age 5-24 years attending school by age and sex. The age-specific attendance rate indicates participation in school at any level from primary to higher levels of education. The minimum official age for school enrolment in Nepal is five years. The percentage of girls and boys attending school at age five has risen over the years with more than two in three children attending school. This is primarily due to the contribution of school-based pre-primary education. Slightly higher proportions of males than females attend school at every age but this difference is significantly higher after age 13. School attendance drops substantially after age 14 for females and after age 16 for males.

Table 2.14.1 Grade repetition rates

Repetition rates for the de facto household population age 5-24 who attended primary school in the previous school year by school grade, according to background characteristics, Nepal 2006

Background characteristic	School grade				
	1	2	3	4	5
Sex					
Male	27.9	10.5	9.2	9.3	8.8
Female	28.2	10.7	8.4	11.7	7.7
Residence					
Urban	16.5	6.0	8.2	6.5	4.8
Rural	29.2	11.2	8.9	11.1	8.8
Ecological zone					
Mountain	32.5	14.9	11.4	8.4	14.0
Hill	28.7	13.9	10.3	14.4	7.6
Terai	26.8	6.7	7.0	6.4	7.9
Development region					
Eastern	33.1	8.6	9.2	15.5	7.5
Central	22.0	9.2	7.0	8.6	3.5
Western	23.2	17.2	9.2	8.3	10.5
Mid-western	31.8	10.2	13.0	12.6	7.8
Far-western	32.8	7.4	7.3	8.4	14.2
Subregion					
Eastern mountain	23.9	18.6	8.6	16.9	20.3
Central mountain	27.7	13.0	1.7	0.4	13.0
Western mountain	38.6	14.1	20.4	10.2	9.2
Eastern hill	29.7	9.4	9.3	26.8	8.4
Central hill	23.2	16.2	9.4	13.7	2.3
Western hill	23.6	18.6	11.4	7.7	11.7
Mid-western hill	34.3	8.2	10.9	14.3	9.3
Far-western hill	44.6	10.9	10.3	15.1	8.9
Eastern terai	36.0	6.4	9.3	6.5	4.8
Central terai	20.3	2.1	5.1	3.1	2.7
Western terai	22.9	14.9	6.0	9.4	8.2
Mid-western terai	28.8	11.4	12.8	10.9	7.3
Far-western terai	26.4	4.8	3.9	4.9	15.6
Wealth quintile					
Lowest	33.9	19.5	14.6	15.5	13.1
Second	26.4	11.6	9.0	5.7	8.2
Middle	34.3	6.1	9.2	13.7	11.3
Fourth	18.0	10.9	5.3	9.3	6.5
Highest	18.0	3.4	5.9	7.7	2.2
Total	28.0	10.6	8.8	10.4	8.3

Note: The repetition rate is the percentage of students in a given grade in the previous school year who are repeating that grade in the current school year.

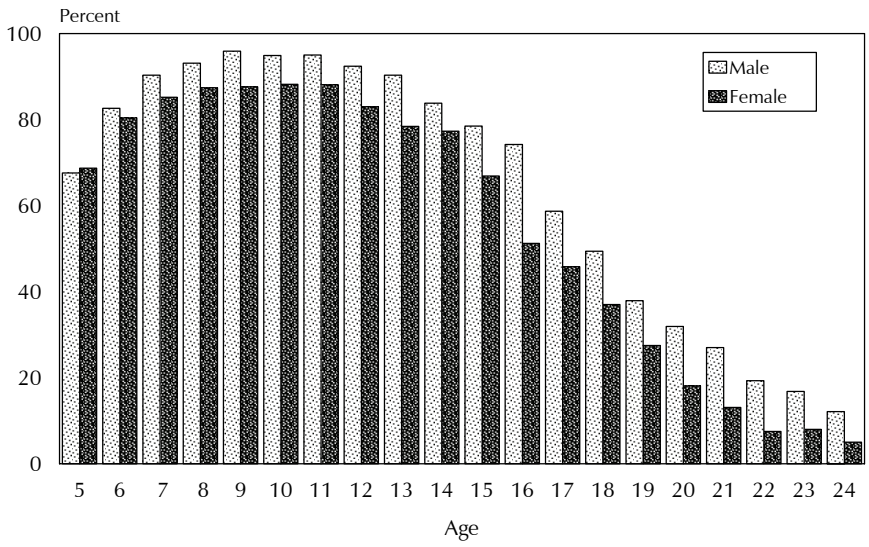
Table 2.14.2 Grade dropout rates

Dropout rates for the de facto household population age 5-24 who attended primary school in the previous school year by school grade, according to background characteristics, Nepal 2006

Background characteristic	School grade				
	1	2	3	4	5
Sex					
Male	0.5	0.5	1.0	2.1	2.6
Female	0.9	0.8	1.1	2.0	5.7
Residence					
Urban	1.8	0.6	1.5	2.3	2.4
Rural	0.6	0.6	1.0	2.0	4.4
Ecological zone					
Mountain	1.1	0.3	5.3	0.3	2.5
Hill	0.4	0.8	0.7	2.6	4.9
Terai	0.9	0.5	0.7	1.7	3.6
Development region					
Eastern	0.4	1.4	1.4	1.7	4.5
Central	1.0	0.2	1.4	3.7	3.7
Western	0.8	0.3	0.3	2.3	5.7
Mid-western	1.0	0.1	2.1	0.0	4.6
Far-western	0.3	1.4	0.0	0.7	2.1
Subregion					
Eastern mountain	0.0	1.1	5.7	1.2	4.0
Central mountain	3.8	0.0	6.5	0.0	1.6
Western mountain	0.0	0.0	4.2	0.0	2.0
Eastern hill	0.3	2.3	2.7	3.9	7.2
Central hill	0.5	0.5	0.7	4.8	3.6
Western hill	0.0	0.0	0.0	1.5	4.1
Mid-western hill	0.9	0.1	0.7	0.0	7.1
Far-western hill	0.8	2.8	0.0	0.0	4.6
Eastern terai	0.5	0.9	0.0	0.0	3.1
Central terai	1.0	0.0	1.4	2.8	4.5
Western terai	2.3	0.8	0.8	3.6	8.2
Mid-western terai	1.3	0.0	2.0	0.0	1.7
Far-western terai	0.2	1.0	0.0	1.1	1.7
Wealth quintile					
Lowest	0.8	0.9	1.3	3.1	9.4
Second	0.8	0.7	1.3	2.7	3.0
Middle	0.4	1.0	1.3	2.2	3.6
Fourth	0.8	0.0	0.4	0.7	4.0
Highest	0.7	0.4	0.8	1.8	1.2
Total	0.7	0.6	1.0	2.1	4.1

Note: The dropout rate is the percentage of students in a given grade in the previous school year who are not attending school in the current school year.

Figure 2.2 **Age-Specific Attendance Rates**



Note: Figure shows percentage of de jure household population age 5-24 years attending school.

NDHS 2006

2.8 BIRTH REGISTRATION

Registration of births refers to the inscription of the birth facts in an official log kept at the registrar's office. Although Nepal has a legal and administrative structure that performs official registration of births according to standard procedures, few births are registered. In other words, the system is not widely practiced in the country although it was implemented 30 years ago. Table 2.15 presents the percentage of the de jure population under five years of age whose births are registered with the civil authorities, according to background characteristics. Birth registration information was solicited for children 0-4 years. More than one in three (35 percent) children have their births registered. The majority of these children have a birth certificate. This finding is consistent with the finding of a nationwide survey conducted in 2000, which revealed that about 34 percent of children less than five years and 22 percent of children less than one year had their births registered (Central Bureau of Statistics, 2001). Although the Tenth Plan aims at registering births of 80 percent of children under age five by 2006, this target is far from being met. This is due to a weak birth registration system coupled with the difficulties encountered in registering births during the Maoist insurgency.

Although the vital registration system of the government requires that a child be registered within 35 days of birth at the respective municipality or VDC, Table 2.15 indicates that children less than 2 years are much less likely to be registered than children age 2-4 years (21 percent and 43 percent, respectively). The registration of older children is primarily driven by the practice of asking parents to produce a child's birth certificate for school admission, although it is not legally required (UNICEF, 2006a). A survey conducted in seven districts in 2003 also indicated similar findings (UNICEF, 2006b).

Table 2.15 shows that children in the urban areas, those living in the terai, and those in the Eastern development region are more likely to have their births registered. Except for the Far-western terai subregion (18 percent), more than two in five children in the rest of the terai subregion have their births registered. Children from the highest wealth quintile are more likely to have their births registered (47 percent) compared with those belonging to the lowest quintile (22 percent).

Table 2.15 Birth registration

Percentage of de jure children under five years of age whose births are registered with the civil authorities, by background characteristics, Nepal 2006

Background characteristic	Percentage of children whose births are registered: Had a birth certificate	Did not have a birth certificate	Total registered	Number of children
Age				
<2	19.9	1.3	21.1	2,046
2-4	40.7	2.6	43.3	3,393
Sex				
Male	33.6	2.4	36.0	2,772
Female	32.1	1.8	33.9	2,667
Residence				
Urban	39.8	2.1	41.9	685
Rural	31.9	2.1	34.0	4,754
Ecological zone				
Mountain	23.0	1.3	24.4	457
Hill	27.5	2.3	29.8	2,239
Terai	38.9	2.1	41.0	2,743
Development region				
Eastern	40.4	2.5	42.9	1,188
Central	38.3	1.3	39.6	1,791
Western	29.0	3.6	32.6	1,033
Mid-western	31.8	2.3	34.2	670
Far-western	14.4	1.0	15.4	757
Subregion				
Eastern mountain	27.7	0.0	27.7	110
Central mountain	28.9	2.5	31.4	88
Western mountain	19.1	1.5	20.6	259
Eastern hill	33.2	2.0	35.1	342
Central hill	35.5	1.2	36.8	707
Western hill	21.2	4.2	25.5	611
Mid-western hill	23.2	2.3	25.4	357
Far-western hill	17.6	0.7	18.3	222
Eastern terai	45.6	3.1	48.8	736
Central terai	41.0	1.3	42.4	996
Western terai	39.9	2.7	42.6	415
Mid-western terai	42.1	2.5	44.6	215
Far-western terai	17.0	1.3	18.3	380
Wealth quintile				
Lowest	19.8	1.8	21.6	1,364
Second	31.3	1.5	32.8	1,152
Middle	36.7	2.6	39.3	1,089
Fourth	38.9	2.4	41.3	993
Highest	44.1	2.6	46.7	841
Total	32.9	2.1	35.0	5,439

CHARACTERISTICS OF RESPONDENTS 3

This chapter describes the demographic and socioeconomic profile of respondents interviewed in the 2006 NDHS. This information is useful in the interpretation of findings and for understanding the results presented later in the report. The survey collected basic information on respondents' age, level of education, marital status, religion, ethnicity, and wealth status. In addition, information was also collected on respondents' exposure to mass media and literacy status, employment status, occupation, and type of earnings. Additional information collected includes knowledge and attitudes concerning tuberculosis, use of tobacco and hand washing practices of women.

For the first time, the 2006 NDHS gathered information from all women and men irrespective of their marital status, in contrast to the 1996 NFHS and 2001 NDHS surveys, which sampled only ever-married women and men. The discussion in this report is therefore with reference to all women and men. However, wherever possible when comparing information with past surveys, the data have been rerun for ever-married women and men to enable comparability between surveys. In addition, unlike the 2001 NDHS, tables in this report show detailed information for men age 15-49 in order to be comparable with characteristics associated with women in the same age group. However, to enable comparisons for men between the 2001 and 2006 surveys, information is also provided for men age 15-59.

Throughout this report, numbers in the tables reflect weighted numbers. In most cases, percentages based on 25 to 49 unweighted cases are shown in parentheses and percentages based on fewer than 25 unweighted cases are suppressed and replaced with an asterisk, to caution readers when interpreting data that a percentage based on fewer than 50 cases may not be statistically reliable.[1]

3.1 CHARACTERISTICS OF SURVEY RESPONDENTS

A description of the background characteristics of the 10,793 women age 15-49 and 4,397 men age 15-59 interviewed in the 2006 NDHS is shown in Table 3.1.

More than half of the respondents (58 percent of women and 54 percent men) are under age 30. In general, the proportion of women and men in each age group declines as age increases, reflecting the comparatively young age structure of the population in Nepal as a result of past high fertility levels.

More than two-thirds of the respondents (77 percent of women and 67 percent of men) are married. The proportion not currently married varies by gender. One in five women has never married compared with one in three men. On the other hand, women are more likely to be divorced, separated, or widowed (4 percent) than men (1 percent).

The place of residence is another characteristic that determines access to services and exposure to information pertaining to reproductive health and other aspects of life. The majority of respondents reside in rural areas, with only 16 percent of women and 19 percent of men residing in urban areas. More than half of the respondents live in the *terai*, two in five live in the hills, and 7 percent of women and 6 percent of men live in the mountains.

[1] For mortality rates, parentheses are used if based on 250 to 499 children exposed to the risk of mortality in any of the component rates, and suppressed if based on fewer than 250 children exposed to the risk of mortality in any of the component rates.

Table 3.1 Background characteristics of respondents

Percent distribution of women and men age 15-49 by selected background characteristics, Nepal 2006

Background characteristic	Women			Men		
	Weighted percent	Weighted number	Unweighted number	Weighted percent	Weighted number	Unweighted number
Age						
15-19	22.6	2,437	2,437	24.4	941	939
20-24	18.5	1,995	2,042	16.4	632	635
25-29	16.4	1,773	1,770	13.6	524	542
30-34	12.4	1,336	1,331	13.0	499	493
35-39	11.3	1,220	1,249	11.5	444	412
40-44	10.4	1,121	1,097	10.8	414	412
45-49	8.4	912	867	10.3	399	409
Marital status						
Never married	19.9	2,149	2,153	31.3	1,207	1,208
Married	76.5	8,257	8,244	67.4	2,598	2,586
Divorced/separated	1.3	144	141	0.9	34	31
Widowed	2.3	243	255	0.4	14	17
Residence						
Urban	15.6	1,687	2,949	19.0	730	1,149
Rural	84.4	9,106	7,844	81.0	3,123	2,693
Ecological zone						
Mountain	7.0	753	1,480	6.2	241	503
Hill	42.6	4,598	4,229	42.6	1,641	1,462
Terai	50.4	5,443	5,084	51.2	1,972	1,877
Development region						
Eastern	22.2	2,392	2,529	22.0	849	896
Central	32.9	3,553	2,739	35.5	1,367	1,010
Western	19.2	2,070	2,105	18.6	716	782
Mid-western	11.6	1,250	1,691	10.8	416	577
Far-western	14.2	1,528	1,729	13.1	506	577
Subregion						
Eastern mountain	1.7	189	541	1.5	59	178
Central mountain	1.9	202	448	1.9	73	146
Western mountain	3.4	362	491	2.8	109	179
Eastern hill	5.8	627	729	5.6	215	256
Central hill	15.9	1,713	1,070	18.7	722	418
Western hill	11.7	1,267	1,078	10.0	387	345
Mid-western hill	6.0	650	733	5.4	210	234
Far-western hill	3.2	341	619	2.8	107	209
Eastern terai	14.6	1,576	1,259	14.9	576	462
Central terai	15.2	1,638	1,221	14.8	571	446
Western terai	7.3	783	971	8.3	320	410
Mid-western terai	4.2	457	738	4.0	155	253
Far-western terai	9.2	989	895	9.1	350	306
Education						
No education	53.1	5,728	5,677	18.4	710	669
Primary	17.6	1,901	1,908	28.1	1,083	1,084
Some secondary	20.6	2,225	2,207	33.2	1,281	1,289
SLC and above	8.7	938	1,001	20.2	779	800
Wealth quintile						
Lowest	18.2	1,961	2,207	16.1	621	697
Second	19.3	2,079	2,005	18.1	696	700
Middle	20.5	2,214	1,974	18.5	714	632
Fourth	20.6	2,226	2,267	22.3	861	854
Highest	21.4	2,313	2,340	24.9	961	959
Religion						
Hindu	85.1	9,187	9,348	84.9	3,272	3,304
Buddhist	8.6	932	821	8.5	329	284
Muslim	3.6	389	330	3.3	127	118
Kirant	1.6	178	188	2.4	91	99
Christian	0.9	98	101	0.9	33	35
Other	0.1	6	4	0.0	2	2
Ethnicity						
Brahmin	12.8	1,377	1,542	12.2	471	538
Chettri	18.5	1,998	2,364	16.9	653	794
Newar	4.2	453	491	4.4	169	161
Gurung	3.0	319	271	2.7	103	84
Magar	6.6	716	721	5.5	212	216
Tamang/Sherpa	6.2	667	614	5.3	205	177
Rai/Limbu	4.6	495	535	4.3	164	178
Muslim/Churaute	3.9	425	369	3.6	137	128
Tharu/Rajbanshi	12.2	1,321	1,044	13.9	535	430
Yadav/Ahir	2.5	267	258	3.1	120	121
Occupational caste	11.6	1,251	1,353	11.6	446	497
Other hill origin	4.4	478	362	5.4	207	142
Other terai origin	9.5	1,025	869	11.2	433	376
Total 15-49	100.0	10,793	10,793	100.0	3,854	3,842
Men 50-59	na	na	na	12.4	543	555
Total men 15-59	na	na	na	100.0	4,397	4,397

Note: Education categories refer to the highest level of education attended, whether or not that level was completed. Total includes 1 woman missing information on religion not shown separately.
na = Not applicable

The distribution of respondents by development region shows that about one-third are from the Central region, one-fifth are from the Eastern and Western regions, and about one in ten are from the Mid-western and Far-western regions. The subregional distribution shows the highest concentration of women and men in the Central hill (16 percent and 19 percent, respectively), followed by the Central terai and Eastern terai (15 percent each for both women and men), and Western hill subregions (12 percent and 10 percent, respectively). In each of the remaining subregions, the proportion of women and men is less than 10 percent.

Education is one of the most influential factors affecting an individual's attitude, knowledge and behavior in various facets of life. Not surprisingly, educational attainment in Nepal is very low among women, who are much more disadvantaged than men. More than half (53 percent) of women compared with less than one in five (18 percent) men do not have any formal education. Eighteen percent of women and 28 percent of men have only reached primary school, 21 percent of women and 33 percent of men have only attended secondary school, and 9 percent of women and 20 percent of men have completed their School Leaving Certificate (SLC) or gone on to higher levels of education.

The distribution of respondents by religious affiliation shows that 85 percent of the respondents are Hindu, 9 percent are Buddhist, and about 4 percent of women and 3 percent of men are Muslim. With respect to ethnic classification, one in five respondents are Chettris, while 12 to 14 percent of women and men belong to the Tharu/Rajbansi, Brahmin or occupational caste groups. While there are more than 100 ethnic and caste groups in Nepal (Central Bureau of Statistics, 2003), most are small in number and, therefore, are not shown separately. They are grouped under the category "Other hill origin" and "Other terai origin."

3.2 Educational Attainment and Literacy

Tables 3.2.1 and 3.2.2 show the distribution of respondents by educational attainment, according to background characteristics. More than one in two (53 percent) women age 15-49 have never been to school, 12 percent have only some primary education, 5 percent have completed primary, 21 percent have only some secondary education, and less than 10 percent have completed secondary or higher level of education. Women who are older and reside in rural areas are more likely to have no education. The urban-rural difference in the level of education is pronounced at the secondary or higher levels. For example, four times as many women in urban areas as in rural areas have completed secondary or higher level of education (24 percent and 6 percent, respectively). Respondents from the hills are most likely to have formal education and are more highly educated than respondents from the terai and mountains. Regarding regional differentials in educational attainment, women in the Far-western region have the highest proportion with no education (62 percent), while the lowest proportion live in the Western region, where 42 percent of women have never received formal education. Among subregions, nearly three in four (73 percent) women living in the Western mountain subregion have no education, compared with more than three in ten (34 percent) women living in the Western hill.

Educational attainment is directly related to the economic status of respondents. An analysis of education by wealth quintile indicates that women in the highest wealth quintile are most likely to complete secondary or higher level of education. For example, 27 percent of women in the highest wealth quintile have completed secondary or higher level of education, compared with just 1 percent of women in the lowest wealth quintile.

A similar pattern in educational attainment is found among men (Table 3.2.2). However, men are more educated than women in all categories. One in five men has never been in formal schooling, one in five has only some primary education, one in thirteen has completed primary, one in three has only some secondary education, and one in five men has completed secondary or higher education. Only 6 percent of men in the highest quintile have never attended school, compared with 30 percent of men in the lowest quintile. Surprisingly, a higher proportion of men in the Central region have never attended formal education compared with men from other regions.

Table 3.2.1 Educational attainment: Women

Percent distribution of women age 15-49 by highest level of schooling attended or completed, according to background characteristics, Nepal 2006

Background characteristic	Highest level of schooling: No education	Some primary	Completed primary[1]	Some secondary	Completed secondary[2]	More than secondary	Total	Number of women
Age								
15-24	27.8	15.6	8.2	36.2	6.1	6.1	100.0	4,431
15-19	21.0	15.5	9.8	44.2	5.6	3.9	100.0	2,437
20-24	36.1	15.7	6.2	26.5	6.6	8.8	100.0	1,995
25-29	54.8	12.1	5.5	16.4	6.0	5.2	100.0	1,773
30-34	61.5	13.5	4.3	13.0	4.8	2.9	100.0	1,336
35-39	76.0	9.7	2.8	7.2	2.9	1.3	100.0	1,220
40-44	85.6	5.7	1.5	3.6	1.8	1.7	100.0	1,121
45-49	89.7	6.0	0.8	2.9	0.4	0.4	100.0	912
Residence								
Urban	30.5	11.9	5.5	27.8	11.5	12.9	100.0	1,687
Rural	57.3	12.3	5.3	19.3	3.4	2.4	100.0	9,106
Ecological zone								
Mountain	61.9	13.0	6.1	14.6	2.0	2.4	100.0	753
Hill	44.3	14.7	6.4	23.0	5.9	5.6	100.0	4,598
Terai	59.2	10.1	4.3	19.4	3.9	3.0	100.0	5,443
Development region								
Eastern	49.7	13.0	4.6	23.7	4.9	4.1	100.0	2,392
Central	55.8	12.8	4.0	16.3	5.9	5.2	100.0	3,553
Western	42.4	14.0	7.7	26.8	4.4	4.8	100.0	2,070
Mid-western	58.4	11.5	5.1	18.1	4.1	2.8	100.0	1,250
Far-western	62.3	8.2	6.7	19.4	2.0	1.4	100.0	1,528
Subregion								
Eastern mountain	40.1	17.1	8.1	26.5	2.8	5.5	100.0	189
Central mountain	63.3	14.0	4.5	13.8	2.5	1.8	100.0	202
Western mountain	72.6	10.2	6.0	8.8	1.4	1.1	100.0	362
Eastern hill	42.0	16.7	6.0	24.4	5.5	5.5	100.0	627
Central hill	43.2	15.4	5.2	19.9	8.1	8.2	100.0	1,713
Western hill	34.1	15.3	8.7	31.7	5.2	4.9	100.0	1,267
Mid-western hill	56.9	12.4	4.0	19.9	4.3	2.6	100.0	650
Far-western hill	68.6	9.8	9.4	9.4	1.5	1.3	100.0	341
Eastern terai	53.9	11.0	3.6	23.1	4.9	3.4	100.0	1,576
Central terai	68.0	10.0	2.7	12.8	4.1	2.5	100.0	1,638
Western terai	55.5	11.8	5.7	19.4	3.1	4.6	100.0	783
Mid-western terai	53.5	11.3	6.5	19.8	4.9	4.0	100.0	457
Far-western terai	58.9	7.0	6.0	24.4	2.2	1.5	100.0	989
Wealth quintile								
Lowest	70.4	12.0	5.3	11.0	0.6	0.7	100.0	1,961
Second	65.2	13.5	5.4	14.2	1.3	0.4	100.0	2,079
Middle	63.3	11.8	5.5	16.8	1.6	1.1	100.0	2,214
Fourth	45.4	13.1	5.9	27.3	5.1	3.3	100.0	2,226
Highest	25.2	11.2	4.6	31.7	13.4	13.9	100.0	2,313
Total	53.1	12.3	5.3	20.6	4.6	4.1	100.0	10,793

Note: Median years of schooling was not calculated for women because in most categories less than 50 percent have ever attended school.

[1] Completed grade 5 at the primary level

[2] Completed grade 10 at the secondary level

Table 3.2.2 Educational attainment: Men

Percent distribution of men age 15-49 by highest level of schooling attended or completed, and median years of schooling completed, according to background characteristics, Nepal 2006

Background characteristic	Highest level of schooling						Total	Number of men	Median years of schooling
	No education	Some primary	Completed primary[1]	Some secondary	Completed secondary[2]	More than secondary			
Age									
15-24	6.3	14.8	9.5	47.6	8.9	12.9	100.0	1,573	7.0
15-19	4.5	14.2	10.2	54.5	8.0	8.6	100.0	941	6.9
20-24	9.0	15.7	8.4	37.3	10.2	19.4	100.0	632	7.1
25-29	17.5	19.8	8.1	31.6	6.5	16.4	100.0	524	5.9
30-34	20.1	26.3	6.9	25.7	7.1	13.9	100.0	499	4.5
35-39	30.4	21.9	6.1	21.7	8.8	11.1	100.0	444	3.6
40-44	33.8	25.5	5.5	17.9	8.8	8.6	100.0	414	2.1
45-49	36.1	26.1	8.2	16.9	5.7	7.0	100.0	399	1.8
Residence									
Urban	10.6	15.0	5.0	28.8	11.8	28.8	100.0	730	8.2
Rural	20.3	21.3	8.7	34.3	7.1	8.4	100.0	3,123	5.0
Ecological zone									
Mountain	22.3	22.5	8.6	34.5	6.0	6.3	100.0	241	4.6
Hill	12.2	19.6	7.1	36.1	8.6	16.4	100.0	1,641	6.6
Terai	23.1	20.2	8.7	30.8	7.7	9.5	100.0	1,972	4.8
Development region									
Eastern	19.1	20.3	9.4	33.8	7.9	9.6	100.0	849	5.2
Central	21.5	20.3	5.9	26.5	9.5	16.3	100.0	1,367	5.4
Western	12.9	19.7	8.5	38.8	7.9	12.2	100.0	716	6.3
Mid-western	16.1	23.7	7.9	32.9	7.8	11.5	100.0	416	5.4
Far-western	18.6	17.0	10.7	43.1	4.3	6.4	100.0	506	5.5
Subregion									
Eastern mountain	13.1	29.8	10.2	32.2	6.8	7.8	100.0	59	4.7
Central mountain	29.0	22.1	9.4	29.4	2.9	7.3	100.0	73	3.8
Western mountain	22.7	18.8	7.2	39.1	7.5	4.8	100.0	109	5.2
Eastern hill	14.3	18.8	9.3	42.3	5.7	9.6	100.0	215	6.2
Central hill	13.5	19.9	5.0	30.1	10.0	21.6	100.0	722	6.9
Western hill	8.9	16.5	8.7	43.0	9.5	13.3	100.0	387	7.1
Mid-western hill	13.2	24.8	6.0	33.5	7.3	15.2	100.0	210	6.0
Far-western hill	9.8	20.6	13.5	43.7	3.8	8.6	100.0	107	5.8
Eastern terai	21.5	19.8	9.3	30.7	8.9	9.8	100.0	576	4.9
Central terai	30.8	20.5	6.8	21.6	9.7	10.6	100.0	571	3.8
Western terai	17.7	22.8	7.6	34.7	6.2	11.0	100.0	320	5.3
Mid-western terai	18.1	23.7	11.6	31.7	7.1	7.9	100.0	155	4.7
Far-western terai	20.4	16.4	10.6	41.8	4.4	6.4	100.0	350	5.4
Wealth quintile									
Lowest	30.3	29.6	8.4	28.4	2.3	1.0	100.0	621	2.6
Second	25.5	25.3	9.1	33.1	4.7	2.2	100.0	696	3.9
Middle	22.2	22.3	14.3	31.6	5.0	4.7	100.0	714	4.4
Fourth	14.7	17.1	7.0	40.9	8.7	11.7	100.0	861	6.6
Highest	6.2	11.3	3.3	30.9	15.6	32.8	100.0	961	8.9
Total 15-49	18.4	20.1	8.0	33.2	8.0	12.2	100.0	3,854	5.6
Men 50-59	43.2	25.7	7.8	14.1	4.7	4.5	100.0	543	1.0
Total 15-59	21.5	20.8	8.0	30.9	7.6	11.3	100.0	4,397	5.0

[1] Completed grade at 5 the primary level
[2] Completed grade 10 at the secondary level

The median grade of schooling among those who have attended formal school is six years for men. The median for women is not shown because more than 50 percent of women in most of the categories have no education and, therefore, the overall median for women is less than one year.

Literacy is widely acknowledged as benefiting the individual and the society and is associated with a number of positive outcomes for health, nutrition, and the overall well-being of both men and women. In the 2006 NDHS, literacy was determined by the respondents' ability to read all or part of a sentence. During data collection, interviewers carried a set of cards on which simple sentences were printed in five of the major languages for testing a respondent's reading ability. Only those who had never been to school and those who had not completed primary level were asked to read the cards in the language they were most likely able to read. Those who had attended secondary school or higher education were assumed to be literate.

Table 3.3.1 indicates that more than half of women in Nepal (55 percent) are literate. The literacy status varies by place of residence. Three-fourths of women residing in urban areas are literate compared with only half of their rural counterparts. The level of literacy by age shows a consistent decrease with increasing age. This suggests that the younger generations have had more opportunity for learning than the older generations. Four in five women age 15-19 are literate compared with only about one in five women age 45-49. A higher proportion of women (63 percent) living in the hills are literate, compared with those living in the mountain and terai zones (46 percent and 48 percent, respectively).

Regional and subregional differences in literacy are notable, with literacy being highest among women in the Western region (65 percent) and lowest in the Far-western region (48 percent). The percentage of literate women is highest in the Western hill subregion (71 percent) and lowest in Central terai, Far-western hill, and Western mountain subregions (35 percent each). There is also a significant difference in literacy levels by women's wealth status, ranging from a low of 37 percent among women in the lowest wealth quintile to a high of 81 percent among women in the highest wealth quintile. This reaffirms the positive association between economic status and literacy.

Men are more likely to be literate than women (Table 3.3.2). Four-fifths of Nepalese men age 15-59 are literate. The gap in urban-rural literacy among men is smaller than that among women, suggesting that men in rural areas are better able to access learning than women. Men in the Western and Mid-western development regions are more likely to be literate than those in other development regions. Nearly all men (96 percent) in the highest wealth quintile are literate.

There has been a notable increase in educational attainment and literacy over the last five years among both ever-married men and women. For example, ever-married women attending secondary school or higher education increased by 55 percent, from 13 percent in 2001 to 21 percent in 2006. At the same time, the percentage of ever-married women who are literate increased by 32 percent, from 35 percent in 2001 to 47 percent in 2006. Literacy among ever-married men rose from 70 percent to 73 percent during the same time period.

Table 3.3.1 Literacy: Women

Percent distribution of women age 15-49 by level of schooling attended and level of literacy, and percentage literate, according to background characteristics, Nepal 2006

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	53.6	20.1	5.9	20.3	0.0	0.0	0.0	100.0	79.7	2,437
20-24	42.0	19.3	8.5	30.2	0.0	0.0	0.0	100.0	69.8	1,995
25-29	27.6	17.6	9.2	45.6	0.0	0.0	0.0	100.0	54.4	1,773
30-34	20.7	16.2	12.4	50.4	0.3	0.0	0.0	100.0	49.3	1,336
35-39	11.4	14.7	12.1	61.4	0.3	0.0	0.0	100.0	38.3	1,220
40-44	7.2	9.8	9.3	73.6	0.0	0.1	0.0	100.0	26.2	1,121
45-49	3.6	7.8	6.9	81.3	0.0	0.1	0.2	100.0	18.4	912
Residence										
Urban	52.1	16.6	7.1	24.2	0.0	0.0	0.0	100.0	75.8	1,687
Rural	25.1	16.3	9.2	49.3	0.1	0.0	0.0	100.0	50.6	9,106
Ecological zone										
Mountain	19.0	15.4	12.1	53.6	0.0	0.0	0.0	100.0	46.4	753
Hill	34.5	20.2	8.6	36.4	0.2	0.0	0.0	100.0	63.4	4,598
Terai	26.3	13.2	8.6	51.8	0.0	0.0	0.0	100.0	48.2	5,443
Development region										
Eastern	32.7	16.4	6.7	44.1	0.0	0.1	0.0	100.0	55.9	2,392
Central	27.4	14.7	8.3	49.3	0.2	0.0	0.0	100.0	50.5	3,553
Western	35.9	20.1	8.5	35.3	0.0	0.0	0.1	100.0	64.6	2,070
Mid-western	25.0	15.9	13.7	45.3	0.0	0.1	0.0	100.0	54.7	1,250
Far-western	22.9	15.1	10.1	51.9	0.0	0.0	0.0	100.0	48.1	1,528
Subregion										
Eastern mountain	34.7	25.8	6.5	33.0	0.0	0.0	0.0	100.0	67.0	189
Central mountain	18.2	16.7	12.7	52.4	0.0	0.0	0.0	100.0	47.6	202
Western mountain	11.3	9.2	14.6	64.9	0.0	0.0	0.0	100.0	35.1	362
Eastern hill	35.4	23.7	8.0	32.9	0.0	0.0	0.0	100.0	67.1	627
Central hill	36.2	20.9	8.7	33.7	0.5	0.0	0.0	100.0	65.9	1,713
Western hill	41.8	21.9	7.3	28.9	0.0	0.0	0.1	100.0	71.0	1,267
Mid-western hill	26.7	14.6	11.8	46.8	0.0	0.0	0.0	100.0	53.2	650
Far-western hill	12.2	14.1	8.7	65.0	0.0	0.1	0.0	100.0	34.9	341
Eastern terai	31.4	12.4	6.2	49.8	0.0	0.1	0.0	100.0	50.1	1,576
Central terai	19.4	8.0	7.3	65.3	0.0	0.0	0.0	100.0	34.7	1,638
Western terai	27.0	17.2	10.8	45.0	0.0	0.0	0.0	100.0	55.0	783
Mid-western terai	28.6	20.4	12.9	37.9	0.0	0.2	0.0	100.0	61.9	457
Far-western terai	28.1	16.6	11.0	44.3	0.0	0.0	0.0	100.0	55.7	989
Wealth quintile										
Lowest	12.4	14.8	9.5	63.2	0.0	0.0	0.1	100.0	36.7	1,961
Second	15.9	17.2	9.5	57.4	0.0	0.0	0.0	100.0	42.6	2,079
Middle	19.5	16.3	10.1	54.0	0.0	0.1	0.0	100.0	45.9	2,214
Fourth	35.6	17.9	8.5	38.0	0.0	0.0	0.0	100.0	62.0	2,226
Highest	59.0	15.3	7.0	18.3	0.3	0.0	0.0	100.0	81.4	2,313
Total	29.3	16.3	8.9	45.4	0.1	0.0	0.0	100.0	54.5	10,793

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

Table 3.3.2 Literacy: Men

Percent distribution of men age 15-49 by level of schooling attended and level of literacy, and percentage literate, according to background characteristics, Nepal 2006

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	Total	Percent-age literate[1]	Number
Age									
15-19	71.2	16.8	4.0	7.9	0.1	0.0	100.0	91.9	941
20-24	66.9	17.3	5.3	10.5	0.0	0.0	100.0	89.5	632
25-29	54.6	21.8	5.0	18.7	0.0	0.0	100.0	81.3	524
30-34	46.7	22.9	10.7	19.7	0.0	0.0	100.0	80.3	499
35-39	41.6	22.8	7.0	28.6	0.0	0.0	100.0	71.4	444
40-44	35.3	20.2	13.6	30.5	0.0	0.4	100.0	69.1	414
45-49	29.6	25.9	9.9	34.3	0.0	0.3	100.0	65.4	399
Residence									
Urban	69.4	15.9	4.8	9.7	0.0	0.1	100.0	90.1	730
Rural	49.7	21.4	7.8	21.0	0.0	0.1	100.0	78.9	3,123
Ecological zone									
Mountain	46.7	23.5	7.6	22.1	0.0	0.0	100.0	77.9	241
Hill	61.0	21.5	6.0	11.3	0.1	0.0	100.0	88.6	1,641
Terai	48.0	19.0	8.1	24.8	0.0	0.1	100.0	75.1	1,972
Development region									
Eastern	51.3	21.2	6.6	20.4	0.2	0.3	100.0	79.1	849
Central	52.2	19.0	6.5	22.3	0.0	0.0	100.0	77.7	1,367
Western	58.9	22.7	5.5	13.0	0.0	0.0	100.0	87.0	716
Mid-western	52.3	23.4	11.6	12.7	0.0	0.0	100.0	87.3	416
Far-western	53.7	16.6	9.1	20.6	0.0	0.0	100.0	79.4	506
Subregion									
Eastern mountain	46.9	30.1	9.3	13.7	0.0	0.0	100.0	86.3	59
Central mountain	39.6	31.2	6.0	23.2	0.0	0.0	100.0	76.8	73
Western mountain	51.4	14.9	7.8	25.9	0.0	0.0	100.0	74.1	109
Eastern hill	57.6	21.6	3.9	16.3	0.6	0.0	100.0	83.1	215
Central hill	61.7	20.0	6.7	11.6	0.0	0.0	100.0	88.4	722
Western hill	65.8	22.4	2.4	9.4	0.0	0.0	100.0	90.6	387
Mid-western hill	56.0	22.2	13.8	8.0	0.0	0.0	100.0	92.0	210
Far-western hill	56.1	27.4	3.5	13.0	0.0	0.0	100.0	87.0	107
Eastern terai	49.4	20.2	7.3	22.6	0.0	0.5	100.0	76.9	576
Central terai	41.9	16.2	6.1	35.7	0.0	0.0	100.0	64.3	571
Western terai	51.9	22.1	9.0	17.0	0.0	0.0	100.0	83.0	320
Mid-western terai	46.7	28.4	10.4	14.5	0.0	0.0	100.0	85.5	155
Far-western terai	52.5	14.4	10.8	22.2	0.0	0.0	100.0	77.8	350
Wealth quintile									
Lowest	31.7	24.1	11.7	32.5	0.0	0.0	100.0	67.5	621
Second	40.1	23.6	8.1	28.3	0.0	0.0	100.0	71.7	696
Middle	41.3	26.3	9.9	22.4	0.2	0.0	100.0	77.4	714
Fourth	61.3	18.7	5.0	14.9	0.0	0.1	100.0	85.0	861
Highest	79.2	12.6	3.7	4.3	0.0	0.2	100.0	95.6	961
Total 15-49	53.5	20.3	7.2	18.9	0.0	0.1	100.0	81.0	3,854
Men 50-59	23.3	28.3	10.9	37.3	0.0	0.2	100.0	62.5	543
Total 15-59	49.7	21.3	7.7	21.2	0.0	0.1	100.0	78.7	4,397

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

3.3 ACCESS TO MASS MEDIA

Access to information through the media is essential to increasing people's knowledge and awareness of what is taking place around them, which may eventually affect their perceptions and behavior. In the 2006 NDHS, exposure to media was assessed by asking respondents if they listened to a radio, watched television, or read newspapers or magazines at least once a week. This information is useful for program managers and planners in determining which media may be more effective for disseminating health information to targeted audiences. The detailed results are presented in Tables 3.4.1 and 3.4.2 by background characteristics.

Table 3.4.1 Exposure to mass media: Women

Percentage of women age 15-49 who are exposed to specific media on a weekly basis, by background characteristics, Nepal 2006

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	15.3	44.8	72.3	11.7	20.0	2,437
20-24	15.3	44.9	65.6	12.2	24.7	1,995
25-29	10.4	38.9	57.5	8.1	31.1	1,773
30-34	8.5	35.8	59.9	6.9	30.1	1,336
35-39	5.0	30.3	53.6	3.7	37.3	1,220
40-44	4.5	28.9	47.9	3.1	41.8	1,121
45-49	2.6	29.2	48.8	1.7	41.6	912
Residence						
Urban	34.6	78.7	66.2	28.2	12.2	1,687
Rural	5.8	30.6	59.4	4.2	33.3	9,106
Ecological zone						
Mountain	3.1	11.0	52.2	1.7	45.9	753
Hill	13.4	39.4	65.6	10.1	23.9	4,598
Terai	8.7	40.8	57.3	7.1	33.0	5,443
Development region						
Eastern	11.6	42.5	63.4	9.9	28.3	2,392
Central	14.7	48.4	56.0	11.1	29.8	3,553
Western	8.2	37.9	63.8	6.6	27.3	2,070
Mid-western	5.5	22.9	71.7	4.2	25.2	1,250
Far-western	4.7	20.0	52.6	2.7	40.5	1,528
Subregion						
Eastern mountain	3.4	10.8	61.3	1.4	38.1	189
Central mountain	7.2	21.3	67.9	4.7	28.5	202
Western mountain	0.6	5.4	38.8	0.2	59.6	362
Eastern hill	11.0	28.8	79.7	8.7	18.7	627
Central hill	23.8	63.1	60.9	17.6	18.9	1,713
Western hill	8.9	32.7	67.1	6.8	24.4	1,267
Mid-western hill	3.3	18.6	72.3	2.9	25.2	650
Far-western hill	1.8	4.2	44.7	0.8	54.0	341
Eastern terai	12.9	51.8	57.1	11.3	31.0	1,576
Central terai	6.2	36.4	49.3	5.1	41.4	1,638
Western terai	7.2	47.0	59.5	6.3	30.9	783
Mid-western terai	10.0	33.0	77.9	7.3	17.8	457
Far-western terai	6.7	29.2	59.4	3.8	30.6	989
Education						
No education	0.4	22.4	45.6	0.2	46.1	5,728
Primary	3.6	40.8	68.6	2.7	21.3	1,901
Some secondary	21.3	58.7	81.8	16.5	7.6	2,225
SLC and above	58.1	79.8	84.0	46.1	2.3	938
Wealth quintile						
Lowest	0.8	3.4	46.1	0.2	52.8	1,961
Second	1.6	12.5	52.6	0.9	44.1	2,079
Middle	2.5	25.3	58.4	1.6	35.1	2,214
Fourth	9.7	56.0	70.0	7.4	17.3	2,226
Highest	34.2	85.6	72.6	27.6	5.3	2,313
Total	10.3	38.1	60.5	8.0	30.0	10,793

Media exposure in Nepal is relatively high with men much more likely than women to be exposed to any of the three specified types of mass media. More than three-fifths of women and four-fifths of men are exposed to at least one type of media, with exposure to the radio being the highest. Two-fifths of women and men watch television at least once a week. Exposure to the print media is relatively lower with only one in ten women and three in ten men reporting that they read a newspaper or magazine at least once a week. Eight percent of women and 22 percent of men are exposed to all three media, and 30 percent of women and 17 percent of men are not exposed to any of the three media.

Table 3.4.2 Exposure to mass media: Men

Percentage of men age 15-49 who are exposed to specific media on a weekly basis, by background characteristics, Nepal 2006

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	35.2	53.7	81.7	24.7	11.6	941
20-24	42.5	53.1	82.8	32.2	12.7	632
25-29	31.7	51.3	78.5	26.2	15.3	524
30-34	34.1	44.2	77.1	22.2	16.4	499
35-39	25.1	33.8	73.0	14.7	21.8	444
40-44	18.7	29.4	73.0	12.2	22.4	414
45-49	21.8	31.7	70.1	14.3	23.8	399
Residence						
Urban	63.6	79.0	82.6	50.0	5.9	730
Rural	23.9	36.9	76.6	15.8	19.0	3,123
Ecological zone						
Mountain	20.7	16.0	86.9	8.1	11.4	241
Hill	42.4	48.4	85.7	28.8	7.9	1,641
Terai	23.7	45.4	70.0	18.5	24.3	1,972
Development region						
Eastern	31.4	53.6	82.1	23.6	13.3	849
Central	38.5	55.5	77.0	29.0	14.8	1,367
Western	30.0	45.1	84.2	20.7	10.6	716
Mid-western	28.2	22.3	83.8	14.5	13.6	416
Far-western	17.1	19.5	58.1	10.3	37.3	506
Subregion						
Eastern mountain	25.9	21.5	87.6	13.4	12.4	59
Central mountain	30.0	25.5	86.6	13.0	9.7	73
Western mountain	11.6	6.5	86.7	2.0	11.9	109
Eastern hill	30.6	35.6	93.0	16.1	4.8	215
Central hill	55.9	71.7	82.6	43.3	7.6	722
Western hill	35.9	37.7	84.9	21.4	9.4	387
Mid-western hill	34.0	20.1	87.9	16.2	9.2	210
Far-western hill	14.8	11.1	90.4	7.9	9.0	107
Eastern terai	32.3	63.6	77.5	27.4	16.5	576
Central terai	17.6	38.9	68.8	12.9	24.5	571
Western terai	23.4	54.0	83.5	20.2	11.9	320
Mid-western terai	23.8	30.6	79.0	16.3	18.7	155
Far-western terai	19.4	24.7	43.0	12.3	50.4	350
Education						
No education	2.5	22.2	56.2	1.9	37.9	710
Primary	11.5	34.2	76.5	7.7	19.1	1,083
Some secondary	36.9	48.4	83.3	24.8	11.2	1,281
SLC and above	76.5	74.4	89.9	56.8	2.2	779
Wealth quintile						
Lowest	5.1	6.9	70.4	1.9	28.5	621
Second	12.4	19.0	68.7	4.9	27.9	696
Middle	16.0	30.5	72.2	9.3	23.3	714
Fourth	36.4	61.1	85.4	27.1	8.9	861
Highest	69.3	84.1	86.2	53.2	2.2	961
Total 15-49	31.4	44.9	77.7	22.2	16.5	3,854
Men 50-59	15.4	31.1	65.1	11.0	29.1	543
Total 15-59	29.5	43.1	76.2	20.9	18.1	4,397

Young women under 25 years of age are more likely to be exposed to the mass media than older women, presumably in part because of their higher level of education. There is also a wide gap in exposure to mass media by place of residence. For example, the proportion of newspaper readers is significantly higher among urban women (35 percent) than among their rural counterparts (6 percent). Not surprisingly, media exposure is highly related to the educational level as well as economic status of the respondent. Exposure to mass media is highest among women with secondary or higher level of education and those who are in the highest wealth quintile. The lower level of exposure to media among poor respondents may be because they are less likely to own a radio or television and, therefore, are less likely to be consistently exposed to these media sources.

Women residing in the Central region are more likely to be exposed to most of the three media on a weekly basis than women in the other regions. The proportions of newspapers readers and television viewers are highest among women in the Central hill subregion. Access to mass media among women is lowest in the mountains, the Far-western region and the Western mountain subregion. A similar pattern is seen among men with regards to media exposure by background characteristics.

There has been considerable improvement in respondents' exposure to the electronic media over the last five years. The proportion of ever-married women who watch television at least once a week has increased by 49 percent, from 23 percent in 2001 to 35 percent in 2006, while the proportion among ever-married men rose from 34 percent to 37 percent. On the other hand, there was little change in exposure to the print media.

3.3.1 Access to Specific Radio and Television Programs

Dissemination of health information through the electronic media and especially through the radio is not new in Nepal. The National Health Education, Information and Communication Center (NHEICC), USAID, UNICEF, and other organizations have launched several different radio and television programs to raise awareness about life in general and health in particular. Information on the exposure to several specific radio programs was collected in the 2006 NDHS. These are *Janaswasthya radio karyakram, Sewa nai dharma ho, Gyan nai shakti ho, Hamro swasthya radio karyakram, Ek apaas ka kura, Sathi sanga manka kura, and Desh pardesh.* Information was also collected on respondents' exposure to two television programs: *Jeevan chakra* and *Teli-swasthya karyakram.* Tables 3.5.1 and Table 3.5.2 show the percentage of men and women who have heard or seen such programs.

About six in ten men (58 percent) and nearly one out of two women (47 percent) age 15-49 listened to the *Sathi sanga manka kura* radio program. About 20-30 percent of women and about 30-40 percent of men were exposed to each of the other radio programs. Men were only slightly more likely than women to be exposed to the two programs on the television.

Sathi sanga manka kura is the most popular radio program among young listeners, with nearly three-fourths of men and just over two-thirds of women in the age group 15-19 listening to this program. Exposure to specific radio and television programs decreases with age among women. Young men are more likely to view television programs than older men.

Urban women are more likely than rural women to access both radio and television programs, whereas men in rural areas are more likely to listen to the specific radio programs in contrast to urban men who are more likely to watch the two television programs. Women in the mountain, Far-western region and Far-western hill subregions are least likely to be exposed to the specific television programs. A similar pattern is observed among men with regards to the specific health programs on television.

Not surprisingly, level of education and economic status are directly associated with exposure to the specific health programs. Respondents who are highly educated and come from the wealthiest households are more likely to have heard or seen these programs.

Table 3.5.1 Exposure to specific health programs on radio and television: Women

Percentage of women age 15-49 who have heard or seen specific health programs on the radio and television, by background characteristics, Nepal 2006

Background characteristic	Janaswasthya radio karyakram	Sewa nai dharma ho	Gyan nai shakti ho	Hamro swasthya radio karyakram	Ek apaas ka kura	Sathi sanga manka kura	Desh pardesh	Jeevan chakra	Teli-swasthya karyakram	Number
Age										
15-19	36.1	32.9	26.7	35.4	39.7	66.3	27.1	31.1	18.6	2,437
20-24	33.6	30.2	23.0	32.6	32.2	56.8	22.0	30.7	20.2	1,995
25-29	27.7	24.2	16.3	23.9	25.4	42.6	18.5	23.1	13.5	1,773
30-34	31.2	26.9	18.5	26.7	23.9	42.0	17.3	24.9	14.7	1,336
35-39	23.6	24.6	18.7	24.4	20.0	35.9	16.5	16.9	9.7	1,220
40-44	20.5	20.7	15.2	19.0	15.5	28.1	13.1	15.7	6.7	1,121
45-49	18.3	17.9	14.6	18.8	13.3	26.7	12.1	15.1	7.5	912
Residence										
Urban	34.7	34.8	22.2	33.5	33.9	55.4	21.4	45.9	32.2	1,687
Rural	28.1	25.2	19.8	26.5	25.8	45.3	19.3	20.4	11.1	9,106
Ecological zone										
Mountain	31.2	25.1	17.6	26.7	23.8	41.7	18.5	8.4	4.4	753
Hill	34.8	32.6	22.1	36.5	34.2	59.3	26.0	29.1	17.1	4,598
Terai	24.1	22.0	18.9	20.1	21.4	37.1	14.4	22.7	13.5	5,443
Region										
Eastern	34.6	32.8	23.8	35.2	35.4	56.5	25.3	32.4	17.7	2,392
Central	24.4	23.0	17.6	23.7	20.7	41.0	16.5	28.6	18.4	3,553
Western	29.7	29.0	21.4	30.5	34.2	54.5	22.9	25.9	13.9	2,070
Mid-western	35.9	32.1	24.1	35.1	33.6	58.3	23.7	15.1	9.5	1,250
Far-western	25.3	18.5	15.7	14.4	13.4	25.9	10.1	7.8	4.6	1,528
Subregion										
Eastern mountain	40.7	37.8	24.3	37.9	34.5	63.2	36.2	4.3	1.4	189
Central mountain	41.1	33.6	26.1	34.3	32.8	58.7	27.6	17.7	12.1	202
Western mountain	20.8	13.6	9.3	16.6	13.2	21.0	4.2	5.2	1.8	362
Eastern hill	48.9	45.5	31.4	58.4	47.3	76.6	39.6	28.1	12.3	627
Central hill	30.6	28.7	18.7	31.9	28.1	56.0	21.7	46.2	28.9	1,713
Western hill	35.0	35.9	25.2	36.1	40.4	63.5	29.1	22.4	12.5	1,267
Mid-western hill	38.9	35.8	23.8	39.5	37.8	63.2	26.8	11.7	8.1	650
Far-western hill	21.1	9.8	7.5	15.2	11.4	21.9	9.2	2.6	0.8	341
Eastern terai	28.2	27.1	20.7	25.6	30.8	47.8	18.3	37.5	21.7	1,576
Central terai	15.7	15.7	15.4	13.9	11.6	23.2	9.8	11.5	8.2	1,638
Western terai	21.7	18.4	15.7	22.2	24.8	40.8	13.3	31.9	16.6	783
Mid-western terai	33.3	29.7	27.6	31.4	29.3	58.2	24.3	20.9	13.1	457
Far-western terai	28.9	23.8	20.4	15.0	16.1	30.4	12.2	11.2	6.9	989
Education										
No education	17.4	13.7	10.5	14.9	12.2	26.2	10.0	11.1	4.1	5,728
Primary	31.5	29.2	23.9	32.1	31.9	57.7	23.7	27.6	13.2	1,901
Some secondary	47.9	47.1	36.6	46.2	51.9	77.9	34.7	41.9	28.0	2,225
SLC and above	51.7	53.1	32.5	51.1	48.8	77.6	34.7	58.1	47.2	938
Wealth quintile										
Lowest	22.1	16.4	12.8	22.4	18.7	36.2	16.6	4.5	1.9	1,961
Second	24.6	20.7	16.9	21.5	20.7	37.7	15.9	7.3	3.0	2,079
Middle	26.2	22.4	19.0	21.5	22.7	39.7	16.8	13.1	5.7	2,214
Fourth	35.1	33.7	25.0	34.6	35.6	58.5	24.5	38.5	21.0	2,226
Highest	36.3	38.4	25.9	36.4	35.6	59.9	23.6	53.9	37.3	2,313
Total	29.1	26.7	20.2	27.6	27.0	46.9	19.6	24.4	14.4	10,793

Table 3.5.2 Exposure to specific health programs on radio and television: Men

Percentage of men age 15-49 who have heard or seen specific health programs on the radio and television, by background characteristics, Nepal 2006

Background characteristic	Janaswasthya radio karyakram	Sewa nai dharma ho	Gyan nai shakti ho	Hamro swasthya radio karyakram	Ek apaas ka kura	Sathi sanga manka kura	Desh pardesh	Jeevan chakra	Teli-swasthya karyakram	Number
Age										
15-19	40.3	37.2	26.9	32.8	45.8	73.7	34.0	32.9	20.4	941
20-24	39.4	41.6	25.9	32.1	42.1	69.0	30.2	35.7	21.8	632
25-29	44.7	38.8	26.9	33.1	39.2	60.9	29.6	33.0	20.0	524
30-34	43.2	39.2	25.7	30.9	33.0	49.8	28.8	25.0	17.6	499
35-39	38.6	42.9	31.4	30.9	30.6	49.7	28.6	21.1	14.1	444
40-44	39.4	36.2	23.9	29.1	27.6	39.0	21.0	17.5	13.1	414
45-49	43.3	34.9	24.5	27.0	23.7	40.3	23.7	18.8	10.3	399
Residence										
Urban	39.4	36.1	20.8	29.1	31.6	59.8	20.9	44.6	31.5	730
Rural	41.5	39.3	27.9	31.8	37.8	57.8	30.9	24.0	14.4	3,123
Ecological zone										
Mountain	58.2	48.7	26.2	42.5	35.3	60.6	28.3	9.3	5.8	241
Hill	51.7	48.4	30.9	41.8	42.5	72.2	32.2	37.3	24.1	1,641
Terai	30.3	29.4	22.9	21.1	31.9	46.1	26.4	22.3	13.7	1,972
Region										
Eastern	50.4	46.3	32.1	35.7	48.2	68.8	34.7	35.3	17.5	849
Central	38.4	34.7	20.8	26.4	28.3	50.9	21.9	34.6	24.5	1,367
Western	42.7	38.6	27.5	36.6	39.1	60.8	31.0	27.2	18.1	716
Mid-western	47.9	43.2	33.0	40.0	40.7	59.0	30.2	12.4	8.3	416
Far-western	25.0	33.4	25.8	22.2	32.9	55.3	34.7	11.1	6.5	506
Subregion										
Eastern mountain	77.6	53.1	25.3	41.3	37.0	80.8	38.7	11.4	4.2	59
Central mountain	62.3	48.3	32.7	45.7	40.7	64.6	34.6	14.4	11.8	73
Western mountain	45.0	46.5	22.4	41.0	30.8	47.1	18.4	4.8	2.6	109
Eastern hill	65.8	63.2	42.4	58.6	58.5	82.4	41.5	41.2	17.4	215
Central hill	45.3	43.1	22.1	34.4	33.8	69.3	24.6	55.1	37.6	722
Western hill	54.1	49.3	33.5	42.2	48.7	74.4	39.7	24.7	16.5	387
Mid-western hill	51.8	50.5	40.7	43.6	42.8	65.7	34.2	11.3	9.6	210
Far-western hill	56.9	48.0	38.2	53.5	45.3	76.9	34.0	6.6	2.8	107
Eastern terai	41.9	39.3	29.0	26.6	45.5	62.5	31.8	35.5	18.8	576
Central terai	26.6	22.3	17.6	13.8	19.7	26.0	16.9	11.3	9.7	571
Western terai	28.7	24.9	20.4	30.4	28.2	44.3	21.2	30.3	19.9	320
Mid-western terai	39.0	27.6	22.2	29.1	34.0	51.4	24.7	16.4	8.7	155
Far-western terai	14.7	29.7	24.3	11.8	32.1	51.5	38.7	13.9	8.5	350
Education										
No education	23.3	17.0	12.5	12.1	13.0	28.1	12.1	7.7	4.4	710
Primary	36.5	33.6	23.7	27.4	31.4	51.4	25.8	18.2	8.6	1,083
Some secondary	48.7	48.0	32.8	39.1	50.0	71.0	36.9	33.3	19.3	1,281
SLC and above	51.4	50.5	33.0	41.2	43.4	73.8	35.8	50.9	39.6	779
Wealth quintile										
Lowest	39.0	32.7	24.0	31.7	30.6	49.6	23.0	7.1	3.7	621
Second	35.0	30.9	23.3	23.5	32.7	49.7	28.1	8.7	3.0	696
Middle	37.8	37.4	29.8	25.3	40.0	56.1	34.7	16.0	8.0	714
Fourth	50.2	47.2	32.0	38.7	44.6	65.3	33.1	39.2	25.7	861
Highest	41.3	41.7	23.2	34.3	33.6	64.9	25.6	53.9	37.3	961
Total 15-49	41.1	38.7	26.5	31.3	36.6	58.1	29.0	27.9	17.7	3,854
50-59	35.8	35.6	25.2	29.9	26.7	37.7	22.1	16.4	10.8	543
Total 15-59	40.5	38.3	26.4	31.1	35.4	55.6	28.1	26.5	16.8	4,397

3.4 EMPLOYMENT

3.4.1 Employment Status

The 2006 NDHS asked respondents a number of questions regarding their 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. The results for women and men are presented in Tables 3.6.1 and 3.6.2. At the time of the survey, about seven in ten women were currently employed and another one in ten was not employed but had worked sometime during the past 12 months.

The proportion of women currently employed increases with age. Current employment is lowest among women age 15-19 (57 percent) and highest among those age 35-39 (83 percent). Likewise, women who are divorced, separated, or widowed are more likely to be currently employed than other women. Women who have five or more children are more likely to be currently employed than those with four or fewer children.

Notable variations are seen in the proportion currently employed by place of residence and region. Rural women are more likely to be currently employed than urban women (75 percent compared with 49 percent). Women in the mountains are more likely to be economically active than women residing in the other ecological zones. Women in the Far-western, Western and Mid-western regions are more likely to be currently employed (84 percent, 80 percent and 78 percent, respectively) than those living in the Eastern and Central regions (66 percent and 61 percent, respectively). A similar pattern was observed for ever-married women in the 2006 NDHS, the 1996 NFHS, and the 2001 NDHS surveys.

The proportion of women currently employed decreases with the level of education. For example, 78 percent of women with no education are currently employed, compared with 52 percent of women with an SLC or above. There is an inverse relationship between wealth and employment. Women living in the poorest households are most likely to be employed (90 percent) than women in the wealthiest households (49 percent).

The proportion currently employed is higher among men than women (Table 3.6.2). The majority of men age 15-49 (86 percent) were employed at the time of survey. The percentage of currently employed men rises with age from 61 percent among men age 15-19 to 98 percent among men age 40-49. Ever-married men, rural men, men residing in the Western mountain subregion, men with little or no education, and men living in the poorest households are more likely to be employed than their counterparts.

Table 3.6.1 Employment status: Women

Percent distribution of women age 15-49 by employment status, according to background characteristics, Nepal 2006

Background characteristic	Employed in the 12 months preceding the survey		Not employed in the 12 months preceding the survey	Total	Number of women
	Currently employed[1]	Not currently employed			
Age					
15-19	57.4	14.0	28.6	100.0	2,437
20-24	63.6	11.5	24.9	100.0	1,995
25-29	71.7	11.2	17.1	100.0	1,773
30-34	78.8	10.0	11.3	100.0	1,336
35-39	83.3	7.8	9.0	100.0	1,220
40-44	82.9	6.8	10.3	100.0	1,121
45-49	80.9	7.9	11.2	100.0	912
Marital status					
Never married	61.1	12.7	26.2	100.0	2,149
Married	73.1	10.2	16.7	100.0	8,257
Divorced/separated/widowed	82.6	8.4	9.0	100.0	387
Number of living children					
0	61.7	13.3	25.0	100.0	3,044
1-2	67.8	10.7	21.5	100.0	3,520
3-4	78.5	9.1	12.4	100.0	2,954
5+	85.3	7.5	7.2	100.0	1,274
Residence					
Urban	48.8	8.0	43.2	100.0	1,687
Rural	75.2	11.1	13.7	100.0	9,106
Ecological zone					
Mountain	89.0	8.0	3.0	100.0	753
Hill	78.3	8.5	13.2	100.0	4,598
Terai	62.5	12.8	24.7	100.0	5,443
Development region					
Eastern	65.7	11.5	22.8	100.0	2,392
Central	61.3	12.9	25.8	100.0	3,553
Western	80.4	7.0	12.6	100.0	2,070
Mid-western	78.3	13.2	8.5	100.0	1,250
Far-western	83.6	6.9	9.5	100.0	1,528
Subregion					
Eastern mountain	90.7	7.3	1.9	100.0	189
Central mountain	80.5	11.0	8.6	100.0	202
Western mountain	92.8	6.6	0.5	100.0	362
Eastern hill	83.0	7.7	9.3	100.0	627
Central hill	65.8	11.4	22.9	100.0	1,713
Western hill	86.5	5.0	8.5	100.0	1,267
Mid-western hill	81.2	12.5	6.3	100.0	650
Far-western hill	96.2	1.6	2.3	100.0	341
Eastern terai	55.9	13.5	30.7	100.0	1,576
Central terai	54.3	14.7	31.0	100.0	1,638
Western terai	70.1	10.3	19.5	100.0	783
Mid-western terai	70.7	15.0	14.3	100.0	457
Far-western terai	76.9	9.3	13.8	100.0	989
Education					
No education	78.0	10.2	11.8	100.0	5,728
Primary	73.7	9.4	16.9	100.0	1,901
Some secondary	59.0	12.8	28.2	100.0	2,225
SLC and above	52.2	10.5	37.3	100.0	938
Wealth quintile					
Lowest	90.0	7.2	2.8	100.0	1,961
Second	80.3	10.5	9.2	100.0	2,079
Middle	73.1	11.7	15.2	100.0	2,214
Fourth	66.8	13.2	20.0	100.0	2,226
Highest	48.9	10.2	41.0	100.0	2,313
Total	71.1	10.6	18.3	100.0	10,793

[1] "Currently employed" refers to women who worked 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 other such reasons.

Table 3.6.2 Employment status: Men

Percent distribution of men age 15-49 by employment status, according to background characteristics, Nepal 2006

Background characteristic	Employed in the 12 months preceding the survey: Currently employed[1]	Employed in the 12 months preceding the survey: Not currently employed	Not employed in the 12 months preceding the survey	Total	Number of men
Age					
15-19	61.0	8.0	31.0	100.0	941
20-24	85.7	5.4	8.9	100.0	632
25-29	94.2	4.7	1.1	100.0	524
30-34	94.4	5.2	0.4	100.0	499
35-39	96.5	3.1	0.4	100.0	444
40-44	97.7	2.0	0.3	100.0	414
45-49	97.8	1.0	1.2	100.0	399
Marital status					
Never married	63.1	8.3	28.6	100.0	1,207
Married	96.1	3.2	0.6	100.0	2,598
Divorced/separated/widowed	(91.5)	(5.6)	(2.9)	(100.0)	48
Number of living children					
0	69.4	7.3	23.2	100.0	1,514
1-2	94.9	4.3	0.8	100.0	977
3-4	96.8	2.9	0.2	100.0	964
5+	98.3	1.1	0.6	100.0	400
Residence					
Urban	77.0	6.5	16.6	100.0	730
Rural	87.8	4.4	7.8	100.0	3,123
Ecological zone					
Mountain	89.4	5.5	5.1	100.0	241
Hill	84.6	5.8	9.7	100.0	1,641
Terai	86.3	4.0	9.8	100.0	1,972
Development region					
Eastern	86.9	4.3	8.8	100.0	849
Central	85.2	5.6	9.2	100.0	1,367
Western	87.4	4.9	7.6	100.0	716
Mid-western	87.9	3.5	8.5	100.0	416
Far-western	80.9	4.6	14.5	100.0	506
Subregion					
Eastern mountain	92.0	4.9	3.1	100.0	59
Central mountain	78.0	12.6	9.3	100.0	73
Western mountain	95.6	1.0	3.4	100.0	109
Eastern hill	90.0	4.5	5.5	100.0	215
Central hill	81.9	6.2	11.9	100.0	722
Western hill	85.8	6.6	7.6	100.0	387
Mid-western hill	86.9	3.2	9.9	100.0	210
Far-western hill	82.5	7.7	9.8	100.0	107
Eastern terai	85.2	4.1	10.6	100.0	576
Central terai	90.3	4.0	5.7	100.0	571
Western terai	89.1	3.0	7.9	100.0	320
Mid-western terai	87.5	4.5	8.0	100.0	155
Far-western terai	78.2	4.2	17.6	100.0	350
Education					
No education	96.5	2.6	0.9	100.0	710
Primary	94.4	3.8	1.9	100.0	1,083
Some secondary	76.3	6.8	16.9	100.0	1,281
SLC and above	79.4	5.2	15.4	100.0	779
Wealth quintile					
Lowest	92.9	4.2	2.9	100.0	621
Second	90.0	4.4	5.6	100.0	696
Middle	88.3	2.6	9.0	100.0	714
Fourth	85.4	5.1	9.5	100.0	861
Highest	76.4	7.0	16.6	100.0	961
Total 15-49	85.7	4.8	9.4	100.0	3,854
Men 50-59	93.3	3.4	3.3	100.0	543
Total men 15-59	86.7	4.7	8.7	100.0	4,397

Note: Figures in parentheses are based on 25-49 unweighted cases.
[1] "Currently employed" refers to men who worked 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 other such reasons.

3.4.2 Occupation

Respondents who were currently employed or had worked in the 12 months preceding the survey were asked further about their occupations. The results are presented in Tables 3.7.1 and 3.7.2, which show data on employed women and men, respectively, by occupation according to background characteristics. Agriculture is the dominant sector of the economy of Nepal, and most employed persons work in the agricultural sector. Specifically, more than half of employed men and more than four-fifths of employed women are engaged in agricultural jobs. Tables 3.7.1 and 3.7.2 further show that 7 percent of women and 13 percent of men are employed in sales and service.

The survey indicates that 4 percent of employed women are manual workers (skilled and unskilled), while 2 percent are engaged in the professional, technical, and managerial fields. The type of occupation varies greatly by gender. Women are less likely than men to be highly educated or to have attended vocational or technical schools. Therefore, their employment in the professional, technical, and managerial sector is somewhat low compared with men (2 percent compared with 7 percent). One in five men age 15-49 does manual work (skilled and unskilled) compared with less than one in twenty women. Men are also more likely than women to be engaged in clerical work (7 percent versus less than 1 percent).

The relationship between occupation and age is mixed. One notable finding is the relatively high percentage of women (10 percent) age 25-29 employed in sales and services and men (10 percent) age 25-29 engaged in professional, technical and managerial occupations.

Residence has a significant effect on the type of occupation. As expected, a high proportion of respondents in rural areas—nine in ten employed women and six in ten employed men—are engaged in agricultural work. Urban women are more likely to be engaged in sales and services compared with other occupations. Women in the mountains and those in the Far-western region are more likely to be involved in agriculture (94 percent and 96 percent, respectively). A similar pattern is also observed among men. The highest proportion of women (two in five) and men (four in five) engaged in the nonagricultural sector live in the Central hill subregion.

One in two women with SLC or higher level of education is employed in sales and services, clerical, and professional, technical, and managerial occupations, whereas women with no education tend to be employed more in the agricultural sector (91 percent). This is probably because women with no education have few employment opportunities except for the agricultural sector, in contrast to educated women who may find it easier to obtain employment in the non-agricultural sector. Almost all working women (98 percent) in the lowest wealth quintile work in agriculture, whereas only about half of the women in the highest wealth quintile do so. Agricultural work is also less common among men with SLC or higher education and men in the highest wealth quintile.

There has been some increase in the proportion of ever-married men and women involved in the nonagricultural sector over the past five years. Not surprisingly, there is a notable decrease in ever-married respondents engaged in the agricultural sector compared with findings from the 2001 NDHS. This is partly due to urbanization and partly due to greater opportunities in the non-agricultural sector.

Table 3.7.1 Occupation: Women

Percent distribution of women age 15-49 employed in the 12 months preceding the survey by occupation, according to background characteristics, Nepal 2006

Background characteristic	Professional/ technical/ managerial	Clerical	Sales and services	Skilled manual	Unskilled manual	Agriculture	Total	Number of women
Age								
15-19	1.6	0.1	3.1	2.3	0.6	92.2	100.0	1,739
20-24	3.7	1.3	6.3	4.4	1.1	83.2	100.0	1,498
25-29	3.3	0.3	10.2	4.7	0.4	81.2	100.0	1,471
30-34	2.6	0.7	8.6	5.6	1.1	81.4	100.0	1,186
35-39	2.0	0.4	8.0	2.9	0.9	85.8	100.0	1,110
40-44	1.6	0.5	6.8	3.3	0.7	87.0	100.0	1,005
45-49	0.5	0.1	6.5	2.4	0.2	90.3	100.0	809
Marital status								
Never married	4.3	0.8	5.9	3.6	0.5	84.9	100.0	1,586
Married	1.9	0.4	7.0	3.6	0.8	86.3	100.0	6,881
Divorced/separated/widowed	1.0	1.6	10.7	5.7	0.6	80.5	100.0	352
Number of living children								
0	4.0	0.7	5.4	3.7	0.7	85.6	100.0	2,284
1-2	3.1	0.7	9.9	5.1	0.9	80.3	100.0	2,764
3-4	1.0	0.3	6.5	3.0	0.7	88.5	100.0	2,587
5+	0.0	0.1	4.0	2.0	0.5	93.4	100.0	1,183
Residence								
Urban	10.1	2.2	28.9	10.4	3.8	44.6	100.0	959
Rural	1.4	0.3	4.2	2.9	0.4	90.9	100.0	7,860
Ecological zone								
Mountain	1.1	0.1	2.3	1.5	0.5	94.4	100.0	730
Hill	3.4	0.9	8.0	5.8	0.7	81.3	100.0	3,991
Terai	1.5	0.2	6.8	2.1	0.8	88.7	100.0	4,098
Development region								
Eastern	2.3	0.1	8.1	2.3	1.0	86.2	100.0	1,846
Central	3.7	0.8	10.4	8.2	0.7	76.1	100.0	2,637
Western	1.8	0.5	5.6	2.4	0.6	89.1	100.0	1,809
Mid-western	1.3	1.0	5.1	1.6	0.7	90.3	100.0	1,144
Far-western	1.1	0.0	2.1	0.4	0.5	95.9	100.0	1,383
Subregion								
Eastern mountain	2.3	0.0	5.6	0.9	1.0	90.1	100.0	185
Central mountain	1.7	0.2	2.0	5.0	1.1	90.0	100.0	185
Western mountain	0.2	0.1	0.8	0.0	0.0	98.9	100.0	360
Eastern hill	4.0	0.1	3.5	1.2	0.8	90.4	100.0	569
Central hill	5.7	1.5	14.7	13.5	1.2	63.4	100.0	1,322
Western hill	2.4	0.5	5.8	2.8	0.1	88.3	100.0	1,159
Mid-western hill	0.8	1.4	5.5	1.8	0.8	89.7	100.0	609
Far-western hill	1.3	0.1	0.6	0.2	0.3	97.6	100.0	333
Eastern terai	1.4	0.1	10.8	3.2	1.2	83.3	100.0	1,093
Central terai	1.8	0.0	6.7	2.6	0.1	88.8	100.0	1,130
Western terai	0.7	0.5	5.2	1.6	1.6	90.4	100.0	630
Mid-western terai	2.3	0.7	6.4	1.9	0.7	88.0	100.0	392
Far-western terai	1.3	0.0	2.9	0.5	0.7	94.5	100.0	853
Education								
No education	0.0	0.3	5.2	2.5	0.8	91.2	100.0	5,051
Primary	0.0	0.3	7.0	5.0	1.1	86.6	100.0	1,581
Some secondary	1.0	0.4	9.3	5.1	0.4	83.8	100.0	1,598
SLC and above	31.8	3.0	15.0	6.5	0.1	43.6	100.0	589
Wealth quintile								
Lowest	0.2	0.0	0.6	0.6	0.3	98.3	100.0	1,906
Second	0.3	0.0	1.8	2.0	0.5	95.3	100.0	1,887
Middle	0.8	0.2	3.2	2.3	0.6	93.0	100.0	1,878
Fourth	1.7	0.6	7.0	4.3	1.1	85.4	100.0	1,782
Highest	11.1	2.1	27.9	11.6	1.3	46.1	100.0	1,366
Total	2.3	0.5	6.9	3.7	0.7	85.8	100.0	8,818

Table 3.7.2 Occupation: Men

Percent distribution of men age 15-49 employed in the 12 months preceding the survey by occupation, according to background characteristics, Nepal 2006

Background characteristic	Professional/ technical/ managerial	Clerical	Sales and services	Skilled manual	Unskilled manual	Agriculture	Missing	Total	Number of men
Age									
15-19	2.6	3.9	11.6	12.5	9.5	59.9	0.0	100.0	650
20-24	7.7	7.0	14.3	13.2	13.7	44.2	0.0	100.0	575
25-29	10.3	6.2	13.8	15.1	9.3	45.0	0.2	100.0	519
30-34	6.8	9.2	13.7	14.0	10.1	46.2	0.0	100.0	497
35-39	5.9	6.9	17.1	11.0	7.7	51.4	0.0	100.0	442
40-44	8.4	6.6	10.8	6.2	7.3	60.7	0.0	100.0	413
45-49	7.7	7.6	7.9	9.7	5.9	61.3	0.0	100.0	394
Marital status									
Never married	8.5	4.2	13.9	12.2	7.5	53.7	0.0	100.0	862
Married	6.5	7.5	12.6	11.8	10.0	51.6	0.0	100.0	2,582
Divorced/separated/widowed	(1.0)	(2.3)	(6.2)	(15.9)	(9.0)	(65.6)	(0.0)	100.0	46
Number of living children									
0	7.2	5.2	13.9	13.1	9.3	51.2	0.0	100.0	1,162
1-2	10.1	6.6	14.3	14.3	10.5	44.2	0.0	100.0	969
3-4	4.6	8.5	12.8	9.7	9.3	55.0	0.1	100.0	962
5+	3.3	6.2	6.3	8.4	7.0	68.9	0.0	100.0	397
Residence									
Urban	14.3	11.2	27.2	16.3	18.0	13.0	0.0	100.0	609
Rural	5.3	5.6	9.8	11.0	7.5	60.7	0.0	100.0	2,881
Ecological zone									
Mountain	6.2	4.4	3.7	7.3	6.7	71.7	0.0	100.0	228
Hill	8.8	8.0	14.6	12.9	9.2	46.4	0.1	100.0	1,483
Terai	5.4	5.8	12.5	11.8	9.8	54.8	0.0	100.0	1,779
Development region									
Eastern	7.1	4.9	8.4	13.2	12.3	54.0	0.1	100.0	774
Central	6.5	7.5	18.1	16.3	11.8	39.9	0.0	100.0	1,241
Western	7.2	6.2	9.7	8.7	8.2	60.0	0.0	100.0	661
Mid-western	11.3	10.0	11.3	8.0	5.2	54.2	0.0	100.0	380
Far-western	3.3	4.9	12.0	5.7	2.3	71.7	0.0	100.0	433
Subregion									
Eastern mountain	5.1	1.1	9.2	4.6	5.2	74.9	0.0	100.0	57
Central mountain	6.8	2.4	2.7	12.0	15.6	60.5	0.0	100.0	66
Western mountain	6.4	7.6	1.5	5.8	1.9	76.9	0.0	100.0	105
Eastern hill	10.5	3.0	4.4	5.6	5.7	70.3	0.5	100.0	203
Central hill	8.1	10.2	21.2	21.5	14.7	24.2	0.0	100.0	636
Western hill	7.7	6.0	11.1	7.5	6.2	61.6	0.0	100.0	358
Mid-western hill	13.9	10.8	12.3	5.7	4.4	53.0	0.0	100.0	189
Far-western hill	3.8	6.0	10.4	5.6	1.8	72.5	0.0	100.0	97
Eastern terai	6.0	6.1	9.8	17.1	15.7	45.3	0.0	100.0	515
Central terai	4.4	5.0	16.2	10.7	7.8	55.9	0.0	100.0	539
Western terai	6.6	6.5	8.3	10.2	11.0	57.3	0.0	100.0	295
Mid-western terai	8.2	6.9	13.3	10.1	6.8	54.6	0.0	100.0	142
Far-western terai	3.3	5.4	14.3	6.7	2.9	67.4	0.0	100.0	288
Education									
No education	0.1	6.0	6.0	11.9	13.0	63.0	0.0	100.0	704
Primary	0.6	5.4	10.0	14.7	14.1	55.0	0.1	100.0	1,063
Some secondary	1.2	6.9	13.7	11.5	6.8	59.9	0.0	100.0	1,064
SLC and above	33.5	8.7	23.5	8.3	1.8	24.3	0.0	100.0	659
Wealth quintile									
Lowest	1.0	4.2	4.4	6.6	6.8	77.0	0.0	100.0	603
Second	1.9	4.4	3.9	10.8	9.1	69.7	0.1	100.0	658
Middle	3.1	4.2	11.7	11.6	7.7	61.7	0.0	100.0	649
Fourth	7.7	9.0	11.8	11.9	10.7	49.0	0.0	100.0	779
Highest	17.7	9.8	28.5	17.3	11.5	15.2	0.0	100.0	801
Total 15-49	6.9	6.6	12.8	12.0	9.3	52.3	0.0	100.0	3,490
Men 50-59	5.3	5.0	6.2	7.6	3.2	72.5	0.0	100.0	526
Total 15-59	6.7	6.4	12.0	11.4	8.5	55.0	0.0	100.0	4,016

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

3.4.3 Earnings, Employers, and Continuity of Employment

Tables 3.8.1 and 3.8.2 show the percent distribution of women and men by type of earnings and employment characteristics. These tables also present data on whether respondents are involved in agricultural or nonagricultural occupations, because all of the employment variables shown in the tables are strongly influenced by the sector of employment.

Table 3.8.1 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), Nepal 2006

Employment characteristic	Agricultural work	Nonagricultural work	Total
Type of earnings			
Cash only	2.5	87.0	14.5
Cash and in-kind	20.2	5.1	18.1
In-kind only	41.8	0.6	35.9
Not paid	35.6	7.3	31.6
Total	100.0	100.0	100.0
Type of employer			
Employed by family member	41.7	7.9	36.9
Employed by nonfamily member	10.5	46.9	15.7
Self-employed	47.8	45.2	47.4
Total	100.0	100.0	100.0
Continuity of employment			
All year	68.5	82.0	70.4
Seasonal	26.3	10.4	24.1
Occasional	5.2	7.4	5.5
Total	100.0	100.0	100.0
Number of women employed during the past 12 months	7,569	1,250	8,818

Note: Total includes women with missing information on continuity of employment not shown separately.

More than one-third (36 percent) of women engaged in agricultural work are unpaid workers most likely employed by family members at the peak of the agricultural season. In addition, two-fifths of women employed in the agricultural sector are paid in kind only. Women are more likely to be paid in cash if they are employed in the nonagricultural sector: about nine in ten women employed in this sector are paid in cash compared with about one in four (23 percent) women who is employed in agriculture. Overall, one-third (32 percent) of employed women are not paid at all and a similar proportion (33 percent) earn cash for their work. By contrast, only 13 percent of employed men are unpaid.

Nearly two in five employed women work for a family member, and about half of employed women are self-employed. Only one in six employed women work for someone outside the family. Two in five women working in the agricultural sector are working for a family member compared with only 8 percent working in the non-agricultural sector. In addition, the proportion of women employed by someone outside the family is higher among those working in the nonagricultural sector than among those in the agricultural sector (47 percent versus 11 percent). The proportions of self-employed women in the agricultural and nonagricultural sector are quite similar (48 percent and 45 percent, respectively).

Nearly two in five men are self-employed and a similar percentage are employed by non-family members (Table 3.8.2). An overwhelming majority (68 percent) of men who work in the nonagricultural sector work for a nonfamily member. Not surprisingly, half of men working in the agricultural sector are self-employed.

Seven in ten employed women work all year round, while about one in four works seasonally. A much smaller proportion of women work occasionally (6 percent). Continuity of employment also varies by sector of employment. Around one in four women employed in the agricultural sector are seasonal workers compared with only one in ten among those working in the nonagricultural sector. On the other hand, 82 percent of women working in the nonagricultural sector work all year compared with 69 percent of women engaged in agricultural work. A similar pattern is observed for men with regard to continuity of employment.

Table 3.8.2 Type of employment: Men

Percent distribution of men 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), Nepal 2006

Employment characteristic	Agricultural work	Nonagricultural work	Total
Type of earnings			
Cash only	2.7	90.6	44.6
Cash and in-kind	42.5	6.3	25.3
In-kind only	31.9	0.4	16.9
Not paid	22.8	2.7	13.2
Total	100.0	100.0	100.0
Type of employer			
Employed by family member	38.1	5.9	22.7
Employed by nonfamily member	11.3	67.8	38.2
Self-employed	50.6	26.4	39.1
Total	100.0	100.0	100.0
Continuity of employment			
All year	68.4	82.3	75.0
Seasonal	26.2	15.4	21.1
Occasional	5.4	2.3	3.9
Total	100.0	100.0	100.0
Number of men employed during the past 12 months	1,827	1,662	3,490

3.5 KNOWLEDGE AND ATTITUDES CONCERNING TUBERCULOSIS

Tuberculosis (TB) is a leading cause of death in the world and a major public health problem in the developing world. TB is caused by the bacteria *mycobacterium tuberculosis* whose transmission is mainly airborne through droplets coughed or sneezed out by infected persons. The infection is primarily concentrated in the lungs but in some cases it can be transmitted to other areas of the body. Tuberculosis is one of Nepal's major public health problems. About 45 percent of the population is infected with TB, of which 60 percent are in the working age group. Every year, 44,000 people develop active TB, of whom 20,000 have infectious pulmonary disease. These 20,000 individuals can spread the disease to others. The National Tuberculosis Program (NTP) has been integrated within the national general health system, and Directly Observed Treatment Short (DOTS) course has been successfully implemented throughout the country since April 2001. The introduction of treatment by DOTS has already reduced the number of deaths; however, 5,000-7,000 people continue to die every year from this disease (Ministry of Health and Population, 2006). The main goal of the National Tuberculosis Control Program is to reduce the mortality, morbidity and transmission of TB until it is no longer a public health problem.

The very young and very old and persons with a suppressed immune system (brought on from HIV infection or other causes) are especially prone to contracting TB when exposed to it. The 2006 NDHS collected information from women and men of reproductive age on the level of awareness of TB. Specifically, respondents were asked whether they had ever heard of the illness, how it spreads from one person to another, whether it can be cured, and whether they would want to keep the information secret if a member of their family got TB. This information is useful in policy formulation and implementation of programs designed to combat and limit the spread of the disease.

Tables 3.9.1 and 3.9.2 show the percentage of women and men who have heard of TB, and among those who have heard of it, their knowledge and attitudes concerning TB, according to background characteristics. TB awareness is almost universal in Nepal (97 percent of women and 99 percent of men have heard of TB), with little difference by background characteristics.

Table 3.9.1 Knowledge and attitudes concerning tuberculosis: Women

Percentage of women age 15-49 who have heard of tuberculosis (TB), and among women who have heard of TB, the percentages who know that TB is spread through the air by coughing, the percentage who believe that TB can be cured, and the percentage who would want to keep secret that a family member has TB, by background characteristics, Nepal 2006

	Among all women:		Among women who have heard of TB:			
Background characteristic	Percentage who have heard of TB	Number	Percentage who report that TB is spread through the air by coughing	Percentage who believe that TB can be cured	Percentage who would want a family member's TB kept secret	Number
Age						
15-19	97.4	2,437	57.7	94.3	12.6	2,373
20-24	96.9	1,995	59.2	93.6	11.2	1,932
25-29	97.1	1,773	56.5	94.5	12.4	1,722
30-34	96.8	1,336	59.2	95.5	8.8	1,294
35-39	96.7	1,220	52.5	92.4	11.0	1,179
40-44	95.9	1,121	48.5	91.4	9.3	1,075
45-49	93.8	912	49.6	91.9	9.9	855
Residence						
Urban	98.8	1,687	65.2	96.8	8.6	1,666
Rural	96.3	9,106	54.0	93.0	11.5	8,765
Ecological zone						
Mountain	89.4	753	47.7	88.3	17.4	673
Hill	96.6	4,598	50.7	94.5	8.7	4,441
Terai	97.7	5,443	61.1	93.6	12.3	5,317
Development region						
Eastern	97.0	2,392	51.1	94.0	8.2	2,321
Central	97.1	3,553	61.3	94.1	13.0	3,450
Western	97.0	2,070	48.4	95.0	7.0	2,009
Mid-western	97.2	1,250	59.1	94.1	16.0	1,216
Far-western	94.0	1,528	57.6	89.6	12.5	1,436
Subregion						
Eastern mountain	93.6	189	53.2	90.1	3.9	177
Central mountain	88.1	202	56.4	91.0	8.3	178
Western mountain	88.0	362	39.7	85.7	30.0	318
Eastern hill	97.2	627	50.0	92.4	5.1	610
Central hill	96.4	1,713	54.1	95.6	6.7	1,652
Western hill	98.3	1,267	44.6	96.8	4.6	1,245
Mid-western hill	98.7	650	58.8	92.9	19.0	641
Far-western hill	85.8	341	41.0	85.7	21.4	293
Eastern terai	97.4	1,576	51.3	95.1	10.0	1,534
Central terai	98.9	1,638	69.3	92.9	20.0	1,621
Western terai	95.6	783	55.4	92.3	11.0	749
Mid-western terai	96.4	457	64.7	96.0	9.7	441
Far-western terai	98.4	989	65.7	92.5	5.4	973
Education						
No education	94.5	5,728	46.7	90.3	13.5	5,415
Primary	97.8	1,901	52.5	94.8	11.6	1,860
Some secondary	99.7	2,225	69.3	98.3	7.2	2,218
SLC and above	100.0	938	83.0	99.5	5.2	938
Wealth quintile						
Lowest	91.8	1,961	42.5	87.8	15.0	1,800
Second	96.2	2,079	50.8	91.3	12.9	1,999
Middle	97.0	2,214	55.0	93.6	11.7	2,147
Fourth	98.4	2,226	60.6	96.1	9.8	2,189
Highest	99.2	2,313	66.7	97.9	7.0	2,296
Total	96.6	10,793	55.8	93.6	11.1	10,431

Table 3.9.2 Knowledge and attitudes concerning tuberculosis: Men

Percentage of men age 15-49 who have heard of tuberculosis (TB), and among men who have heard of TB, the percentages who know that TB is spread through the air by coughing, the percentage who believe that TB can be cured, and the percentage who would want to keep secret that a family member has TB, by background characteristics, Nepal 2006

	Among all men:		Among men who have heard of TB:			
Background characteristic	Percentage who have heard of TB	Number	Percentage who report that TB is spread through the air by coughing	Percentage who believe that TB can be cured	Percentage who would want a family member's TB kept secret	Number
Age						
15-19	98.7	941	71.4	97.7	8.7	929
20-24	99.2	632	74.4	98.1	8.5	627
25-29	99.6	524	79.2	99.3	5.9	522
30-34	99.1	499	79.5	98.4	5.4	495
35-39	99.0	444	71.7	97.2	7.3	440
40-44	99.1	414	70.7	94.8	6.5	411
45-49	98.3	399	68.5	97.5	4.5	392
Residence						
Urban	99.1	730	73.1	98.4	8.5	724
Rural	99.0	3,123	73.8	97.5	6.7	3,092
Ecological zone						
Mountain	98.6	241	65.8	95.1	6.1	237
Hill	98.8	1,641	66.3	97.5	6.0	1,622
Terai	99.2	1,972	80.7	98.2	8.0	1,956
Development region						
Eastern	98.9	849	72.5	97.8	10.4	839
Central	99.2	1,367	77.2	97.5	6.8	1,355
Western	99.1	716	62.9	97.4	3.8	709
Mid-western	97.7	416	70.4	97.4	10.4	407
Far-western	99.8	506	83.9	98.8	3.9	505
Subregion						
Eastern mountain	98.7	59	80.9	95.3	2.4	58
Central mountain	99.4	73	64.3	98.2	6.6	73
Western mountain	98.0	109	58.6	93.0	7.8	107
Eastern hill	99.5	215	76.4	96.3	3.3	214
Central hill	98.5	722	67.5	97.3	7.7	711
Western hill	98.8	387	57.8	98.6	3.9	382
Mid-western hill	98.9	210	64.4	96.8	8.2	208
Far-western hill	100.0	107	72.6	98.7	3.7	107
Eastern terai	98.6	576	70.1	98.6	13.8	568
Central terai	100.0	571	90.8	97.6	5.6	571
Western terai	99.4	320	69.8	95.8	3.8	318
Mid-western terai	96.9	155	79.5	99.5	12.1	150
Far-western terai	99.6	350	91.8	99.9	4.2	348
Education						
No education	97.0	710	62.6	95.1	11.7	689
Primary	98.7	1,083	68.9	96.4	7.7	1,069
Some secondary	99.8	1,281	75.4	98.9	5.7	1,279
SLC and above	100.0	779	87.0	99.8	4.1	779
Wealth quintile						
Lowest	97.8	621	65.0	94.9	8.3	608
Second	98.8	696	74.1	98.3	7.2	688
Middle	99.2	714	77.3	97.2	6.2	708
Fourth	99.4	861	72.7	98.0	6.2	856
Highest	99.5	961	77.0	99.2	7.4	956
Total 15-49	99.0	3,854	73.7	97.7	7.0	3,815
Men 50-59	98.3	543	68.1	96.6	3.6	534
Total 15-59	98.9	4,397	73.0	97.6	6.6	4,350

Fifty-six percent of women and 74 percent of men age 15-49 reported that TB is spread through the air when coughing or sneezing. Women in the terai and women in urban areas are more likely to know that TB is spread through the air by coughing. Correct knowledge of how TB is spread is lowest in the Western region and especially in the Western mountain subregion. Correct knowledge of how TB is spread increases with education, from less than one in two women with no education to eight in ten women with SLC and higher level of education. Similarly, wealthier women are much more aware of how TB is spread than women in poorer households.

There is little urban-rural difference among men in the knowledge of TB. Knowledge of how TB is spread by the other background characteristics is similar to the pattern discussed for women.

Misconceptions on disease transmission are also common in Nepal. For example, more than half of women (56 percent) and about half of men reported that TB is spread through sharing utensils (data not shown). In addition, one in four women and nearly two in five men reported that TB is spread through spit. Similarly, one in four women and one in three men mentioned that it is transmitted through food. One in six women and one out of ten men reported that TB is spread through touching a TB patient. Women are more likely to say that TB is transmitted through sexual contact compared with their male counterparts (14 percent and 8 percent, respectively) (data not shown).

Most respondents are aware that TB is curable. Ninety-four percent of women and 98 percent of men believe that TB can be cured. Women's belief that TB can be cured varies minimally by education, wealth quintile, and place of residence. Ninety-seven percent of women in urban areas, compared with 93 percent of women in rural areas believe that TB can be cured. Almost all women with SLC and higher education and 98 percent of women in the highest wealth quintile believe that TB can be cured compared with 90 percent of women with no education and 88 percent of those in the lowest wealth quintile. A similar pattern is observed for men.

More than a tenth of women and 7 percent of men believe that if a family member got TB they would want to keep it a secret. Less educated women, those in the lowest to middle wealth quintiles, women in rural areas, and those who reside in the Mid-western development region are more likely than their counterparts to want to keep secret the fact that a member of their family has the disease.

3.6 USE OF TOBACCO

Tobacco smoking has negative effects on health, and is associated with increased risk of lung and heart diseases. Women and men interviewed in the 2006 NDHS were asked about their smoking habits. Table 3.10.1 and 3.10.2 show the percentage of women and men who smoke cigarettes or tobacco and the percent distribution of cigarette smokers by number of cigarettes smoked in the preceding 24 hours, according to background characteristics.

Smoking is more common among Nepalese men than women. Nearly one-third of men smoke cigarettes and two-fifths consume other forms of tobacco, whereas 15 percent of women smoke cigarettes and 5 percent consume other forms of tobacco. Four-fifths of Nepalese women do not use any type of tobacco products compared with about half of Nepalese men. Use of tobacco is more common among older men, those living in rural areas, men with no education and men in the lowest wealth quintile. A similar pattern is observed among women as well. It must be noted that one in ten pregnant women smokes cigarettes.

Table 3.10.1 Use of tobacco: Women

Percentage of women age 15-49 who smoke cigarettes or a pipe or use other tobacco products and the percent distribution of cigarette smokers by number of cigarettes smoked in preceding 24 hours, according to background characteristics and maternity status, Nepal 2006

Background characteristic	Uses tobacco			Does not use tobacco	Number of women	Number of cigarettes in the past 24 hours						Total	Number of cigarette smokers
	Cigarettes	Pipe	Other tobacco			0	1-2	3-5	6-9	10+	Don't know/ missing		
Age													
15-19	1.8	0.0	1.1	97.3	2,437	3.8	33.0	26.8	17.6	16.9	1.9	100.0	43
20-24	5.1	0.5	3.2	91.9	1,995	0.6	29.4	49.5	11.4	9.1	0.0	100.0	102
25-29	10.0	1.3	4.8	86.0	1,773	1.5	24.8	46.7	15.0	12.0	0.0	100.0	177
30-34	16.6	2.3	6.2	77.2	1,336	2.2	20.3	42.9	16.9	17.8	0.0	100.0	222
35-39	27.1	3.0	9.3	64.9	1,220	1.8	20.7	36.9	16.3	24.4	0.0	100.0	331
40-44	37.3	5.8	8.4	55.3	1,121	1.1	17.5	40.3	19.4	21.7	0.0	100.0	418
45-49	38.3	5.3	8.2	55.1	912	1.7	14.4	37.7	20.9	25.2	0.0	100.0	349
Residence													
Urban	8.6	0.2	3.5	88.5	1,687	2.8	16.6	36.0	18.0	25.9	0.6	100.0	144
Rural	16.5	2.3	5.3	78.9	9,106	1.5	20.1	40.7	17.7	20.0	0.0	100.0	1,498
Ecological zone													
Mountain	25.5	6.5	7.0	67.5	753	1.3	23.4	34.4	13.2	27.7	0.0	100.0	192
Hill	17.3	1.4	5.9	78.0	4,598	2.3	18.7	38.1	18.7	22.2	0.0	100.0	796
Terai	12.0	1.8	4.0	84.2	5,443	0.8	20.0	44.8	17.9	16.3	0.1	100.0	654
Development region													
Eastern	12.0	0.5	10.9	79.3	2,392	1.2	23.7	34.9	18.5	21.3	0.3	100.0	286
Central	16.0	1.0	2.1	82.4	3,553	1.5	13.3	41.0	20.3	23.8	0.0	100.0	568
Western	11.6	0.0	6.6	82.8	2,070	0.4	24.0	43.8	12.9	18.8	0.0	100.0	240
Mid-western	21.4	5.7	2.1	75.1	1,250	2.2	27.0	40.2	18.6	12.0	0.0	100.0	268
Far-western	18.4	6.3	2.9	78.4	1,528	2.6	18.5	41.6	15.0	22.4	0.0	100.0	281
Subregion													
Eastern mountain	11.0	0.3	15.0	76.7	189	0.0	28.9	30.9	22.1	18.1	0.0	100.0	21
Central mountain	28.3	0.0	2.7	71.1	202	0.2	17.9	35.0	22.7	24.2	0.0	100.0	57
Western mountain	31.5	13.3	5.1	60.7	362	2.2	25.2	34.7	6.7	31.3	0.0	100.0	114
Eastern hill	15.2	0.0	20.6	69.3	627	1.9	19.2	30.6	20.8	27.5	0.0	100.0	96
Central hill	17.2	1.4	2.6	81.1	1,713	2.8	12.9	40.9	19.1	24.3	0.0	100.0	295
Western hill	13.2	0.0	7.0	80.8	1,267	0.0	23.5	41.0	14.1	21.5	0.0	100.0	167
Mid-western hill	25.4	5.8	0.7	72.6	650	3.0	24.3	35.7	23.3	13.8	0.0	100.0	165
Far-western hill	21.5	1.2	1.1	77.8	341	4.2	18.4	35.5	14.4	27.5	0.0	100.0	73
Eastern terai	10.8	0.7	6.6	83.6	1,576	1.0	25.7	37.8	16.8	18.3	0.5	100.0	170
Central terai	13.1	0.6	1.5	85.2	1,638	0.0	12.5	42.9	21.4	23.2	0.0	100.0	215
Western terai	9.3	0.0	5.9	85.6	783	1.4	25.1	50.4	10.2	12.8	0.0	100.0	73
Mid-western terai	12.5	0.8	4.1	84.5	457	1.2	21.6	50.1	17.7	9.4	0.0	100.0	57
Far-western terai	14.1	7.6	2.5	82.3	989	1.5	21.4	51.2	18.0	7.9	0.0	100.0	139
Education													
No education	25.7	3.7	6.7	68.4	5,728	1.5	19.3	40.1	18.0	21.2	0.0	100.0	1,474
Primary	7.7	0.0	6.1	86.8	1,901	3.1	25.5	41.3	15.6	14.5	0.0	100.0	147
Some secondary	0.7	0.0	1.7	97.6	2,225	*	*	*	*	*	*	*	17
SLC and above	0.6	0.0	0.1	99.4	938	*	*	*	*	*	*	*	5
Maternity status													
Pregnant	9.7	0.8	3.1	88.2	612	2.3	31.6	43.4	12.9	9.9	0.0	100.0	60
Breastfeeding (not pregnant)	13.7	1.6	5.9	81.1	2,908	1.5	21.9	43.8	15.3	17.5	0.0	100.0	398
Neither	16.3	2.2	4.8	79.4	7,272	1.6	18.5	39.0	18.8	22.0	0.1	100.0	1,185
Wealth quintile													
Lowest	29.1	5.4	7.8	64.5	1,961	2.4	18.6	38.7	17.1	23.2	0.0	100.0	571
Second	18.0	2.0	5.0	77.9	2,079	1.3	19.9	42.1	18.1	18.6	0.0	100.0	375
Middle	15.6	2.5	5.4	79.3	2,214	0.5	21.9	37.7	21.9	18.1	0.0	100.0	344
Fourth	10.1	0.4	5.0	85.2	2,226	1.1	20.3	46.3	14.8	17.4	0.0	100.0	225
Highest	5.5	0.1	2.3	92.5	2,313	2.5	18.3	39.3	13.3	25.8	0.6	100.0	127
Total	15.2	2.0	5.0	80.4	10,793	1.6	19.8	40.3	17.7	20.5	0.0	100.0	1,642

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

Table 3.10.2 Use of tobacco: Men

Percentage of men age 15-49 who smoke cigarettes or a pipe or use other tobacco products and the percent distribution of cigarette smokers by number of cigarettes smoked in preceding 24 hours, according to background characteristics, Nepal 2006

Background characteristic	Uses tobacco			Does not use tobacco	Number of men	Number of cigarettes in the past 24 hours						Total	Number of cigarette smokers
	Cigarettes	Pipe	Other tobacco			0	1-2	3-5	6-9	10+	Don't know/ missing		
Age													
15-19	10.8	0.1	13.9	79.3	941	3.6	45.1	29.6	7.8	14.0	0.0	100.0	102
20-24	25.3	0.3	34.2	53.2	632	5.0	34.1	31.7	8.9	20.3	0.0	100.0	160
25-29	27.2	0.7	43.6	42.1	524	4.4	33.0	35.3	11.2	16.1	0.0	100.0	142
30-34	39.1	1.5	49.5	30.1	499	3.1	31.7	28.8	12.4	24.0	0.0	100.0	195
35-39	42.3	4.0	48.7	30.8	444	3.1	21.7	34.4	11.5	29.2	0.0	100.0	188
40-44	42.4	1.6	50.9	25.7	414	1.5	14.7	18.9	14.1	50.9	0.0	100.0	176
45-49	50.3	3.7	45.9	24.7	399	2.2	13.1	27.9	16.4	40.4	0.0	100.0	200
Residence													
Urban	28.0	0.1	31.4	51.7	730	4.9	23.2	33.9	16.8	21.2	0.0	100.0	204
Rural	30.7	1.7	38.5	45.4	3,123	2.8	26.6	28.3	11.2	31.1	0.0	100.0	959
Ecological zone													
Mountain	41.5	2.8	21.5	45.8	241	1.8	9.1	25.1	15.1	48.9	0.0	100.0	100
Hill	29.3	1.9	30.6	50.6	1,641	2.7	16.9	29.5	13.5	37.4	0.0	100.0	480
Terai	29.6	0.7	44.6	43.4	1,972	3.7	36.4	29.9	10.6	19.4	0.0	100.0	583
Development region													
Eastern	24.4	0.2	40.8	46.7	849	5.7	33.3	27.0	13.7	20.3	0.0	100.0	207
Central	34.8	0.8	35.9	44.4	1,367	1.7	24.7	29.8	9.3	34.5	0.0	100.0	475
Western	20.9	0.0	37.4	53.9	716	5.5	24.5	29.7	11.2	29.1	0.0	100.0	149
Mid-western	35.1	7.0	31.8	45.3	416	3.7	9.6	28.4	19.9	38.3	0.0	100.0	146
Far-western	36.8	2.4	38.8	43.1	506	1.7	35.2	31.1	12.6	19.4	0.0	100.0	186
Subregion													
Eastern mountain	24.4	0.0	24.7	58.0	59	(4.4)	(26.9)	(39.3)	(10.2)	(19.2)	(0.0)	(100.0)	14
Central mountain	43.3	1.6	22.3	45.1	73	2.0	4.2	17.1	13.6	63.0	0.0	100.0	32
Western mountain	49.6	5.0	19.2	39.7	109	1.0	7.2	26.1	17.2	48.5	0.0	100.0	54
Eastern hill	22.0	0.0	37.3	49.4	215	6.1	23.4	27.7	18.9	23.9	0.0	100.0	47
Central hill	33.7	0.6	28.0	49.2	722	2.0	18.6	33.4	10.6	35.3	0.0	100.0	243
Western hill	20.5	0.0	33.1	56.4	387	0.6	18.7	29.5	11.3	40.0	0.0	100.0	79
Mid-western hill	34.4	12.1	27.4	48.9	210	5.9	6.2	23.1	19.8	44.9	0.0	100.0	72
Far-western hill	35.7	2.2	32.8	44.8	107	1.5	13.9	19.2	17.1	48.3	0.0	100.0	38
Eastern terai	25.2	0.2	43.7	44.5	576	5.6	37.2	25.6	12.3	19.3	0.0	100.0	145
Central terai	35.0	0.9	47.6	38.2	571	1.3	35.3	27.3	7.0	29.1	0.0	100.0	200
Western terai	21.8	0.0	43.1	50.2	320	11.1	31.1	29.9	11.1	16.7	0.0	100.0	70
Mid-western terai	29.2	1.0	43.6	43.8	155	2.4	21.2	34.1	23.9	18.5	0.0	100.0	45
Far-western terai	35.1	1.7	42.7	43.5	350	1.7	46.0	37.4	9.6	5.4	0.0	100.0	123
Education													
No education	50.5	3.6	55.7	19.9	710	2.6	22.5	27.0	13.6	34.3	0.0	100.0	359
Primary	38.4	1.5	43.6	36.2	1,083	2.8	24.0	27.7	15.3	30.2	0.0	100.0	416
Some secondary	21.3	0.6	29.8	57.8	1,281	2.5	32.8	37.7	5.2	21.9	0.0	100.0	273
SLC and above	14.9	0.4	23.6	67.1	779	7.9	28.0	22.3	13.1	28.7	0.0	100.0	116
Wealth quintile													
Lowest	45.1	5.4	39.6	34.7	621	1.6	17.8	29.3	15.6	35.7	0.0	100.0	280
Second	35.7	1.2	45.6	38.8	696	1.6	29.0	31.2	12.9	25.4	0.0	100.0	248
Middle	28.9	1.1	40.3	45.4	714	4.3	32.0	26.0	11.7	26.0	0.0	100.0	206
Fourth	22.6	0.2	35.8	51.3	861	4.7	27.9	27.5	6.5	33.4	0.0	100.0	194
Highest	24.4	0.2	28.5	56.6	961	4.4	25.7	31.8	12.6	25.6	0.0	100.0	234
Total 15-49	30.2	1.4	37.2	46.6	3,854	3.2	26.0	29.3	12.2	29.4	0.0	100.0	1,164
Men 50-59	48.7	4.2	45.5	21.6	543	2.8	9.0	25.9	23.5	38.3	0.6	100.0	265
Total 15-59	32.5	1.7	38.2	43.5	4,397	3.1	22.8	28.7	14.3	31.0	0.1	100.0	1,428

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

Men living in the mountains are more likely to smoke cigarettes than those in the hills or terai. Regional variations are notable, with use of tobacco being highest in the Far-western region, where 57 percent of men use tobacco, and lowest in the Western region, where 46 percent of men do so. Tobacco use is most common in the Central terai subregion, where 62 percent of men use tobacco, and least common in the Eastern mountain subregion, where 42 percent of men do so. Regional and subregional variations are also common among women. For example, one in three women in the Western mountain subregion smoke cigarettes compared with about one in ten women in the Western terai subregion.

Almost all the respondents (98 percent of women and 97 percent of men) who use tobacco smoked at least one cigarette in the 24 hours preceding the survey. The majority of men who smoked reported consuming 3-5 cigarettes a day or as many as 10 or more cigarettes a day (29 percent each). Two-fifths of Nepalese women who smoked consumed 3-5 cigarettes a day and one in five consumed 10 or more cigarettes a day. Use of other tobacco products, mainly *khaini* (chewing tobacco), is more common among men residing in the terai across the country.

3.7 HAND WASHING PRACTICES

Hand washing, especially with soap, is encouraged as a simple and highly effective means to avoid exposure to food and water-borne diseases. In the 2006 NDHS, women were asked whether they had used soap for any purpose and, if so, what they had used soap for, and how often they had washed their hands in the 24 hours prior to the survey.

Table 3.11 shows that four out of five women have used soap for any purpose. Similarly, two-thirds of women mentioned that they had used soap to wash their hands. On average, women wash their hands with soap twice a day. The frequency of hand washing varies from a high of 7 or more times among 2 percent of women to a low of once a day among 13 percent of women. Younger women were more likely to wash their hands than older ones.

There are notable differences in hand washing practices by place of residence and region. Four-fifths of urban women washed their hands with soap compared with three-fifths of rural women. Similarly, urban women washed their hands more frequently (3 times a day on average) compared with their rural counterparts (twice a day on average). Hand washing with soap was more common among women in the hills and women in the Western region compared with women in the other regions.

As expected, hand washing is more common among the more educated and wealthier women. For example, 94 percent of women with SLC or higher level of education and 88 percent of the wealthiest women washed their hands with soap as compared with women with no education and poor women (48 percent and 38 percent, respectively). The frequency of hand washing is also highest among the most educated and rich women.

Table 3.11 Hand washing practices

Percentage of women age 15-49 who used soap, the percentage who washed their hands with soap, the frequency of hand washing, and the mean number of times hands washed, by background characteristics, Nepal 2006

Background characteristic	Use of soap yesterday	Hand washing with soap	Frequency of hand washing							Mean	Number of women
			1	2	3	4	5	6	7		
Age											
15-19	85.7	73.6	13.5	27.0	19.2	9.0	2.5	0.9	1.3	2.2	2,437
20-24	83.6	69.9	11.3	24.7	17.3	9.3	3.9	1.5	1.8	2.3	1,995
25-29	80.3	63.2	12.2	19.9	16.2	7.3	3.7	1.3	2.5	2.2	1,773
30-34	77.0	61.7	11.5	21.9	16.3	6.5	3.2	0.7	1.5	2.1	1,336
35-39	74.3	58.5	12.8	19.4	13.3	7.2	2.6	1.4	1.7	2.1	1,220
40-44	69.2	53.8	15.0	18.2	11.0	4.2	2.7	1.0	1.7	1.9	1,121
45-49	66.6	50.9	14.9	17.3	10.7	5.0	1.9	0.3	0.8	1.8	912
Residence											
Urban	94.0	83.0	9.6	20.8	21.6	15.4	7.3	3.1	5.2	2.9	1,687
Rural	75.9	60.6	13.4	22.5	14.7	6.0	2.2	0.7	1.0	2.0	9,106
Ecological zone											
Mountain	66.6	55.2	15.1	21.0	12.4	4.6	1.3	0.2	0.5	1.9	753
Hill	78.1	68.1	12.5	24.6	17.2	7.6	3.1	1.1	2.0	2.3	4,598
Terai	81.0	61.9	12.8	20.3	15.1	7.7	3.2	1.2	1.5	2.0	5,443
Development region											
Eastern	83.5	67.5	13.3	22.8	15.2	8.0	4.6	1.3	2.0	2.2	2,392
Central	80.9	64.3	11.8	20.8	16.0	8.7	3.3	1.3	2.4	2.2	3,553
Western	83.0	74.1	12.5	25.6	20.6	8.9	3.2	1.5	1.8	2.4	2,070
Mid-western	66.5	55.9	15.3	24.7	12.0	2.9	0.5	0.1	0.3	1.8	1,250
Far-western	70.5	51.2	13.0	17.7	12.8	5.4	1.5	0.5	0.3	1.7	1,528
Subregion											
Eastern mountain	75.3	69.6	15.8	27.7	14.2	8.0	2.2	0.6	0.9	2.2	189
Central mountain	74.3	63.7	14.4	20.7	16.2	8.8	2.8	0.1	0.8	2.1	202
Western mountain	57.7	43.0	15.1	17.7	9.4	0.5	0.1	0.0	0.2	1.4	362
Eastern hill	73.5	63.8	12.6	23.7	15.6	7.9	2.8	0.5	0.6	2.2	627
Central hill	84.0	73.7	11.2	23.7	18.3	10.1	4.7	1.7	3.8	2.5	1,713
Western hill	84.3	74.8	12.3	27.2	21.4	8.1	3.0	1.3	1.6	2.3	1,267
Mid-western hill	62.9	54.3	14.8	25.8	11.7	1.6	0.5	0.0	0.1	1.8	650
Far-western hill	62.3	48.7	15.3	19.3	9.2	4.0	0.7	0.0	0.2	1.6	341
Eastern terai	88.4	68.7	13.3	21.9	15.2	8.0	5.6	1.6	2.7	2.2	1,576
Central terai	78.5	54.6	12.1	17.8	13.5	7.2	1.8	1.1	1.1	1.8	1,638
Western terai	80.8	72.7	12.2	22.7	19.7	10.5	3.7	1.8	2.1	2.5	783
Mid-western terai	73.3	60.9	14.0	25.3	14.6	5.6	0.7	0.2	0.6	1.9	457
Far-western terai	76.9	55.1	13.1	17.6	14.1	6.9	2.2	0.7	0.4	1.8	989
Education											
No education	67.8	48.0	14.2	18.8	9.7	3.5	1.0	0.3	0.5	1.5	5,728
Primary	83.6	70.4	12.7	28.0	18.3	6.5	3.1	0.9	0.7	2.1	1,901
Some secondary	94.5	87.2	11.7	26.7	25.6	13.1	5.3	1.5	3.2	2.7	2,225
SLC and above	98.1	94.2	7.7	20.4	24.2	19.9	9.4	5.4	7.1	3.4	938
Wealth quintile											
Lowest	54.3	37.7	12.1	16.5	7.1	1.7	0.3	0.1	0.0	1.4	1,961
Second	71.1	52.3	14.4	22.3	10.6	3.5	1.2	0.2	0.1	1.6	2,079
Middle	79.0	59.7	13.5	23.6	14.9	5.1	1.6	0.4	0.4	1.8	2,214
Fourth	88.5	77.9	13.9	27.7	21.4	9.4	3.0	1.2	1.2	2.3	2,226
Highest	96.7	87.9	10.5	20.3	23.2	16.2	8.3	3.3	6.0	3.0	2,313
Total	78.7	64.1	12.8	22.2	15.8	7.4	3.0	1.1	1.6	2.1	10,793

FERTILITY 4

One of the major objectives of the 2006 NDHS was to examine levels, trends and differentials in fertility in Nepal. This is important in view of the government's policy to reduce the total fertility rate to 2.1 by the end of the Twelfth Plan in 2017 and bring a balance between population growth and economic development in Nepal (National Planning Commission, 2002). Fertility is one of the three principal components of population dynamics that determine the size and structure of the population of a country. Analysis in this chapter is based on pregnancy histories collected from women age 15-49 interviewed during the survey. Women were asked the number of sons and daughters living at home, children living elsewhere, and children who had died, in order to obtain the total number of live births women had had in their lifetime. For each live birth, information also was collected on the name, sex, age and survival status of the child. For children who died, age at death was recorded. Information from the pregnancy history is then used to assess current and completed fertility and factors related to fertility such as age at first birth, birth intervals, and adolescent childbearing. In addition to information on live births, the pregnancy history section included questions pertaining to all pregnancies that did not result in a live birth, including information on the month and year the pregnancy ended, the duration of the pregnancy and whether something was done deliberately to end the pregnancy.

This chapter examines current fertility differentials as well as trends in fertility and cumulative fertility in Nepal. It also examines the length of birth intervals, age at first birth and teenage pregnancy and motherhood. As is standard practice, the analysis of fertility presented here is based only on live births. In addition, this chapter includes a discussion on pregnancy outcomes, particularly with respect to abortions (whether spontaneous or induced), and stillbirths. This information, although less reliable, is particularly important in monitoring the prevalence of abortions and is especially relevant in designing health programs specific to post-abortion care.

Table 4.1 Current fertility

Age-specific and total fertility rates, the general fertility rate, and the crude birth rate for the three years preceding the survey, by residence, Nepal 2006

	Residence		
Age group	Urban	Rural	Total
15-19	72	103	98
20-24	168	248	234
25-29	113	151	144
30-34	40	93	84
35-39	25	52	48
40-44	8	17	16
45-49	1	2	2
TFR (15-49)	2.1	3.3	3.1
GFR	85	123	117
CBR	21.9	29.5	28.4

Note: 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 the 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

4.1 CURRENT FERTILITY

The level of current fertility is one of the most important demographic indicators for determining the status of women and for health and family planning policy makers because of its direct relevance to population policy and programs. Measures of current fertility are presented in Table 4.1 for the three-year period preceding the survey, corresponding to the calendar period 2003-2005. A three-year period was chosen because it reflects the most current information, while also allowing the rates to be calculated on a sufficient number of cases so as not to compromise the statistical precision of the estimate.

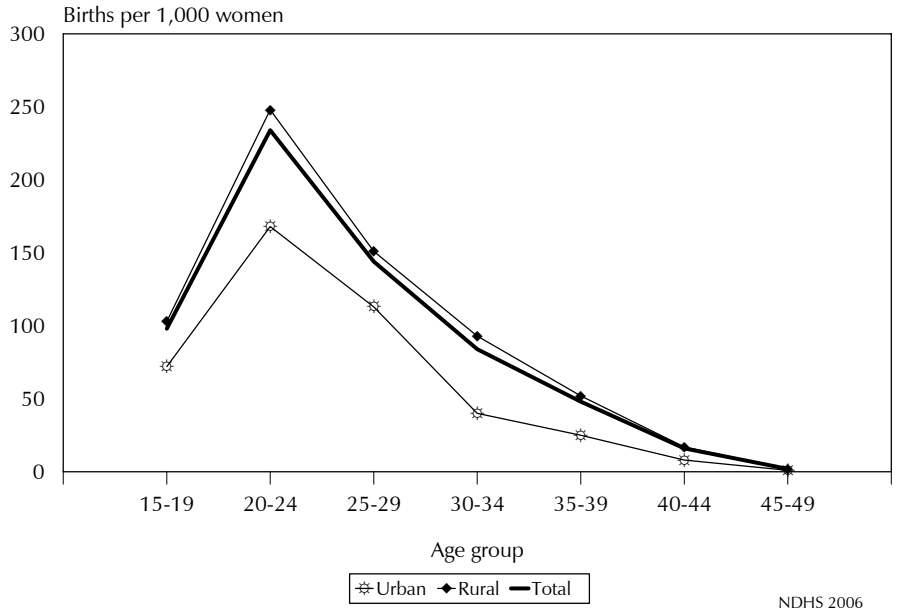
Several measures of fertility are shown in this chapter. Age-specific fertility rates (ASFRs), expressed as the number of births per thousand women in a specified age group, are calculated by dividing the number of live births to women in a specific age group by the number of woman-years lived in that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

age-specific fertility rates. The general fertility rate (GFR) is the number of live births occurring during a specified period per 1,000 women age 15-44. The crude birth rate (CBR) is the number of births per 1,000 population during a specified period.

Table 4.1 shows the current fertility for Nepal at the national level and by urban-rural residence. The total fertility rate for Nepal for the three years preceding the 2006 NDHS survey is 3.1 births per woman. As expected, fertility is considerably higher in rural areas (3.3 births per woman) than urban areas (2.1 births per woman), where fertility is at replacement level. As the ASFRs show, the pattern of higher rural fertility is prevalent in all age groups (Figure 4.1). The urban-rural difference in fertility is more pronounced for women in the age group 20-24 (168 births per 1,000 women in urban areas versus 248 births per 1,000 women in rural areas).

The overall age pattern of fertility as reflected in the ASFRs indicates that childbearing begins early. Fertility is low among adolescents and increases to a peak of 234 births per 1,000 among women age 20-24 and declines thereafter.

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



4.2 FERTILITY DIFFERENTIALS

Table 4.2 presents the differentials in the total fertility rates, the percentage of women who are currently pregnant and the mean number of children ever born (CEB) to women age 40-49, by urban-rural residence, ecological zone, development region, education and wealth quintile.

There are considerable differentials in fertility among ecological zones, with fertility ranging from a low of 3.0 births per woman in the hills to a high of 4.1 births per woman in the mountains (Figure 4.2). Similarly, the TFR ranges from 3.0 births per woman in the Central region to 3.5 births per woman in the Mid- and Far-western regions. With the exception of the Central region, fertility levels in the other four development regions are greater than or equal to the national average. The level of fertility is inversely related to women's educational attainment, decreasing rapidly from 3.9 births among women with no education to 1.8 births among women who have SLC and higher level of education. Fertility is also associated with wealth quintile. Women in the lowest wealth quintile have an average of 4.7 births, two and half times as many as women in the highest quintile (1.9 births).

Table 4.2 also presents 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 ever 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 for women 40-49 are expected to be similar. When fertility levels have been falling, the TFR will be substantially lower than the mean number of children ever born among women age 40-49. The comparison suggests that fertility has fallen by nearly two births during the past few decades, from 4.9 births per woman to 3.1. Fertility has declined in both urban and rural areas, in all regions, at all educational levels, and for all wealth quintiles. The difference between the level of current and completed fertility is highest in the Mid- and Far-western regions (2.1 births), in rural areas (1.8 births), and among women in the middle and highest wealth quintiles (1.9 births).

Table 4.2 Fertility by background characteristics

Total fertility rate for the three years preceding the survey, percentage of women age 15-49 currently pregnant, and mean number of children ever born to women age 40-49 years, by background characteristics, Nepal 2006

Background characteristic	Total fertility rate	Percentage of women 15-49 currently pregnant	Mean number of children ever born to women age 40-49
Residence			
Urban	2.1	4.6	3.7
Rural	3.3	5.9	5.1
Ecological zone			
Mountain	4.1[a]	5.6	5.4
Hill	3.0	5.6	4.6
Terai	3.1	5.8	5.0
Development region			
Eastern	3.1	4.7	4.7
Central	3.0	6.2	4.7
Western	3.1	5.5	4.6
Mid-western	3.5[a]	6.6	5.6
Far-western	3.5[a]	5.3	5.6
Education			
No education	3.9	5.8	5.1
Primary	2.8[a]	6.1	4.0
Some secondary	2.3[b]	5.1	3.3
SLC and above	1.8[b]	5.7	2.6
Wealth quintile			
Lowest	4.7	6.5	5.7
Second	3.6	7.1	5.3
Middle	3.1	6.0	5.0
Fourth	2.7	4.9	4.5
Highest	1.9	4.2	3.8
Total	3.1	5.7	4.9

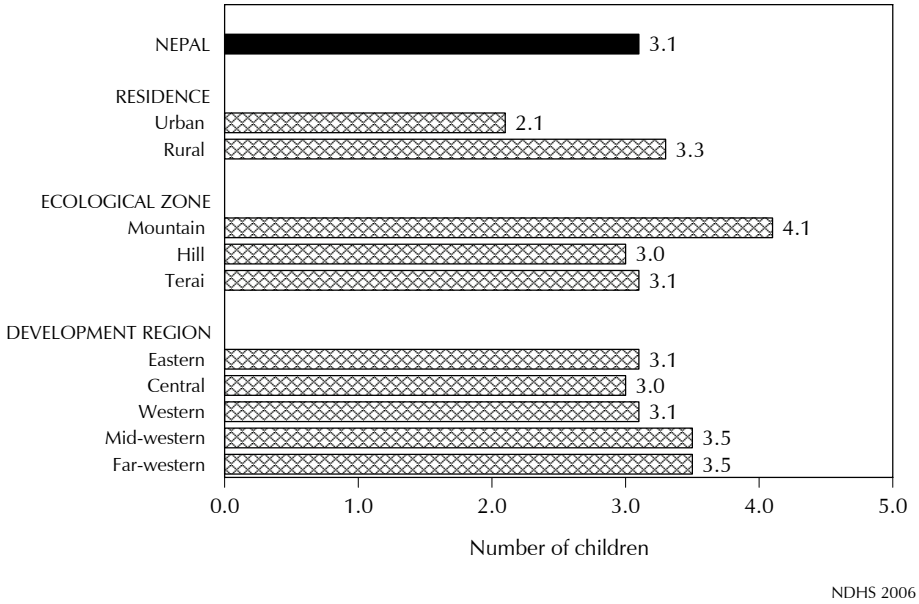
Note: Total fertility rates are for the period 1-36 months preceding the survey.

[a] One or more of the component age-specific fertility rates is based on 125-249 woman-years of exposure.

[b] One or more of the component age-specific fertility rates is based on fewer than 125 woman-years of exposure

The percentage of women who reported being pregnant at the time of the survey is also presented in Table 4.2. This percentage may be underreported since women may not be aware of a pregnancy, especially at the very early stages, and some women who are early in their pregnancy may not want to reveal that they are pregnant. Six percent of women were pregnant at the time of the survey. Rural women were slightly more likely to be pregnant than urban women. Regionally, current pregnancy is highest in the Mid-western region and lowest in the Eastern region. The proportion of women currently pregnant varies slightly by women's education but the pattern is unclear. The percentage currently pregnant ranges from a low of 4 percent among women in the highest wealth quintile to a high of 7 percent among women in the second and lowest wealth quintiles.

Figure 4.2 Total Fertility Rates by Background Characteristics



4.3 FERTILITY TRENDS

In addition to the comparison of current and completed fertility, trends in fertility can be assessed in two other ways. First, fertility trends can be investigated using retrospective data on pregnancy histories collected in the same survey. Second, the TFR from the 2006 NDHS can be compared with estimates obtained in earlier surveys.

Trends in fertility over time can be examined by comparing age-specific fertility rates from the 2006 NDHS for successive five-year periods preceding the survey, as presented in Table 4.3. Because women 50 years and over were not interviewed in the survey, the rates for older age groups become progressively more truncated for periods more distant from the survey date. For example, rates cannot be calculated for women age 35-39 for the period 15-19 years before the survey because these women would have been over age 50 at the time of the survey and therefore not eligible to be interviewed.

Table 4.3 Trends in age-specific fertility rates

Age-specific fertility rates for five-year periods preceding the survey, by mother's age at the time of the birth, Nepal 2006

Mother's age at birth	Number of years preceding survey			
	0-4	5-9	10-14	15-19
15-19	106	144	143	142
20-24	233	260	302	303
25-29	152	206	244	271
30-34	92	136	177	[229]
35-39	55	75	[126]	
40-44	23	[47]		
45-49	[3]			

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

Nonetheless, the results in Table 4.3 show that fertility has dropped substantially among all age groups over the past two decades. This decline is most obvious in the 15 years preceding the survey, with the largest decline observed between the two most recent five-year periods. Fertility decline is steepest among the cohort age 30-34, with a 60 percent decline between the period 15-19 years before the survey and the period 0-4 years before the survey.

Table 4.4 compares fertility trends from estimates obtained in earlier DHS surveys in 1996 and 2001, with information gathered in the 2006 NDHS survey.

Table 4.4 Trends in fertility

Age-specific fertility rates (per 1,000 women) and total fertility rates (TFR), Nepal 2006

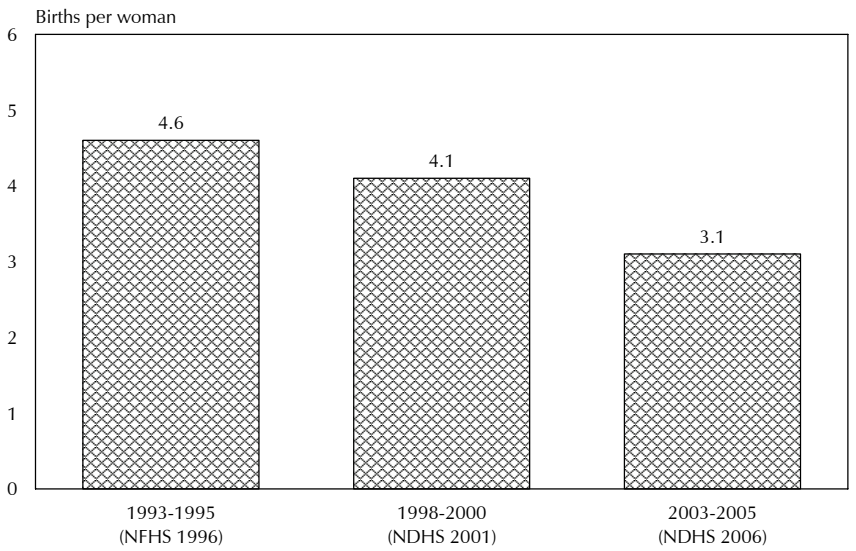
Age group	NFHS 1996[a] (1993-1995)	NDHS 2001[b] (1998-2000)	NDHS 2006 (2003-2005)
15-19	127	110	98
20-24	266	248	234
25-29	229	205	144
30-34	160	136	84
35-39	94	81	48
40.44	37	34	16
45-49	15	7	2
TFR	4.6	4.1	3.1

Note: Rates refer to the 3-year period prior to each survey.
[a] Pradhan et al., 1997:37
[b] Ministry of Health, New ERA, and ORC Macro, 2002:58

Fertility declined from 4.6 births per woman in the 1996 NDHS to 3.1 births in the 2006 NDHS—a drop of one and a half births per woman in the past 10 years. The decline in fertility is more pronounced in the five years between 2001 and 2006 (a one birth decline) than between 1996 and 2001 (a half birth decline). Fertility has declined in every age group over the past 10 years, with larger declines seen in the older age cohorts.

This decrease in fertility in terms of the TFR is unprecedented in Nepal. As mentioned earlier, the TFR has decreased from 4.1 births per woman in 2001 to 3.1 births per woman in 2006, a 25 percent decline between the two surveys. Many factors may have contributed to this precipitous decline in Nepal. Among others, the internal as well as external displacement of people due to the decade-long political insurgency (1995-2006) may be one of the fundamental reasons for this change. The movement of people from remote rural areas to some semi-urban or urban areas may have influenced women to have smaller families for various social and economic reasons. Furthermore, exposure to modern means of communications and easy access to modern family planning methods not previously available in Nepal also may have had an impact. In addition, there has been a tremendous outflux of migrants seeking work in foreign countries, especially to the Gulf and other Southeast Asian countries. The increase in family planning awareness and use of contraception, decline in the ideal number of children, and increasing age at marriage are some other factors affecting fertility that are discussed in later chapters of this report. However, the fertility trend shown in Table 4.4 and Figure 4.3 must be interpreted with caution, taking into consideration such issues as the data quality, sample size, difference in sampling frame used in the 2001 NDHS and the 2006 NDHS, and weighed against other information gathered in this survey, as well as within the context of major political changes in the last five years. A detailed discussion of these issues in relation to earlier surveys is beyond the scope of this report.

Figure 4.3 **Trends in Total Fertility Rates 1993-2005**



Note: Rates are for the three years preceding the survey. NDHS 2006

4.4 PREGNANCY OUTCOMES

The 2006 NDHS collected complete pregnancy histories from women age 15-49 and provides information on pregnancy outcomes. Collecting information on pregnancy histories is comparatively more difficult than collecting birth histories retrospectively, particularly in the case of pregnancies that miscarried within the first few months after conception. So, the total number of pregnancies and abortions may be underestimated, and caution should be exercised in interpreting these data. Even though abortion is legal in Nepal, because of the social stigma associated with it, women may report an induced abortion as a spontaneous abortion or a stillbirth, or omit mentioning it altogether.

Table 4.5 presents data on pregnancy outcomes among all women in the ten years preceding the survey by age of mother and urban-rural residence. Overall, 90 percent of pregnancies result in a live birth and 10 percent end as non-live births. Women are more likely to report abortions as spontaneous (5 percent) than they are to report them as induced (2 percent). Two percent of births are reported as stillbirths. There is some variation in pregnancy outcomes across age groups, with non-live births generally increasing with age. The same pattern is seen in both urban and rural areas. Abortions are more common in urban than in rural areas, especially induced abortions, which are three times more common in urban than rural areas.

Table 4.5 Pregnancy outcome

Percent distribution of pregnancies among all women in the ten years preceding the survey by pregnancy outcome, according to age at end of pregnancy and residence, Nepal 2006

Age at end of pregnancy	Pregnancy outcome: Spontaneous abortion	Induced abortion	Stillbirth	Live birth	Total	Number of pregnancies
			URBAN			
<20	5.5	2.4	0.7	91.4	100.0	414
20-24	3.4	4.9	2.0	89.8	100.0	619
25-29	5.8	8.5	2.3	83.4	100.0	354
30-34	8.2	13.7	1.7	76.5	100.0	148
35-39	2.5	7.5	0.7	89.3	100.0	59
40-44	(2.4)	(13.7)	(8.1)	(75.8)	(100.0)	11
Total	4.9	6.0	1.7	87.5	100.0	1,606
			RURAL			
<20	6.3	0.7	2.3	90.7	100.0	2,405
20-24	5.1	1.5	1.9	91.6	100.0	4,010
25-29	4.1	2.7	2.1	91.1	100.0	2,405
30-34	4.2	3.4	2.4	90.0	100.0	1,408
35-39	8.5	2.5	3.1	85.9	100.0	762
40-44	6.2	2.4	1.0	90.4	100.0	229
Total	5.3	1.9	2.1	90.7	100.0	11,225
			TOTAL			
<20	6.1	1.0	2.0	90.8	100.0	2,819
20-24	4.8	2.0	1.9	91.3	100.0	4,629
25-29	4.3	3.5	2.1	90.1	100.0	2,759
30-34	4.6	4.3	2.4	88.7	100.0	1,556
35-39	8.0	2.9	3.0	86.1	100.0	821
40-44	6.0	3.0	1.3	89.7	100.0	241
Total	5.2	2.4	2.1	90.3	100.0	12,831

Note: Pregnancy outcomes for age groups 45-49 are not shown because they are based on fewer than 25 pregnancies. Figures in parentheses are based on 25-49 unweighted cases.

4.5 CHILDREN EVER BORN AND SURVIVING

Data on the number of children ever born reflect the accumulation of births over the past 30 years and, therefore have limited relevance to current fertility levels, particularly when the country has experienced a decline in fertility. Moreover, the data are subject to recall error, which is typically greater for older than younger women. Nevertheless, the information on children ever born (or parity) is useful in looking at a number of issues. The parity data show how average family size varies across age groups. The percentage of women in their forties who have never had children also provides an indicator of the level of primary infertility or the inability to bear children. 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 4.6 shows the percent distribution of all women and currently married women by number of children ever born, mean number of children ever born and mean number of children living. More than four-fifths of women age 15-19 (87 percent) have never given birth. However, this proportion declines to 8 percent for women age 25-29 and to less than 4 percent among women age 30 and above, indicating that childbearing among Nepalese women is nearly universal. On average, Nepalese women nearing the end of their reproductive years have attained a parity of 5.3 children. This is 2.2 children more than the total fertility rate, a difference brought about by the dramatic decline in fertility during the 1980s and 1990s.

The same pattern is replicated 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 (2.4 children). The difference between all women and currently married women in the mean number of children ever born is due to a substantial proportion of young and unmarried women in the former category who exhibit lower fertility.

Table 4.6 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, Nepal 2006

	Number of children ever born														
Age	0	1	2	3	4	5	6	7	8	9	10+	Total	Number of women	Mean number of children ever born	Mean number of children living
ALL WOMEN															
15-19	86.6	11.5	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	2,437	0.15	0.14
20-24	28.9	32.2	29.0	8.2	1.6	0.2	0.0	0.0	0.0	0.0	0.0	100.0	1,995	1.22	1.14
25-29	8.2	14.0	34.3	24.3	13.1	4.4	1.5	0.1	0.0	0.0	0.0	100.0	1,773	2.40	2.21
30-34	3.4	7.4	21.2	28.3	19.5	12.1	5.8	1.7	0.6	0.0	0.0	100.0	1,336	3.25	2.91
35-39	3.1	2.8	13.8	22.8	20.1	15.5	11.0	4.9	4.3	1.1	0.7	100.0	1,220	4.09	3.62
40-44	3.7	2.7	10.4	16.4	18.0	15.6	14.4	9.2	3.8	3.6	2.2	100.0	1,121	4.60	3.86
45-49	2.9	3.1	5.2	12.7	15.5	15.1	17.1	10.8	7.3	5.8	4.5	100.0	912	5.26	4.18
Total	27.6	12.6	17.1	14.4	10.3	6.9	5.2	2.6	1.6	1.0	0.7	100.0	10,793	2.44	2.13
CURRENTLY MARRIED WOMEN															
15-19	58.8	35.6	5.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	784	0.47	0.44
20-24	13.1	39.1	35.5	10.2	1.9	0.2	0.0	0.0	0.0	0.0	0.0	100.0	1,606	1.49	1.39
25-29	3.8	14.2	36.0	25.7	13.8	4.7	1.6	0.1	0.0	0.0	0.0	100.0	1,664	2.53	2.33
30-34	1.6	6.7	21.6	28.9	20.0	12.8	6.0	1.7	0.7	0.0	0.0	100.0	1,265	3.34	2.99
35-39	1.4	2.3	13.9	23.1	20.6	16.1	10.9	5.1	4.6	1.2	0.6	100.0	1,135	4.19	3.72
40-44	2.3	2.0	10.6	16.2	19.0	15.7	15.4	9.2	3.6	3.8	2.3	100.0	1,016	4.71	3.97
45-49	1.2	2.0	4.1	12.4	15.8	15.8	17.9	11.7	7.7	6.5	4.9	100.0	788	5.52	4.38
Total	9.7	15.6	21.6	18.0	12.9	8.6	6.4	3.2	1.9	1.3	0.8	100.0	8,257	3.04	2.66

As expected, the mean number of children ever born and mean number of children surviving rise with increasing age of women. Comparison of the mean number of children ever born with the mean number of living children reveals the experience of child loss among Nepalese women. By the end of their reproductive years (age 45-49), women in Nepal have given birth, on average, to 5.3 children, with 4.2 surviving.

Voluntary childlessness is uncommon in Nepal, and currently married women with no children are likely to be those who are sterile or unable to bear children. The level of childlessness among married women at the end of their reproductive period can be used as an indicator of the level of primary sterility. In Nepal, primary sterility among older currently married women is around 1 percent.

4.6 Birth Intervals

Birth interval is the length of time between two successive live births. Information on birth intervals provides insight into birth spacing patterns, which affect fertility as well as maternal, infant and childhood mortality. Studies have shown that short birth intervals are associated with increased risk of death for mother and baby, particularly when the birth interval is less than 24 months.

Table 4.7 shows the percent distribution of non-first births in the five years preceding the survey by number of months since the preceding birth, according to background characteristics. The median birth interval in Nepal is 33.6 months. The median number of months since a preceding birth increases significantly with age, from a low of 19.0 months among mothers age 15-19 to a high of 42.3 months among mothers age 40-49. There is no marked difference in the length of the median birth interval by birth order and sex of the preceding birth.

Studies have shown that the death of a preceding child leads to a shorter birth interval than when the preceding child survived. The median birth interval is more than nine months shorter among births for which the previous sibling is dead than among births in which the previous sibling is alive (25.1 months and 34.2 months, respectively). This difference in the birth intervals may be due to the desire of parents to replace a dead child as well as the loss of the fertility-delaying effects of breastfeeding.

According to the 2006 NDHS data, birth intervals are slightly longer in urban (36.7 months) than in rural areas (33.1 months). There are no marked differences in the median birth intervals by ecological zones and development regions. However, the median birth interval is slightly higher in the hills and is especially more pronounced in the Central hills subregion. Variation in the median birth interval by education and wealth quintiles is small.

Table 4.7 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, Nepal 2006

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	(36.4)	(23.1)	(20.1)	(13.4)	(6.9)	(0.0)	(100.0)	41	(19.0)
20-29	8.4	16.9	38.0	20.3	9.5	6.9	100.0	2,387	30.8
30-39	5.2	10.3	27.5	21.8	15.3	19.8	100.0	1,184	39.2
40-49	5.6	8.7	23.5	19.8	12.1	30.4	100.0	248	42.3
Birth order									
2-3	8.3	15.4	34.2	19.9	10.7	11.6	100.0	2,334	32.8
4-6	5.6	12.0	32.5	22.2	13.2	14.4	100.0	1,198	35.9
7+	9.1	16.1	34.3	20.8	10.3	9.4	100.0	328	32.3
Sex of preceding birth									
Male	7.2	14.4	31.3	20.2	12.1	14.8	100.0	1,856	35.0
Female	7.8	14.4	35.9	21.1	10.8	9.9	100.0	2,004	32.2
Survival of preceding birth									
Living	5.6	14.3	34.8	20.9	11.6	12.8	100.0	3,551	34.2
Dead	30.2	15.1	21.0	17.5	9.8	6.4	100.0	310	25.1
Residence									
Urban	8.1	10.1	29.1	21.8	13.5	17.4	100.0	417	36.7
Rural	7.5	14.9	34.2	20.5	11.2	11.7	100.0	3,443	33.1
Ecological zone									
Mountain	8.6	15.5	34.5	18.9	11.2	11.2	100.0	359	33.3
Hill	7.7	12.2	33.9	20.2	12.9	13.1	100.0	1,545	34.4
Terai	7.2	15.9	33.3	21.4	10.4	11.8	100.0	1,956	33.0
Development region									
Eastern	9.6	16.4	33.7	18.6	7.5	14.2	100.0	799	31.7
Central	7.3	14.2	32.4	22.2	12.6	11.3	100.0	1,254	34.2
Western	8.1	14.1	33.0	21.0	10.7	13.1	100.0	719	33.8
Mid-western	5.5	12.4	35.4	20.9	15.6	10.2	100.0	508	34.8
Far-western	6.2	14.2	35.7	19.6	11.7	12.5	100.0	579	33.6
Subregion									
Eastern mountain	11.3	19.2	31.0	15.4	5.9	17.3	100.0	78	31.4
Central mountain	10.4	7.1	34.6	22.9	9.3	15.6	100.0	64	35.7
Western mountain	7.0	16.6	35.8	19.1	13.7	7.7	100.0	217	32.8
Eastern hill	8.9	16.2	36.4	14.4	8.1	16.0	100.0	243	32.3
Central hill	8.0	9.9	28.1	22.8	15.5	15.7	100.0	432	36.8
Western hill	8.2	13.1	33.9	19.1	11.1	14.6	100.0	417	34.0
Mid-western hill	5.7	10.2	36.5	21.5	17.4	8.8	100.0	277	35.2
Far-western hill	7.1	13.5	40.7	22.5	10.1	6.0	100.0	176	31.7
Eastern terai	9.8	16.0	32.7	21.3	7.5	12.8	100.0	477	31.5
Central terai	6.6	17.3	34.6	21.8	11.2	8.5	100.0	758	32.3
Western terai	8.0	15.7	31.9	23.2	10.2	11.1	100.0	297	33.0
Mid-western terai	5.4	11.6	36.0	22.4	11.4	13.2	100.0	147	35.2
Far-western terai	4.5	14.6	31.1	17.8	12.7	19.2	100.0	275	35.9
Education									
No education	7.3	14.1	34.0	20.7	11.9	12.1	100.0	2,675	33.8
Primary	7.1	15.0	33.3	22.3	11.7	10.7	100.0	623	33.0
Some secondary	10.1	14.9	32.6	19.1	8.5	14.8	100.0	428	33.5
SLC and above	6.5	17.3	32.9	17.2	10.4	15.8	100.0	134	33.4
Wealth quintile									
Lowest	7.3	13.5	36.3	20.9	11.3	10.7	100.0	1,110	33.1
Second	7.0	15.9	34.0	20.3	11.1	11.6	100.0	857	33.3
Middle	8.7	15.0	33.2	21.3	10.6	11.2	100.0	786	32.3
Fourth	6.6	14.7	33.7	20.3	11.9	12.9	100.0	631	33.8
Highest	8.4	12.2	27.6	20.1	13.2	18.4	100.0	476	36.5
Total	7.5	14.4	33.7	20.7	11.4	12.3	100.0	3,860	33.6

Note: First-order births are excluded from this table. The interval for multiple births is the number of months since the preceding pregnancy that ended in a live birth. Figures in parentheses are based on 25-49 unweighted cases

4.7 AGE AT FIRST BIRTH

The onset of childbearing at an early age has a major effect on the health of both mother and child. It also lengthens the reproductive period, thereby increasing the level of fertility. Table 4.8 shows the median age at first birth and the percentage of women who gave birth by exact ages, by five-year age groups.

Childbearing begins early in Nepal. The median age at first birth is 19.6 years for the younger cohort (age 25-29) of women for whom a median age can be computed and varies between 19.9 and 20.1 years among the older cohorts. Almost one-quarter of Nepalese women have given birth before reaching age 18, while over half have had a birth by age 20. The median age at first birth is about 20 years across all age cohorts, indicating virtually no change in the age at first birth. Half of the women have given birth by age 20 and almost 90 percent have given birth by age 25.

Table 4.8 Age at first birth

Percentage of women who gave birth by specific exact ages, percentage who have never given birth, and median age at first birth, according to current age, Nepal 2006

	Percentage who gave birth by exact age					Percentage who have never given birth	Number of women	Median age at first birth
Current age	15	18	20	22	25			
15-19	0.5	na	na	na	na	86.6	2,437	a
20-24	1.5	22.6	49.1	na	na	28.9	1,995	a
25-29	1.4	25.1	56.0	74.0	88.6	8.2	1,773	19.6
30-34	1.4	23.6	53.0	75.2	88.9	3.4	1,336	19.8
35-39	1.2	22.6	51.2	73.5	90.0	3.1	1,220	19.9
40-44	0.6	20.8	46.6	71.8	86.7	3.7	1,121	20.2
45-49	2.5	21.1	48.7	71.1	85.5	2.9	912	20.1
25-49	1.4	23.0	51.8	73.3	88.1	4.7	6,362	19.9

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

Table 4.9 shows the median age at first birth by background characteristics. The median age at first birth is slightly higher in urban areas than in rural areas. The urban-rural difference in median age at first birth is wider among younger (25-34) than older women. Women age 25-49 in the mountains have the highest median age at first birth (20.7 years), followed by women living in the hills (20.4 years), and *terai* (19.4 years). Women living in the Mid-western region and particularly in the Mid-western terai subregion have the lowest median age at first birth.

There is a positive relationship between educational attainment and median age at first birth, but the impact of education is more obvious at secondary and higher level of education. Women with no education or only primary education give birth to their first child at least three years earlier than women who have an SLC and higher level of education. Although median age at first birth is consistently high among the wealthiest women, there is no clear pattern between the onset of childbearing and women's wealth across age groups except among the younger cohort age 25-29.

Table 4.9 Median age at first birth

Median age at first birth among women age 25-49 years, by current age, according to background characteristics, Nepal 2006

Background characteristic	Current age					Women age
	25-29	30-34	35-39	40-44	45-49	25-49
Residence						
Urban	20.4	20.7	20.3	20.4	19.9	20.4
Rural	19.5	19.7	19.9	20.2	20.1	19.8
Ecological zone						
Mountain	19.8	20.2	20.5	21.6	21.5	20.7
Hill	20.3	20.4	20.2	20.7	20.7	20.4
Terai	19.2	19.4	19.6	19.6	19.6	19.4
Development region						
Eastern	20.1	20.5	20.6	20.5	20.7	20.5
Central	19.6	19.7	20.0	20.1	20.1	19.9
Western	19.9	19.9	19.9	20.3	20.4	20.0
Mid-western	18.9	19.3	19.3	19.8	19.8	19.3
Far-western	19.4	19.1	19.2	20.3	19.5	19.5
Subregion						
Eastern mountain	22.4	20.6	21.5	22.6	22.3	21.9
Central mountain	19.7	19.5	20.4	21.8	(21.2)	20.6
Western mountain	18.8	20.7	20.1	(21.0)	(21.3)	20.1
Eastern hill	21.3	22.1	21.7	21.9	21.8	21.8
Central hill	21.0	20.4	20.9	20.9	20.5	20.7
Western hill	20.3	20.0	19.8	20.6	20.8	20.2
Mid-western hill	19.4	19.8	19.6	19.7	(20.3)	19.7
Far-western hill	19.5	20.0	19.0	18.8	(20.2)	19.4
Eastern terai	19.3	20.1	20.3	19.6	20.1	19.9
Central terai	19.0	19.3	19.5	19.0	19.4	19.2
Western terai	19.3	19.7	19.9	19.7	19.9	19.6
Mid-western terai	18.6	18.8	19.1	19.6	18.6	18.9
Far-western terai	19.4	18.8	19.0	20.5	19.2	19.4
Education						
No education	19.1	19.3	19.7	20.2	20.1	19.7
Primary	19.3	19.7	20.7	20.1	19.8	19.7
Some secondary	20.5	20.8	20.2	(20.6)	(19.3)	20.5
SLC and above	23.1	23.0	22.6	(21.4)	*	22.9
Wealth quintile						
Lowest	19.2	19.5	20.0	20.9	21.2	20.0
Second	19.5	19.3	19.6	20.1	19.9	19.6
Middle	19.5	19.6	19.7	19.6	20.0	19.6
Fourth	19.5	19.7	19.8	20.1	19.6	19.7
Highest	20.6	20.7	20.6	20.6	20.2	20.6
Total	19.6	19.8	19.9	20.2	20.1	19.9

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.

4.8 ADOLESCENT PREGNANCY AND MOTHERHOOD

Adolescent pregnancy and motherhood is a major social and health issue in Nepal. Early teenage pregnancy can cause severe health problems for both the mother and child. Moreover, an early start to childbearing greatly reduces the educational and employment opportunities of women and is associated with higher levels of fertility. Table 4.10 shows the percentage of women age 15-19 who have had a live birth or who are pregnant with their first child and the percentage who have begun childbearing, by background characteristics.

Nineteen percent of women age 15-19 have already had a birth or are pregnant with their first child. The percentage of women who have begun childbearing increases rapidly with age, from 1 percent among women age 15 to 41 percent among women age 19. Although the proportion is lower in urban areas than in rural areas, the difference is not very large. Adolescent childbearing is lowest in the hills (17 percent) and highest in the mountains (20 percent). Teenage pregnancy has declined markedly in the terai zone from 31 percent in 1996 and 26 percent in 2001 to the current level of 19 percent. Not surprisingly, early childbearing is inversely related to educational level. For example, teenagers with no education are three times as likely to have begun childbearing as those with some secondary education. There is a marked difference between the percentage of teens with SLC or higher level of education who have started childbearing and teens at all other levels of education. The percentage of teenagers who have begun childbearing is highest (22 percent) in the middle wealth quintile and lowest among teens in the wealthiest households (14 percent). Nationally, the proportion of teenage pregnancies has declined from 24 percent in 1996 and 21 percent in 2001 to 19 percent in 2006.

Table 4.10 Adolescent 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 childearing, by background characteristics, Nepal 2006

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	0.4	0.8	1.3	534
16	2.7	2.5	5.2	480
17	11.4	8.9	20.2	501
18	20.5	8.2	28.7	480
19	35.0	5.7	40.7	441
Residence				
Urban	11.8	4.6	16.4	350
Rural	13.6	5.2	18.8	2,086
Ecological zone				
Mountain	15.9	4.0	19.8	175
Hill	12.0	5.3	17.3	1,025
Terai	14.1	5.2	19.3	1,236
Development region				
Eastern	15.6	4.5	20.1	545
Central	12.9	5.0	18.0	732
Western	12.3	7.0	19.3	461
Mid-western	16.3	5.3	21.7	314
Far-western	9.8	3.9	13.7	384
Subregion				
Eastern mountain	11.0	4.0	14.9	43
Central mountain	9.7	2.3	12.0	41
Western mountain	20.9	4.7	25.6	91
Eastern hill	11.0	2.2	13.2	137
Central hill	11.8	4.4	16.2	371
Western hill	12.5	7.5	20.0	269
Mid-western hill	12.4	6.1	18.5	168
Far-western hill	12.2	5.9	18.1	81
Eastern terai	17.9	5.4	23.3	365
Central terai	14.7	6.1	20.8	319
Western terai	12.4	6.4	18.7	188
Mid-western terai	19.5	6.0	25.5	110
Far-western terai	7.0	2.4	9.4	253
Education				
No education	24.0	8.8	32.7	511
Primary	16.6	6.4	23.0	618
Some secondary	8.9	3.4	12.3	1,077
SLC and above	1.9	1.9	3.9	230
Wealth quintile				
Lowest	12.9	5.3	18.2	430
Second	13.5	5.3	18.8	490
Middle	15.9	5.6	21.5	520
Fourth	14.3	4.7	19.0	539
Highest	9.6	4.8	14.4	457
Total	13.4	5.1	18.5	2,437

FAMILY PLANNING 5

Family planning continues to be a priority highlighted in the Tenth Development Plan (2002-2007). The objectives of the National Family Planning Program include gradually reducing the population growth rate: promoting the concept of a small family norm to the population in general and the rural population more specifically; increasing the availability of and the demand for family planning services; providing high quality services; and reducing unmet need. The National Family Planning Program also aims to expand and sustain adequate family planning services at the community level utilizing all health facilities (Ministry of Health and Population, 2006). To achieve this, mobile family planning camps have been launched in the more remote districts to increase people's access to family planning services, and the private sector and NGOs have been encouraged to play a more effective role in the national family planning program (National Planning Commission, 2002).

This chapter appraises the knowledge of various contraceptive methods and discusses past and current prevalence. For users of periodic abstinence (rhythm method), knowledge of the ovulatory cycle is examined, and for those relying on sterilization, the timing of method of adoption is reviewed. Special attention is focused on the source of contraception, informed choice, nonuse and intention to use contraceptive methods in the future. The chapter also contains information on exposure to family planning messages through the media, contact with family planning providers and husband's knowledge of wife's use of contraception. These topics are of practical use to policy and program administrators in formulating effective family planning strategies. Although the main focus of this chapter is on women, results from the male survey are also presented because men play an important role in the realization of reproductive goals. Wherever possible, comparisons are made with findings from previous surveys in order to evaluate family planning in Nepal over time.

5.1 KNOWLEDGE OF CONTRACEPTIVE METHODS

Knowledge of contraceptive methods is an important precursor to use. The ability to spontaneously name or recognize a family planning method when it is described is a simple test of a respondent's knowledge but not necessarily an indication of the extent of knowledge. Information on knowledge of contraception was collected by first asking a respondent to name ways or methods by which a couple could delay or avoid pregnancy. If the respondent failed to mention a particular method spontaneously, the interviewer described the method and asked whether the respondent recognized it. The survey collected information on eight modern family planning methods—female and male sterilization, the pill, the IUD, injectables, implants, male condoms and emergency contraception—and two traditional methods—rhythm method and withdrawal. Folk methods, such as plants and herbs, could be mentioned spontaneously by respondents.

In Table 5.1, information about knowledge of contraceptive methods is presented for all women and men as well as for currently married and never-married women and men by specific methods. Findings from the 2006 NDHS show that knowledge of at least one modern method of family planning in Nepal is almost universal among both women and men. The most widely known modern contraceptive methods among currently married women are: injectables (99 percent); female sterilization (99 percent); condoms (97 percent); male sterilization (96 percent); and contraceptive pill (95 percent). Eighty-four percent of married women know of implants, about two in three women have heard of the IUD, and 7 percent of women have heard of emergency contraception. This pattern is similar for all, currently married, and never-married men except that men are more likely than women to have heard of condoms, male sterilization, emergency contraception, and the IUD, and less likely to have heard of injectables, implants, and pills. A greater proportion of women and men reported knowing a modern method than a traditional method. Knowledge of any traditional method

among all three groups of women ranges between 38-52 percent. Reported knowledge of traditional methods is much higher among men (70-79 percent). One of the reasons for the lower reported knowledge of traditional methods may be that these methods are not included in the government family planning program, and women may be reluctant to mention them because they are not widely accepted. Among currently married women, there has been an increase since 2001 in the percentage who have heard of all modern methods except female and male sterilization.

There is almost no difference in the percentage of respondents who have heard of at least one method of contraception by background characteristics (data not shown). The high level of knowledge could be attributed to the successful dissemination of family planning messages through the mass media.

Table 5.1 Knowledge of contraceptive methods

Percentage of all respondents, currently married respondents and never-married respondents age 15-49 who know any contraceptive method, by specific method, and mean number of methods known, Nepal 2006

	Women			Men		
Method	All women	Currently married women	Never-married women	All men	Currently married men	Never-married men
Any method	99.8	99.9	99.7	99.9	99.9	99.8
Any modern method	99.8	99.9	99.7	99.9	99.9	99.8
Female sterilization	98.3	98.7	96.6	97.6	98.9	95.0
Male sterilization	95.2	96.3	90.9	97.9	99.0	95.8
Pill	94.5	95.4	91.1	91.6	93.2	88.5
IUD	66.4	67.2	65.7	68.2	68.8	67.6
Injectables	98.5	98.8	97.1	95.3	95.8	94.4
Implants	81.1	83.5	73.4	74.1	75.2	72.5
Condom	96.3	96.8	94.7	99.7	99.8	99.4
Emergency contraception	7.4	6.5	11.3	16.8	15.1	20.5
Any traditional method	48.4	51.6	38.3	75.9	79.2	69.8
Rhythm method	33.8	34.5	32.4	63.7	68.1	55.7
Withdrawal	35.6	39.8	20.7	67.6	71.3	60.7
Folk method	1.6	1.5	2.0	3.7	3.1	5.1
Mean number of methods known by respondents 15-49	7.1	7.2	6.8	7.8	7.9	7.6
Number of respondents	10,793	8,257	2,149	3,854	2,598	1,207
Mean number of methods known by respondents 15-59	na	na	na	7.7	7.8	7.5
Number of respondents	na	na	na	4,397	3,102	1,210

na = Not applicable

5.2 EVER USE OF CONTRACEPTION

Data on ever use of contraception has special significance because it reveals the cumulative success of programs promoting the use of family planning among couples. Ever use refers to use of a method at any time, with no distinction between past and present use. In the 2006 NDHS, respondents who had heard of a method of family planning were asked if they had ever used a method.

Table 5.2.1 shows the percentage of all women and currently married women who have ever used family planning by specific method and age. Sixty-eight percent of currently married women have used a method of contraception, and 65 percent have used a modern method. Among currently married women, nearly one in three has ever used injectables, making it the most commonly used modern method. About one in five currently married women has used condoms, female sterilization or the pill in the past, and about 6 percent of women reported having used male sterilization.

Table 5.2.1 Ever use of contraception: Women

Percentage of all women and currently married women age 15-49 who have ever used any contraceptive method by specific method, and age, Nepal 2006

			Modern method									Traditional method			
Age	Any method	Any modern method	Female sterilization	Male sterilization	Pill	IUD	Injectables	Implants	Condom	Emergency contraception	Any traditional method	Rhythm	Withdrawal	Folk method	Number of women
ALL WOMEN															
15-19	10.1	9.1	0.0	0.1	1.6	0.1	2.7	0.1	6.2	0.0	1.8	0.3	1.6	0.0	2,437
20-24	47.1	44.0	3.5	1.0	11.9	0.5	21.4	0.7	23.2	0.0	11.7	2.7	10.1	0.1	1,995
25-29	67.6	64.6	15.9	3.5	21.9	1.6	36.0	1.2	27.0	0.1	13.9	4.3	11.7	0.1	1,773
30-34	77.2	75.0	23.6	8.9	24.5	1.4	42.3	2.2	24.3	0.2	16.1	6.7	11.9	0.1	1,336
35-39	78.1	75.9	26.7	10.8	19.6	1.7	38.0	2.7	18.4	0.2	13.7	6.0	10.0	0.4	1,220
40-44	72.8	70.5	30.2	10.2	16.5	1.8	28.7	1.4	11.4	0.2	9.4	3.8	6.6	0.5	1,121
45-49	62.1	60.0	22.7	9.5	11.9	1.6	22.5	1.8	9.5	0.0	6.5	3.5	3.6	0.4	912
Total	53.3	51.0	14.3	5.0	14.1	1.1	24.9	1.2	17.2	0.1	9.9	3.5	7.7	0.2	10,793
CURRENTLY MARRIED WOMEN															
15-19	31.3	28.1	0.1	0.2	5.1	0.2	8.3	0.4	19.3	0.0	5.6	1.1	4.9	0.0	784
20-24	58.2	54.4	4.3	1.3	14.7	0.7	26.5	0.9	28.6	0.1	14.4	3.3	12.5	0.1	1,606
25-29	71.1	67.9	16.8	3.7	23.2	1.7	37.9	1.3	28.4	0.1	14.7	4.5	12.4	0.1	1,664
30-34	80.0	77.7	24.6	9.3	25.1	1.5	43.4	2.3	25.4	0.2	16.9	7.1	12.5	0.1	1,265
35-39	81.3	79.3	27.7	11.6	20.7	1.9	39.9	2.8	19.4	0.3	14.0	6.0	10.3	0.5	1,135
40-44	77.0	74.6	31.9	11.0	17.7	2.0	30.6	1.5	12.4	0.2	10.2	4.2	7.1	0.6	1,016
45-49	66.8	64.3	24.3	10.0	12.5	1.9	24.7	2.1	10.5	0.0	7.1	3.8	4.2	0.4	788
Total	67.9	65.0	18.0	6.3	18.1	1.4	31.8	1.6	22.2	0.1	12.7	4.4	10.0	0.2	8,257

Ever use of contraception varies with women's age. The pattern of ever use is curvilinear, with use being lowest among women in the youngest age group (15-19), increasing with age, and reaching a plateau among women in their thirties before declining thereafter. The level of ever-use of any method among currently married women rises to a high of 81 percent among those age 35-39, and then declines to 67 percent among women age 45-49. Ever use of any modern method by age follows a similar pattern, regardless of marital status.

The 2006 NDHS collected information on ever use of contraception for men as well, but with respect to four male methods only: male sterilization, condoms, rhythm method, and withdrawal. As evident in Table 5.2.2, more than one in two currently married men age 15-49 (56 percent) have ever used a method in the past, with most having used a modern method (49 percent). Looking at specific methods, currently married men are most likely to have used condoms (44 percent). Men are much more likely to report ever use of condoms than women. Seven percent of currently married men reported having been sterilized. Ever use of any method among currently married men rises from 41 percent among those in the youngest age group to a peak of 66 percent among men age 20-29 and then falls steadily to a low of 40 percent among men age 45-49.

Table 5.2.2 Ever use of contraception: Men

Percentage of all men and currently married men age 15-49 who have ever used any contraceptive method by specific method and age, Nepal 2006

Age	Any method	Any modern method	Modern method: Male sterilization	Modern method: Condom	Any traditional method	Traditional method: Rhythm	Traditional method: Withdrawal	Number of men
ALL MEN								
15-19	11.5	10.4	0.0	10.4	2.8	1.0	2.2	941
20-24	47.3	44.0	0.3	43.7	15.2	5.6	12.0	632
25-29	59.8	53.3	2.9	52.0	24.1	16.0	16.0	524
30-34	60.7	53.8	5.6	51.3	29.2	16.0	22.6	499
35-39	53.7	45.1	10.2	39.8	23.0	14.4	14.3	444
40-44	48.9	41.7	15.2	31.5	16.3	9.8	11.2	414
45-49	38.9	30.7	8.6	25.0	20.0	12.4	12.7	399
Total 15-49	42.0	36.8	4.9	34.0	16.7	9.4	11.8	3,854
Men 50-59	32.3	24.1	12.3	14.9	14.4	11.4	7.6	543
Total 15-59	40.8	35.2	5.8	31.6	16.4	9.6	11.3	4,397
CURRENTLY MARRIED MEN								
15-19	41.0	34.2	0.0	34.2	15.8	9.4	9.9	98
20-24	65.6	60.0	0.6	59.5	23.6	10.0	17.9	352
25-29	65.9	58.4	3.4	56.9	27.5	18.7	18.2	442
30-34	62.9	55.7	5.9	53.1	30.1	16.2	23.2	477
35-39	54.3	45.5	10.3	40.2	23.2	14.5	14.4	440
40-44	49.4	42.0	15.5	31.6	16.4	10.0	11.2	405
45-49	40.0	31.5	8.9	25.7	20.6	12.7	13.0	384
Total 15-49	56.0	48.5	7.2	44.3	23.5	13.8	16.3	2,598
Men 50-59	33.5	24.6	12.6	15.3	15.3	12.1	8.0	504
Total 15-59	52.3	44.6	8.1	39.6	22.2	13.5	14.9	3,102

5.3 CURRENT USE OF CONTRACEPTION

Current use of contraception is defined as the proportion of women who reported the use of a family planning method at the time of interview. The level of current use—usually calculated among currently married women—is the most widely used and valuable measure of the success of family planning programs. Table 5.3 shows the percent distribution of all women and currently married women who are currently using specific family planning methods by age. Similar information on current use was not collected for men.

Table 5.3 shows that nearly one in two currently married women (48 percent) is using a method of family planning, with 44 percent using a modern contraceptive method. The proportion of women who are using a modern method has increased by 25 percent over the past five years from the 35 percent reported in the 2001 NDHS to the current level of 44 percent.

Contraceptive use varies by age. Use is lower among younger women (because they are in the early stage of family building) and among older women (some of whom are no longer fecund) than among those at intermediate ages. For example, current use of a modern contraceptive method is 14 percent among currently married women age 15-19, rises to 60 percent among women age 35-39 and then drops sharply to 42 percent at age 45-49. Most women who are sterilized are over age 30, while injectables are popular among women age 20-44.

Table 5.3 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, Nepal 2006

			Modern method								Traditional method					
Age	Any method	Any modern method	Female sterilization	Male sterilization	Pill	IUD	Injectables	Implants	Condom	Any traditional method	Rhythm	Withdrawal	Folk method	Not currently using	Total	Number of women
ALL WOMEN																
15-19	5.2	4.5	0.0	0.1	0.5	0.1	1.8	0.1	1.9	0.7	0.1	0.6	0.0	94.8	100.0	2,437
20-24	24.7	22.4	3.5	1.0	2.8	0.2	9.6	0.3	4.9	2.3	0.4	1.9	0.0	75.3	100.0	1,995
25-29	45.7	42.9	15.9	3.4	4.7	0.9	10.4	0.8	6.7	2.8	0.5	2.4	0.0	54.3	100.0	1,773
30-34	60.1	55.4	23.6	8.9	4.8	0.6	11.3	1.2	5.1	4.6	1.7	2.9	0.0	39.9	100.0	1,336
35-39	61.2	56.8	26.7	10.8	2.9	0.9	11.0	0.7	3.7	4.4	1.8	2.7	0.0	38.8	100.0	1,220
40-44	58.9	54.1	30.2	10.2	2.3	0.8	9.0	0.6	0.9	4.8	1.5	3.2	0.2	41.1	100.0	1,121
45-49	42.3	39.3	22.7	9.5	1.5	0.6	3.2	0.8	0.9	3.0	1.6	1.3	0.0	57.7	100.0	912
Total	37.3	34.4	14.3	5.0	2.7	0.5	7.7	0.6	3.7	2.9	0.9	2.0	0.0	62.7	100.0	10,793
CURRENTLY MARRIED WOMEN																
15-19	16.0	13.8	0.1	0.2	1.6	0.2	5.6	0.4	5.7	2.1	0.3	1.8	0.0	84.0	100.0	784
20-24	30.6	27.8	4.3	1.3	3.5	0.3	12.0	0.4	6.1	2.8	0.5	2.3	0.0	69.4	100.0	1,606
25-29	48.4	45.4	16.8	3.6	5.0	1.0	11.0	0.8	7.2	3.0	0.5	2.5	0.0	51.6	100.0	1,664
30-34	63.1	58.2	24.6	9.3	5.0	0.7	11.9	1.2	5.4	4.9	1.8	3.1	0.0	36.9	100.0	1,265
35-39	64.8	60.1	27.7	11.6	3.2	1.0	11.8	0.8	4.0	4.7	1.9	2.9	0.0	35.2	100.0	1,135
40-44	63.2	58.0	31.9	11.0	2.6	0.9	10.0	0.7	1.0	5.3	1.6	3.5	0.2	36.8	100.0	1,016
45-49	45.9	42.4	24.3	10.0	1.8	0.7	3.7	0.9	1.0	3.4	1.9	1.5	0.0	54.1	100.0	788
Total	48.0	44.2	18.0	6.3	3.5	0.7	10.1	0.8	4.8	3.7	1.2	2.6	0.0	52.0	100.0	8,257

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

5.4 CURRENT USE OF CONTRACEPTION BY BACKGROUND CHARACTERISTICS

The study of differentials in current use of contraception is important because it helps identify subgroups of the population to target for family planning services. Table 5.4 presents the percent distribution of currently married women by their current use of family planning methods, according to background characteristics. This table allows comparison of levels of current contraceptive use among major population groups. It also permits an examination of differences in the method mix among current users within the various subgroups.

Substantial differences in the use of contraceptive methods among subgroups of currently married women can be seen in Table 5.4. Women in urban areas are more likely to use a family planning method than rural women, reflecting wider availability and easier access to methods in urban than in rural areas. The contraceptive prevalence rate for modern methods is 54 percent in urban areas, compared with 43 percent in rural areas.

Contraceptive use varies by ecological zone with much of the difference due to a difference in the use of female and male sterilization and injectables. Use of a modern method among currently married women is highest in the *terai* (48 percent), followed by the hills (41 percent) and mountains (36 percent). Female sterilization is most popular in the terai where 29 percent of currently married women are using it. On the other hand, male sterilization is more popular in both the mountains and hills—where 14 percent and 9 percent of women, respectively, reported using it—than in the terai (3 percent). Injectables are most popular among currently married women living in the mountains and hills (13 percent, each). By development region, use of modern methods among women is highest in the Far-western region (50 percent) and lowest in the Western region (37 percent). Female sterilization is especially popular in the Far-western region (27 percent), whereas male sterilization is most popular in the Mid-western region (12 percent). There is less variation in the use of injectables by development regions. By subregion, current use of modern contraceptive methods is highest in the

Far-western terai (65 percent) and lowest in the Far-western hill (26 percent). Female sterilization is especially popular in the Far-western terai (41 percent), while injectables are most commonly used in the Eastern hill subregion (21 percent). Male sterilization is most popular in the Central mountain subregion (18 percent) and least used in the Far-western terai (1 percent). Overall, 4 percent of currently married women in Nepal are using a traditional method, with use of traditional methods most popular in the Eastern hill subregion.

Table 5.4 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, Nepal 2006

			Modern method								Traditional method					
Background characteristic	Any method	Any modern method	Female sterilization	Male sterilization	Pill	IUD	Injectables	Implants	Condom	Any traditional method	Rhythm	Withdrawal	Folk method	Not currently using	Total	Number of women
Residence																
Urban	60.0	54.2	17.9	7.2	4.7	1.2	12.2	1.3	9.6	5.8	1.3	4.5	0.0	40.0	100.0	1,226
Rural	45.9	42.5	18.1	6.2	3.3	0.6	9.7	0.7	3.9	3.4	1.1	2.2	0.0	54.1	100.0	7,031
Ecological zone																
Mountain	38.5	35.9	2.8	13.5	2.6	0.3	13.0	0.9	2.8	2.6	0.8	1.8	0.0	61.5	100.0	586
Hill	45.6	40.8	7.2	9.3	3.9	0.9	12.5	1.1	5.9	4.8	1.3	3.5	0.0	54.4	100.0	3,402
Terai	51.1	48.0	28.8	2.9	3.4	0.6	7.8	0.4	4.2	3.1	1.1	1.9	0.0	48.9	100.0	4,269
Development region																
Eastern	50.0	44.8	20.8	3.2	4.3	0.7	12.1	0.8	3.0	5.1	2.6	2.5	0.0	50.0	100.0	1,757
Central	50.0	46.4	17.5	7.0	3.0	1.0	10.7	1.3	5.7	3.7	1.1	2.5	0.1	50.0	100.0	2,736
Western	40.9	36.6	12.7	7.0	3.8	0.5	7.4	0.4	4.9	4.3	0.9	3.5	0.0	59.1	100.0	1,602
Mid-western	45.5	43.1	12.8	12.0	2.9	0.8	10.4	0.3	4.0	2.4	0.5	1.9	0.0	54.5	100.0	976
Far-western	51.7	49.5	26.7	3.7	3.8	0.1	9.2	0.2	5.7	2.2	0.0	2.2	0.0	48.3	100.0	1,187
Subregion																
Eastern mountain	34.9	28.1	0.6	4.4	5.1	0.2	15.4	0.0	2.4	6.8	3.2	3.6	0.0	65.1	100.0	127
Central mountain	54.6	50.7	4.6	18.4	3.1	0.6	17.2	3.4	3.5	3.9	0.3	3.5	0.0	45.4	100.0	157
Western mountain	31.7	31.5	2.9	14.8	1.3	0.2	9.8	0.0	2.6	0.1	0.0	0.1	0.0	68.3	100.0	302
Eastern hill	50.6	43.3	2.7	6.6	5.8	1.0	21.3	1.5	4.4	7.3	3.4	3.9	0.0	49.4	100.0	445
Central hill	57.3	52.7	9.2	9.2	4.9	1.4	17.2	2.2	8.7	4.6	1.5	3.1	0.0	42.7	100.0	1,219
Western hill	37.4	32.7	8.7	8.6	3.7	0.3	6.5	0.3	4.6	4.6	0.6	4.0	0.0	62.6	100.0	965
Mid-western hill	37.1	33.8	5.1	15.1	1.8	1.2	7.1	0.2	3.2	3.3	0.8	2.6	0.0	62.9	100.0	497
Far-western hill	30.4	25.5	4.1	6.7	0.8	0.0	8.7	0.1	5.1	4.9	0.0	4.9	0.0	69.6	100.0	276
Eastern terai	51.3	47.2	29.7	1.9	3.6	0.6	8.3	0.6	2.5	4.1	2.2	1.9	0.0	48.7	100.0	1,185
Central terai	42.9	40.2	26.5	3.8	1.3	0.7	4.2	0.3	3.2	2.8	0.9	1.8	0.1	57.1	100.0	1,359
Western terai	46.1	42.2	18.5	4.6	3.8	0.7	8.6	0.5	5.5	3.9	1.3	2.6	0.0	53.9	100.0	624
Mid-western terai	58.6	56.6	27.3	4.2	4.6	0.6	13.2	0.7	6.0	2.0	0.3	1.7	0.0	41.4	100.0	356
Far-western terai	66.2	64.6	40.8	1.0	5.8	0.1	10.1	0.3	6.4	1.7	0.0	1.7	0.0	33.8	100.0	745
Education																
No education	49.3	46.4	23.0	7.0	3.0	0.5	9.9	0.7	2.3	2.8	1.1	1.7	0.0	50.7	100.0	5,110
Primary	45.5	41.9	12.5	6.5	4.2	0.7	10.9	1.0	6.0	3.6	0.7	2.9	0.0	54.5	100.0	1,404
Some secondary	42.9	38.6	8.6	4.0	5.2	0.9	10.9	0.6	8.4	4.3	1.1	3.2	0.0	57.1	100.0	1,197
SLC and above	53.0	41.7	6.6	4.6	2.9	2.1	8.2	0.8	16.4	11.4	2.9	8.5	0.0	47.0	100.0	547
Number of living children																
0	9.0	6.9	0.1	0.6	0.6	0.2	0.1	0.0	5.3	2.1	0.7	1.4	0.0	91.0	100.0	860
1-2	44.3	39.7	10.9	4.5	4.1	0.8	11.9	0.9	6.6	4.6	1.4	3.2	0.0	55.7	100.0	3,364
3-4	63.3	60.2	30.8	10.4	4.1	0.6	10.1	0.7	3.5	3.1	0.9	2.1	0.1	36.7	100.0	2,831
5+	49.9	45.9	20.9	6.0	2.8	0.8	12.0	1.0	2.4	4.0	1.4	2.6	0.0	50.1	100.0	1,202
Wealth quintile																
Lowest	32.9	30.3	9.6	5.9	2.1	0.4	9.9	0.5	1.9	2.6	0.6	2.0	0.0	67.1	100.0	1,537
Second	42.6	40.6	19.8	4.8	3.5	0.4	8.7	0.5	2.9	2.1	0.6	1.3	0.1	57.4	100.0	1,642
Middle	49.2	46.8	24.5	5.5	1.9	0.8	9.8	0.8	3.4	2.4	0.9	1.5	0.0	50.8	100.0	1,747
Fourth	52.8	48.2	20.2	7.0	4.2	0.3	11.0	0.7	4.9	4.6	1.7	2.9	0.0	47.2	100.0	1,640
Highest	60.9	53.9	15.3	8.3	5.9	1.5	11.1	1.3	10.5	7.0	1.8	5.2	0.0	39.1	100.0	1,692
Total	48.0	44.2	18.0	6.3	3.5	0.7	10.1	0.8	4.8	3.7	1.2	2.6	0.0	52.0	100.0	8,257

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

The impact of education on contraceptive use is mixed. Use of modern methods is highest among women with no education (46 percent) and lowest among women with some secondary education (39 percent). Contraceptive use is higher among women with little or no education primarily because a sizeable proportion of these women use sterilization. The most popular method among women who have completed SLC or higher education is condoms (16 percent), whereas the most popular method among women who have no education is female sterilization (23 percent) followed by injectables (10 percent). In fact, female sterilization and injectables are the most popular methods among all women who have less than an SLC level of education. In general, as women's level of education increases they are more likely to use modern spacing methods, especially condoms.

Wealth has a positive effect on women's contraceptive use, with modern contraceptive use increasing markedly as household wealth increases, from 30 percent among married women in the lowest wealth quintile to 54 percent among those in the highest wealth quintile.

There is a direct association between use of modern family planning methods and the number of children women have, except among women with five or more children. Only 7 percent of women with no living children use modern contraception; the percentage increases to 60 percent among women with three to four children and falls to 46 percent among women with five or more children. As expected, permanent methods are popular among high-parity women. Use of female sterilization increases with the number of living children a woman has. Nevertheless, female sterilization use is lower among women with five or more children than among women with three to four children. Injectables are also more popular among high-parity women. This could be due to a number of reasons: injectables are more easily accessible since supplies are available at most health depots; they work for a relatively longer duration; they are convenient to use; and their use can be kept private.

5.5 Trends in Current Use of Family Planning

Trends in current use of family planning can be used to monitor the success of family planning programs over time. Table 5.5 and Figure 5.1 show the trend in modern contraceptive use among currently married women from 1996 to 2006. Data from three DHS surveys conducted in Nepal over the last decade show an impressive increase in the use of modern contraceptives. Comparison of the data from the DHS surveys in Nepal over the last ten years shows that current use of modern contraception has increased from 26 percent in 1996 to 44 percent in 2006, a 70 percent increase over the decade. The increase in the use of modern contraceptive methods is due mainly to increased use of female sterilization, the pill, condoms, and injectables. Use of injectables more than doubled while use of female sterilization increased by 49 percent over the last ten years. Condom use also showed a marked increase (two and a half times) over the same period. Although use of male sterilization increased between 1996 and 2001, no change was seen over the last five years.

Table 5.5 Trends in current use of modern contraceptive methods

Percentage of currently married women who are currently using modern contraceptive methods, Nepal 1996-2006

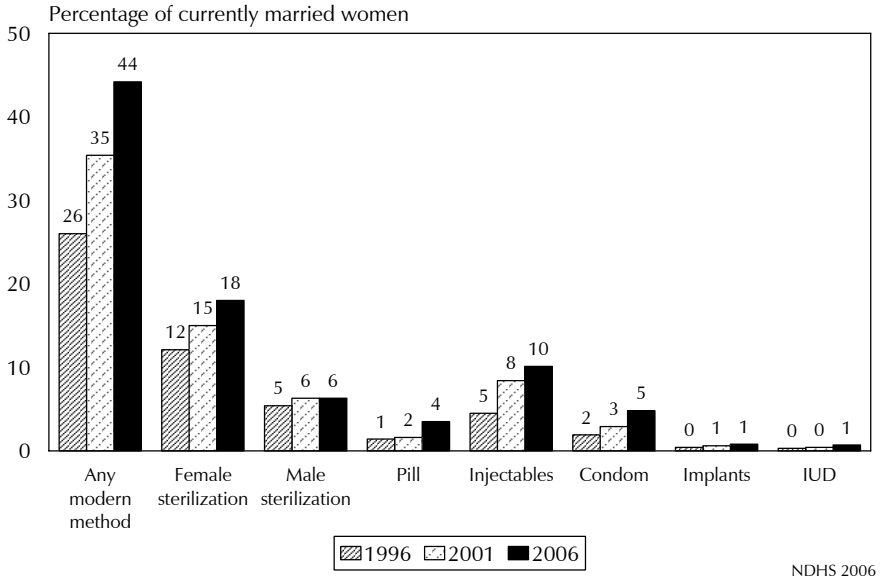
Method	1996[1]	2001[2]	2006
Any modern method	26.0[a]	35.4[a]	44.2
Female sterilization	12.1	15.0	18.0
Male sterilization	5.4	6.3	6.3
Pill	1.4	1.6	3.5
Injectables	4.5	8.4	10.1
Condom	1.9	2.9	4.8
Implants	0.4	0.6	0.8
IUD	0.3	0.4	0.7
Number	7,982	8,342	8,257

[1] Pradhan et al., 1997
[2] MoH, New ERA and ORC Macro, 2002
[a] Includes users of vaginal methods

In terms of specific modern family planning methods, the percentage of current use accounted for by female and male sterilization together has declined over the last decade. The share of female sterilization decreased from 47 percent of modern methods in 1996 to 41 percent in 2006, while the share of male sterilization declined from 21 percent to 14 percent over the same period. On the other hand, the share of temporary methods rose from 33 percent to 45 percent over the same period, an indication that more women are using contraception to space rather than limit births. As mentioned above, the only method that has not increased since 2001 is male sterilization. The plateau in the use

of male sterilization may be attributed to a number of factors including limited acceptance by men because of misconceptions about use of the method, lack of information, education and counseling, and lower priority accorded the method by policymakers. As a result, there has been inadequate resource allocation to support use of male sterilization, and low attention to quality assurance (Pathak, 1999).

Figure 5.1 **Trends in Modern Contraceptive Use among Currently Married Women Nepal 1996-2006**



5.6 NUMBER OF CHILDREN AT FIRST USE OF CONTRACEPTION

To examine the timing of initial family planning use during the family building process, the 2006 NDHS asked all women about the number of living children they had at first use. Table 5.6 shows this information by age group and allows an analysis of cohort changes in parity at first use of contraception.

Twelve percent of all women first used a method of family planning when they had four or more children. Only 6 percent of all women first used at the time they had no children, and 14 percent first used after the birth of their first child.

Table 5.6 Number of children at first use of contraception

Percent distribution of all women age 15-49 by number of living children at the time of first use of contraception, according to currernt age, Nepal 2006

Current age	Never used	Number of living children					Total	Number of women
		0	1	2	3	4+		
15-19	89.9	6.3	3.5	0.4	0.0	0.0	100.0	2,437
20-24	52.9	14.1	22.8	8.4	1.8	0.1	100.0	1,995
25-29	32.4	8.0	26.0	18.1	10.5	4.8	100.0	1,773
30-34	22.8	4.4	18.0	22.6	19.1	13.1	100.0	1,336
35-39	21.9	1.3	8.8	18.2	24.2	25.5	100.0	1,220
40-44	27.2	0.5	6.6	10.9	16.4	38.5	100.0	1,121
45-49	37.9	0.1	3.3	7.4	15.5	35.9	100.0	912
Total	46.7	6.1	13.5	11.2	10.2	12.3	100.0	10,793

Younger women report first use of contraception at lower parities than older women, suggesting a shift toward the early use of contraception and the desire to delay childbearing among Nepalese women. For example, 14 percent of women age 20-24 initiated use before having any children compared with 4 percent among women age 30-34. This may be because young women are more likely to use contraceptives to space births, whereas older women use them to limit births.

5.7 KNOWLEDGE OF FERTILE PERIOD

An elementary knowledge of reproductive physiology provides a useful background for the successful practice of the rhythm method. As shown in Tables 5.1, 5.2.1 and 5.3, respectively, 34 percent of all women have heard of the rhythm method, 4 percent have used it in the past, and 1 percent are currently using the method. Table 5.7 shows respondents' knowledge about the time during the menstrual cycle when a woman is most likely to get pregnant.

Overall, only 20 percent of women correctly reported the most fertile time as being halfway between two menstrual periods. Among users of the rhythm method, 63 percent were able to correctly identify when during a woman's cycle she is most likely to get pregnant, although about 27 percent incorrectly reported that a woman's most fertile period is right after menstruation has ended. About one-fifth of non-users did not know about the fertile period, and 48 percent of them stated that a woman is most susceptible to pregnancy just after her period has ended. A similar pattern is observed for men as well, indicating that there is still much scope for educating women and men on female physiology.

Table 5.7 Knowledge of fertile period

Percent distribution of women and men by knowledge of the fertile period during the ovulatory cycle, according to current use of the rhythm method, Nepal 2006

	Women			Men		
Perceived fertile period	Users of rhythm method	Nonusers of rhythm method	All women	Users of rhythm method	Nonusers of rhythm method	All men
Just before her menstrual period begins	3.0	1.6	1.6	0.0	2.3	2.3
During her menstrual period	0.0	1.9	1.9	2.8	2.5	2.6
Right after her menstrual period has ended	26.9	48.4	48.2	25.0	41.6	41.4
Halfway between two menstrual periods	63.2	19.7	20.1	72.2	29.6	30.1
Other	0.0	0.0	0.0	0.0	0.0	0.0
No specific time	7.0	9.6	9.6	0.0	5.1	5.1
Don't know	0.0	18.8	18.7	0.0	18.8	18.6
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of respondents	95	10,698	10,793	57	4,340	4,397

5.8 STERILIZATION

Timing of Female Sterilization

In countries where female sterilization is prevalent, there is interest in trends in the adoption of the method and age at the time of sterilization. For the 2006 NDHS, to minimize the problem of censoring, the median age at the time of sterilization is calculated only for women sterilized at less than 40 years of age.

Table 5.8 shows the distribution of sterilized women by age at sterilization, according to the number of years since the operation. The results indicate that most women (71 percent) were sterilized before age 30, with 29 percent sterilized before age 25. Thus, female sterilization in Nepal occurs early in women's reproductive lives. The median age at sterilization (for women sterilized before age 40) is 27 years, and has not changed much over the last ten years.

Table 5.8 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, Nepal 2006

Years since operation	Age at time of sterilization					Total	Number of women	Median age[1]
	<25	25-29	30-34	35-39	40-44			
<2	34.7	39.9	15.2	7.9	2.2	100.0	196	26.3
2-3	22.3	41.6	20.4	11.6	4.1	100.0	213	28.0
4-5	35.1	35.2	17.6	11.0	1.1	100.0	185	27.2
6-7	24.8	36.5	25.3	12.1	1.2	100.0	222	28.0
8-9	20.4	34.4	25.1	16.7	3.4	100.0	156	28.6
10+	31.1	48.6	17.8	2.5	0.0	100.0	568	a
Total	28.9	41.7	19.6	8.3	1.5	100.0	1,540	27.1

a = Not calculated due to censoring
[1] Median age at sterilization is calculated only for women sterilized before age 40 to avoid problems of censoring.

Sterilization Regret

Although some level of regret is expected to occur with any permanent method of contraception, a high level could be viewed as an indication of poor quality of care. In the 2006 NDHS, women who have been sterilized or who said their husbands have been sterilized were asked if they regretted the operation and if so, why. Table 5.9 presents information on sterilization regret for currently married women. Although similar information was obtained for men, because of the small number who regretted the operation, the results were not sufficiently meaningful (statistically) to warrant separate analysis.

Overall, 6 percent of currently married women who were sterilized or whose husbands were sterilized reported that they regretted the operation. About two-thirds of these women (4 percent) stated that they regretted sterilization because of side effects, 1 percent of women stated that they wanted another child, and less than 1 percent of women regretted sterilization because their husband wanted another child, or due to a change in marital status, or because the child died.

Sterilization regret is higher among urban women, women residing in the Mountain zone, women living in the Far-western region, and especially among those in the Far-western terai and the Central mountain subregions. It is also higher among women with no education, women who have 1-2 children, and women who live in wealthier households.

Table 5.9 Sterilization regret

Percentage of currently married women who are sterilized or whose husbands are sterilized who regret the operation by reason for regret, according to background characteristics, Nepal 2006

Background characteristic	Percentage who regret sterilization	Reason for regret: Respondent wants another child	Husband wants another child	Side effects	Marital status has changed	Child died	Number of women
Residence							
Urban	7.0	3.1	1.1	2.4	0.0	0.5	308
Rural	5.7	0.9	0.2	4.0	0.2	0.4	1,703
Ecological zone							
Mountain	7.1	3.5	1.4	2.2	0.0	0.0	96
Hill	5.4	1.2	0.6	2.2	0.6	0.8	560
Terai	6.0	1.1	0.2	4.5	0.0	0.2	1,355
Development region							
Eastern	4.8	0.3	0.4	3.8	0.0	0.3	422
Central	6.6	2.8	0.5	3.1	0.0	0.2	672
Western	4.2	0.6	0.0	3.3	0.0	0.3	314
Mid-western	4.8	0.4	0.0	1.2	1.5	1.7	241
Far-western	8.0	0.7	0.5	6.8	0.0	0.0	361
Subregion							
Eastern mountain	(6.2)	(0.0)	(1.3)	(4.9)	(0.0)	(0.0)	6
Central mountain	7.9	7.9	0.0	0.0	0.0	0.0	36
Western mountain	6.7	0.9	2.4	3.4	0.0	0.0	53
Eastern hill	0.0	0.0	0.0	0.0	0.0	0.0	42
Central hill	6.1	2.1	1.4	2.0	0.0	0.5	224
Western hill	5.0	0.9	0.0	4.1	0.0	0.0	165
Mid-western hill	7.5	0.3	0.0	0.2	3.5	3.5	100
Far-western hill	(3.8)	(0.5)	(0.0)	(3.2)	(0.0)	(0.0)	30
Eastern terai	5.3	0.3	0.4	4.2	0.0	0.4	374
Central terai	6.7	2.7	0.0	4.0	0.0	0.0	413
Western terai	3.4	0.2	0.0	2.5	0.0	0.7	144
Mid-western terai	2.5	0.6	0.0	1.2	0.0	0.6	112
Far-western terai	8.2	0.6	0.2	7.4	0.0	0.0	311
Education							
No education	6.5	1.1	0.2	4.6	0.2	0.5	1,533
Primary	3.0	0.3	1.2	1.5	0.0	0.0	266
Some secondary	5.3	3.5	0.5	0.8	0.5	0.0	151
SLC and above	3.4	3.4	0.0	0.0	0.0	0.0	61
Number of living children							
0	*	*	*	*	*	*	6
1-2	6.4	2.0	0.7	2.4	0.5	0.7	516
3-4	5.8	0.9	0.3	4.2	0.1	0.3	1,167
5+	4.3	0.0	0.0	4.2	0.0	0.0	322
Wealth quintile							
Lowest	5.8	0.9	0.5	3.4	0.3	0.7	236
Second	6.4	1.5	0.3	4.4	0.0	0.1	404
Middle	4.5	0.4	0.0	3.4	0.0	0.7	525
Fourth	6.1	1.0	0.0	4.9	0.0	0.2	445
Highest	6.9	2.7	1.0	2.4	0.7	0.2	401
Total	5.9	1.2	0.3	3.7	0.2	0.4	2,011

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.

5.9 SOURCE OF CONTRACEPTION

Table 5.10 on source of contraception is intended simply to document the main sources of contraception for users of different modern methods of contraception. Such information on where women obtain their contraceptive method is important for program managers and implementers in designing family planning policies and programs. All current users of modern contraceptive methods were asked the most recent source of their methods. The government sector remains the major source of contraceptive methods in Nepal, providing methods to almost four in five current users. The share of the government sector has remained steady over the past five years. Six percent of users get their methods from the non-government sector, mostly from the Family Planning Association of Nepal (FPAN) and Marie Stopes, and 14 percent get their methods from the private medical sector, mostly pharmacies. It is worth noting, however, that the percentage of users getting methods from the private medical sector nearly doubled in the past five years.

Table 5.10 Source of modern methods of contraception

Percent distribution of women age 15-49 who are using modern contraceptive methods by most recent source of method, according to method, Nepal 2006

Most recent source of method	Female sterili-zation	Male sterili-zation	Pill	IUD	Inject-ables	Implants	Condom	Total
Government sector	90.5	83.6	49.6	(71.4)	81.4	60.0	30.4	77.1
Government hospital	54.3	34.5	4.0	(53.1)	8.8	50.1	4.0	31.8
PHC center	1.0	1.4	0.2	(5.7)	4.5	6.2	1.3	2.0
Health post	0.0	0.0	6.2	(3.5)	15.0	3.8	6.0	4.6
Sub-health post	0.0	0.0	21.1	(0.0)	41.4	0.0	9.6	12.0
PHC outreach	0.0	0.0	2.0	(0.0)	10.3	0.0	0.4	2.5
Other public	0.0	0.0	0.0	(0.0)	0.8	0.0	0.2	0.2
Mobile clinic	35.3	47.7	0.0	(9.1)	0.0	0.0	0.0	21.6
FCHV	0.0	0.0	16.0	(0.0)	0.6	0.0	8.9	2.3
Non-government (NGO) sector	6.1	7.9	3.8	(16.8)	4.4	31.3	2.5	6.0
FPAN	1.1	3.1	3.2	(11.2)	3.3	11.1	1.2	2.4
Marie Stopes	4.6	2.0	0.0	(5.5)	0.2	7.7	0.2	2.5
ADRA	0.0	0.3	0.0	(0.0)	0.0	0.0	0.0	0.1
Nepal Red Cross	0.0	0.0	0.0	(0.0)	0.0	0.0	0.4	0.1
UMN	0.0	0.7	0.0	(0.0)	0.8	7.0	0.0	0.4
Other NGO	0.3	1.7	0.5	(0.0)	0.2	5.5	0.6	0.6
Private medical	3.3	1.5	43.8	(11.8)	12.8	8.7	52.3	13.8
Private hospital/clinic	3.3	1.5	6.5	(11.8)	5.8	8.7	1.7	3.9
Pharmacy	0.0	0.0	37.3	(0.0)	7.0	0.0	50.6	9.9
Other source	0.0	0.0	1.0	(0.0)	0.1	0.0	13.0	1.5
Shop	0.0	0.0	0.0	(0.0)	0.0	0.0	8.4	0.9
Friend/relative	0.0	0.0	1.0	(0.0)	0.1	0.0	4.6	0.6
Other	0.0	0.3	0.0	(0.0)	0.0	0.0	1.8	0.2
Don't know	0.1	4.9	0.0	(0.0)	0.0	0.0	0.0	0.7
Missing	0.1	1.8	1.8	(0.0)	1.3	0.0	0.0	0.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	1,540	534	292	57	836	62	395	3,715

Note: Figures in parentheses are based on 25-49 unweighted cases.
PHC = Primary health care
FCHV = Female community health volunteer
FPAN = Family Planning Association of Nepal
UMN = United Mission to Nepal
ADRA = Adventist Development Relief Agency

In the government sector, 32 percent of users obtain their methods from government hospitals, 22 percent from mobile clinics, and 12 percent from government sub-health posts. In the private medical sector, the pharmacy is the most common source, providing contraceptive methods to 10 percent of all users of modern methods. Most contraceptives sold in pharmacies are provided through the Nepal Contraceptive Retail Sales Company (MOH, New ERA and ORC Macro, 2002).

Female and male sterilizations are performed mostly in government hospitals (54 and 35 percent, respectively) and mobile clinics (35 and 48 percent, respectively). Two-fifths of women using injectables obtain their supply from government sub-health posts, and 15 percent get injectables from government health posts. Pills are obtained primarily from pharmacies (37 percent), government sub-health posts (21 percent), and female community health volunteers (FCHVs) (16 percent). Condoms are obtained primarily from pharmacies (51 percent). These findings point to the continued reliance on government facilities as a major source of contraceptives.

5.10 Payment of Fees for Modern Contraceptive Methods

As Table 5.11 shows, the majority of users (70 percent) in Nepal do not pay for contraception. Users who obtain their method from the public sector are four times as likely to obtain it for free as users who obtain their method from the private sector. One in ten public sector users pay for their method in contrast to one in two private sector users. In most cases the only cost borne by public sector users is a registration fee, whereas private sector users bear the cost of the consultancy and payment for the method, as well as the registration fee.

About nine in ten users of female and male sterilization obtain their method for free primarily because the majority of sterilizations are performed in the public sector free of charge. The vast majority of pill users (89 percent) who obtain their method from the private sector pay for it, in contrast to just 15 percent of pill users who obtain their method from the public sector. Similarly, 83 percent of women using injectables from the private sector pay a fee for the services compared with 34 percent of users of injectables utilizing the public sector. Condoms, if obtained from the public sector, are mostly free. Three-fifths of condom users citing a private source are not aware if it was free or not.

Table 5.11 Payment for modern contraceptive methods

Percent distribution of current users of modern contraceptive methods age 15-49 by whether paid for the method or not, by current method, according to source of current method, Nepal 2006

Source of method (fee paid)	Female sterilization	Male sterilization	Pill	Injectables	Condom	Total
Public sector						
Percentage free	95.4	87.9	83.6	65.9	73.9	84.4
Percentage paid fee	2.0	1.5	14.8	33.9	4.6	11.7
Don't know/missing	2.6	10.6	1.6	0.1	21.5	3.9
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	1,394	447	145	681	120	2,864
NGO/Private medical sector/other						
Percentage free	47.9	42.1	7.7	17.4	8.0	21.1
Percentage paid fee	35.5	9.0	88.6	82.6	31.1	50.1
Don't know/missing	16.6	48.9	3.8	0.0	60.9	28.8
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	146	88	147	155	275	851
Total						
Percentage free	90.9	80.4	45.3	56.9	28.1	69.9
Percentage paid fee	5.2	2.8	52.0	43.0	23.0	20.5
Don't know/missing	3.9	16.9	2.7	0.1	48.9	9.6
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	1,540	534	292	836	395	3,715

Note: Total includes a small number of users of IUD and implants who are not shown separately

5.11 INFORMED CHOICE

Informed choice is an important tool for monitoring the quality of family planning services. All providers of sterilization must inform potential users that the operation is a permanent, irreversible procedure; potential users also must be informed of alternate methods that could be used. Users of temporary methods also should be informed about choices they have and other methods available. Family planning providers also should inform all method users of potential side effects and what to do if they experience a problem. This information assists users in coping with side effects and decreases unnecessary discontinuation of temporary methods.

Table 5.12 presents information on informed choice by type and source of method. The data show that 56 percent of current users were informed about possible side effects or problems associated with use, and about 51 percent of users were both informed about what to do if they experienced side effects and of other methods that could be used. It is encouraging to note that four-fifths of female sterilization users were informed that the method is permanent.

Table 5.12 Informed choice

Among current users of modern methods age 15-49 who started the last episode of use within the five years preceding the survey, the percentage who were informed about possible side effects or problems of that method, the percentage who were informed about what to do if they experienced side effects, and the percentage who were informed about other methods they could use, by method and source; and among sterilized women, the percentage who were informed that the method is permanent, by initial source of method, Nepal 2006

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 planing worker of other methods that could be used	Number of women	Among sterilized women, percentage who were informed that sterilization is permanent[1]	Number of women
Method						
Female sterilization	39.7	37.0	34.9	512	80.7	512
Pill	37.0	35.9	44.5	234	na	na
IUD	(79.5)	(79.4)	(69.3)	39	na	na
Injectables	71.6	63.7	58.2	647	na	na
Implants	(82.8)	(74.2)	(73.0)	39	na	na
Initial source of method[2]						
Government sector	55.3	50.4	48.2	1,137	79.2	427
Government hospital	50.2	45.0	45.4	381	83.6	269
PHC center	(77.8)	(69.0)	(49.6)	45	*	4
Health post	66.4	59.5	62.9	122	na	na
Sub-health post	65.4	57.5	49.0	324	na	na
PHC outreach	69.4	65.4	69.8	63	na	na
Other public	*	*	*	6	na	na
Mobile clinic	32.7	35.4	31.7	159	71.4	154
FCHV	(30.4)	(29.4)	(55.2)	36	na	na
Nongovernmentt/NGO sector	65.6	56.7	54.0	119	85.4	63
FPAN	(87.4)	(73.9)	(56.1)	42	*	6
Marie Stopes	51.6	43.9	51.8	60	82.6	53
UMN	*	*	*	10	*	0
Other NGO	*	*	*	8	*	3
Other private sector	50.8	49.1	47.6	215	*	22
Private hospital/clinic	58.8	52.9	47.2	82	*	22
Pharmacy	45.9	46.7	47.9	133	na	na
Total[3]	55.5	50.7	48.6	1,471	80.7	512

Note: Table excludes users who obtained their method from friends/relatives/shops. 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] Among women who were sterilized in the five years preceding the survey
[2] Source at start of current episode of use
[3] Also includes users of condom for column on percentage who were informed of other methods

Among the three main sectors providing methods (government, non-government and private medical sectors), the NGO sector appears to be the most likely to fully inform their clients. Two-thirds of women who obtained their method for the first time from the NGO sector were informed about side effects or problems of the method used, 57 percent were informed about what to do if they experienced side effects, and more than one in two were informed of other methods that could be used.

5.12 CONTRACEPTIVE DISCONTINUATION

Couples can realize their reproductive goals only when they consistently and correctly use contraceptive methods. A prominent concern for family planning programs is the rate at which contraceptive users discontinue using their methods. In the "Calendar" section of the Women's Questionnaire, all segments of contraceptive use between 3-59 months prior to survey are recorded. The month of interview and the two months prior are ignored in order to avoid the bias that may be introduced by unrecognized pregnancies. One-year contraceptive discontinuation rates based on the calendar data are presented in Table 5.13.

The data show that nearly half of all contraceptive users in Nepal discontinue using the method within 12 months of starting its use. Discontinuation rates are highest for condom users (73 percent), followed by users of pills (64 percent), withdrawal (62 percent), rhythm (58 percent), and injectables (42 percent).

Table 5.13 First-year contraceptive discontinuation rates

Among women 15-49 who started an episode of contraceptive use in the past five years, the percentage of episodes discontinued within 12 months, by type of method, Nepal 2006

Method	Total
Pill	64.0
Injectables	41.9
Condom	73.4
Rhythm	57.7
Withdrawal	62.0
All methods	49.8
Number of episodes of use	2,458

Note: Table is based on episodes of contraceptive use that began 3-59 months prior to the survey

5.13 FUTURE USE OF CONTRACEPTION

An important indicator of the changing demand for family planning is the extent to which nonusers of contraception plan to use family planning in the future. Currently married women who were not using contraception at the time of the survey were asked about their intention to use family planning in the future. The results are shown in Table 5.14. Among currently married women who are not using contraception, 74 percent report that they intend to use a family planning method in the future, 22 percent say that they do not intend to use a method in the future and 4 percent are unsure of their future intention. There are differences in the percentage of women who intend to use family planning according to their number of living children. The proportion of women intending to use family planning peaks at 87 percent among nonusers with one child, declines to 70 percent among women with three children, and further declines sharply to 51 percent among women who have four or more children.

Table 5.14 Future use of contraception

Percent distribution of currently married women age 15-49 who are not using a contraceptive method by intention to use in the future, according to number of living children, Nepal 2006

Intention to use in the future	Number of living children[1]					Total
	0	1	2	3	4+	
Intends to use	83.4	87.0	84.1	70.0	51.2	74.1
Unsure	5.6	3.5	3.7	3.2	3.5	3.8
Does not intend to use	10.9	9.5	12.2	26.7	45.2	22.1
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	571	1,026	950	644	1,106	4,297

[1] Includes current pregnancy

5.14 Reasons for Nonuse of Contraception

An understanding of the reasons women give for not using family planning methods is critical to designing programs that could improve the quality of services. Table 5.15 shows the percent distribution of currently married women who are not using a contraceptive method and who do not intend to use in the future by the main reasons for not intending to use.

Table 5.15 Reason for not intending to use contraception in the future

Percent distribution of currently married women age 15-49 who are not using contraception and who do not intend to use in the future by main reason for not intending to use, Nepal 2006

Reason	Age of woman 15-29	30-49	Total
Fertility-related reasons	19.9	71.5	65.4
Infrequent sex	7.0	13.1	12.4
Menopausal/had hysterectomy	0.0	15.6	13.8
Subfecund/infecund	8.9	41.9	38.0
Wants more children	4.0	0.9	1.2
Opposition to use	57.3	5.8	11.9
Respondent opposed	0.0	0.7	0.6
Husband opposed	11.2	2.1	3.2
Others opposed	1.8	0.1	0.3
Religious prohibition	44.1	1.6	6.6
Fatalistic/up to God	0.2	1.3	1.2
Lack of knowledge	1.1	0.6	0.7
Knows no method	1.1	0.4	0.5
Knows no source	0.0	0.2	0.2
Method-related reasons	18.6	17.0	17.3
Health concerns	5.3	7.0	6.8
Fear of side effects	13.1	9.5	10.0
Lack of access	0.2	0.2	0.2
Inconvenient to use	0.0	0.3	0.3
Interferes with body's normal process	0.0	0.9	0.8
Other	2.2	4.1	3.9
Don't know	0.9	0.0	0.1
Total	100.0	100.0	100.0
Number of women	111	837	948

Nearly two-thirds of women do not intend to use contraception in the future because of fertility-related reasons. Most of these women (38 percent) report themselves to be subfecund or infecund. Twelve percent of women do not intend to use because of opposition to use, with most of them citing religious opposition as a reason for nonuse. Eighteen percent of women cited method-related reasons for nonuse, the most important of these being fear of side effects (10 percent). Women age 15-29 are most likely to cite opposition to use (57 percent), with religious opposition being the primary reason (44 percent). Nineteen percent of young women also mentioned method-related reasons, primarily fear of side effects (13 percent), as a major reason for nonuse in the future. On the other hand, 72 percent of women age 30-49 cited fertility-related reasons for nonuse in the future, with 42 percent reporting themselves as subfecund or infecund. Eighteen percent of women in this age group also cited method-related reasons, primarily fear of side effects (10 percent), as a major reason for nonuse in the future.

Table 5.16 Preferred method of contraception for future use

Percent distribution of currently married women age 15-49 who are not using a contraceptive method but who intend to use in the future, by preferred method, Nepal 2006

Method	Age of woman 15-29	30-49	Total
Female sterilization	30.0	22.6	28.2
Male sterilization	8.2	10.0	8.6
Pill	7.2	11.0	8.1
IUD	1.3	0.3	1.1
Injectables	30.9	30.3	30.8
Implants	2.9	2.9	2.9
Condom	2.8	4.0	3.0
Rhythm	0.1	0.5	0.2
Withdrawal	0.6	2.5	1.1
Other	0.1	0.0	0.0
Unsure of method	15.9	15.7	15.9
Total	100.0	100.0	100.0
Number of women	2,435	752	3,186

Overall, these data suggest that there is substantial scope for family planning programs to increase contraceptive use by providing advocacy and high-quality services. Improved information and education activities will play an important role in dispelling fears and misconceptions about specific contraceptive methods and contraceptive use in general.

5.15 Preferred Method of Contraception for Future Use

Future demand for specific methods of family planning can be assessed by asking nonusers who intend to use in the future which methods they prefer to use. Table 5.16 provides some indication of currently married women's preferences for the method they might use in the future. However, the information should be interpreted with caution since two conditions are implied here: intention to use and method preferred if intention is followed. Most currently married women would prefer to

use injectables (31 percent) and female sterilization (28 percent) in the future. About 9 percent of women mentioned male sterilization as a potential future method, and 8 percent mentioned the pill. There has been little change in method preference over the last five years. Data from the 2001 NDHS show that 32 percent of currently married women intended to use female sterilization in the future and 28 percent intended to use injectables.

5.16 Exposure to Family Planning Messages

The electronic media such as radio and television are important for communicating messages about family planning. Information on the level of exposure to such media is important for program managers and planners to effectively target population subgroups for information, education and communication (IEC) campaigns. In Nepal, the most common media source is the radio. Television is mostly found in urban areas, while the print media are accessed mostly by the educated. To assess the extent to which media serve as a source of family planning messages, respondents were asked if they had heard or seen a message about family planning on the radio, television, in the print media (newspaper, magazine, poster, billboard) or at a street drama in the months preceding the survey. The results are shown in Table 5.17.

The majority of women (68 percent) and men (75 percent) age 15-49 have heard a family planning message recently on the radio, whereas only 40 percent of women and 48 percent of men have heard family planning messages on television. Fifteen percent of women and 38 percent of men have read about family planning in the newspaper or magazine. Forty percent of women and 75 percent of men have seen a family planning message on a poster or billboard, and 6 percent of women and 14 percent of men have been exposed to family planning messages at a street drama. One-fourth of women and one-tenth of men have not been exposed to family planning messages in any of the specified media sources.

In general, respondent's exposure to media messages on family planning decreases with age, with older women (age 45-49) and men (age 50-59) least likely to have been exposed to family planning messages in any media.

Not surprisingly, women and men residing in urban areas are much more likely to have been exposed to family planning messages in any media than their rural counterparts. This is especially true for messages on television and in the print media. Residents of the hill areas are more likely to have heard family planning messages in the media than residents of the mountains and the terai. Women living in the Mid-western region and men living in the Western and Far-western regions are exposed most to family planning messages in at least one of the media compared with women and men in the other regions. Women living in the Mid-western terai subregion and men living in the Far-western and Western terai subregions have the greatest exposure to family planning messages in the media, compared with all other residents.

Education influences media exposure positively. For example, nearly two-fifths of uneducated women had no exposure to family planning information in any media compared with just 1 percent of women with SLC and higher education. A similar pattern is observed for men.

The results also show that never-married women and men are more likely to have exposure to family planning messages compared with married women and men. Similarly, exposure to family planning messages varies by wealth quintile, and is highest among respondents in the wealthiest quintile.

Table 5.17 Exposure to family planning messages

Percentage of women and men age 15-49 who heard or saw a family planning message on the radio or television or in a newspaper/magazine, poster/billboard, and street drama in the past few months, according to background characteristics, Nepal 2006

	Women							Men						
Background characteristic	Radio	Tele-vision	News-paper/ maga-zine	Poster/ bill-board	Street drama	None of these five sources	Number	Radio	Tele-vision	News-paper/ maga-zine	Poster/ bill-board	Street drama	None of these five sources	Number
Age														
15-19	73.5	46.0	23.6	50.8	9.7	18.3	2,437	79.8	54.8	42.9	77.3	15.9	6.2	941
20-24	73.9	45.8	21.6	48.6	6.6	18.1	1,995	80.7	57.8	47.6	82.2	17.2	5.5	632
25-29	68.5	41.7	15.1	39.7	5.1	23.6	1,773	73.2	54.7	40.6	77.4	15.9	8.5	524
30-34	70.0	39.8	11.9	40.4	3.8	21.5	1,336	73.7	49.4	37.8	75.7	14.7	10.4	499
35-39	64.6	32.0	8.7	33.3	4.7	28.3	1,220	70.0	40.8	30.2	70.5	9.8	12.3	444
40-44	58.6	30.1	7.1	27.5	2.5	31.9	1,121	75.4	33.7	27.5	69.1	9.8	13.1	414
45-49	56.2	27.5	3.3	21.4	2.9	37.3	912	66.0	28.1	24.3	64.0	6.5	14.2	399
Residence														
Urban	72.9	74.5	36.4	62.9	9.4	10.6	1,687	78.0	72.3	59.9	84.0	17.0	6.8	730
Rural	67.5	33.3	11.4	36.2	5.1	26.1	9,106	74.6	42.3	32.4	72.7	12.9	9.8	3,123
Ecological zone														
Mountain	68.7	16.1	8.6	22.3	2.7	28.8	753	78.6	23.6	29.0	53.4	11.5	15.4	241
Hill	76.7	41.7	18.9	45.2	5.6	14.9	4,598	86.2	56.4	49.7	74.0	13.6	6.0	1,641
Terai	61.2	41.3	13.1	38.8	6.3	30.4	5,443	65.7	43.9	28.6	78.2	13.9	11.1	1,972
Development region														
Eastern	69.2	44.8	18.3	40.1	7.0	23.9	2,392	81.3	57.4	46.0	80.1	19.0	7.5	849
Central	61.1	47.4	16.8	37.7	5.2	27.5	3,553	71.4	55.0	40.3	71.8	12.8	13.0	1,367
Western	74.5	37.7	14.4	51.6	4.7	18.5	2,070	86.5	54.7	41.6	78.5	13.5	5.8	716
Mid-western	86.1	30.3	12.4	37.9	4.2	11.1	1,250	84.6	23.2	27.6	58.5	10.7	10.6	416
Far-western	60.8	24.2	10.5	34.0	7.8	31.8	1,528	51.4	23.6	18.8	82.8	9.5	5.7	506
Subregion														
Eastern mountain	77.2	15.3	14.6	34.7	2.9	20.4	189	88.6	34.3	39.7	73.3	12.4	10.0	59
Central mountain	77.3	24.0	9.7	15.9	4.6	20.2	202	79.7	31.5	33.2	51.8	12.0	9.4	73
Western mountain	59.4	12.0	4.9	19.5	1.6	38.0	362	72.6	12.5	20.4	43.8	10.6	22.4	109
Eastern hill	85.9	36.2	19.8	40.3	5.6	12.5	627	94.2	56.3	53.3	74.8	22.3	4.8	215
Central hill	69.7	63.1	25.3	48.4	7.2	14.9	1,713	81.2	71.6	56.1	77.6	15.8	6.4	722
Western hill	79.6	33.3	15.7	54.2	4.7	13.9	1,267	89.2	57.3	55.1	80.9	11.3	4.0	387
Mid-western hill	87.4	25.2	14.1	35.4	3.6	9.7	650	87.9	21.6	30.9	51.6	5.7	9.7	210
Far-western hill	63.7	7.3	6.7	23.9	4.7	32.7	341	89.7	19.4	17.2	67.2	5.5	5.9	107
Eastern terai	61.6	51.8	18.2	40.6	8.1	28.8	1,576	75.8	60.2	44.0	82.7	18.4	8.2	576
Central terai	50.1	33.9	8.9	29.3	3.1	41.6	1,638	58.1	37.1	21.4	67.0	9.2	21.8	571
Western terai	67.6	45.5	12.5	48.4	4.8	24.5	783	83.1	52.1	25.8	75.6	16.4	8.2	320
Mid-western terai	87.4	39.7	13.1	47.7	5.2	8.9	457	81.2	26.3	21.3	71.6	14.8	11.6	155
Far-western terai	61.6	34.0	12.5	40.0	10.4	28.9	989	38.5	28.3	21.0	94.3	11.7	1.1	350
Education														
No education	55.9	23.1	1.5	20.1	2.0	37.6	5,728	52.7	18.5	4.4	47.9	4.1	25.6	710
Primary	74.7	42.7	9.5	43.9	4.9	15.7	1,901	73.3	35.6	19.9	66.9	7.9	11.5	1,083
Some secondary	86.9	62.1	34.5	69.9	13.2	4.2	2,225	80.7	55.8	45.6	85.1	16.5	3.3	1,281
SLC and above	87.2	81.6	65.5	86.9	12.7	1.0	938	89.4	79.1	79.3	93.8	25.7	0.8	779
Marital status														
Never married	78.0	53.7	32.0	58.3	11.6	13.2	2,149	80.7	60.9	50.7	80.5	17.6	5.6	1,207
Married	66.1	36.4	11.3	36.3	4.3	25.9	8,257	72.5	42.2	32.0	72.8	11.9	10.8	2,598
Divorced/separated/ widowed	61.2	33.5	6.6	27.8	4.1	33.7	387	(82.9)	(30.5)	(13.6)	(45.4)	(8.5)	(16.0)	48
Wealth quintile														
Lowest	60.7	9.8	4.5	20.2	1.7	37.0	1,961	69.9	17.0	12.9	50.7	4.7	16.8	621
Second	60.3	15.9	5.1	27.4	2.9	35.0	2,079	66.1	25.7	20.5	67.1	8.5	14.8	696
Middle	64.4	28.6	8.3	31.4	4.3	29.4	2,214	65.7	38.1	27.7	78.7	13.1	9.1	714
Fourth	78.0	56.0	18.6	50.5	6.9	13.7	2,226	86.3	63.3	47.3	81.3	20.6	5.2	861
Highest	76.5	81.4	37.1	68.1	12.0	6.4	2,313	82.4	77.7	64.8	87.5	17.3	4.0	961
Total 15-49	68.3	39.7	15.3	40.4	5.7	23.7	10,793	75.2	47.9	37.6	74.9	13.6	9.2	3,854
Men 50-59	na	na	na	na	na	na	na	64.8	33.0	18.5	59.0	9.6	20.8	543
Total men 15-59	na	na	na	na	na	na	na	73.9	46.1	35.3	72.9	13.1	10.6	4,397

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

na = Not applicable

5.17 CONTACT OF NONUSERS WITH FAMILY PLANNING PROVIDERS

When family planning providers visit women in the field or when women visit health facilities, family planning fieldworkers and health providers are expected to discuss family planning issues, to discuss contraception options available, and to motivate nonusers to adopt a method of family planning. To get insight into the level of contact between nonusers and health workers, women were asked if a family planning fieldworker had visited them during the 12 months preceding the survey and discussed family planning. In addition, women were asked if they had visited a health facility in the 12 months preceding the survey for any reason and whether anyone at the facility had discussed family planning with them during the visit.

Table 5.18 shows that fieldworkers discussed family planning with only 6 percent of nonusers during the 12 months preceding the survey. At the same time, only 4 percent of nonusers discussed family planning at a health facility. One of the reasons for the low exposure to family planning from field workers could be the lack of emphasis on home visits by family planning fieldworkers. This low level of contact of nonusers with family planning providers varies little by background characteristics. Overall, 92 percent of women who could have been exposed to family planning information did not discuss family planning during a field visit or at a health facility, indicating numerous missed opportunities to inform and educate women about family planning.

Table 5.18 Contact of nonusers with family planning providers

Among women age 15-49 who are not using contraception, the percentage who during the last 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, Nepal 2006

Background characteristic	Percentage of women who were visited by a fieldworker who discussed family planning	Percentage of women who visited a health facility in the past 12 months and who:		Percentage of women who neither discussed family planning with fieldworker nor at a health facility	Number of women
		Discussed family planning	Did not discuss family planning		
Age					
15-19	1.8	1.2	30.6	97.3	2,310
20-24	8.8	6.6	51.5	88.4	1,502
25-29	7.8	6.8	52.9	89.0	963
30-34	9.8	8.6	53.1	85.6	534
35-39	8.9	6.4	40.8	87.8	473
40-44	4.2	3.2	30.8	93.6	461
45-49	2.5	1.6	32.0	96.8	526
Marital status					
Never married	1.8	0.2	26.0	98.1	2,148
Married	7.7	6.6	48.9	89.0	4,297
Divorced/separated/widowed	2.5	0.5	36.6	97.5	323
Residence					
Urban	4.9	3.5	43.8	93.0	938
Rural	5.7	4.4	40.6	92.2	5,830
Ecological zone					
Mountain	6.9	5.8	34.1	90.6	525
Hill	5.2	2.9	44.6	93.2	3,029
Terai	5.8	5.3	38.8	91.7	3,214
Development region					
Eastern	7.3	4.8	39.5	90.9	1,496
Central	4.0	4.2	42.5	93.4	2,159
Western	6.1	3.9	44.4	92.1	1,405
Mid-western	6.5	4.7	43.4	91.0	801
Far-western	4.6	3.8	32.9	93.3	907
Subregion					
Eastern mountain	5.7	3.6	38.2	91.9	144
Central mountain	11.4	9.7	28.7	84.6	115
Western mountain	5.5	5.4	34.2	92.5	266
Eastern hill	3.4	3.4	41.6	94.3	400
Central hill	3.2	1.6	47.1	95.6	1,008
Western hill	7.5	3.5	45.7	91.2	900
Mid-western hill	6.2	3.1	44.6	91.8	465
Far-western hill	5.4	5.0	36.0	92.1	257
Eastern terai	9.2	5.6	38.8	89.4	952
Central terai	4.0	6.1	39.6	92.3	1,036
Western terai	3.8	4.6	42.1	93.5	493
Mid-western terai	6.8	6.7	42.0	90.4	244
Far-western terai	4.1	3.0	32.2	93.6	489
Education					
No education	5.6	4.9	38.5	91.9	3,159
Primary	5.3	5.3	38.6	92.0	1,253
Some secondary	5.1	2.6	44.9	93.8	1,708
SLC and above	7.4	3.7	48.0	90.5	648
Wealth quintile					
Lowest	4.2	4.7	39.3	93.0	1,447
Second	5.6	5.2	37.6	91.8	1,368
Middle	6.7	5.0	36.7	91.1	1,339
Fourth	6.5	3.2	43.8	92.0	1,343
Highest	4.9	3.3	48.4	93.5	1,271
Total	5.6	4.3	41.0	92.3	6,768

5.18 MEN'S ATTITUDES TOWARD CONTRACEPTION

The 2006 NDHS also included questions in the male survey to elicit further information on men's attitudes toward contraception in general and towards specific methods used commonly in Nepal. This information is useful in formulating family planning programs and policies geared toward men since they play a key role in women's reproductive health. Men's attitudes towards family

planning and specific methods are also important in formulating educational activities geared towards addressing some of their misconceptions and fears.

To get a sense of their attitudes toward contraception in general, men were asked their opinion on a number of stereotypical statements pertaining to contraception and its use. The results are shown in Table 5.19. About one in ten Nepalese men (11 percent) agree that contraception is a woman's business alone, and 17 percent of men agree that women who are sterilized may become promiscuous. Two-fifths of men agree that a woman should be the one to get sterilized since she is the one who gets pregnant.

Table 5.19 Men's attitudes toward contraceptive use

Among men who know a family planning method, the percentage who agree with stereotypical statements about contraceptive use, according to background characteristics, Nepal 2006

Background characteristic	Contraception is women's business	Women who use contraception may become promiscuous	A woman is the one who becomes pregnant, so she should be the one to get sterilized	Number of men
Age				
15-19	9.9	17.3	35.1	941
20-24	11.0	15.4	38.3	632
25-29	11.1	14.7	33.1	524
30-34	9.4	14.6	36.8	499
35-39	12.1	18.5	39.6	444
40-44	12.5	17.8	42.1	414
45-49	11.3	19.6	43.5	399
50-54	13.1	21.1	44.6	314
Residence				
Urban	13.5	15.6	37.4	819
Rural	10.9	17.4	38.9	3,578
Ecological zone				
Mountain	18.1	29.8	65.2	287
Hill	13.5	23.2	48.0	1,869
Terai	8.8	10.3	27.4	2,241
Development region				
Eastern	12.5	12.8	35.7	973
Central	12.3	18.7	38.5	1,554
Western	8.0	18.4	40.7	821
Mid-western	15.8	20.6	42.7	473
Far-western	8.2	15.0	37.8	576
Subregion				
Eastern mountain	5.3	16.6	45.2	68
Central mountain	37.6	56.1	82.4	88
Western mountain	11.6	18.9	64.1	130
Eastern hill	20.5	21.3	45.9	239
Central hill	13.6	21.4	47.2	813
Western hill	4.9	21.8	46.8	454
Mid-western hill	18.9	21.8	39.1	239
Far-western hill	20.9	46.8	78.8	124
Eastern terai	10.3	9.4	31.0	665
Central terai	7.3	10.1	21.6	653
Western terai	12.3	13.5	32.4	357
Mid-western terai	14.4	18.8	46.4	174
Far-western terai	2.8	5.2	17.9	391
Education				
No education	16.8	20.5	45.5	945
Primary	15.3	22.0	48.4	1,265
Some secondary	8.7	14.6	34.4	1,358
SLC and above	3.5	9.6	23.0	829
Wealth quintile				
Lowest	21.2	27.0	57.2	730
Second	9.9	18.1	37.2	791
Middle	8.3	14.2	32.6	810
Fourth	10.3	16.0	36.1	992
Highest	9.2	12.6	34.0	1,074
Total	11.4	17.1	38.6	4,397

As expected, educated men and men in the highest wealth quintile display a more accepting attitude towards contraceptive use. However, the impact of age and place of residence on men's attitude towards contraceptive use in general is mixed.

When asked whether women who are breastfeeding can become pregnant, most men who know about contraception (78 percent) reported affirmatively (data not shown).

5.19 Husband's Knowledge of Wife's Use of Contraception

Concealment of contraceptive use is an indication of absence of communication or disagreement on use of family planning. To shed light on the extent of communication regarding use of contraception among married couples, currently married women who were using contraception at the time of the survey were asked whether their husband knew of their use. Almost all users (99 percent) reported that their husbands know about their use of contraception, an indication, perhaps, that Nepalese husbands in general are supportive of contraceptive use among their wives (data not shown).

5.20 Discussion of Family Planning Between Spouses

Although discussion between husband and wife about contraceptive use is not a precondition for the adoption of contraception, its absence may be an impediment to use. Interspousal communication is thus an important intermediate step along the path to eventual adoption and especially continuation of contraceptive use or sustained use of contraception. Lack of discussion may reflect a lack of personal interest, hostility to the subject or customary reticence in talking about sex-related matters. To explore this subject, currently married women interviewed in the 2006 NDHS were asked about the number of times they discussed family planning with their husbands in the year preceding the survey.

Table 5.20 shows the percent distribution of currently married women who know about family planning by the number of times they discussed family planning with their husband in the year before the survey. Overall, 57 percent of women never discussed family planning with their husband in the past year. Thirty-one percent of women discussed family planning once or twice with their husband, while 12 percent of women discussed family planning with their husband more often in the past year. Results from the 2001 NDHS indicate there has been little change in the extent of interspousal communication over the last five years. Interspousal communication about family planning is more common among women age 20-34 than among very young or older women.

Table 5.20 Discussion of family planning with spouse

Percent distribution of currently married women who know a contraceptive method by frequency of discussion with husband in the past year, according to age, Nepal 2006

Age	Never	Once or twice	More often	Total	Number of women
15-19	53.4	36.6	10.0	100.0	784
20-24	45.0	38.3	16.6	100.0	1,606
25-29	44.2	39.3	16.4	100.0	1,664
30-34	51.7	34.5	13.6	100.0	1,265
35-39	64.3	25.3	10.4	100.0	1,135
40-44	73.4	19.3	7.3	100.0	1,016
45-49	84.3	12.6	3.1	100.0	788
Total	56.6	31.2	12.2	100.0	8,257

Note: Total includes women missing information on frequency of discussion who are not shown separately.

PROXIMATE DETERMINANTS OF FERTILITY 6

This chapter addresses the principal factors other than contraception, that affect a woman's risk of becoming pregnant. The principal factors are nuptiality (including age at first marriage and age at first sexual intercourse), postpartum amenorrhea and sexual abstinence, and menopause. In societies where sexual activity usually takes place within marriage, marriage signals the onset of a woman's exposure to the risk of childbearing; postpartum amenorrhea and sexual abstinence affect the duration of a woman's insusceptibility to pregnancy which in turn affects birth spacing; and the onset of menopause marks the end of a woman's reproductive life. These variables taken together determine the length and pace of a woman's reproductive life and are, therefore, important for understanding fertility.

6.1 CURRENT MARITAL STATUS

Table 6.1 shows the marital status by age and sex. About 20 percent of women age 15-49 have never been married, whereas the proportion of men age 15-49 who have never been married is considerably higher (31 percent). The proportion never married decreases sharply with age for both women and men: among women from 68 percent in the age group 15-19 to 1 percent in the age group 45-49; and among men from 90 percent in the age group 15-19 to less than 1 percent in the age group 35-44.

Table 6.1 Current marital status

Percent distribution of women and men age 15-49 by current marital status, according to age, Nepal 2006

	Marital status						
Age	Never married	Married	Divorced	Separated	Widowed	Total	Number of respondents
			WOMEN				
15-19	67.7	32.2	0.0	0.1	0.0	100.0	2,437
20-24	17.9	80.5	0.2	0.9	0.4	100.0	1,995
25-29	4.4	93.8	0.1	0.8	0.9	100.0	1,773
30-34	1.6	94.7	0.4	1.5	1.7	100.0	1,336
35-39	1.4	93.0	0.1	1.6	3.9	100.0	1,220
40-44	1.3	90.6	0.4	2.0	5.6	100.0	1,121
45-49	1.2	86.5	0.0	3.1	9.2	100.0	912
Total 15-49	19.9	76.5	0.2	1.2	2.3	100.0	10,793
			MEN				
15-19	89.5	10.4	0.0	0.1	0.0	100.0	941
20-24	44.1	55.7	0.0	0.1	0.0	100.0	632
25-29	14.0	84.3	0.5	1.3	0.0	100.0	524
30-34	1.1	95.6	0.8	2.4	0.1	100.0	499
35-39	0.2	99.0	0.0	0.7	0.1	100.0	444
40-44	0.7	97.8	0.0	0.6	0.9	100.0	414
45-49	1.0	96.3	0.0	0.2	2.4	100.0	399
Total 15-49	31.3	67.4	0.2	0.7	0.4	100.0	3,854
Men 50-59	0.5	92.7	0.0	1.6	5.1	100.0	543
Total 15-59	27.5	70.6	0.1	0.8	1.0	100.0	4,397

The leading cause of marriage disruption is widowhood, followed by marital separation. Just over 2 percent of women age 15-49 are widowed, compared with less then one percent of men in the same age group. The proportion of women who are widowed increases with age, and at age 45-49 nearly one in ten women is widowed. At age 45-49, only 2 percent of men are widowed. About 1 percent of women and men age 15-49 are divorced or separated. The proportion of widowed women was 3 percent in 1996 and 2 percent in 2001, whereas the proportion of divorced and separated women was 2 percent and 1 percent, respectively, during the same period.

Table 6.2 shows that the proportion of unmarried women has increased over the years from 17 percent in 1996 to 20 percent in 2006, and this increase was mostly concentrated in the age cohort 15-19. The increase in the proportion unmarried, especially in the last five years, may have contributed in part to the sharp decline in fertility. There has been little change in the proportion never married among men in the last five years.

Table 6.2 Trend in proportion never married

Percentage of women and men who have never married, by age group, Nepal 1996-2006

	Women			Men	
Age	1996	2001	2006	2001	2006
15-19	56.0	59.7	67.7	88.7	89.5
20-24	14.8	17.1	17.9	43.5	44.1
25-29	4.6	4.5	4.4	16.2	14.0
30-34	1.9	2.5	1.6	4.8	1.1
35-39	1.5	1.9	1.4	1.4	0.2
40-44	1.1	1.1	1.3	0.9	0.7
45-49	1.4	1.4	1.2	1.3	1.0
15-49	16.6	17.9	19.9	31.7	31.3
15-59	na	na	na	27.8	27.5

na = Not applicable

6.2 POLYGYNY

Polygyny (the practice of having more than one wife) has implications for the frequency of exposure to sexual activity and, therefore, fertility. The extent of polygyny is ascertained from responses of currently married women to questions on whether their husband or partner has other wives and, if so, how many. Similarly, currently married men were asked for the number of wives they have.

Table 6.3 presents the proportion of currently married women age 15-49 who are in a polygynous union by background characteristics. Data from the 2006 NDHS show that about 4 percent of currently married women are in a polygynous union, that is, have co-wives. The data further indicate that older women are more likely to be in a polygynous union than younger women. For example, 6 percent of women age 45-49 are in a polygynous union compared with less than 1 percent of women age 15-19. Polygyny is highest among women in the age group 40-44 (7 percent).

Data by place of residence show only small differences. Polygyny ranges from a low of 3 percent among women living in the Western region to a high of 6 percent among women who live in the Far-western region. Women living in the Far-western *terai* subregion are most likely to be in a polygynous union.

There is an inverse relationship between education and polygyny with the proportion of women in a polygynous union decreasing from 5 percent among women with no education to less than 1 percent among women with SLC and higher education. Differences in the prevalence of polygyny among women in different wealth quintiles are not large.

Table 6.3 Number of co-wives and wives

Percentage of currently married women age 15-49 with co-wives and percentage of currently married men age 15-59 with two or more wives, according to background characteristics, Nepal 2006

Background characteristic	Women: Percentage with co-wives	Women: Number of women	Men: Percentge with 2+ wives	Men: Number of men
Age				
15-19	0.7	784	0.0	98
20-24	2.2	1,606	0.2	352
25-29	4.2	1,664	1.3	442
30-34	5.8	1,265	3.1	477
35-39	5.2	1,135	1.1	440
40-44	7.3	1,016	2.4	405
45-49	6.0	788	1.4	384
Residence				
Urban	5.3	1,226	2.3	419
Rural	4.2	7,031	1.4	2,180
Ecological zone				
Mountain	3.1	586	1.8	171
Hill	4.5	3,402	1.7	1,031
Terai	4.5	4,269	1.5	1,396
Development region				
Eastern	4.8	1,757	1.5	543
Central	4.3	2,736	1.9	927
Western	3.2	1,602	1.0	463
Mid-western	4.2	976	1.8	310
Far-western	5.7	1,187	1.6	355
Subregion				
Eastern mountain	2.4	127	1.0	37
Central mountain	3.2	157	1.0	50
Western mountain	3.3	302	2.6	84
Eastern hill	4.6	445	2.0	142
Central hill	5.4	1,219	2.6	427
Western hill	2.9	965	0.7	236
Mid-western hill	5.3	497	0.9	154
Far-western hill	4.6	276	0.5	72
Eastern terai	5.2	1,185	1.3	365
Central terai	3.5	1,359	1.2	449
Western terai	3.7	624	1.3	223
Mid-western terai	3.4	356	2.7	115
Far-western terai	6.5	745	1.6	244
Education				
No education	5.0	5,110	0.8	634
Primary	4.4	1,404	1.7	831
Some secondary	3.7	1,197	1.6	675
SLC and above	0.5	547	2.5	457
Wealth quintile				
Lowest	4.3	1,537	1.4	460
Second	4.1	1,642	1.3	513
Middle	3.0	1,747	0.7	514
Fourth	4.6	1,640	1.7	550
Highest	6.1	1,692	2.6	561
Total 15-49	4.4	8,257	1.6	2,598
50-59	na	na	4.9	504
Total men 15-59	na	na	2.1	3,102

na = Not applicable

Table 6.3 also shows the percentage of currently married men 15-59 with two or more wives according to background characteristics. The data indicate that 2 percent of men age 15-59 report having two or more wives. The pattern of polygyny among currently married men by background characteristics is similar to that seen for women, with the exception of education. Polygyny among men increases with education.

Although the proportion of currently married women in a polygynous union declined between 1996 and 2001, there was no change in the last five years. The proportion of currently married men who have more than one wife also hardly changed during the last five years.

6.3 AGE AT FIRST MARRIAGE

Marriage marks the point in a woman's life when childbearing becomes socially acceptable. Age at first marriage has a major effect on childbearing because women who marry early have, on average, a longer period of exposure to the risk of becoming pregnant and a greater number of lifetime births. Information on age at first marriage was obtained by asking respondents the month and year, or age, at which they started living with their first husband or wife.

Table 6.4 shows the percentage of women and men who have married by specific ages, according to current age. Marriage occurs relatively early in Nepal: among women age 20-49, 60 percent are married by age 18, and 78 percent are married by age 20. The median age at first marriage among women age 20-49 is 17.2 years. The proportion of women married by age 15 has declined from 25 percent among women age 45-49 to 6 percent among women age 15-19. There has been a noticeable increase in the median age at marriage among women age 20-49 over the last ten years from 16.4 years in 1996 to 17.2 years in 2006. However, this change was marked between 1996 and 2001, with little difference between 2001 (17.0 years) and 2006.

Table 6.4 also shows that men tend to marry later than women. Among men age 20-49, 24 percent were married by age 18 and 45 percent by age 20. Overall, men marry more than three years later than women. The median age at marriage among men age 20-49 is 20.6 years.

Table 6.4 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, Nepal 2006

	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	5.5	na	na	na	na	67.7	2,437	a
20-24	10.2	51.4	70.9	na	na	17.9	1,995	17.9
25-29	13.3	60.2	77.3	87.3	93.6	4.4	1,773	17.3
30-34	15.3	59.9	79.0	88.4	94.0	1.6	1,336	17.3
35-39	15.4	65.0	81.3	90.2	96.4	1.4	1,220	16.9
40-44	19.7	65.0	81.9	90.7	94.9	1.3	1,121	16.8
45-49	24.7	69.4	84.7	91.9	95.6	1.2	912	16.5
20-49	15.3	60.4	78.1	na	na	6.0	8,356	17.2
25-49	16.9	63.2	80.3	89.4	94.7	2.2	6,362	17.0
				MEN				
15-19	0.7	na	na	na	na	89.5	941	a
20-24	1.8	15.5	32.9	na	na	44.1	632	a
25-29	4.5	24.5	41.3	56.2	76.7	14.0	524	21.0
30-34	4.2	26.9	48.2	63.8	80.9	1.1	499	20.2
35-39	4.1	29.1	50.5	67.2	83.1	0.2	444	19.9
40-44	2.2	23.8	52.2	70.9	87.3	0.7	414	19.8
45-49	4.8	29.3	49.6	68.6	81.0	1.0	399	20.0
20-49	3.5	24.2	44.8	60.9	76.0	12.5	2,913	20.6
25-49	4.0	26.6	48.1	64.8	81.6	3.8	2,281	20.2
25-59	4.3	27.5	48.3	64.9	82.0	3.2	2,824	20.2

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

Table 6.5.1 shows the median age at first marriage among women age 20-49 by five-year age groups, according to background characteristics. Urban women marry one year later than rural women, and women from the mountains and hills marry one year later than women from the terai. The median age at marriage by development region shows smaller variations. However, it is noteworthy that there is a three-year difference in the median age at marriage between women living in the Central terai subregion (16.4 years) and women living in the Eastern mountain subregion (19.6 years).

A positive correlation can be seen between median age at marriage and level of education. Women with some secondary education marry two years later than those with no education, and those with SLC and higher education marry latest, with a median age of 21.4 years at first marriage. Similarly, the median age by wealth quintiles shows that women from the highest wealth quintile marry one to two years later than those from other quintiles.

Table 6.5.1 Median age at first marriage: Women

Median age at first marriage among women age 20-49 by five-year age groups, according to current age, according to background characteristics, Nepal 2006

Background characteristic	Current age						Women age 20-49
	20-24	25-29	30-34	35-39	40-44	45-49	
Residence							
Urban	19.0	18.3	18.5	17.6	17.2	16.4	18.1
Rural	17.7	17.1	17.2	16.8	16.8	16.5	17.0
Ecological zone							
Mountain	17.7	17.5	17.8	18.0	18.6	17.6	17.8
Hill	18.5	18.3	18.1	17.5	17.7	16.8	18.0
Terai	17.4	16.7	16.8	16.5	16.5	16.1	16.7
Development region							
Eastern	18.4	17.7	17.9	17.5	17.1	16.8	17.7
Central	17.7	16.9	17.4	16.8	16.7	16.3	17.0
Western	17.8	18.0	17.4	17.2	17.1	17.2	17.5
Mid-western	17.2	16.9	16.7	16.4	16.7	16.6	16.8
Far-western	18.1	17.0	16.9	16.6	16.6	15.9	16.9
Subregion							
Eastern mountain	19.8	20.6	18.9	18.9	19.6	18.9	19.6
Central mountain	18.5	17.5	17.0	17.3	19.1	(16.4)	17.7
Western mountain	16.6	16.8	17.6	17.8	(17.4)	(17.0)	17.0
Eastern hill	19.4	19.6	20.1	19.3	19.4	18.8	19.5
Central hill	19.5	18.7	18.5	17.9	18.1	16.6	18.4
Western hill	17.7	18.4	17.6	17.4	17.4	17.3	17.7
Mid-western hill	18.0	17.0	16.8	16.3	17.2	(16.6)	17.0
Far-western hill	17.6	16.7	16.4	16.1	15.9	(16.0)	16.6
Eastern terai	17.8	17.1	17.1	16.7	16.4	16.3	17.0
Central terai	16.7	16.4	16.4	16.1	16.3	16.1	16.4
Western terai	17.9	17.1	17.2	16.9	16.7	16.9	17.2
Mid-western terai	17.0	16.9	16.8	16.7	16.5	(16.6)	16.8
Far-western terai	18.5	17.1	16.9	16.5	16.7	15.7	16.9
Education							
No education	16.7	16.6	16.7	16.7	16.7	16.4	16.6
Primary	17.4	17.0	17.3	17.3	16.6	16.8	17.2
Some secondary	18.7	18.6	18.9	17.9	18.6	16.7	18.6
SLC and above	a	21.2	21.4	20.4	(19.7)	*	21.4
Wealth quintile							
Lowest	17.2	16.9	17.0	16.8	17.6	16.7	17.0
Second	17.3	16.8	16.7	16.7	16.6	16.4	16.8
Middle	17.3	16.9	17.1	16.8	16.4	16.3	16.8
Fourth	18.4	17.1	16.9	16.7	16.8	16.3	17.1
Highest	19.3	18.7	18.8	18.0	18.2	16.8	18.5
Total	17.9	17.3	17.3	16.9	16.8	16.5	17.2

Note: The age at first marriage is defined as the age at which the respondent began living with her first husband. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
a = Omitted because less than 50 percent of the women married for the first time before reaching the beginning of the age group

Table 6.5.2 shows the median age at first marriage for men age 25-49 by five-year age groups, according to background characteristics. Median age among men varies substantially by place of residence. Urban men marry nearly three years later than rural men. Similarly, men from the hills marry two years later than men from the terai and one year later than men from the mountains. The median age at first marriage in the Far-western region is nearly three years lower than in the Eastern region. Similarly, there is a four-year difference in the median age at first marriage between men living in the Far-western terai (17.9 years) and men living in the Eastern mountain subregion (22.2 years).

Education also influences age at marriage among men substantially. Men who have SLC and higher education marry three and a half years later than those with no education or only primary education and two and a half years later than those with some secondary education. Similarly, men from the highest wealth quintile marry about three years later than those from the other quintiles.

Table 6.5.2 Median age at first marriage: Men

Median age at first marriage among men age 25-49 by five-year age groups, according to background characteristics, Nepal 2006

Background characteristic	Current age					Men age
	25-29	30-34	35-39	40-44	45-49	25-49
Residence						
Urban	23.4	22.6	23.2	21.7	21.6	22.7
Rural	20.4	19.8	19.5	19.7	19.8	19.9
Ecological zone						
Mountain	20.7	20.6	20.6	19.9	21.4	20.6
Hill	22.5	20.7	20.8	20.7	21.4	21.3
Terai	19.9	19.7	19.1	19.4	18.7	19.4
Development region						
Eastern	22.5	22.3	20.7	20.5	20.5	21.2
Central	21.5	20.3	20.0	19.3	19.8	20.2
Western	22.2	20.9	20.6	20.4	21.3	21.0
Mid-western	19.3	19.4	18.8	18.9	19.6	19.2
Far-western	18.1	17.8	18.3	19.9	(18.3)	18.4
Subregion						
Eastern mountain	22.1	(21.7)	(22.1)	*	(23.0)	22.2
Central mountain	(20.6)	*	*	*	*	20.5
Western mountain	(19.4)	(20.4)	(19.2)	*	*	20.0
Eastern hill	21.9	(22.8)	(24.4)	(21.4)	(21.5)	22.0
Central hill	23.6	20.5	21.0	(20.8)	(21.2)	21.5
Western hill	22.4	(21.7)	(20.8)	(22.3)	(21.9)	22.0
Mid-western hill	20.1	(19.4)	(18.7)	*	(20.5)	19.7
Far-western hill	19.6	(19.2)	*	(19.5)	*	19.5
Eastern terai	22.8	22.2	20.1	(20.1)	(20.1)	20.7
Central terai	19.4	19.9	(18.9)	18.4	(18.6)	19.0
Western terai	20.7	19.9	(20.1)	(19.3)	(19.4)	19.9
Mid-western terai	18.6	(18.9)	*	(18.8)	(18.4)	18.7
Far-western terai	17.8	(17.0)	(18.0)	(20.6)	(16.7)	17.9
Education						
No education	(18.9)	19.5	19.7	19.6	19.6	19.5
Primary	19.5	18.5	18.9	19.6	20.6	19.4
Some secondary	21.5	20.4	20.2	19.5	19.0	20.4
SLC and above	24.8	24.6	21.4	21.8	21.3	23.0
Wealth quintile						
Lowest	19.4	19.5	18.6	20.1	20.9	19.8
Second	20.0	19.8	19.7	19.1	19.0	19.5
Middle	20.0	19.1	18.8	19.4	19.7	19.3
Fourth	20.8	20.3	20.4	20.1	19.2	20.2
Highest	23.7	23.8	22.6	21.5	21.3	22.9
Total	21.0	20.2	19.9	19.8	20.0	20.2

Note: The age at first marriage is defined as the age at which the respondent began living with his first wife. 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.

6.4 AGE AT FIRST SEXUAL INTERCOURSE

Age at first marriage is often used as a proxy for first exposure to intercourse and risk of pregnancy. But the two events may not occur at the same time because some people may engage in sexual activity before marriage. In the 2006 NDHS, all women and men, irrespective of their marital status, were asked how old they were when they first had sexual intercourse. Table 6.6 shows the proportion of women and men who had first sexual intercourse by specific ages.

Table 6.6 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, Nepal 2006

Current age	Percentage who had first sexual intercourse by exact age: 15	18	20	22	25	Percentage who never had sexual intercourse	Number	Median age at first sexual intercourse
				WOMEN				
15-19	5.5	na	na	na	na	67.5	2,437	a
20-24	9.9	50.4	69.6	na	na	17.9	1,995	18.0
25-29	13.4	59.5	76.1	85.7	92.1	4.2	1,773	17.3
30-34	14.8	59.0	78.1	87.3	92.9	1.6	1,336	17.4
35-39	15.4	63.6	80.0	88.3	94.4	1.5	1,220	16.9
40-44	19.0	63.8	80.4	89.2	93.4	1.3	1,121	16.9
45-49	24.2	69.1	84.2	91.2	94.8	1.2	912	16.5
20-49	15.0	59.5	76.9	na	na	6.0	8,356	17.2
25-49	16.6	62.3	79.2	87.9	93.3	2.2	6,362	17.0
				MEN				
15-19	3.1	na	na	na	na	78.9	941	a
20-24	5.3	27.7	48.3	na	na	29.7	632	a
25-29	7.1	31.3	50.6	65.4	82.9	9.7	524	19.9
30-34	6.0	33.0	56.3	70.3	85.5	1.3	499	19.4
35-39	4.9	31.6	53.5	68.9	84.2	0.2	444	19.6
40-44	2.7	28.6	56.2	73.3	88.0	0.7	414	19.5
45-49	4.5	30.1	54.5	72.6	83.6	0.7	399	19.5
20-49	5.2	30.3	52.8	na	na	8.6	2,913	19.7
25-49	5.2	31.0	54.1	69.8	84.8	2.8	2,281	19.6
25-59	5.0	31.3	53.6	69.5	84.8	2.4	2,824	19.6

na = Not applicable due to censoring
a = Omitted because less than 50 percent of respondents had intercourse for the first time before reaching the beginning of the age group

Fifteen percent of women age 20-49 had sexual intercourse by age 15, about 60 percent by age 18, and 77 percent by age 20. The median age at first sexual intercourse among women age 20-49 is 17.2 years and is identical to the median age at first marriage, suggesting that Nepalese women generally begin sexual intercourse at the time of their first marriage. The median age at first sexual intercourse has increased over the last two decades from 16.5 years for women age 45-49 to 18.0 years for women age 20-24.

The median age at first sexual intercourse among men age 20-49 (19.7 years) is two and a half years higher than among women in the same age group, primarily because men tend to marry later than women and, presumably, even among men sexual intercourse tends to be initiated upon marriage. Nevertheless, the median age at first sexual intercourse among men age 20-49 is one year earlier than the median age at first marriage, indicating that some Nepalese men do initiate sexual intercourse prior to marriage. Furthermore, the data show that about 13 percent of men age 20-49 are not married (Table 6.4) but that only about 9 percent in the same age group report never having had sexual intercourse (Table 6.6).

The variation in the median age at first sexual intercourse among women by background characteristics is nearly identical to the median age at first marriage and is, therefore, not shown or discussed separately here.

Table 6.7 shows the median age at the first sexual intercourse for men according to background characteristics. Differences by background characteristics are similar to those discussed for median age at first marriage (Table 6.5.2). Nevertheless, it is worth noting that the differences in the median age at first sexual intercourse by development region and subregion are substantial. Men in the Far-western region initiate sex more than two years earlier than men in the Eastern and Western region and more than one year earlier than men in the Central region. Men residing in the Far-western terai subregion initiate sexual intercourse about four years earlier than men residing in the Eastern mountain subregion (17.7 years versus 21.6 years). Highly educated men (SLC and higher education) initiate sexual intercourse about three years later than men with little or no education. Similarly, men from the wealthiest households initiate sexual intercourse two years later than men in the lowest, second, and middle wealth quintiles.

Table 6.7 Median age at first intercourse for men

Median age at first sexual intercourse among men age 25-49 by five-year age groups, according to background characteristics, Nepal 2006

Background characteristic	Age 25-29	30-34	35-39	40-44	45-49	Men age 25-49
Residence						
Urban	21.7	20.5	22.6	19.4	20.0	21.0
Rural	19.4	19.3	19.3	19.6	19.3	19.4
Ecological zone						
Mountain	19.8	20.0	20.3	19.8	21.2	20.1
Hill	21.4	19.5	20.6	20.2	20.6	20.4
Terai	18.9	19.2	18.9	19.2	18.7	18.9
Development region						
Eastern	20.9	21.3	20.6	20.3	20.3	20.6
Central	20.4	19.2	19.8	18.9	19.1	19.5
Western	20.9	20.2	20.5	20.0	20.8	20.5
Mid-western	18.6	18.6	18.1	18.5	19.3	18.6
Far-western	17.9	17.5	18.1	19.8	(18.2)	18.2
Subregion						
Eastern mountain	21.7	(21.3)	(22.1)	*	(21.2)	21.6
Central mountain	(18.5)	*	*	*	*	20.0
Western mountain	(18.2)	(20.2)	(17.9)	*	*	19.3
Eastern hill	21.4	(21.1)	(24.4)	(20.8)	(21.3)	21.4
Central hill	22.1	19.2	20.5	(20.4)	(19.4)	20.4
Western hill	22.2	(20.5)	(20.8)	(20.7)	(21.3)	21.1
Mid-western hill	19.0	(19.0)	(18.3)	*	(20.4)	19.0
Far-western hill	19.1	(18.7)	*	(19.3)	*	19.2
Eastern terai	20.4	21.8	19.8	(19.9)	(20.0)	20.1
Central terai	19.0	19.1	(18.9)	18.3	(18.6)	18.8
Western terai	19.8	19.9	(20.1)	(19.3)	(19.4)	19.7
Mid-western terai	18.5	(18.2)	*	(18.5)	(18.2)	18.4
Far-western terai	17.8	(16.8)	(17.9)	(20.1)	(16.6)	17.7
Education						
No education	(18.9)	19.2	19.4	19.3	18.9	19.2
Primary	18.9	18.2	18.7	19.6	20.1	19.0
Some secondary	20.1	19.6	20.0	18.7	19.0	19.6
SLC and above	22.8	21.6	21.0	21.2	20.4	21.9
Wealth quintile						
Lowest	18.5	19.1	18.3	19.9	20.7	19.2
Second	19.3	18.8	19.6	18.9	18.9	19.1
Middle	19.0	19.1	18.7	19.1	19.4	19.1
Fourth	20.0	19.4	20.2	20.0	19.0	19.7
Highest	22.4	20.8	21.9	20.4	19.4	21.2
Total	19.9	19.4	19.6	19.5	19.5	19.6

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.

6.5 Recent Sexual Activity

In the absence of contraception, the probability of pregnancy is related to the frequency of intercourse. Therefore, information on sexual activity can be used to refine measures of exposure to the risk of pregnancy. All women and men were asked how long ago their last sexual activity occurred, and Tables 6.8.1 and 6.8.2 show the percent distribution of women and men by recent sexual activity. Half of women age 15-49 were sexually activity in the four weeks before the survey, 17 percent had been sexually active in the year before the survey but not in the month prior to the interview, and 10 percent had not been sexually active for one or more years. One in five women had never had sexual intercourse.

Table 6.8.1 Recent sexual activity: Women

Percent distribution of women age 15-49 by timing of last sexual intercourse, according to background characteristics, Nepal 2006

Background characteristic	Timing of last sexual intercourse: Within the past 4 weeks	Within 1 year[1]	One or more years	Missing	Never had sexual intercourse	Total	Number of women
Age							
15-19	22.0	9.0	1.4	0.0	67.5	100.0	2,437
20-24	51.6	21.9	8.5	0.0	17.9	100.0	1,995
25-29	62.9	21.1	11.8	0.0	4.2	100.0	1,773
30-34	67.4	18.3	12.7	0.0	1.6	100.0	1,336
35-39	70.9	15.6	11.9	0.0	1.5	100.0	1,220
40-44	70.2	14.9	13.4	0.2	1.3	100.0	1,121
45-49	58.7	22.3	17.5	0.4	1.2	100.0	912
Marital status							
Never married	0.2	0.1	0.1	0.0	99.6	100.0	2,149
Married	69.8	21.9	8.2	0.1	0.0	100.0	8,257
Divorced/separated/widowed	0.0	7.6	92.1	0.0	0.3	100.0	387
Marital duration[2]							
Married only once							
0-4 years	64.4	28.3	7.2	0.0	0.1	100.0	1,646
5-9 years	66.6	23.8	9.7	0.0	0.0	100.0	1,561
10-14 years	69.3	19.8	11.0	0.0	0.0	100.0	1,366
15-19 years	73.1	17.9	9.0	0.0	0.0	100.0	1,066
20-24 years	76.5	17.5	6.0	0.1	0.0	100.0	956
25+ years	70.7	22.0	7.1	0.3	0.0	100.0	1,211
Married more than once	78.5	16.6	4.5	0.3	0.0	100.0	450
Residence							
Urban	52.6	14.6	8.5	0.2	24.1	100.0	1,687
Rural	53.6	17.5	9.8	0.0	19.1	100.0	9,106
Ecological zone							
Mountain	55.7	17.1	8.4	0.0	18.8	100.0	753
Hill	48.1	18.7	10.8	0.1	22.3	100.0	4,598
Terai	57.6	15.6	8.8	0.0	18.0	100.0	5,443
Development region							
Eastern	51.5	14.5	11.4	0.0	22.5	100.0	2,392
Central	54.4	17.6	8.8	0.2	18.9	100.0	3,553
Western	48.4	20.2	12.4	0.0	19.0	100.0	2,070
Mid-western	57.1	15.7	8.1	0.0	19.1	100.0	1,250
Far-western	58.0	16.2	6.1	0.0	19.7	100.0	1,528
Subregion							
Eastern mountain	44.3	12.8	15.0	0.0	28.0	100.0	189
Central mountain	55.2	17.0	9.5	0.0	18.2	100.0	202
Western mountain	62.0	19.4	4.3	0.0	14.3	100.0	362
Eastern hill	52.4	11.3	10.4	0.1	25.8	100.0	627
Central hill	49.9	16.9	7.9	0.2	25.0	100.0	1,713
Western hill	41.0	23.7	16.0	0.0	19.3	100.0	1,267
Mid-western hill	52.3	17.7	8.8	0.0	21.2	100.0	650
Far-western hill	50.0	24.3	10.9	0.0	14.8	100.0	341
Eastern terai	52.0	16.0	11.4	0.0	20.5	100.0	1,576
Central terai	59.1	18.5	9.7	0.1	12.7	100.0	1,638
Western terai	60.4	14.6	6.8	0.0	18.1	100.0	783
Mid-western terai	59.8	13.8	8.0	0.0	18.4	100.0	457
Far-western terai	60.9	11.7	4.8	0.0	22.5	100.0	989
Education							
No education	63.8	19.0	11.7	0.1	5.5	100.0	5,728
Primary	50.3	17.3	8.8	0.0	23.5	100.0	1,901
Some secondary	34.2	13.5	7.2	0.0	45.0	100.0	2,225
SLC and above	42.3	12.8	4.3	0.1	40.5	100.0	938
Wealth quintile							
Lowest	52.7	19.8	10.6	0.0	16.9	100.0	1,961
Second	55.4	17.9	8.9	0.1	17.7	100.0	2,079
Middle	54.4	18.1	10.0	0.0	17.4	100.0	2,214
Fourth	53.1	14.5	9.7	0.0	22.7	100.0	2,226
Highest	51.7	15.3	9.0	0.2	23.9	100.0	2,313
Total	53.4	17.0	9.6	0.1	19.9	100.0	10,793

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

Table 6.8.2 Recent sexual activity: Men

Percent distribution of men age 15-49 by timing of last sexual intercourse, according to background characteristics, Nepal 2006

Background characteristic	Timing of last sexual intercourse: Within the past 4 weeks	Within 1 year[1]	One or more years	Never had sexual intercourse	Total	Number of men
Age						
15-19	9.3	6.3	5.5	78.9	100.0	941
20-24	51.2	11.4	7.7	29.7	100.0	632
25-29	75.4	10.9	4.0	9.7	100.0	524
30-34	85.7	9.9	3.2	1.3	100.0	499
35-39	90.4	8.4	1.0	0.2	100.0	444
40-44	89.5	7.7	2.1	0.7	100.0	414
45-49	77.6	16.6	5.1	0.7	100.0	399
Marital status						
Never married	2.0	6.2	9.6	82.2	100.0	1,207
Married	88.1	11.1	0.8	0.0	100.0	2,598
Divorced/separated/widowed	(7.5)	(20.8)	(68.8)	(2.9)	(100.0)	48
Marital duration[2]						
Married only once						
0-4 years	84.1	15.6	0.2	0.1	100.0	507
5-9 years	90.3	9.5	0.1	0.0	100.0	420
10-14 years	91.0	8.8	0.1	0.0	100.0	390
15-19 years	89.7	8.6	1.7	0.0	100.0	359
20-24 years	91.8	7.1	1.1	0.0	100.0	338
25+ years	80.1	17.6	2.3	0.0	100.0	272
Married more than once	88.7	10.1	1.2	0.0	100.0	311
Residence						
Urban	48.4	13.4	5.6	32.6	100.0	730
Rural	62.8	8.8	4.2	24.2	100.0	3,123
Ecological zone						
Mountain	61.2	11.7	4.3	22.8	100.0	241
Hill	54.5	11.6	4.8	29.1	100.0	1,641
Terai	64.6	7.9	4.1	23.4	100.0	1,972
Development region						
Eastern	55.8	11.0	4.5	28.7	100.0	849
Central	57.6	12.1	4.5	25.8	100.0	1,367
Western	59.8	8.6	4.7	26.9	100.0	716
Mid-western	71.2	6.6	1.8	20.4	100.0	416
Far-western	65.4	5.1	5.9	23.6	100.0	506
Subregion						
Eastern mountain	56.9	9.4	2.0	31.7	100.0	59
Central mountain	51.6	17.9	7.8	22.8	100.0	73
Western mountain	69.9	8.9	3.2	17.9	100.0	109
Eastern hill	57.9	10.3	5.2	26.6	100.0	215
Central hill	47.6	14.7	4.9	32.7	100.0	722
Western hill	57.1	8.4	5.8	28.7	100.0	387
Mid-western hill	68.4	8.9	1.6	21.0	100.0	210
Far-western hill	57.7	9.6	5.6	27.1	100.0	107
Eastern terai	55.0	11.4	4.4	29.2	100.0	576
Central terai	70.9	8.0	3.7	17.4	100.0	571
Western terai	63.3	8.8	3.1	24.7	100.0	320
Mid-western terai	73.2	3.8	2.5	20.6	100.0	155
Far-western terai	67.6	2.8	6.1	23.5	100.0	350
Education						
No education	75.8	13.5	4.3	6.5	100.0	710
Primary	69.2	8.0	4.3	18.5	100.0	1,083
Some secondary	47.8	8.8	4.3	39.1	100.0	1,281
SLC and above	53.4	10.0	4.8	31.8	100.0	779
Wealth quintile						
Lowest	66.6	8.1	5.4	19.9	100.0	621
Second	65.4	9.4	4.1	21.0	100.0	696
Middle	66.0	7.3	2.0	24.7	100.0	714
Fourth	57.6	8.8	6.3	27.3	100.0	861
Highest	49.9	13.4	4.2	32.5	100.0	961
Total 15-49	60.1	9.7	4.4	25.8	100.0	3,854
Men 50-59	59.8	25.7	13.9	0.5	100.0	543
Total 15-59	60.1	11.7	5.6	22.7	100.0	4,397

Note: Figures in parentheses are based on 25-49 unweighted cases.
[1] Excludes men who had sexual intercourse within the past 4 weeks
[2] Excludes men who are not currently married

The proportion of women who were sexually active during the four weeks before the survey increases with age, from 22 percent at age 15-19 to about 70 percent by age 35-44 and decreases to 59 percent at age 45-49. Women who are currently in union are much more likely to be sexually active in the four weeks preceding the survey than women who were formerly married or have never been married. Women married for less than five years are less likely to be sexually active in the recent past than women married for longer durations. Women who have been married more than once are much more likely than women married just once to be sexually active in the four weeks preceding the survey. There is little difference in recent sexual activity among rural and urban women. Recent sexual activity is relatively lower among women who reside in the hills (48 percent) than among women who reside in the mountains (56 percent) and terai (58 percent). Nearly one in two women residing in the Western region is currently sexually active, compared with about three in five women in the Far-western region. Women residing in the Western mountain subregion are most likely to be sexually active (62 percent), while those residing in the Western hill are least likely to be sexually active (41 percent). Women who have no education are much more likely than women who have some secondary education to be sexually active. The percentage of women sexually active varies little by wealth quintile.

A higher proportion of men than women age 15-49 have had sexual intercourse in the past four weeks (60 percent compared with 53 percent). One in ten men had sexual intercourse in the year before the survey but not in the month prior to the survey, while 4 percent had not been sexually active for one year or more. One in four men said they have never had sex. As with women, sexual activity among men increases with age, and peaks between age 35-44. Men in union are much more likely to be sexually active than those not in union. There is little variation in current sexual activity by marital duration. Men in urban areas are less likely (48 percent) to be sexually active in the recent past than those in rural areas (63 percent).

Regional variation for men shows similar patterns as for women. Recent sexual activity is highest among men living in the Mid-western region (71 percent) and lowest in the Eastern region (56 percent) and ranges from a low of 48 percent among men in the Central hill subregion to a high of 73 percent in the Mid-western terai subregion.

As with women, recent sexual activity is inversely related with men's level of education. Recent sexual activity decreases from 76 percent among men with no education to 48 percent among men with some secondary education, but increases to 53 percent among those with SLC and higher education. Recent sexual activity is lowest among the wealthiest men.

Comparison of data between the two NDHS surveys for currently married women shows hardly any change in the percent of women sexually active between the 2001 and 2006 surveys (71 percent and 70 percent, respectively). A similar pattern is seen among ever-married men over the last five years. Eighty-two percent of ever-married men reported recent sexual activity in the 2001 NDHS compared with 83 percent of men in the 2006 survey.

6.6 Postpartum Amenorrhea, Abstinence, and Insusceptibility

Postpartum amenorrhea is the interval between the birth of a child and the resumption of menstruation, during which the risk of pregnancy is much reduced. Postpartum protection from conception depends upon the intensity and duration of breastfeeding. Postpartum abstinence refers to the period of voluntary sexual inactivity after childbirth. A woman is considered insusceptible if she is not exposed to the risk of pregnancy, either because she is amenorrheic or because she is abstaining from sexual intercourse following a birth. In the 2006 NDHS, information was obtained about the duration of amenorrhea and the duration of sexual abstinence following childbirth for births in the three years preceding the survey.

Table 6.9 shows the percentage of births in the three years preceding the survey for which mothers were postpartum amenorrheic, abstaining, and insusceptible, by number of months since birth. The results show that Nepalese women are amenorrheic for a median of 9.3 months, abstain for a median of 2.1 months, and are insusceptible to pregnancy for a median of 10.5 months. In general, the proportion of women who are amenorrheic or abstaining decreases with increasing months after delivery. The proportion amenorrheic drops from 99 percent in the first two months after birth to 33 percent at 12-13 months and 2 percent at 24-25 months after birth. The majority of Nepalese women (81 percent) are still abstaining from sex in the first two months following birth. A comparison of data from earlier surveys indicates that median duration of postpartum amenorrhea changed from 10.3 months in 1996 to 11.1 months in 2001 and then declined to 9.3 months in 2006.

Table 6.9 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, Nepal 2006

Months since birth	Percentage of births for which the mother is: Amenorrheic	Abstaining	Insusceptible[1]	Number of births
< 2	98.9	81.0	100.0	124
2-3	85.8	32.4	89.2	163
4-5	61.7	26.8	69.2	212
6-7	64.9	12.6	68.0	171
8-9	51.5	9.5	58.0	189
10-11	45.4	13.3	54.6	163
12-13	32.9	7.7	34.9	154
14-15	19.3	15.9	32.9	163
16-17	22.0	8.5	28.7	182
18-19	13.0	6.0	17.1	181
20-21	8.4	8.4	15.3	179
22-23	4.1	2.7	6.0	162
24-25	1.9	5.2	6.8	196
26-27	2.8	4.6	6.9	181
28-29	0.6	2.3	2.8	205
30-31	0.8	2.0	2.8	205
32-33	2.1	2.4	4.5	237
34-35	1.8	1.5	3.3	164
Total	26.7	12.1	31.3	3,232
Median	9.3	2.1	10.5	na
Mean	10.6	5.2	12.3	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

Table 6.10 shows the median duration of postpartum amenorrhea, abstinence, and insusceptibility by background characteristics. The duration of postpartum insusceptibility is substantially longer among women age 30-49 than among women age 15-29, among rural than urban women, among women residing in the mountain zone than in the other zones, among those from the Far-western region than from the other regions, and is longest among women residing in the Western mountain subregion. The duration of postpartum insusceptibility is also longer among women with no education than among those with some primary or secondary education, and longer among women from the lowest wealth quintile than among those from other quintiles.

Table 6.10 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, Nepal 2006

Background characteristic	Postpartum amenorrhea	Postpartum abstinence	Postpartum insusceptibility[1]
Mother's age			
15-29	8.6	2.2	9.7
30-49	12.3	2.0	13.0
Residence			
Urban	8.9	2.1	9.7
Rural	9.4	2.2	10.7
Ecological zone			
Mountain	11.2	2.0	12.1
Hill	8.6	2.4	9.7
Terai	9.9	1.9	11.1
Development region			
Eastern	8.5	2.3	9.7
Central	9.3	2.2	10.6
Western	8.2	2.7	9.7
Mid-western	10.7	2.1	11.5
Far-western	13.2	0.9	13.4
Subregion			
Eastern mountain	4.4	2.5	7.3
Central mountain	4.4	2.8	10.6
Western mountain	12.2	1.4	13.1
Eastern hill	4.4	2.3	4.5
Central hill	5.2	2.4	9.4
Western hill	8.1	3.5	9.5
Mid-western hill	10.7	2.2	11.4
Far-western hill	9.2	2.5	9.5
Eastern terai	9.0	2.3	10.3
Central terai	10.4	2.0	11.3
Western terai	6.4	2.3	10.3
Mid-western terai	10.5	2.1	11.4
Far-western terai	12.2	0.6	12.2
Education			
No education	11.3	2.0	11.8
Primary	6.5	2.2	9.1
Some secondary	7.6	2.2	9.3
SLC and above	6.7	3.7	10.0
Wealth quintile			
Lowest	13.1	2.2	14.0
Second	11.7	1.9	12.4
Middle	8.2	2.2	9.2
Fourth	5.8	2.0	7.4
Highest	8.7	3.7	10.1
Total	9.3	2.1	10.5

Note: Medians are based on the status at the time of the survey (current status).

[1] Includes births for which mothers are either still amenorrheic or still abstaining (or both) following birth

6.7 MENOPAUSE

The risk of becoming pregnant declines with age. The term infecundity denotes a process rather than a well-defined event, and although the onset of infecundity is difficult to determine for an individual woman, there are ways of estimating it for a group of women. Table 6.11 presents data on menopause, an indicator of decreasing exposure to the risk of pregnancy (infecundity) for women age 30 and over.

In the context of the available survey data, women are considered menopausal if they are neither pregnant nor postpartum amenorrheic and have not had a menstrual period for at least six months preceding the survey. The proportion of women who are menopausal increases with age from 5 percent among women age 30-34 to 64 percent among women age 48-49. Overall, 16 percent of women age 30-49 are menopausal. The proportion of currently married women age 48-49 who are menopausal declined between 1996 and 2001 (61 percent and 56 percent, respectively), but increased to 63 percent in 2006.

Table 6.11 Menopause

Percentage of women age 30-49 who are menopausal, by age, Nepal 2006

Age	Percentage menopausal[1]	Number of women
30-34	4.6	1,336
35-39	6.0	1,220
40-41	12.0	435
42-43	11.9	463
44-45	24.6	424
46-47	48.2	361
48-49	63.5	349
Total	16.2	4,589

[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 7

Information on fertility preferences can be useful in understanding future fertility patterns and demand for contraception. Data on fertility preferences are also used to construct measures of unmet need for contraception and of unwanted or mistimed births. Fertility preferences also help to assess the overall attitudes of women toward childbearing and the general course of fertility.

In the 2006 NDHS, currently married women and men were asked about their fertility preferences, including their desire to have another child, the length of time they would like to wait before having another child, and what they consider to be the ideal number of children. These data make it possible to quantify fertility preferences and, in combination with the data on contraceptive use, permit estimation of the unmet need for family planning, for both spacing and limiting births. However, the interpretation of data on fertility preferences is controversial because respondents' reported preferences are, in most cases, hypothetical, and do not take into consideration the influence from social pressure, and therefore are subject to change and rationalization. Nevertheless, information on future reproductive intentions is of fundamental importance in the development of population policies and in refining and modifying existing family planning programs.

7.1 Desire for More Children

In the 2006 NDHS, currently married women and men were asked whether they want to have another child, and if so how soon. The same question was phrased differently in the case of pregnant women or men whose wife or wives were pregnant at the time of the interview to ensure that pregnant women (and men with pregnant partners) were not asked about the wantedness of the current pregnancy but the desire for subsequent children.

Table 7.1 shows future reproductive intentions of currently married women and men by the number of living children. Nine percent of women want to have another child soon (within two years), while 15 percent want another child two or more years later. Forty-seven percent want no more children, and about one-fourth have been sterilized.

The desire to stop childbearing—including those already sterilized—increases with the number of living children—from 3 percent among women with no children to 91 percent among women with 6 or more children. Comparisons of data from the three DHS surveys conducted in Nepal show a steady increase over time in the proportion of currently married women who want to stop childbearing or have been sterilized, from 59 percent in 1996 to 66 percent in 2001 and to 71 percent in 2006. There has been a marked change over the last five years in the overall proportion of men age 15-59 who want to stop childbearing, from 54 percent in 2001 to 72 percent in 2006. Women and men in the age group 15-49 differ little in their overall desire to limit childbearing. However, women are more likely to want to limit childbearing (want no more children) at lower parities than men. For example, 26 percent of women with one child desire to stop childbearing or are sterilized, compared with 17 percent of men. Similarly, 83 percent of women with two children desire to stop childbearing or are sterilized, compared with 77 percent of men with two children.

Table 7.1 Fertility preferences by number of living children

Percent distribution of currently married women and currently married men age 15-49 by desire for children, according to number of living children, Nepal 2006

Desire for children	Number of living children[1] 0	1	2	3	4	5	6+	Total 15-49	Total men 15-59
WOMEN[1]									
Have another soon[2]	58.3	16.5	4.8	2.3	1.2	1.0	0.4	9.4	na
Have another later[3]	30.9	51.7	9.6	3.5	1.6	0.5	0.5	14.8	na
Have another, undecided when	2.0	1.1	0.2	0.1	0.2	0.0	0.0	0.4	na
Undecided	1.5	2.8	1.3	0.7	0.9	0.7	0.4	1.3	na
Want no more	1.8	24.2	58.6	50.5	53.0	58.8	70.9	46.6	na
Sterilized[4]	0.9	1.7	24.2	40.7	39.7	31.2	19.9	24.4	na
Declared infecund	4.6	1.9	1.2	2.3	3.3	7.8	7.8	3.1	na
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	na
Number of women	649	1,431	2,037	1,756	1,140	655	591	8,257	na
MEN[5]									
Have another soon[2]	62.4	13.2	4.3	1.6	2.2	0.5	0.9	8.8	7.6
Have another later[3]	29.5	65.4	15.0	5.0	2.7	4.3	1.8	17.9	15.0
Have another, undecided when	0.0	0.0	0.3	0.2	0.0	0.0	0.0	0.1	0.1
Want no more	0.5	17.0	52.2	57.6	59.3	57.7	75.3	47.1	47.7
Sterilized[4]	0.1	0.4	24.6	34.6	32.6	35.6	19.9	22.9	24.7
Declared infecund	2.8	0.4	0.4	0.5	2.3	1.2	2.2	1.1	3.3
Missing	4.7	3.6	3.1	0.5	0.8	0.8	0.0	2.0	1.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of men	208	401	602	593	382	214	198	2,598	3,102

na = Not applicable
[1] The number of living children includes current pregnancy for women.
[2] Wants next birth within 2 years
[3] Wants to delay next birth for 2 or more years
[4] Includes both female and male sterilization
[5] The number of living children includes one additional child if respondent's wife is pregnant (or, for men with more than one wife, if any wife is pregnant).

Table 7.2 presents the percent distribution of monogamously married couples by desire for more children. There is a relatively high level of agreement among couples on their desire for children, with 17 percent of couples wanting more children, 38 percent wanting no more children, and 36 percent sterilized. Table 7.2 also shows that overall, a higher percentage of husbands want more children than wives. The percentage of monogamous couples in which the husband wants more children but the wife does not want any more children is 5 percent, compared with only 3 percent of couples in which the reverse is true. A similar pattern was observed in 2001.

The level of agreement among couples differs little between urban and rural residence. The level of agreement for more children is highest among couples residing in the mountains, while the desire to have no more children is highest among couples residing in the mountains and the hills. Similarly, concordance in the desire for more children is highest among couples who live in the Mid-western and Far-western development regions, while the desire to limit children is highest among couples from the Central region.

Table 7.2 Desire for more children among monogamous couples

Percent distribution of monogamous couples by desire for more children, according to place of residence, Nepal 2006

Place of residence	Both want more	Husband more/ wife no more	Wife more/ husband no more	Both want no more	Husband or wife sterilized/ wife infecund	One or both undecided/ missing	Total	Number of couples
Residence								
Urban	15.0	6.3	3.7	40.6	29.4	4.8	100.0	341
Rural	17.8	4.1	2.4	37.8	36.6	1.2	100.0	1,988
Ecological zone								
Mountain	21.6	2.6	2.3	47.1	24.8	1.6	100.0	157
Hill	15.6	5.0	2.9	48.7	25.2	2.7	100.0	906
Terai	18.2	4.3	2.5	29.5	44.4	1.1	100.0	1,266
Region								
Eastern	16.5	3.4	2.0	39.4	36.3	2.3	100.0	493
Central	15.5	5.6	3.3	41.0	32.2	2.4	100.0	791
Western	16.9	3.8	2.9	37.8	37.0	1.5	100.0	423
Mid-western	20.7	2.8	3.0	39.0	33.0	1.4	100.0	282
Far-western	21.1	5.5	1.1	29.5	42.8	0.1	100.0	341
Total	17.4	4.5	2.6	38.2	35.6	1.8	100.0	2,329

7.2 DESIRE TO LIMIT CHILDBEARING BY BACKGROUND CHARACTERISTICS

Table 7.3 shows the desire to limit childbearing among currently married women and men by background characteristics. Urban women are more likely to want to limit childbearing than rural women. A higher percentage of women residing in the hills desire to limit childbearing than women living in the mountains and *terai*. Differences in the desire to limit childbearing by development region are small. Overall, the desire to limit childbearing is higher among women with no education than among those with any level of education; however, this is due to the fact that women with no education tend to already have more children than educated women. Women living in the wealthiest households are more likely to want to limit childbearing than women in other households.

Differences among men in the desire to limit childbearing by urban-rural residence and ecological zone are small. Men living in the Eastern region are most likely to want to limit childbearing, and men living in the Far-western region are least likely. As among women, men with no education are more likely to want to limit childbearing than educated men. Wealth quintile does not appear to be related to the desire to limit childbearing among men.

Table 7.3 Desire to limit childbearing

Percentage of currently married women and men age 15-49 who want no more children, by number of living children, according to background characteristics, Nepal 2006

Background characteristic	Women: Number of living children[1] 0	1	2	3	4	5	6+	Total	Men: Number of living chldren[2] 0	1	2	3	4	5	6+	Total
Residence																
Urban	6.5	41.8	89.5	94.8	94.3	95.2	90.2	74.5	(4.0)	31.2	85.9	90.2	97.1	(100.0)	(97.6)	70.0
Rural	2.1	22.3	81.3	90.6	92.5	89.6	90.9	70.3	0.0	12.8	74.7	92.6	91.1	92.6	94.9	70.1
Ecological zone																
Mountain	1.1	15.4	80.0	86.7	89.4	93.7	94.1	66.9	(0.0)	9.0	77.9	93.9	(96.5)	(89.9)	(100.0)	70.9
Hill	4.4	33.8	88.3	92.5	93.8	91.4	92.2	73.6	1.2	24.0	84.1	91.1	94.0	96.9	94.2	71.5
Terai	2.0	19.4	78.4	90.8	92.4	88.6	88.8	69.4	0.2	12.0	71.5	92.8	90.3	91.6	95.2	68.9
Development region																
Eastern	0.6	23.5	84.1	92.9	91.6	86.7	91.2	70.5	(0.0)	13.7	81.6	92.2	94.6	(100.0)	(92.7)	72.3
Central	4.4	33.8	81.2	88.6	91.0	90.8	93.7	71.5	0.0	27.5	77.5	91.3	91.6	87.8	94.3	70.7
Western	4.4	28.0	86.7	94.2	96.4	92.1	90.5	72.6	2.5	17.9	77.3	96.8	93.9	(97.8)	(100.0)	70.0
Mid-western	2.1	20.3	77.0	90.9	92.2	90.6	93.8	70.0	(0.0)	7.8	71.1	91.4	85.5	(95.4)	(100.0)	68.2
Far-western	0.7	9.8	83.9	90.7	93.7	89.5	81.4	69.1	(0.0)	1.0	71.5	89.2	92.2	(91.8)	(89.9)	66.7
Education																
No education	6.4	21.0	77.6	89.6	91.9	89.2	90.5	76.4	(0.0)	(28.7)	64.6	94.2	90.4	91.9	93.6	77.6
Primary	0.5	22.3	85.8	93.3	96.9	94.5	(95.1)	64.5	1.9	12.9	72.3	90.3	90.2	96.6	97.3	71.8
Some secondary	0.2	29.4	88.5	96.3	93.9	*	*	59.1	0.0	13.6	78.6	90.6	94.8	(91.9)	(92.3)	62.1
SLC and above	0.0	37.2	92.1	98.8	*	*	*	62.3	(0.0)	20.7	90.5	95.2	(100.0)	*	*	68.0
Wealth quintile																
Lowest	2.0	16.2	75.3	83.1	90.0	89.8	92.9	68.6	(0.0)	14.5	62.6	83.1	89.4	(89.6)	92.0	68.2
Second	2.0	14.5	77.6	92.0	91.5	93.7	90.2	70.2	(0.6)	5.0	60.0	91.4	97.2	(99.0)	(97.8)	69.4
Middle	1.0	16.9	80.0	90.0	94.5	85.6	88.8	68.5	(0.0)	12.7	77.3	97.6	86.0	(92.0)	(93.0)	70.5
Fourth	3.9	27.7	83.0	92.8	93.8	89.9	90.7	71.6	(0.0)	20.9	85.7	94.1	90.9	(90.5)	(100.0)	72.5
Highest	6.2	43.0	91.3	96.4	94.7	92.3	(89.2)	75.8	(2.6)	24.2	86.4	92.5	98.7	*	*	69.4
Total 15-49	2.8	25.9	82.9	91.2	92.7	90.0	90.9	71.0	0.6	17.5	76.8	92.2	91.9	93.2	95.1	70.1
50-59	na	na	na	na	na	na	na	na	*	*	(84.4)	89.5	88.6	85.9	84.5	84.2
Total 15-59	na	na	na	na	na	na	na	na	1.7	18.2	77.3	91.9	91.3	91.0	90.2	72.4

Note: Women who have been sterilized are considered to want no more children. 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 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
na = Not applicable
[1] The number of living children includes current pregnancy.
[2] The number of living children includes one additional child if the respondent's wife is pregnant (or if any wife is pregnant for men with more than one wife).

7.3 NEED FOR FAMILY PLANNING SERVICES

Data in this section provide information on the extent of need and the potential demand for family planning services in Nepal. Currently married fecund women who want to postpone their next birth for two or more years or who want to stop childbearing altogether but are not using a contraceptive method are considered to have an unmet need for family planning. Pregnant women are considered to have an unmet need for spacing or limiting if their pregnancy was mistimed or unwanted. Similarly, amenorrheic women who are not using family planning and whose last birth was mistimed are considered to have an unmet need for spacing, and those whose last child was unwanted have an unmet need for limiting. Women who are currently using a family planning method are said to have a met need for family planning. The total demand for family planning services comprises those who fall in the met need and unmet need categories.

Table 7.4 shows the need for family planning among currently married women by background characteristics. One in four currently married women has an unmet need for family planning, with 9 percent having an unmet need for spacing and 15 percent having an unmet need for limiting. Forty-eight percent of women have a met need for family planning. If all currently married women who say they want to space or limit their children were to use a family planning method, the contraceptive prevalence rate would increase to 73 percent. Currently, 66 percent of the family planning needs of currently married women are being met.

Table 7.4 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, Nepal 2006

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	34.7	3.2	37.9	12.3	3.7	16.0	47.0	6.8	53.8	29.6	784
20-24	20.4	12.5	32.9	11.6	19.0	30.6	32.0	31.5	63.5	48.2	1,606
25-29	8.6	18.2	26.8	5.1	43.3	48.4	13.7	61.5	75.2	64.4	1,664
30-34	1.2	20.2	21.4	1.9	61.2	63.1	3.1	81.4	84.5	74.7	1,265
35-39	1.2	20.9	22.1	0.2	64.6	64.8	1.4	85.5	86.9	74.6	1,135
40-44	0.3	15.7	16.0	0.0	63.2	63.2	0.3	78.9	79.2	79.8	1,016
45-49	0.1	9.9	10.0	0.0	45.9	45.9	0.1	55.8	55.9	82.1	788
Residence											
Urban	7.2	12.6	19.8	8.4	51.5	60.0	15.7	64.1	79.8	75.2	1,226
Rural	9.7	15.7	25.5	4.1	41.7	45.9	13.9	57.4	71.3	64.3	7,031
Ecological zone											
Mountain	10.9	19.4	30.3	4.1	34.4	38.5	14.9	53.8	68.8	56.0	586
Hill	8.8	19.8	28.6	5.5	40.1	45.6	14.4	59.9	74.3	61.5	3,402
Terai	9.6	11.0	20.6	4.3	46.8	51.1	13.9	57.9	71.7	71.2	4,269
Development region											
Eastern	10.0	13.6	23.6	4.8	45.2	50.0	14.8	58.8	73.6	67.9	1,757
Central	9.1	13.0	22.2	4.4	45.6	50.0	13.5	58.6	72.2	69.3	2,736
Western	10.4	22.0	32.4	4.0	36.9	40.9	14.4	58.9	73.3	55.8	1,602
Mid-western	8.4	17.1	25.6	6.1	39.4	45.5	14.5	56.6	71.1	64.0	976
Far-western	8.3	12.1	20.4	5.7	46.1	51.7	14.0	58.1	72.1	71.7	1,187
Subregion											
Eastern mountain	14.3	26.8	41.1	7.4	27.5	34.9	21.7	54.3	75.9	45.9	127
Central mountain	9.3	16.4	25.6	4.3	50.3	54.6	13.6	66.6	80.2	68.1	157
Western mountain	10.3	17.8	28.1	2.5	29.2	31.7	12.8	47.0	59.8	53.0	302
Eastern hill	7.8	18.3	26.1	7.5	43.2	50.6	15.3	61.5	76.8	65.9	445
Central hill	7.5	14.0	21.4	7.1	50.2	57.3	14.5	64.2	78.7	72.8	1,219
Western hill	10.6	27.6	38.1	3.2	34.1	37.4	13.8	61.7	75.5	49.5	965
Mid-western hill	8.7	20.4	29.1	5.6	31.5	37.1	14.4	51.8	66.2	56.0	497
Far-western hill	10.4	19.8	30.2	3.6	26.8	30.4	14.0	46.6	60.6	50.2	276
Eastern terai	10.3	10.5	20.8	3.5	47.8	51.3	13.8	58.3	72.1	71.2	1,185
Central terai	10.6	11.8	22.4	2.0	40.9	42.9	12.6	52.7	65.4	65.7	1,359
Western terai	10.3	13.4	23.8	5.3	40.9	46.1	15.6	54.3	69.9	66.0	624
Mid-western terai	7.7	13.2	20.9	8.1	50.5	58.6	15.8	63.7	79.5	73.7	356
Far-western terai	6.8	7.6	14.4	7.0	59.2	66.2	13.9	66.7	80.6	82.1	745
Education											
No education	6.0	15.6	21.6	2.0	47.3	49.3	8.0	62.9	70.8	69.6	5,110
Primary	14.0	13.6	27.6	5.2	40.3	45.5	19.2	53.8	73.1	62.2	1,404
Some secondary	17.4	17.7	35.0	11.8	31.1	42.9	29.2	48.8	78.0	55.1	1,197
SLC and above	11.6	11.2	22.7	14.3	38.7	53.0	25.9	49.9	75.8	70.0	547
Wealth quintile											
Lowest	10.0	22.0	32.0	2.2	30.7	32.9	12.2	52.6	64.8	50.7	1,537
Second	10.6	16.2	26.8	3.2	39.4	42.6	13.8	55.6	69.4	61.4	1,642
Middle	10.6	12.1	22.7	4.1	45.1	49.2	14.7	57.2	71.8	68.4	1,747
Fourth	10.0	13.0	23.1	6.2	46.6	52.8	16.2	59.7	75.9	69.6	1,640
Highest	5.7	13.6	19.3	8.0	52.9	60.9	13.6	66.6	80.2	75.9	1,692
Total	9.4	15.2	24.6	4.8	43.2	48.0	14.1	58.4	72.6	66.1	8,257

[1] *Unmet need for spacing* includes pregnant women whose pregnancy was mistimed; amenorrheic women who are not using family planning and whose last birth was mistimed, or whose last birth was unwanted but now say they want more children; and fecund women who are neither pregnant nor amenorrheic, who are not using any method of family planning, and say they want to wait 2 or more years for their next birth. Also included in *unmet need for spacing* are fecund women who are not using any method of family planning and say they are unsure whether they want another child or who want another child but are unsure when to have the birth.
Unmet need for limiting refers to pregnant women whose pregnancy was unwanted; amenorrheic women who are not using family planning, whose last child was unwanted and who do not want any more children; and fecund women who are neither pregnant nor amenorrheic, who are not using any method of family planning, and who want no more children.
[2] *Using for spacing* is defined as women who are using some method of family planning and say they want to have another child or are undecided whether to have another.
Using for limiting is defined as women who are using and who want no more children. Note that the specific methods used are not taken into account here.

There has been a noticeable decline (22 percent) in unmet need for family planning over the past ten years, with unmet need falling from 31 percent in 1996 to 28 percent in 2001 and 25 percent in 2006. Correspondingly, there has been an increase in met need over the same period from 29 percent in 1996 to 48 percent in 2006, resulting in a 39 percent increase in the demand satisfied during the last ten years.

Unmet need decreases with age, with the need for spacing higher among younger than older women, and the need for limiting increasing to peak among women age 35-39 and then falling thereafter. One in four rural women has an unmet need compared with one in five urban women. However, three-fourths of urban women's needs are met, compared with less than two-thirds of rural women's needs. Unmet need for family planning is lower among women in the terai than among women in the other ecological zones. Similar patterns were found in the 1996 NFHS and the 2001 NDHS. Unmet need is lowest in the Far-western region (20 percent) and highest in the Western region (32 percent). Forty-one percent of women living in the Eastern mountain subregion have an unmet need for family planning, compared with 14 percent of women living in the Far-western terai subregion.

The relationship between unmet need for family planning and education is mixed. Unmet need increases with education from 22 percent among women with no education to 35 percent among women with some secondary education and then declines sharply to 23 percent among women with SLC and higher education. There is an inverse relationship between unmet need and wealth, with unmet need declining from 32 percent among women in the poorest households to 19 percent among women in the richest households.

7.4 Ideal Family Size

In the 2006 NDHS, ideal family size was measured in two ways. Respondents who did not have any children were asked the number of children they would like to have if they could choose the exact number to have, and respondents who had living children were asked how many children they would like to have if they could go back to the time when they did not have any children and choose exactly the number of children to have. Even though these questions are based on hypothetical situations, they provide two measures. First, for men and women who have not yet started a family, the data provide an idea of future fertility. Second, for older and high parity women, the excess of past fertility over the ideal family size provides a measure of unwanted fertility.

Responses to these questions for both women and men are presented in Table 7.5. Almost all women and men were able to provide a numeric response to these questions. The proportion unable to specify an ideal number has declined from three percent of women in 1996 and 2 percent among both women and men in 2001 to less than 1 percent in 2006.

Both women and men in Nepal prefer a small family size with only marginal differences between them in the ideal number of children. Three out of five women and men preferred an ideal family size of two children with only 8 percent of women and 6 percent of men favoring less than two children. One-fourth of women and men express a preference for a three-child family. Seven percent of women and men express an ideal family size of four children. A small proportion of women and men expressed an ideal family size of five or more (1 percent). The mean ideal number of children is 2.3 among all women and 2.4 among currently married women. Similarly, the mean ideal number of children is 2.4 among all men and 2.5 among currently married men age 15-49. There has been a steady decline in the mean ideal number of children among currently married women over the last ten years, from 2.9 children in 1996 to 2.6 children in 2001 and to 2.4 children in 2006. These findings could also explain the declining total fertility rate in Nepal.

Table 7.5 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 the number of living children, Nepal 2006

Ideal number of children	Number of living children							Total
	0	1	2	3	4	5	6+	
				WOMEN[1]				
0	0.9	0.3	0.3	0.1	0.1	0.5	0.0	0.4
1	12.0	17.6	7.5	2.9	1.0	0.7	0.3	7.7
2	73.4	66.6	72.1	51.1	43.3	30.0	26.4	59.6
3	10.3	13.2	16.7	39.2	37.5	49.2	38.6	24.0
4	2.6	1.3	2.6	5.8	16.2	15.1	28.5	6.8
5	0.4	0.3	0.3	0.5	1.0	2.8	3.3	0.8
6+	0.1	0.5	0.1	0.3	0.7	1.6	2.4	0.5
Non-numeric responses	0.3	0.1	0.4	0.1	0.2	0.1	0.5	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	2,833	1,509	2,115	1,832	1,186	694	623	10,793
Mean ideal number of children for:[2]								
All women	2.0	2.0	2.2	2.5	2.8	2.9	3.2	2.3
Number of women	2,825	1,507	2,107	1,831	1,184	694	620	10,768
Currently married women	2.2	2.0	2.1	2.5	2.7	2.9	3.2	2.4
Number of women	649	1,429	2,030	1,754	1,138	654	587	8,242
				MEN[3]				
0	0.2	1.2	0.3	0.0	0.0	0.0	0.0	0.2
1	8.8	10.9	3.9	3.5	0.3	2.1	0.7	5.8
2	72.2	70.0	72.2	46.9	40.6	30.9	23.3	60.0
3	14.9	14.6	21.0	39.9	41.0	43.1	45.8	25.5
4	3.2	2.5	2.2	8.5	17.6	17.3	24.5	7.1
5	0.3	0.0	0.3	0.9	0.2	4.1	4.9	0.8
6+	0.3	0.0	0.2	0.0	0.2	2.6	0.7	0.3
Non-numeric responses	0.1	0.8	0.0	0.3	0.0	0.0	0.0	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	1,442	408	605	598	384	215	202	3,854
Mean ideal number of children for men 15-49:[2]								
All men	2.1	2.1	2.2	2.6	2.8	3.0	3.1	2.4
Number of men	1,439	405	605	596	384	215	202	3,846
Currently married men	2.2	2.1	2.2	2.6	2.8	3.0	3.1	2.5
Number of men	208	397	602	591	382	214	198	2,593
Mean ideal number of children for men 15-59:[2]								
All men	2.1	2.1	2.2	2.6	2.8	3.0	3.2	2.4
Number of men	1,452	414	643	678	476	307	369	4,380
Currently married men	2.2	2.1	2.2	2.6	2.8	3.0	3.2	2.6
Number of men	220	407	640	674	474	306	366	3,087

[1] The number of living children includes current pregnancy for women.
[2] Means are calculated excluding respondents giving non-numeric responses.
[3] The number of living children includes one additional child if respondent's wife is pregnant (or, for men with more than one wife, if any wife is pregnant).

Table 7.5 shows that the mean ideal family size increases with the number of living children among both women and men, rising from 2 children among respondents with no children to just over 3 children among respondents with six or more children indicating the positive association between actual and ideal number of children. This positive association between actual and ideal number of children could be due to two factors. First, to the extent that women are able to implement their fertility desires, women who want smaller families will tend to achieve smaller families. Second, some women may have difficulty admitting their desire for fewer children if they could begin childbearing again and may in fact report their actual number as their preferred number. Despite this tendency to rationalize, the 2006 NDHS data provide evidence of unwanted fertility with the vast majority of women with six or more children wanting an ideal family size of fewer than six children.

Table 7.6 shows the mean ideal number of children for all women and men age 15-49 by background characteristics. The mean ideal number of children increases with age, for both men and women. It ranges from a low of 2.1 children among women age 15-19 to a high of 2.9 among women age 45-49, and from 2.2 to 2.9 among men in the same age groups. An interesting finding is that women and men have nearly identical ideal numbers of children at all ages.

The mean ideal number of children is higher in rural than in urban areas for both women and men. Overall, there is little difference in the mean ideal number of children by ecological and development regions. There is some variation among subregions. Women and men living in the Central hill have a relatively lower mean ideal number of children than those living in the other subregions.

The mean ideal number of children varies inversely with education, with a nearly one-child difference between women and men with no education and women and men with an SLC or higher level of education. The mean ideal number of children varies inversely with wealth, from 2.5 and 2.6 among women and men, respectively, in the lowest quintile to 2.0 and 2.1 among women and men, respectively, in the highest wealth quintile.

Table 7.6 Mean ideal number of children by background characteristics

Mean ideal number of children for all women and men age 15-49 by background characteristics, Nepal 2006

Background characteristic	Women		Men	
	Mean	Number of women[1]	Mean	Number of men[1]
Age				
15-19	2.1	2,433	2.2	941
20-24	2.1	1,991	2.2	630
25-29	2.3	1,772	2.2	523
30-34	2.3	1,335	2.4	499
35-39	2.6	1,220	2.6	441
40-44	2.7	1,112	2.7	414
45-49	2.9	904	2.9	397
Residence				
Urban	2.0	1,678	2.1	726
Rural	2.4	9,089	2.4	3,120
Ecological zone				
Mountain	2.5	750	2.5	239
Hill	2.2	4,590	2.3	1,636
Terai	2.5	5,428	2.4	1,972
Development region				
Eastern	2.3	2,386	2.4	849
Central	2.4	3,541	2.4	1,361
Western	2.2	2,065	2.4	716
Mid-western	2.4	1,250	2.4	415
Far-western	2.4	1,526	2.3	506
Subregion				
Eastern mountain	2.5	189	2.6	59
Central mountain	2.2	202	2.4	73
Western mountain	2.6	359	2.5	108
Eastern hill	2.3	626	2.4	215
Central hill	2.0	1,707	2.1	716
Western hill	2.1	1,266	2.4	387
Mid-western hill	2.4	650	2.5	210
Far-western hill	2.5	341	2.4	107
Eastern terai	2.4	1,571	2.3	576
Central terai	2.8	1,633	2.6	571
Western terai	2.4	780	2.5	320
Mid-western terai	2.3	457	2.4	155
Far-western terai	2.3	988	2.3	350
Education				
No education	2.6	5,707	2.9	707
Primary	2.2	1,898	2.6	1,083
Some secondary	2.0	2,225	2.2	1,281
SLC and above	1.8	938	2.0	775
Wealth quintile				
Lowest	2.5	1,957	2.6	620
Second	2.5	2,075	2.6	696
Middle	2.4	2,209	2.5	713
Fourth	2.3	2,222	2.3	860
Highest	2.0	2,304	2.1	957
Total	2.3	10,768	2.4	4,380

[1] Number who gave a numeric response

7.5 FERTILITY PLANNING

Information collected from the 2006 NDHS can also be used to estimate the level of unwanted fertility. Moreover, this information provides some insight into the degree to which couples are able to control fertility. Women age 15-49 were asked a series of questions about each child born to them in the preceding five years, as well as any current pregnancy, to determine whether the birth or pregnancy was wanted then (planned), wanted later (mistimed), or not wanted at all (unplanned) at the time of conception. In assessing these results, it is important to recognize that women may declare a previously unwanted birth or current pregnancy as wanted, and this rationalization may in fact result in an underestimate of the true extent of unwanted births.

Table 7.7 shows the percent distribution of births (including current pregnancy) in the five years preceding the survey by planning status of the birth, according to birth order and age of mother at birth. According to the data, over two-thirds of births (69 percent) in the five years preceding the survey were planned, 14 percent were mistimed, and 16 percent were unwanted. In general, the proportion of unwanted births increases with birth order. Forty-four percent of births of order four and higher and over one in five births of order three are unwanted. Mistimed births are more often of low than high parity, a pattern similar to that found in 2001.

The percentage of unwanted births also increases with mother's age at birth, rising from a low of about 2 percent among mothers below 20 years of age at birth to a high of 72 percent among mothers age 40-44 at birth. Mistimed births decrease with mother's age at birth. These patterns are similar to the findings from the 1996 NFHS and 2001 NDHS surveys.

Table 7.7 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, Nepal 2006

Birth order and mother's age at birth	Planning status of birth: Wanted then	Wanted later	Wanted no more	Total	Number of births
Birth order					
1	82.6	17.2	0.2	100.0	1,877
2	73.8	21.9	4.1	100.0	1,615
3	67.6	11.1	21.3	100.0	992
4+	50.6	5.8	43.6	100.0	1,673
Mother's age at birth					
<20	76.5	21.9	1.6	100.0	1,285
20-24	74.7	17.7	7.6	100.0	2,436
25-29	69.1	9.8	20.9	100.0	1,330
30-34	55.5	4.6	39.9	100.0	635
35-39	44.0	3.1	52.6	100.0	347
40-44	26.9	1.5	71.6	100.0	116
45-49	*	*	*	*	8
Total	69.2	14.4	16.4	100.0	6,157

Note: Total includes births missing information on planning status. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

The extent of unwanted births also can be estimated using information on ideal family size to calculate what the total fertility rate would be if all unwanted births were avoided. This measure also may be an underestimate to the extent that women may not report an ideal family size lower than their actual family size. Table 7.8 shows total wanted fertility rates and actual fertility rates, by background characteristics. Total wanted fertility rates are calculated in the same way as the total fertility rate but excluding unwanted births 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 avoided.

Table 7.8 shows that women on average have 1.1 children more than their ideal number of 2 children. This implies that according to the 2006 NDHS, the total fertility rate is 55 percent higher than it would be if unwanted births were avoided. The gap between wanted and observed fertility rates is greater among women living in rural than in urban areas. Among ecological zones, the difference in the two rates is largest in the mountain zone (1.6) and smallest in the terai (1.0). Among development regions, the gap varies between 1 child per woman in the Central region to 1.3 children per woman in the Mid-western region. The gap between wanted and observed fertility decreases with increases in the level of women's education. Women with no education tend to have 1.3 children more than they said they wanted, compared with women with an SLC and higher education who had just 0.3 children more than they said they wanted. There is also an inverse relationship between wealth quintile and wanted fertility. The gap between wanted and actual fertility is 2.2 children among woman in the lowest wealth quintile and 0.5 among women in the highest wealth quintile. The ideal number of children women desire in 2006 (2.0 children) has declined steadily from the 1996 level of 2.9 children and the 2001 level of 2.5 children.

Table 7.8 Wanted fertility rates

Total wanted fertility rates and total fertility rates for the three years preceding the survey, by background characteristics, Nepal 2006

Background characteristic	Total wanted fertility rate	Total fertility rate
Residence		
Urban	1.4	2.1
Rural	2.1	3.3
Ecological zone		
Mountain	2.5	4.1[a]
Hill	1.8	3.0
Terai	2.1	3.1
Development region		
Eastern	2.0	3.1
Central	2.0	3.0
Western	1.9	3.1
Mid-western	2.2	3.5[a]
Far-western	2.3	3.5[a]
Education		
No education	2.6	3.9
Primary	1.9	2.8[a]
Some secondary	1.7	2.3[b]
SLC and above	1.5	1.8[b]
Wealth quintile		
Lowest	2.5	4.7
Second	2.4	3.6
Middle	2.1	3.1
Fourth	1.9	2.7
Highest	1.4	1.9
Total	2.0	3.1

Note: Rates are calculated based on births to women age 15-49 in the period 1-36 months preceding the survey. The total fertility rates are the same as those presented in Table 4.2.

[a] One or more of the component age-specific fertility rates is based on 125-249 woman-years of exposure.

[b] One or more of the component age-specific fertility rates is based on fewer than 125 woman-years of exposure

INFANT AND CHILD MORTALITY 8

This chapter describes levels, trends, and differentials in early childhood mortality and high-risk fertility behavior of women in Nepal. Information on infant and child mortality rates contributes to a better understanding of a country's socioeconomic situation and sheds light on the quality of life of the population. This information is disaggregated by socioeconomic and demographic characteristics since studies have shown the existence of differentials in mortality by these characteristics, and the disaggregation helps to identify subgroups that are at high risk. Preparation, implementation, and monitoring and evaluation of population, health, and other socioeconomic programs and policies depend to a large extent on target population identification.

Childhood mortality in general and infant mortality in particular often are used as broad indicators of social development or as specific indicators of health status. Childhood mortality analyses are thus useful for identifying promising directions for health programs and for advancing child survival efforts. Measures of childhood mortality are also useful for population projections.

One of the targets of the millenium development goals (MDGs) is a two-thirds reduction in infant and child mortality by 2015, to be achieved through upgrading the proportion of births attended by skilled birth attendants, increasing immunization against the six vaccine-preventable diseases, upgrading the status of women through education, and enhancing their participation in the labor force (National Planning Commission, 2002). Results from the 2006 NDHS are timely in evaluating the impact of some of the major national policies, such as the National Population Policy, the National Policy on Nepalese Women, and the National Health Policy, on the achievement of this MDG goal.

The mortality rates presented in this chapter are computed from information gathered in the pregnancy history section of the Women's Questionnaire. Women in the age group 15-49 were asked if they had ever given birth, and if they had, they were asked to report the number of sons and daughters living with them, the number living elsewhere, and the number who have died. Women were also asked for the number of pregnancies they had that did not end in a live birth. A detailed history of all pregnancies was gathered in chronological order starting with the first pregnancy. Women were asked whether a pregnancy was single or multiple; the sex of the child; the date of birth (month and year); survival status; age of the child on the date of the interview if alive; and if not alive, the age at death of each child born alive, or the duration in months of a pregnancy that ended before full term. Since the primary causes of childhood mortality change as children age—from biological factors to environmental factors—childhood mortality rates are expressed by age categories and are customarily defined as follows:

- Neonatal mortality (NN): the probability of dying within the first month of life
- Postneonatal mortality (PNN): the difference between infant and neonatal mortality
- Infant mortality (${}_1q_0$): the probability of dying between birth and the first birthday
- Child mortality (${}_4q_1$): the probability of dying between exact ages one and five
- Under-five mortality (${}_5q_0$): the probability of dying between birth and the fifth birthday.

Rates of childhood mortality are expressed as deaths per 1,000 live births, except in the case of child mortality, which is expressed as deaths per 1,000 children surviving to age one.

Information on stillbirths and deaths that occurred within seven days of birth is used to estimate perinatal mortality, which is the number of stillbirths and early neonatal deaths per 1,000 stillbirths and live births.

8.1 Assessment of Data Quality

The accuracy of mortality estimates depends on the sampling variability of the estimates and on nonsampling errors. Sampling variability and sampling errors are discussed in detail in Appendix C. 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 birth and death dates impacts mortality trends, and misreporting of age at death may distort the age pattern of mortality. Typically, the most serious source of nonsampling errors in a survey that collects retrospective information on births and deaths is the underreporting of births and deaths of children who were dead at the time of the survey. It may be that mothers are reluctant to talk about their dead children because of the sorrow associated with their death, or they may live in a culture that discourages discussion of the dead. The possible occurrence of these data problems in the 2006 NDHS is discussed with reference to the data quality tables in Appendix D. 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. In the 2006 NDHS, the cutoff date for asking health questions was Baisakh 2057 in the Nepalese calendar (corresponding to April 2000 in the Gregorian calendar). Table D.4 shows that the overall percentage of births for which a month and year of birth was reported is almost 100 percent for both children who have died and children who are alive.

Table D.4 shows some age displacement across this boundary for both living and dead children. The distribution of living children and the total number of children shows a deficit in 2057 (2000) and an excess in 2056 (1999) and 2058 (2001), as denoted by the calendar year ratios. The deficit in 2057 (2000) can be attributed to the transference of births by interviewers out of the period for which health data were collected. Transference is proportionately higher for dead children than living children, and this displacement may affect mortality rates. The excess in the other years is, however, puzzling and may be due in part to "heaping" on even years. The transference of children and especially deceased children out of the five-year period preceding the survey is likely to underestimate the true level of childhood mortality for that period. There is also evidence of some possible omission of children who died, as evidenced by the low numbers of dead children in 2057-2059 (2000-2002) compared with 2054-2056 (1997-1999).

Underreporting of deaths is usually assumed to be higher for deaths that occur very early in infancy. Omission of deaths or misclassification of deaths as stillbirths may also be more common among women who have had several children or in cases where death took place a long time ago. In order to assess the impact of omission on measures of child mortality, two indicators are used: the percentage of deaths that occurred under seven days to the number that occurred under one month and the percentage of neonatal to infant deaths. It is hypothesized that omission will be more prevalent among those who died immediately after birth than those who lived longer and that it will be more serious for events that took place in the distant past rather than those in the more recent past. Table D.5 shows data on age at death for early infant deaths. Selective underreporting of early neonatal deaths would result in an abnormally low ratio of deaths within the first seven days of life to all neonatal deaths. Early infant deaths have not been severely underreported in the 2006 NDHS survey, as suggested by the high ratio of deaths in the first seven days of life to all neonatal deaths (72 percent in the five years preceding the survey).

Heaping of the age at death on certain digits is another problem that is inherent in most retrospective surveys. Misreporting of age at death biases age pattern estimates of mortality if the net result is the transference of deaths between age segments for which the rates are calculated; for example, child mortality may be overestimated relative to infant mortality if children who died in the first year of life are reported as having died at age one or older. In an effort to minimize misreporting of age at death, interviewers were instructed to record deaths under one month in days and deaths under two years in months. In addition, they were trained to probe deaths reported at exactly 1 year or

12 months to ensure that they had actually occurred at 12 months. The distribution of deaths under 2 years during the 20 years prior to the survey by month of death shows that there is some heaping at 6, 11, and 18 months of age with corresponding deficits in adjacent months (Table D.6). However, heaping is less pronounced for deaths in the five years preceding the survey, for which the most recent mortality rates are calculated.

8.2 LEVELS AND TRENDS IN INFANT AND CHILD MORTALITY

Table 8.1 presents neonatal, postneonatal, infant, child, and under-five mortality rates for the three recent five-year periods before the survey. Neonatal mortality in the most recent period, that is, between 2001-2005, is 33 deaths per 1,000 live births. This rate is more than double the postneonatal deaths (15 per 1,000 live births) during the same period; that is, the risk of dying for any Nepalese child who survived the first month of life is reduced by half in the remaining 11 months of the first year of life. Thus, 69 percent of infant deaths in Nepal occur during the first month of life. A similar pattern was observed in the 2001 NDHS. The infant mortality rate in the five years preceding the survey is 48 deaths per 1,000 live births, and under-five mortality is 61 deaths per 1,000 live births for the same period. This means that one in every 21 Nepalese children dies before reaching age one, while one in every 16 does not survive to the fifth birthday.

Table 8.1 Early childhood mortality rates

Neonatal, postneonatal, infant, child, and under-five mortality rates for five-year periods preceding the survey, Nepal 2006

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	33	15	48	14	61
5-9	43	30	72	26	96
10-14	49	33	82	38	117

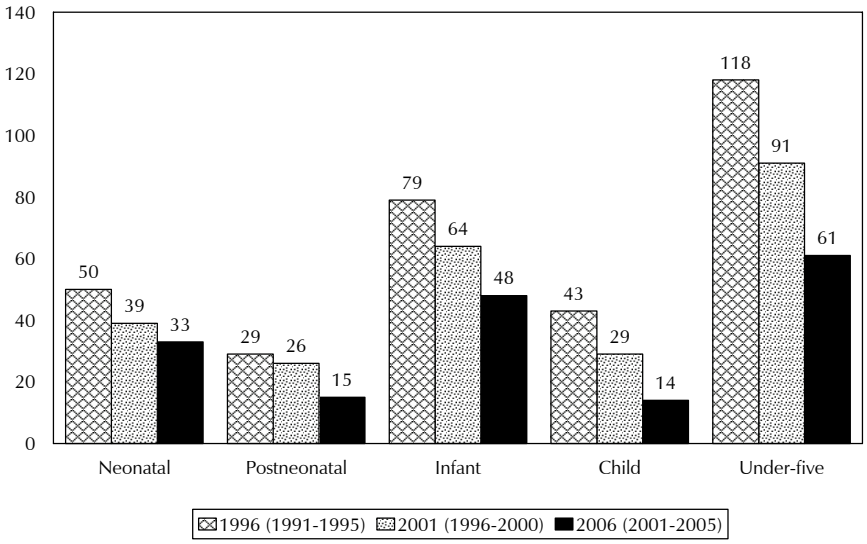
[1] Computed as the difference between the infant and neonatal mortality rates

Mortality trends can be examined in two ways: by comparing mortality rates for three five-year periods preceding a single survey and by comparing mortality estimates obtained from various surveys. However, comparisons between surveys should be interpreted with caution because quality of data, time references and sample coverage varies. In particular, sampling errors associated with mortality estimates are large and should be taken into account when examining trends between surveys.

Data from the 2006 NDHS show that infant mortality has declined by 41 percent over the 15-year period preceding the survey from 82 deaths per 1,000 live births to 48. Under-five mortality has gone down by 48 percent from 117 deaths per 1,000 live births to 61. The corresponding declines in neonatal and postneonatal mortality over the 15-year period are 33 percent and 55 percent, respectively.

Mortality trends can also be examined by comparing data from the 2006 NDHS with data from the 1996 NFHS and 2001 NDHS surveys (Figure 8.1). Infant and under-five mortality rates obtained for the five years preceding the three surveys confirm a declining trend in mortality. Infant mortality declined by 39 percent over the last fifteen years from 79 deaths per 1,000 live births between 1991 and 1995 to 48 deaths between 2001 and 2005. An even more impressive decline was observed in under-five mortality, which declined by 48 percent from 118 deaths per 1,000 live births to 61 deaths over the same period (Figure 8.1). The data also show a 34 percent and 48 percent decline in neonatal and postneonatal mortality, respectively, over the same period.

Figure 8.1 **Trends in Childhood Mortality Nepal 1991-2005**



NDHS 2006

8.3 SOCIOECONOMIC DIFFERENTIALS IN CHILDHOOD MORTALITY

Table 8.2 shows differentials in childhood mortality by five socioeconomic variables: residence (urban-rural), ecological zone, development region, mother's education, and wealth quintile. To minimize sampling errors associated with mortality estimates and to ensure a sufficient number of cases for statistical reliability, the mortality rates shown in Table 8.2 are calculated for a ten-year period.

Table 8.2 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 characteristic, Nepal 2006

Background characteristic	Neonatal mortality (NN)	Postneonatal mortality[1] (PNN)	Infant mortality ($_1q_0$)	Child mortality ($_4q_1$)	Under-five mortality ($_5q_0$)
Residence					
Urban	25	12	37	10	47
Rural	40	24	64	21	84
Ecological zone					
Mountain	59	39	99	32	128
Hill	28	18	47	16	62
Terai	42	23	65	21	85
Development region					
Eastern	33	12	45	15	60
Central	35	17	52	17	68
Western	35	21	56	18	73
Mid-western	57	40	97	28	122
Far-western	39	35	74	28	100
Mother's education					
No education	43	26	69	25	93
Primary	34	24	58	10	67
Some secondary	25	10	35	5	40
SLC and above	9	4	13	0	13
Wealth quintile					
Lowest	43	29	71	29	98
Second	38	24	62	22	83
Middle	47	23	70	22	91
Fourth	31	20	51	13	63
Highest	26	14	40	7	47

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

From Table 8.2 it is apparent that infant and child survival is associated with the socioeconomic characteristics of mothers. Mortality in urban areas is consistently lower than in rural areas. For example, infant mortality in urban areas is 37 deaths per 1,000 live births compared with 64 deaths per 1,000 live births in rural areas. The urban-rural difference is even more pronounced in the case of child mortality. Wide differentials in infant and under-five mortality are observed for ecological zones, with under-five mortality ranging from a low of 62 per 1,000 live births in the hills to a high of 128 per 1,000 live births in the mountains. Under-five mortality is also relatively higher in the Mid-western and Far-western development regions of Nepal than in the other regions.

As expected, mother's education is inversely related to a child's risk of dying. Under-five mortality among children born to mothers with no education (93 per 1,000 live births) is more than 7 times higher than that of children born to mothers with SLC and higher level of education (13 per 1,000 live births). With respect to wealth and mortality, the relationship is not consistent, although children born to mothers in the highest wealth quintile clearly are at much lower risk of dying than children born to mothers in the other quintiles.

8.4 DEMOGRAPHIC DIFFERENTIALS IN MORTALITY

Infant and child mortality is influenced to a considerable extent by the demographic characteristics of mothers and children, including the sex of the child, mother's age at birth, birth order, length of the previous birth interval, and the size of the child at birth. The relationship between these demographic characteristics and mortality is shown in Table 8.3.

Table 8.3 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, Nepal 2006

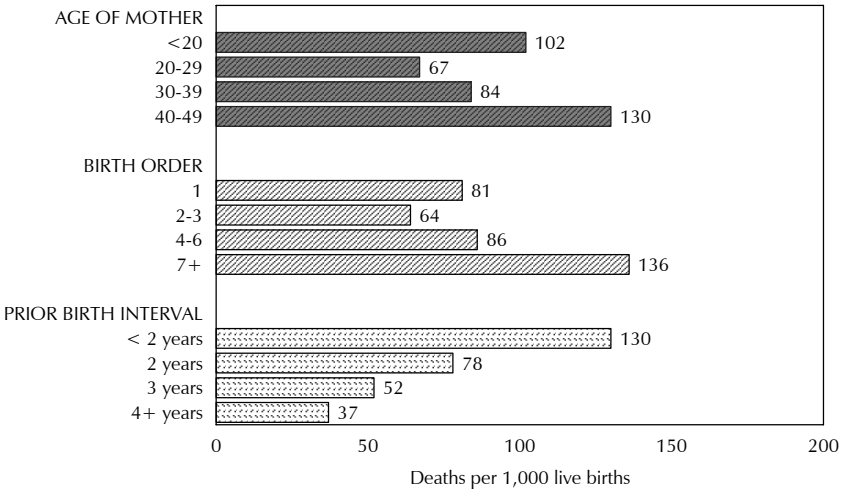
Demographic characteristic	Neonatal mortality (NN)	Postneonatal mortality[1] (PNN)	Infant mortality ($_1q_0$)	Child mortality ($_4q_1$)	Under-five mortality ($_5q_0$)
Child's sex					
Male	39	21	60	21	80
Female	37	24	61	18	78
Mother's age at birth					
<20	55	29	83	20	102
20-29	32	18	50	18	67
30-39	36	26	62	23	84
40-49	38	53	91	42	130
Birth order					
1	46	22	67	15	81
2-3	30	18	48	17	64
4-6	38	24	62	25	86
7+	55	51	106	34	136
Previous birth interval[2]					
<2 years	63	34	96	37	130
2 years	31	27	57	21	78
3 years	19	19	38	14	52
4+ years	20	8	28	9	37
Birth size[3]					
Small/very small	56	22	79	na	na
Average or larger	27	14	40	na	na

na = Not applicable
[1] Computed as the difference between the infant and neonatal mortality rates
[2] Excludes first-order births
[3] Rates for the five-year period before the survey

The data show little difference in mortality between male and female children. As expected, the relationship between maternal age at birth and childhood mortality is generally U-shaped, being relatively higher among children born to mothers under age 20 and over age 40 than among mothers in the middle age groups (Figure 8.2). This pattern is especially obvious in the case of infant and under-five mortality. In general, first births and births of order 7 and higher also suffer significantly higher rates of mortality than births of orders 2-3. For example, 1 in 15 first births did not survive to the first year, compared with 1 in 21 second- and third-order births. Short birth intervals also significantly reduce a child's chance of survival. For example, children born within two years of a preceding birth are two and a half times as likely to die within the first year of life as children born three years after an older sibling and more than three times as likely as children born four or more years later.

Studies have shown that a child's birth weight is an important determinant of its survival chances. Since most births in Nepal occur at home where children often are not weighed at birth, data on birth weight are available for only a few children. However, mothers in the 2006 NDHS survey were asked whether their child was very large, larger than average, average, smaller than average or small at birth since this has been found to be a good proxy for child's weight. As expected, the size of the baby at birth and mortality are negatively associated. For example, 1 in 13 children regarded as very small or small did not survive to the first year, compared with 1 in 25 children regarded as average or large in size.

Figure 8.2 **Under-Five Mortality by Selected Demographic Characteristics**



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

NDHS 2006

8.5 PERINATAL MORTALITY

The 2006 NDHS survey asked women to report on any pregnancy loss that occurred in the five years preceding the survey. For each pregnancy that did not end in a live birth, the duration of pregnancy was recorded. In this report, perinatal deaths include pregnancy losses of at least seven months' gestation (stillbirths) and deaths to live births within the first seven days of life (early neonatal deaths). The perinatal mortality rate is the sum of stillbirths and early neonatal deaths divided by the sum of all stillbirths and live births. Information on stillbirths and deaths to infants within the first week of life are highly susceptible to omission and misreporting. Nevertheless, retrospective surveys in developing countries provide more representative and accurate perinatal death rates than the vital registration systems and hospital-based studies.

Table 8.4 shows that out of the 5,671 reported pregnancies of at least seven months' gestation reported during the five years preceding the survey, 126 were stillbirths and 129 were early neonatal deaths, yielding an overall perinatal mortality rate of 45 per 1,000 pregnancies. Comparable data from the 2001 NDHS show that perinatal mortality has declined very slightly from 47 per 1,000 pregnancies to its current level.

Perinatal mortality is significantly higher among women whose age at birth was under 20 years or 30-39 years. First pregnancies and pregnancies that occur after an interval of less than 15 months are much more likely than pregnancies that occur after longer intervals to end in a perinatal loss. Rural women are more likely to experience perinatal losses than urban women, as are women who reside in the mountains than in the hills and *terai*. Perinatal mortality is lowest in the Eastern development region. Educated mothers are less likely to experience pregnancy losses than uneducated mothers, and perinatal mortality is lowest among women in the highest wealth quintile.

Table 8.4 Perinatal mortality

Number of stillbirths and early neonatal deaths, and the perinatal mortality rate for the five-year period preceding the survey, by background characteristics, Nepal 2006

Background characteristic	Number of stillbirths[1]	Number of early neonatal deaths[2]	Perinatal mortality rate[3]	Number of pregnancies of 7+ months duration
Mother's age at birth				
<20	24	36	51	1,179
20-29	71	68	40	3,444
30-39	30	23	57	930
40-49	2	2	32	118
Previous pregnancy interval in months				
First pregnancy	34	50	52	1,617
<15	6	12	60	301
15-26	33	31	49	1,287
27-38	17	20	33	1,120
39+	36	16	39	1,346
Residence				
Urban	16	12	40	692
Rural	111	117	46	4,979
Ecological zone				
Mountain	13	17	62	496
Hill	52	35	38	2,312
Terai	62	77	48	2,863
Development region				
Eastern	20	26	38	1,220
Central	42	38	44	1,854
Western	31	25	53	1,064
Mid-western	12	25	51	713
Far-western	21	15	44	821
Mother's education				
No education	77	97	51	3,419
Primary	26	18	42	1,035
Some secondary	22	13	39	869
SLC and above	2	2	10	347
Wealth quintile				
Lowest	32	30	43	1,444
Second	34	33	55	1,213
Middle	21	31	45	1,153
Fourth	23	18	41	1,006
Highest	17	16	39	855
Total	126	129	45	5,671

[1] Stillbirths are fetal deaths in pregnancies lasting seven or more months.
[2] Early neonatal deaths are deaths at age 0-6 days among live-born children.
[3] The sum of the number of stillbirths and early neonatal deaths divided by the number of pregnancies of seven or more months' duration, expressed per 1,000.

8.6 HIGH-RISK FERTILITY BEHAVIOR

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

The first column in Table 8.5 shows the percentage of births occurring in the five years before the survey that fall into the various risk categories. About half of births in Nepal are at an elevated risk of dying that is avoidable, while 31 percent are in a "risk-free" category. First births, which make up 24 percent of births, are in the "unavoidable" risk category. Thirty-three percent of births are in a single high-risk category, and 12 percent are in a multiple high-risk category. The most common single high-risk category is births of order 3 and higher (16 percent), while the most common multiple high-risk category is births to mothers older than 34 years and of birth order 3 and above (6 percent).

The risk ratios displayed in the second column of Table 8.5 denote the relationship between risk factors and mortality. In general, risk ratios are higher for children in a multiple high-risk category than in a single high-risk category. The most vulnerable births are those to women age 34 or older, with a birth interval less than 24 months and birth order of three or higher. This group of children is nearly seven times as likely to die as children not in any high-risk category. Fortunately, there is just 1 percent of births in this category.

The last column of Table 8.5 shows the distribution of currently married women who have the potential for having a high-risk birth by category. This column is purely hypothetical and does not take into consideration the protection provided by family planning, postpartum insusceptibility, and prolonged abstinence. However, it provides an insight into the magnitude of high-risk births. More than one in four women (22 percent) are or would be too old (age 34 or older), and have or would have too many children (more than 3 children) if they were to become pregnant. A slightly higher proportion of women (28 percent) have the potential of having a birth in a multiple high-risk category than in a single high-risk category (26 percent).

Table 8.5 High-risk fertility behavior

Percent distribution of children born in the five years preceding the survey by category of elevated risk of mortality and 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, Nepal 2006

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	31.3	1.00	39.1[a]
Unavoidable risk category			
First-order births between ages 18 and 34 years	23.5	1.85	7.3
Single high-risk category			
Mother's age <18	6.9	2.15	1.9
Mother's age >34	0.8	(0.74)	4.5
Birth interval <24 months	9.5	1.85	8.5
Birth order >3	16.3	1.87	11.2
Subtotal	33.4	1.90	26.1
Multiple high-risk category			
Age <18 and birth interval <24 months	0.5	(2.66)	0.2
Age >34 and birth interval <24 months[2]	0.0	*	0.0
Age >34 and birth order >3	6.0	1.15	21.5
Age >34 and birth interval <24 months and birth order >3	1.0	6.74	1.2
Birth interval <24 months and birth order >3	4.3	2.10	4.6
Subtotal	11.8	2.06	27.6
In any avoidable high-risk category	45.2	1.94	53.6
Total	100.0	na	100.0
Number of births/women	5,545	na	8,257

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*. 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] 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

ADULT AND MATERNAL MORTALITY 9

Since the launch of the Safe Motherhood Initiative in 1987, attention to reproductive health has increased worldwide, as has the need for reliable countrywide estimates of maternal deaths. In response to this increased interest, DHS surveys began collecting maternal mortality data through a series of questions designed to obtain a direct measure of maternal mortality. These questions were included for the first time in the 1996 NFHS and again 10 years later in the 2006 NDHS. In addition to information on maternal mortality, data gathered from the maternal mortality module also allow for the estimation of adult mortality. Safe motherhood has been identified as a national priority in the new National Health Policy, and the Government of Nepal has targeted for a 66 percent reduction in maternal mortality between 1990 and 2015 (Central Bureau of Statistics, 2006c).

Estimating maternal mortality requires a comprehensive and accurate reporting of maternal deaths. Such reports can be obtained through vital registration, longitudinal studies of pregnant women, and household surveys. However, the vital registration system in Nepal has a low coverage, and no national household survey has been carried out in Nepal for the sole purpose of estimating maternal mortality. In the past, national estimates were based on small-scale and hospital-based studies and vital registration data, all of which have serious limitations. For these reasons, questions on maternal mortality were added to the 1996 NFHS and later to the 2006 NDHS. The estimates presented in this chapter will play a vital role in filling the need for a reliable national estimate of maternal mortality. Nevertheless, it is important for users of this information to understand the inherent problems associated with measuring maternal mortality to avoid misinterpretation of the survey results and especially in comparing results obtained in the 1996 NFHS and 2006 NDHS surveys.

Direct estimates of maternal mortality use data on the age of surviving sisters of survey respondents, the age at death of sisters who have died, and the number of years since the death of sisters. Interviewers in the 2006 NDHS were asked to list all the brothers and sisters born to the natural mother of female respondents in chronological order starting with the first. Information was then obtained on the survivorship of each of the siblings, the ages of surviving siblings, the year of death or years since death of deceased siblings, and the age at death of deceased siblings. For each sister who died at age 12 or over, the respondent was asked additional questions to determine whether the death was maternity-related; that is, whether the sister was pregnant when she died; if not, whether the sister died during childbirth; and if not, whether the sister died within two months of the termination of a pregnancy or childbirth. Listing all siblings in chronological order of their birth is believed to result in better reporting of events than would be the case if only information on sisters were sought. Moreover, the information collected also allows direct estimates of adult male and female mortality.

9.1 DATA QUALITY ISSUES

A brief discussion of data quality is warranted here. This discussion refers to tables in Appendix D. One measure of the quality of the data collected is the completeness of information on siblings. Overall, data from the 2006 NDHS show that the data on siblings are complete, with no siblings missing information on age at death or years since death (Table D.7).

The distribution of respondents' year of birth in relation to their siblings is another crude measure of the quality of maternal mortality data. If there is no bias in reporting, the year of birth of siblings should be roughly equivalent to the year of birth of respondents overall. The median year of birth of respondents is similar to that of their siblings, indicating that there is no serious underreporting of siblings (Table D.8).

Yet another crude measure of data quality is the mean number of siblings, or the mean sibship size (Table D.9). Sibship size is expected to decline as fertility declines over time. The absence of a monotonic decline in sibship size, even though fertility has declined in Nepal, is an indication that there may be some omission in the reporting of older siblings. However, since adult mortality rates are reported here for the seven years preceding the survey, this omission is unlikely to affect the calculation of mortality rates. Moreover, if the omission occurred mostly among sisters who did not survive to adulthood (which is most likely the case), it may not even bias the estimation of maternal mortality. This is also confirmed by the sex ratios that are larger than the internationally accepted sex ratio of 103-105, indicating that sisters are underreported or brothers are over-reported. Nevertheless, it should be borne in mind that any information that relies on recall of events will suffer from some degree of misreporting, especially if it pertains to deceased persons and occurred a long time before the survey.

9.2 ADULT MORTALITY

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

Direct estimates of male and female adult mortality are obtained from information collected in the sibling history. Age-specific death rates are computed by dividing the number of deaths in each age group by the total person-months of exposure in that age group during a specified reference period. In total, female respondents in the 2006 NDHS reported 53,794 siblings, of whom 26,378 were sisters and 27,418 were brothers (Table D.7). Direct estimates of age-specific mortality rates for females and males are shown in Table 9.1. To minimize the impact of possible heaping on years since death ending in zero and five, direct estimates are presented for the period 0-6 years before the survey, which roughly corresponds to 1999-2005. The number of sibling deaths is fairly small and, because of the large sampling variability, it is preferable to aggregate the data over the age range 15-49. There are more male than female deaths in the seven years preceding the survey (242 compared with 217). The male mortality rate is 2.4 deaths per 1,000 population and is 14 percent higher than the female mortality rate of 2.1 deaths per 1,000 population. The trend in adult mortality can be gauged by comparing similarly collected data from the 1996 NFHS with data from the 2006 NDHS. The data show that adult mortality has declined over the past ten years, with the decline in female mortality much more significant than the decline in male mortality. Female mortality declined by 43 percent, while male mortality declined by 18 percent over the past ten years.

Table 9.1 Adult mortality rates

Direct estimates of female and male mortality for the period 0-6 years prior to the survey, Nepal 2006

Age	Deaths	Exposure years	Mortality rates[1]
FEMALE			
15-19	30	22,263	3.03
20-24	23	23,427	1.83
25-29	40	20,789	3.16
30-34	39	17,953	2.68
35-39	35	13,573	2.92
40-44	28	8,625	3.41
45-49	22	4,751	3.90
15-49	217	111,382	2.09[a]
MALE			
15-19	34	22,341	3.44
20-24	31	23,855	2.40
25-29	32	21,713	2.43
30-34	37	17,737	2.58
35-39	30	13,243	2.52
40-44	43	8,672	5.13
45-49	36	5,337	5.70
15-49	242	112,898	2.42[a]

[1] Expressed per 1,000 population
[a] Age-adjusted rate

9.3 MATERNAL MORTALITY

Information on maternal mortality for the period 0-6 years before the survey is shown in Table 9.2. As previously mentioned, this period was chosen to reduce any possible heaping of reported years since death on five-year intervals. Age-specific mortality rates are calculated by dividing the number of maternal deaths by years of exposure. To remove the effect of truncation bias (the upper boundary for eligibility in the Nepal DHS survey is 49 years), the overall rate for women

age 15-49 is standardized by the age distribution of the survey respondents. Maternal deaths are defined as any death that occurred during pregnancy, childbirth, or within two months after the birth or termination of a pregnancy. Maternal mortality in Nepal is still high relative to many developed countries. However, for each age group, maternal deaths are a relatively rare occurrence. As such, the age-specific pattern should be interpreted with caution. Respondents reported 39 maternal deaths in the seven years preceding the survey. The maternal mortality rate, which is the annual number of maternal deaths per 1,000 women age 15-49, for the period 1991-2005 is 0.33. Maternal deaths accounted for 18 percent of all deaths to women age 15-49; in other words, about one in five Nepali women who died in the seven years preceding the survey died from pregnancy or pregnancy-related causes.

The maternal mortality ratio (MMR), which is obtained by dividing the age-standardized maternal mortality rate by the age-standardized general fertility rate, is often considered a more useful measure of maternal mortality because it measures the obstetric risk associated with each live birth. Table 9.2 shows that the MMR for Nepal for the period 1999-2005 is 281 deaths per 100,000 live births (alternatively, 3 deaths per 1,000 live births). Similarly collected data from the 1996 NFHS show the maternal mortality ratio for Nepal for the period 1989-1995 to be 539 deaths per 100,000 live births, or 5 deaths per 1,000 live births. Maternal mortality therefore has declined in Nepal.[1] There are many factors which may have contributed to this decline. The increase in the percentage of pregnant women with four ANC visits, the percentage of births delivered at health facilities, the percentage of births assisted at delivery by a skilled birth attendant, and the percentage of women receiving postnatal care, including improved quality of care, may have all contributed to this decline in maternal mortality in Nepal. Maternal health is discussed in greater detail in Chapter 10.

Table 9.2 Direct estimates of maternal mortality

Direct estimates of maternal mortality for the period 0-6 years prior to the survey, Nepal 2006

Age	Maternal deaths	Exposure years	Mortality rates[1]	Proportion of maternal deaths to female deaths
15-19	8	22,263	0.081	26.8
20-24	6	23,427	0.049	26.5
25-29	5	20,789	0.040	12.6
30-34	11	17,953	0.079	29.5
35-39	5	13,573	0.039	13.2
40-44	4	8,625	0.047	13.7
45-49	0	4,751	0.000	na
Total	39	111,382	0.334[a]	18.0
General fertility rate (GFR)			0.119[a]	
Maternal mortality ratio (MMR)[2]			281	

[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
[a] Age-adjusted rate
na = Not available

[1] The maternal mortality ratio obtained from the 1996 NFHS is 539 deaths per 100,000 live births. The 95 percent confidence interval ranges between 392 and 686. The true MMR for 2006 is between 178 and 384, indicating no overlap in the confidence intervals for the two ratios.

MATERNAL HEALTH 10

Maternal health is an important part of the health care system aimed at reducing morbidity and mortality related to pregnancy. The health care that a woman receives during pregnancy, at the time of delivery, and soon after delivery is important for the survival and well-being of both the mother and the child. Nepal is committed to the Millennium Development Goals (MDGs) and has developed various policies and strategies to this end. The MDG targets for a three-fourths reduction in maternal mortality by the year 2015. This chapter presents findings on several aspects of maternal health for Nepal: antenatal, delivery, and postnatal care, as well as problems in accessing health care. Together with the World Health Organization (WHO), United Nations Children's Fund (UNICEF), United Nations Population Fund (UNFPA), Department for International Development of the United Kingdom (DFID), USAID, Germany's Gesellschaft für Technische Zusammenarbeit (GTZ), and other international and national NGOs, the Ministry of Health and Population is working toward better access and higher quality service to improve maternal health. The Support for Safer Motherhood Program (SSMP) is designed to improve infrastructural development (through comprehensive emergency obstetric care, basic emergency obstetric care, and birthing centers) and human resource development, and upgrade the skills of skilled birth attendants (SBAs). A maternity incentive scheme has been adopted since 2005 to increase the demand for maternity services along with a focus on improving access to such services. This chapter presents findings on several aspects of maternal health for Nepal: antenatal, delivery, and postnatal care, as well as problems in accessing health care.

10.1 ANTENATAL CARE

The quality of antenatal care (ANC) can be assessed by the type of provider, the number of ANC visits, and the timing of the first visit. Antenatal care can also be monitored through the content of services received and the kind of information mothers are given during their visit. Information on ANC coverage was obtained from women who gave birth in the five years preceding the survey. For women with two or more live births during the five-year period, data refer to the most recent birth only.

Table 10.1 shows the percent distribution of mothers in the five years preceding the survey by source of antenatal care received during pregnancy, according to selected characteristics. Women were asked to report on all persons they saw for antenatal care for their last birth. However, for presenting the results, if a woman saw more than one provider, only the provider with the highest qualification is considered.

Forty-four percent of mothers received antenatal care from skilled birth attendants (SBAs), that is, from a doctor, nurse or midwife, for their most recent birth in the five years preceding the survey. In addition, 28 percent of mothers received antenatal care from trained health workers such as a health assistant or auxiliary health worker, a maternal and child health worker (MCHW), or a village health worker (VHW). Less than 2 percent of women received antenatal care from a traditional birth attendant or a female community health volunteer (FCHV).[1] Twenty-six percent of women received no antenatal care for births in the five years before the survey.

Younger mothers (less than 20 years) are more likely to receive antenatal care from an SBA than older mothers (age 20-49). Mothers are also much more likely to receive care from an SBA for their first births (59 percent) than for births of order six and higher (17 percent).

[1] Data from the 2006 NDHS also show that MCHW, VHW and FCHV had contact with 21 percent, 6 percent and 20 percent of women, respectively, at some time during their pregnancy. This percentage is higher than what is shown in Table 10.1 primarily because this table only considers the highest qualified health personnel, when women report having seen more than one person during any of their antenatal visits.

Table 10.1 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 birth attendant (SBA) for the most recent birth, according to background characteristics, Nepal 2006

Background characteristic	Doctor	Nurse/ midwife	Health assistant/ AHW	MCHW	VHW	Traditional birth attendant	FCHV	Other	No one	Total	Percentage receiving antenatal care from SBA[1]	Number of women
Mother's age at birth												
<20	25.5	25.3	14.0	11.8	2.3	0.1	2.1	0.2	18.6	100.0	50.8	720
20-34	21.9	23.0	12.4	13.9	2.2	0.2	1.6	0.2	24.6	100.0	44.9	2,971
35-49	6.8	13.6	9.8	13.4	1.0	0.0	1.2	0.7	53.4	100.0	20.4	375
Birth order												
1	35.1	23.5	11.9	11.6	1.5	0.2	1.4	0.1	14.6	100.0	58.6	1,094
2-3	22.1	25.6	13.0	12.9	2.3	0.2	1.2	0.2	22.5	100.0	47.7	1,786
4-5	9.3	19.1	12.6	17.8	3.1	0.0	2.9	0.4	34.8	100.0	28.4	725
6+	3.3	13.8	11.4	13.7	1.2	0.0	1.8	0.3	54.5	100.0	17.1	461
Residence												
Urban	52.8	31.7	1.5	1.0	0.2	0.6	0.1	0.0	12.1	100.0	84.6	536
Rural	16.4	21.1	14.1	15.4	2.4	0.1	1.9	0.3	28.3	100.0	37.5	3,530
Ecological zone												
Mountain	12.7	19.6	11.1	8.9	3.7	0.0	0.3	0.0	43.7	100.0	32.3	340
Hill	25.6	21.1	9.8	10.8	1.5	0.0	0.1	0.3	30.9	100.0	46.7	1,677
Terai	19.0	24.2	14.9	16.5	2.3	0.3	3.1	0.3	19.5	100.0	43.1	2,049
Development region												
Eastern	17.4	27.7	23.2	8.5	2.6	0.4	1.0	0.3	18.8	100.0	45.2	884
Central	27.8	18.6	10.3	12.4	2.7	0.1	3.6	0.3	24.1	100.0	46.5	1,329
Western	25.0	25.9	7.2	8.9	1.1	0.0	0.6	0.4	30.9	100.0	50.9	755
Mid-western	16.9	26.6	8.3	8.2	0.7	0.0	0.6	0.0	38.6	100.0	43.6	514
Far-western	10.4	15.5	11.5	34.2	2.7	0.0	0.4	0.0	25.3	100.0	26.0	584
Subregion												
Eastern mountain	14.4	14.9	14.3	14.4	3.8	0.0	1.3	0.0	36.9	100.0	29.4	80
Central mountain	19.8	19.9	13.7	11.2	3.5	0.0	0.0	0.0	31.8	100.0	39.7	66
Western mountain	9.6	21.4	8.9	5.8	3.7	0.0	0.0	0.0	50.5	100.0	31.1	194
Eastern hill	8.9	17.6	28.5	11.0	4.2	0.0	0.7	0.6	28.5	100.0	26.5	248
Central hill	44.3	19.9	4.8	6.6	0.9	0.0	0.0	0.0	23.6	100.0	64.2	550
Western hill	26.2	28.4	7.1	8.1	0.9	0.0	0.0	0.6	28.6	100.0	54.6	455
Mid-western hill	13.3	15.4	8.6	10.7	0.3	0.0	0.0	0.0	51.6	100.0	28.7	270
Far-western hill	5.3	19.7	7.3	33.1	3.3	0.0	0.0	0.0	31.3	100.0	25.0	154
Eastern terai	21.7	34.1	22.2	6.5	1.7	0.7	1.1	0.2	11.9	100.0	55.8	556
Central terai	15.9	17.5	14.2	17.1	4.0	0.2	6.7	0.6	23.8	100.0	33.4	713
Western terai	23.5	22.5	7.6	10.2	1.4	0.1	1.4	0.0	33.4	100.0	46.0	295
Mid-western terai	25.2	38.3	10.3	6.0	1.1	0.0	1.8	0.0	17.4	100.0	63.5	171
Far-western terai	13.6	15.5	12.8	44.7	1.4	0.0	0.7	0.0	11.2	100.0	29.1	313
Education												
No education	9.5	19.0	14.4	15.3	2.6	0.1	2.5	0.2	36.3	100.0	28.5	2,357
Primary	24.1	27.9	10.3	14.8	2.8	0.3	0.7	0.6	18.6	100.0	51.9	743
Some secondary	38.4	29.7	11.5	9.5	0.3	0.3	0.2	0.0	10.2	100.0	68.1	683
SLC and above	69.1	20.6	4.6	4.5	0.4	0.0	0.0	0.0	0.9	100.0	89.7	282
Wealth quintile												
Lowest	5.2	12.4	11.9	16.5	2.9	0.0	1.4	0.2	49.5	100.0	17.7	956
Second	10.6	19.9	16.3	19.0	3.1	0.1	2.4	0.2	28.4	100.0	30.5	859
Middle	14.0	24.4	16.4	16.9	2.6	0.4	2.0	0.3	22.9	100.0	38.4	811
Fourth	25.3	35.4	12.3	8.9	0.9	0.2	1.9	0.6	14.6	100.0	60.7	752
Highest	60.5	23.6	4.0	3.6	0.4	0.0	0.4	0.0	7.6	100.0	84.1	687
Total	21.2	22.5	12.5	13.5	2.1	0.1	1.6	0.2	26.2	100.0	43.7	4,066

Note: If more than one source of ANC was mentioned, only the provider with the highest qualifications is considered in this tabulation.
AHW = Auxiliary Health Worker; MCH = Maternal and Child Health Worker; VHW = Village Health Worker; FCHV = Female Community Health Volunteer
[1] SBA includes doctor, nurse and midwife

There are large differences in the use of antenatal care services between urban and rural women. Eighty-five percent of urban mothers received antenatal care from an SBA, compared with only 38 percent of rural mothers. Nearly one in two mothers living in the hills received antenatal care from an SBA, compared with 32 percent of mothers from the mountains and 43 percent of mothers from the *terai*. About twice as many mothers living in the Western, Central and Eastern regions received antenatal care from an SBA as mothers living in the Far-western region. Antenatal care from an SBA ranged from a low of 25 percent in the Far-western hill subregion to a high of 64 percent among women in the Central hill and Mid-western terai subregion.

The use of antenatal care services from an SBA is strongly related to the mother's level of education. Women with SLC and higher level of education are three times more likely to receive antenatal care from an SBA (90 percent) than women with no education (29 percent). Similarly, women in the highest wealth quintile were five times more likely to receive care from an SBA (84 percent) than women in the lowest wealth quintile (18 percent).

There has been a significant improvement over the past ten years in the proportion of mothers who receive antenatal care from an SBA, increasing from 24 percent in 1996 to 28 percent in 2001 and 44 percent in 2006.

Number and Timing of Antenatal Visits

Antenatal care is more beneficial in preventing adverse pregnancy outcomes when it is sought early in the pregnancy and is continued through delivery. The WHO recommends that a woman without complications have at least four ANC visits to provide sufficient antenatal care. It is possible during these visits to detect health problems associated with a pregnancy. In the event of any complications, more frequent visits are advised and admission to a health facility may be necessary.

Table 10.2 shows that more than one-fourth (29 percent) of pregnant women make four or more antenatal care visits during their entire pregnancy. Urban women (52 percent) are twice as likely as rural women (26 percent) to have received four or more antenatal visits.

About one in four women (28 percent) made their first antenatal care visit before the fourth month of pregnancy. The median duration of pregnancy at the first antenatal care visit is 4.6 months (3.8 months in urban areas and 4.7 months in rural areas).

Table 10.2 Number of antenatal care visits and timing of first visit

Percent distribution of women 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, Nepal 2006

Number and timing of ANC visits	Residence		
	Urban	Rural	Total
Number of ANC visits			
None	12.1	28.3	26.2
1	6.3	8.9	8.5
2-3	29.7	36.7	35.8
4+	51.9	26.0	29.4
Total	100.0	100.0	100.0
Number of months pregnant at time of first ANC visit			
No antenatal care	12.1	28.3	26.2
<4	48.0	24.6	27.7
4-5	25.6	29.4	28.9
6-7	11.7	14.5	14.1
8+	2.5	3.1	3.0
Don't know/missing	0.0	0.1	0.1
Total	100.0	100.0	100.0
Number of women	536	3,530	4,066
Median months pregnant at first visit (for those with ANC)	3.8	4.7	4.6
Number of women with ANC	471	2,529	3,000

The percentage of women who made four or more antenatal visits during their pregnancy tripled during the last 10 years, from 9 percent in 1996 to 14 percent in 2001 and 29 percent in 2006.

Components of Antenatal Care

The content of antenatal care is important in assessing the quality of antenatal care services. Pregnancy complications are an important source of maternal and child morbidity and mortality, and thus teaching pregnant women about the danger signs associated with pregnancy and the appropriate action to take are essential components of antenatal care.

Table 10.3 presents information on the percentage of women who took iron tablets and intestinal parasite drugs during their last pregnancy in the five years preceding the survey. The table also shows the percentage of women who were informed about the signs of pregnancy complications and, among women receiving antenatal care, the percentage who received specific routine antenatal care services.

Table 10.3 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 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, Nepal 2006

	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:					
Background characteristic	Took iron tablets	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	68.8	26.0	720	57.6	76.9	81.5	37.9	35.9	586
20-34	60.8	20.4	2,971	58.5	75.3	78.9	31.1	27.1	2,240
35-49	29.5	8.1	375	42.0	60.2	64.4	17.0	11.8	175
Birth order									
1	74.7	26.9	1,094	63.6	82.8	85.8	45.8	43.7	934
2-3	63.5	21.1	1,786	59.5	77.6	80.1	31.6	26.6	1,384
4-5	44.1	14.3	725	45.0	57.2	65.3	12.6	9.1	473
6+	30.4	11.0	461	43.3	59.6	65.7	10.7	8.9	210
Residence									
Urban	74.9	16.5	536	71.1	90.5	93.0	63.4	57.7	471
Rural	56.9	20.9	3,530	54.8	71.8	75.9	25.6	22.4	2,529
Ecological zone									
Mountain	40.3	13.3	340	53.5	63.1	68.2	20.9	13.7	192
Hill	55.4	15.5	1,677	62.0	76.0	80.4	41.5	36.7	1,159
Terai	65.7	25.3	2,049	54.5	75.2	78.5	25.8	23.5	1,650
Development region									
Eastern	62.6	21.2	884	52.9	72.6	79.3	27.9	23.3	717
Central	65.0	18.7	1,329	59.3	75.9	76.0	41.1	36.9	1,009
Western	54.0	16.8	755	62.4	77.6	82.0	39.3	36.8	522
Mid-western	46.1	20.5	514	65.7	75.4	79.5	24.7	21.1	316
Far-western	60.0	27.0	584	47.9	71.8	78.4	11.2	9.3	436
Subregion									
Eastern mountain	41.5	15.9	80	50.4	53.2	68.6	33.5	19.8	50
Central mountain	59.2	13.2	66	68.0	81.7	82.1	33.5	19.7	45
Western mountain	33.4	12.3	194	48.4	59.5	61.5	8.4	7.6	96
Eastern hill	45.9	14.9	248	50.1	53.9	70.0	21.3	10.6	177
Central hill	70.7	12.6	550	67.5	90.2	87.3	65.2	58.9	420
Western hill	56.7	17.8	455	67.5	82.5	84.5	39.4	38.1	325
Mid-western hill	35.9	18.2	270	66.8	65.6	75.6	25.6	22.3	130
Far-western hill	45.8	16.0	154	36.9	49.6	63.8	7.7	5.3	106
Eastern terai	73.0	24.7	556	54.2	81.3	83.8	29.7	28.2	490
Central terai	61.1	24.0	713	52.3	64.3	66.8	23.2	21.3	544
Western terai	50.6	15.4	295	54.0	69.6	77.9	39.1	34.5	197
Mid-western terai	63.7	25.7	171	68.6	85.0	87.9	28.9	23.5	141
Far-western terai	78.5	38.8	313	52.6	84.8	87.5	13.2	11.5	278
Mother's education									
No education	47.3	16.8	2,357	44.1	64.9	69.5	16.7	13.2	1,502
Primary	65.5	23.1	743	62.4	76.3	82.8	32.0	25.8	605
Some secondary	79.2	25.3	683	73.7	88.1	88.6	47.6	44.5	614
SLC and above	94.7	29.9	282	81.3	95.0	95.9	75.2	75.1	280
Wealth quintile									
Lowest	34.3	14.0	956	47.5	58.0	65.1	12.5	8.2	483
Second	55.5	21.4	859	46.2	69.0	74.0	14.1	11.7	615
Middle	64.6	23.9	811	54.0	72.3	75.7	19.7	16.4	625
Fourth	70.8	23.0	752	63.0	80.5	81.2	36.5	34.1	642
Highest	80.1	20.4	687	73.1	89.6	93.3	69.6	63.9	635
Total	59.3	20.3	4,066	57.3	74.8	78.5	31.6	27.9	3,000

Among women with a live birth in the past five years, 59 percent took iron tablets and 20 percent took intestinal parasite drugs while pregnant with the last birth. There are substantial variations by background characteristics. Women less than 20 years of age at birth, women pregnant with their first child, urban women, women residing in the terai, those living in the Central region (and especially in the Far-western terai subregion), women with SLC or higher education, and women in the highest wealth quintile are much more likely to have taken iron tablets during their pregnancy than their counterparts.

A similar pattern by background characteristics is seen in the intake of intestinal parasite drugs, with the exception of place of residence and wealth quintile. Rural women are slightly more likely than urban women to have taken intestinal parasite drugs. With the exception of women in the lowest wealth quintile, who are least likely to take parasitic drugs, there is little variation by wealth quintile for the other groups of women.

More than half (57 percent) of the mothers who received antenatal care reported that they were informed about pregnancy complications during their antenatal visit. Of those who were informed of pregnancy complications, almost all (96 percent) were informed about a place to go in case of symptoms of complications (data not shown). About three-fourths of pregnant women who sought antenatal care were weighed, and had their blood pressure taken. About three in ten women gave urine and blood samples for testing.

The quality of antenatal care is particularly related to mother's education, mother's wealth, residence, and birth order. For example, more than 90 percent of women with SLC and higher education were weighed and had their blood pressure measured, compared with less than 70 percent of women with no education. Women in the highest wealth quintile and urban women are much more likely (90 percent or more) to have their weight taken than women in the lowest wealth quintile (58 percent) and women with no education (65 percent). Less than half of the women (48 percent) in the lowest wealth quintile were provided information about pregnancy complications, compared with almost three-fourths (73 percent) in the highest wealth quintile. Slightly more than half (55 percent) of rural women were provided information about pregnancy complications, compared with more than seven in ten (71 percent) urban women.

The overall quality of antenatal care has improved in the past five years. The percentage of pregnant women informed of pregnancy complications increased by 20 percent, while the percentage of women who were weighed or had their blood pressure measured increased by 59 percent and 31 percent, respectively, in the past five years. However, there was no substantial difference in the percentage of pregnant women who had blood or urine samples taken.

Tetanus Toxoid Vaccination

Tetanus toxoid injections are given during pregnancy for the prevention of neonatal tetanus, a major cause of death among infants. For full protection, a pregnant woman should receive at least two doses during each pregnancy. If a woman has been vaccinated during a previous pregnancy or during maternal and neonatal tetanus vaccination campaigns, however, she may only require one dose for the current pregnancy. Five doses are considered to provide lifetime protection.

Table 10.4 presents the percentage of women who had a live birth in the five years preceding the survey and whose last birth was protected against neonatal tetanus. Nearly four out of five mothers (78 percent) with a birth in the five years preceding the survey were protected against neonatal tetanus. However, less than two-thirds (63 percent) of pregnant women received two or more tetanus injections during their last pregnancy.

Younger mothers less than 20 years of age and mothers of lower order births are more likely (70 percent and 74 percent, respectively) to have received two or more tetanus injections during their last pregnancy than older mothers age 35-49 (38 percent) and mothers of higher order births (40 percent). There are marked differences in the tetanus coverage by ecological zone, with nearly twice as many mothers in the terai (75 percent) receiving two or more tetanus toxoid injections as mothers residing in the mountains (37 percent). Education and wealth have a positive effect on whether women receive tetanus toxoid injections. For example, 88 percent of mothers with SLC or higher education received at least two injections during their last pregnancy, compared with 55 percent of mothers with no education. Similarly, 79 percent of mothers in the highest wealth quintile received at least two doses of tetanus toxoid injection, compared with 39 percent of mothers in the lowest quintile.

Over the past five years, the percentage of mothers who received at least two tetanus toxoid injections for their last birth has increased by 40 percent.

10.2 Delivery Care

Proper medical attention and hygienic conditions during delivery can reduce the risk of complications and infections that may cause the death or serious illness of the mother and the baby or both. Hence, an important component in the effort to reduce the health risks of mothers and children is to increase the proportion of babies delivered in a safe and clean environment and under the supervision of health professionals. Nepal is promoting safe motherhood through various activities, especially delivery by skilled birth attendants (SBA). Data on delivery care were obtained for all births that occurred in the five years preceding the survey.

Table 10.4 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 during pregnancy for the last live birth and the percentage whose last live birth was protected against neonatal tetanus, by background characteristics, Nepal 2006

Background characteristic	Percentage receiving two or more injections during last pregnancy	Percentage whose last birth was protected against neonatal tetanus[1]	Number of mothers
Age at birth			
<20	69.8	83.5	720
20-34	64.8	79.0	2,971
35-49	37.8	61.2	375
Birth order			
1	74.3	86.5	1,094
2-3	65.9	79.8	1,786
4-5	55.0	73.3	725
6+	39.6	59.8	461
Residence			
Urban	72.4	84.0	536
Rural	61.8	77.2	3,530
Ecological zone			
Mountain	37.0	59.4	340
Hill	54.2	72.5	1,677
Terai	75.0	85.9	2,049
Development region			
Eastern	62.0	77.3	884
Central	71.1	82.8	1,329
Western	59.0	76.2	755
Mid-western	49.4	72.8	514
Far-western	64.7	75.9	584
Subregion			
Eastern mountain	38.6	71.3	80
Central mountain	44.6	80.1	66
Western mountain	33.7	47.5	194
Eastern hill	45.0	71.7	248
Central hill	65.9	79.3	550
Western hill	55.4	70.2	455
Mid-western hill	39.1	66.0	270
Far-western hill	49.5	67.9	154
Eastern terai	72.9	80.6	556
Central terai	77.6	85.8	713
Western terai	65.4	86.0	295
Mid-western terai	70.6	91.2	171
Far-western terai	84.2	92.2	313
Education			
No education	55.4	73.1	2,357
Primary	67.3	81.5	743
Some secondary	75.3	85.9	683
SLC and above	88.0	92.8	282
Wealth quintile			
Lowest	38.8	61.5	956
Second	61.2	77.3	859
Middle	71.1	83.5	811
Fourth	73.8	86.4	752
Highest	78.8	87.0	687
Total	63.2	78.1	4,066

[1] Includes mothers with two injections during pregnancy for their last live birth, or two or more injections (the most recent within 3 years of the last live birth), or three or more injections (the most recent within 5 years of the last live birth), or 4 or more injections (the most recent within 10 years of the last live birth), or five or more injections prior to the last birth.

Table 10.5 presents the percent distribution of live births in the five years preceding the survey by place of delivery, according to background characteristics. Eighteen percent of births take place in a health facility: 13 percent are delivered in a public sector health facility, 4 percent in a non-government facility, and less than 1 percent in a private facility. Four out of five births (81 percent) take place at home. Delivery in a health facility is more common among younger mothers (21 percent), mothers of first order births (32 percent), and mothers who have had at least four antenatal visits (41 percent). Almost half (48 percent) of the children in urban areas are born in a health facility, compared with 14 percent in rural areas. Delivery in a health facility also varies by ecological region, being lowest in the mountains (6 percent), high in the hills (21 percent), and moderately high (17 percent) in the terai. Delivery in a health facility varies from a low of 9 percent among births in the Far-western region to a high of 24 percent among births in the Central region and is highest in the Central hill subregion, where two-fifths of mothers have a facility-based delivery. There is a strong association between health facility delivery, mother's education, and wealth quintile. The proportion of deliveries in a health facility is only 8 percent among births to uneducated mothers, compared with 67 percent among births to mothers with SLC and higher education. A similar pattern is seen in terms of wealth quintiles: delivery at a health facility is significantly lower among births in the lowest wealth quintile (4 percent) compared with 55 percent of births in the highest quintile.

To get a better understanding of why women do not deliver in a health facility, the 2006 NDHS asked women who had a birth in the five years before the survey for the reasons they did not give birth in a health facility. The vast majority of women (73 percent) believed that it was not necessary to give birth in a health facility, 17 percent mentioned that it was not customary, 10 percent said that it cost too much, and 9 percent cited that a health facility was too far or that there was no transportation to a health facility. In addition, 3 percent of women mentioned that the baby was born before they could actually get to the facility, even though they had planned to go to a health facility for delivery (data not shown).

The percentage of births taking place in a health facility has doubled in the past five years. This is especially impressive because between 1996 and 2001 there was little change in facility-based deliveries.

Table 10.5 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, Nepal 2006

Background characteristic	Health facility: Government sector	Health facility: Non-government sector	Health facility: Private sector	Home	Other	Total	Percentage delivered in a health facility	Number of births
Mother's age at birth								
<20	16.0	3.9	0.8	77.8	1.5	100.0	20.7	1,156
20-34	12.7	3.9	1.0	81.2	1.3	100.0	17.6	3,957
35-49	8.8	0.9	0.7	88.4	1.1	100.0	10.4	433
Birth order								
1	23.8	6.1	1.7	66.8	1.5	100.0	31.7	1,676
2-3	10.8	3.3	0.7	84.2	1.0	100.0	14.8	2,342
4-5	4.9	1.7	0.2	91.9	1.3	100.0	6.9	946
6+	4.4	1.2	0.7	91.6	2.1	100.0	6.3	580
Antenatal care visits[1]								
None	3.2	0.6	0.1	94.0	2.1	100.0	3.9	1,065
1-3	10.8	2.8	0.5	85.0	0.9	100.0	14.2	1,802
4+	29.8	8.6	2.8	57.4	1.4	100.0	41.2	1,197
Residence								
Urban	38.7	6.9	2.2	51.5	0.7	100.0	47.8	677
Rural	9.5	3.2	0.8	85.1	1.4	100.0	13.5	4,868
Ecological zone								
Mountain	4.6	1.3	0.4	91.6	2.1	100.0	6.3	483
Hill	17.0	3.3	0.6	78.1	1.0	100.0	20.9	2,261
Terai	11.3	4.3	1.3	81.6	1.4	100.0	17.0	2,802
Development region								
Eastern	12.8	2.7	1.1	82.6	0.8	100.0	16.6	1,200
Central	18.4	4.7	1.0	74.2	1.7	100.0	24.2	1,811
Western	11.9	4.0	1.5	81.8	0.9	100.0	17.4	1,033
Mid-western	9.5	3.8	0.3	85.8	0.6	100.0	13.6	702
Far-western	5.9	2.1	0.5	89.0	2.4	100.0	8.5	800
Subregion								
Eastern mountain	6.8	0.0	0.3	91.9	1.0	100.0	7.1	112
Central mountain	9.0	1.7	0.6	87.0	1.7	100.0	11.3	88
Western mountain	2.4	1.7	0.4	92.8	2.7	100.0	4.5	282
Eastern hill	4.4	1.3	0.4	93.3	0.6	100.0	6.1	349
Central hill	35.0	4.0	0.9	59.1	1.0	100.0	39.9	705
Western hill	13.1	5.0	0.5	80.5	1.0	100.0	18.5	609
Mid-western hill	8.9	2.5	0.2	88.1	0.4	100.0	11.5	372
Far-western hill	3.9	1.3	1.1	90.8	2.9	100.0	6.3	226
Eastern terai	17.6	3.8	1.5	76.1	0.9	100.0	22.9	739
Central terai	7.8	5.5	1.1	83.5	2.2	100.0	14.3	1,018
Western terai	10.4	2.5	3.0	83.4	0.7	100.0	15.9	418
Mid-western terai	12.3	7.6	0.5	78.4	1.2	100.0	20.4	225
Far-western terai	9.4	2.5	0.2	86.6	1.4	100.0	12.0	402
Mother's education								
No education	6.4	1.3	0.2	90.7	1.4	100.0	7.9	3,343
Primary	14.6	3.8	0.5	80.2	1.0	100.0	18.9	1,009
Some secondary	24.1	7.8	2.7	64.1	1.3	100.0	34.6	848
SLC and above	46.1	15.7	5.6	31.6	1.0	100.0	67.4	345
Wealth quintile								
Lowest	3.0	1.2	0.1	93.3	2.4	100.0	4.3	1,412
Second	6.9	2.0	0.4	90.0	0.8	100.0	9.3	1,180
Middle	9.3	2.3	0.3	87.1	1.0	100.0	11.9	1,132
Fourth	15.3	5.1	1.4	77.0	1.3	100.0	21.7	983
Highest	41.2	10.4	3.4	44.3	0.8	100.0	55.0	838
Total	13.1	3.7	0.9	81.0	1.3	100.0	17.7	5,545

[1] Includes only the most recent birth in the five years preceding the survey. Total includes one birth for whom information on antenatal care visits is missing and not shown separatelly.

Assistance during Delivery

Obstetric care from a trained provider during delivery is recognized as critical for the reduction of maternal and neonatal mortality. Children delivered at home are usually more likely to be delivered without assistance from a health professional, whereas children delivered at a health facility are more likely to be delivered by a trained health professional.

Table 10.6 shows the type of assistance during delivery by selected background characteristics. Less than one-fifth (19 percent) of births take place with the assistance of an SBA (doctor, nurse, or midwife). Health assistants or health workers assist in delivery at 4 percent of births, FCHVs assist in 2 percent of deliveries, and traditional birth attendants assist in 19 percent of deliveries. Women receive assistance from a relative or some other person for nearly one in two births, while 7 percent of births take place without any type of assistance at all.

SBAs are more likely to attend births to young mothers less than 20 years of age and first order births (22 percent and 33 percent, respectively). Not surprisingly, an overwhelming majority of births delivered in a health facility are attended by an SBA as opposed to births delivered elsewhere.

One in two urban births (51 percent) is assisted by an SBA, compared with 14 percent of births in rural areas. Births in the hill zone, in the Central region, and especially in the Central hill subregion are most likely to be attended by an SBA.

There is a strong relationship between mother's education and delivery by an SBA. Births to highly educated women (SLC or higher education) are nearly nine times (71 percent) as likely as births to uneducated mothers (8 percent) to receive assistance from an SBA. Similarly, assistance during delivery by an SBA varies by women's economic status: births to women in the highest wealth quintile are much more likely to be assisted by an SBA (58 percent) than births to women in the lowest wealth quintile (5 percent).

Table 10.6 also shows that 3 percent of births are delivered by caesarean section. Delivery by caesarean section is highest among births to highly educated mothers (14 percent), births to mothers in the highest wealth quintile (12 percent), urban births (8 percent), and first births (6 percent). Less than 1 percent of births are to women who have received blood transfusion during delivery.

The percentage of births assisted at delivery by an SBA has doubled in the last ten years from 9 percent in 1996 to 19 percent in 2006, with most of the increase observed in the last five years (from 11 percent in 2001 to the current level of 19 percent). Nevertheless, the percentage of births assisted by relatives and others has not declined much (56 percent in 1996, 55 percent in 2001, and 50 percent in 2006). In addition, delivery assistance by an SBA changed little in urban areas over the past ten years, remaining at around 50 percent of births.

Table 10.6 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 birth attendant (SBA), the percentage delivered by caesarean section, and the percentage of births for which mothers received a blood transfusion, according to background characteristics, Nepal 2006

Background characteristic	Person providing assistance during delivery								Percentage delivered by SBA[1]	Percentage delivered by C-section	Percentage of births for which mothers received a blood transfusion	Number of births
	Doctor	Nurse/ midwife	Health assistant/ health worker	FCHV	Traditional birth attendant	Relative/ other	No one	Total				
Mother's age at birth												
<20	12.0	10.1	4.8	2.2	22.4	46.1	2.5	100.0	22.1	2.8	0.5	1,156
20-34	10.3	8.2	4.1	2.2	18.4	50.3	6.5	100.0	18.5	2.7	0.4	3,957
35-49	6.8	4.5	2.3	2.8	12.7	53.2	17.8	100.0	11.3	2.4	1.3	433
Birth order												
1	20.1	13.0	6.1	2.3	17.7	38.9	1.9	100.0	33.1	5.9	0.8	1,676
2-3	8.1	7.9	3.4	2.3	20.2	53.3	4.8	100.0	16.0	1.5	0.4	2,342
4-5	3.0	4.2	3.3	1.6	20.2	57.6	9.9	100.0	7.2	0.2	0.1	946
6+	3.7	3.0	2.2	2.7	13.8	53.1	21.5	100.0	6.7	1.7	0.7	580
Place of delivery												
Health facility	55.9	43.3	0.7	0.0	0.0	0.0	0.0	100.0	99.3	14.6	2.9	777
Elsewhere	3.0	2.6	4.6	2.6	21.9	57.7	7.6	100.0	5.6	0.7	0.1	4,768
Residence												
Urban	30.4	20.2	1.1	1.4	11.3	32.7	2.9	100.0	50.6	8.4	1.4	677
Rural	7.6	6.7	4.5	2.3	19.8	52.0	7.0	100.0	14.3	1.9	0.4	4,868
Ecological zone												
Mountain	2.6	4.5	3.3	1.8	6.8	69.4	11.6	100.0	7.1	0.7	0.9	483
Hill	13.6	9.1	3.2	1.6	5.9	58.0	8.5	100.0	22.7	3.1	0.5	2,261
Terai	9.1	8.3	4.9	2.8	31.3	39.5	4.0	100.0	17.5	2.6	0.5	2,802
Development region												
Eastern	9.2	8.0	5.1	2.7	17.3	53.1	4.4	100.0	17.2	1.9	0.6	1,200
Central	15.9	8.9	4.0	2.1	21.3	43.7	4.2	100.0	24.7	4.2	0.4	1,811
Western	9.0	11.1	3.9	2.5	14.5	50.1	8.9	100.0	20.1	3.1	0.6	1,033
Mid-western	7.2	6.9	2.5	2.4	13.4	62.3	5.2	100.0	14.2	1.3	0.1	702
Far-western	4.4	5.2	4.4	1.3	25.5	46.3	12.8	100.0	9.6	0.8	0.9	800
Subregion												
Eastern mountain	2.2	6.0	9.3	0.0	1.3	74.1	7.1	100.0	8.2	0.9	0.1	112
Central mountain	5.8	5.6	4.3	1.8	2.6	68.2	11.8	100.0	11.4	0.5	0.0	88
Western mountain	1.8	3.5	0.7	2.5	10.3	67.9	13.3	100.0	5.3	0.7	1.5	282
Eastern hill	3.3	5.0	6.1	0.7	1.3	76.7	6.8	100.0	8.3	0.6	0.3	349
Central hill	29.9	10.7	1.3	0.7	4.7	48.3	4.2	100.0	40.7	7.3	0.8	705
Western hill	8.8	14.0	4.5	3.1	14.0	47.3	8.3	100.0	22.9	1.9	0.7	609
Mid-western hill	6.2	5.3	2.4	2.7	2.5	72.9	8.0	100.0	11.5	1.3	0.1	372
Far-western hill	3.5	3.7	2.2	0.0	0.5	64.0	26.1	100.0	7.2	0.1	0.0	226
Eastern terai	13.1	9.7	4.0	4.0	27.3	38.9	2.9	100.0	22.7	2.7	0.8	739
Central terai	7.0	7.8	5.7	3.1	34.4	38.3	3.6	100.0	14.8	2.4	0.1	1,018
Western terai	9.3	7.0	3.2	1.6	15.5	53.5	9.9	100.0	16.3	4.9	0.5	418
Mid-western terai	11.0	10.6	3.2	2.3	26.1	44.5	2.3	100.0	21.6	2.0	0.3	225
Far-western terai	6.2	7.1	7.3	1.3	49.8	26.3	2.0	100.0	13.3	1.1	0.7	402
Mother's education												
No education	4.5	3.7	3.1	2.2	21.9	55.8	8.8	100.0	8.2	1.1	0.3	3,343
Primary	10.8	9.8	4.8	2.4	17.0	49.7	5.6	100.0	20.6	2.8	0.5	1,009
Some secondary	18.5	18.1	6.5	2.0	15.2	38.7	1.1	100.0	36.6	4.1	1.2	848
SLC and above	46.4	24.7	5.4	2.7	2.8	17.1	1.0	100.0	71.1	13.9	0.4	345
Wealth quintile												
Lowest	3.0	1.8	3.0	1.5	8.8	68.2	13.7	100.0	4.8	0.8	0.6	1,412
Second	3.2	6.9	4.0	3.5	26.2	52.0	4.1	100.0	10.1	0.5	0.3	1,180
Middle	6.6	5.8	3.7	2.9	29.4	45.3	6.2	100.0	12.4	1.0	0.1	1,132
Fourth	10.9	12.0	6.6	1.9	20.9	44.5	3.2	100.0	23.0	2.0	0.8	983
Highest	37.5	20.3	3.4	1.2	8.5	26.9	2.2	100.0	57.8	11.9	1.0	838
Total	10.4	8.3	4.1	2.2	18.8	49.7	6.5	100.0	18.7	2.7	0.5	5,545

Note: If the respondent mentioned more than one person attending during delivery, only the most qualified person is considered in this tabulation. Total includes women who were assisted during delivery by someone other than those listed here.
FCHV = Female Community Health Volunteer
[1] SBA includes doctor, nurse, and midwife

Birth Preparedness

Birth preparedness by the pregnant woman and her family is important in ensuring appropriate care during delivery. Moreover, birth preparedness is also believed to reduce two out of three delays in getting delivery services (Department of Health Services, 2006a). The use of a home delivery kit is believed to promote clean delivery at home. In the 2006 NDHS, women were asked to report on how they prepared for the birth of a child during their last pregnancy. A similar question was also asked of men whose youngest child was less than four years old.

Table 10.7.1 shows that more than one in three women (37 percent) saved money for delivery, 9 percent bought a home delivery kit, 4 percent contacted a health worker, and about 26 percent arranged for food and clothing for the newborn. Nearly one in two mothers said they had not made any preparation at all. Men's responses differed somewhat from women's responses (Table 10.7.2). Fifty-four percent of men mentioned that they saved money for the birth, 10 percent of men said they bought a home delivery kit, 9 percent contacted a health worker, and 6 percent arranged for transport. Twenty-nine percent of men said they did not make any preparations for the birth of their youngest child.

Table 10.7.1 Birth preparedness: Women

Percentage of women who made specific preparations before delivery of the most recent birth in the past five years, by background characteristics, Nepal 2006

Background characteristic	Saved money	Arranged for transport	Found blood donor	Contacted health worker	Bought clean delivery kit	Food and clothing	Other	No preparation	Number
Residence									
Urban	52.0	2.2	1.5	3.8	6.6	24.5	6.7	40.3	536
Rural	34.8	1.3	0.1	3.5	9.4	26.4	3.4	46.7	3,530
Ecological zone									
Mountain	22.6	0.6	0.2	2.1	6.6	33.7	4.6	51.9	340
Hill	31.1	0.9	0.5	2.0	8.0	29.2	4.3	47.4	1,677
Terai	44.3	1.9	0.1	5.1	10.4	22.5	3.4	43.6	2,049
Development region									
Eastern	50.1	2.9	0.3	3.7	11.1	47.8	2.6	26.1	884
Central	40.1	1.3	0.5	1.8	7.3	21.1	9.0	43.4	1,329
Western	23.7	1.4	0.0	2.8	6.2	22.0	1.3	60.7	755
Mid-western	25.1	0.2	0.2	2.2	11.1	19.4	0.3	59.5	514
Far-western	38.3	0.3	0.1	9.5	12.0	16.3	0.7	50.0	584
Subregion									
Eastern mountain	34.1	1.1	0.6	4.3	10.4	66.9	1.6	21.9	80
Central mountain	36.2	1.7	0.0	3.0	8.3	22.2	21.7	40.4	66
Western mountain	13.2	0.0	0.2	0.9	4.4	23.9	0.0	68.1	194
Eastern hill	25.2	0.0	0.2	1.4	11.3	58.9	2.0	27.7	248
Central hill	46.0	1.9	1.3	1.9	7.3	26.9	11.3	36.3	550
Western hill	26.4	1.1	0.0	4.0	8.6	25.1	0.4	54.5	455
Mid-western hill	24.5	0.0	0.0	0.2	7.8	19.8	0.0	62.7	270
Far-western hill	13.2	0.0	0.0	0.2	3.7	18.1	1.6	70.5	154
Eastern terai	63.5	4.4	0.2	4.6	11.0	40.1	3.0	25.9	556
Central terai	35.9	0.8	0.0	1.5	7.2	16.5	6.0	49.3	713
Western terai	19.8	2.0	0.0	0.9	2.5	17.3	2.5	70.0	295
Mid-western terai	29.2	0.6	0.4	5.4	16.3	14.2	1.0	55.5	171
Far-western terai	61.0	0.6	0.2	17.7	20.6	14.0	0.6	30.8	313
Education									
No education	29.2	0.5	0.1	2.8	6.0	23.5	2.9	55.0	2,357
Primary	37.6	1.4	0.0	3.1	10.1	29.7	6.0	39.8	743
Some secondary	51.6	2.7	0.0	5.5	17.0	29.7	4.2	30.9	683
SLC and above	66.3	5.9	3.5	6.3	13.3	30.3	5.5	21.7	282
Wealth quintile									
Lowest	17.6	0.1	0.0	1.9	4.6	24.0	2.3	61.0	956
Second	32.6	0.4	0.0	4.8	10.6	25.8	2.7	48.1	859
Middle	39.8	0.6	0.0	4.1	10.8	29.4	4.0	42.4	811
Fourth	44.4	3.2	0.1	2.5	11.4	26.1	3.0	40.9	752
Highest	58.4	3.3	1.5	4.8	9.0	25.8	8.3	31.3	687
Total	37.1	1.4	0.3	3.5	9.1	26.2	3.9	45.8	4,066

Table 10.7.2 Birth preparedness: Men

Percentage of men who made specific preparations before delivery of the most recent birth in the past five years, by background characteristics, Nepal 2006

Background characteristic	Saved money	Arranged for transport	Found blood donor	Contacted health worker	Bought clean delivery kit	Other	No preparation	Number
Residence								
Urban	67.6	15.6	2.4	11.0	11.0	9.5	23.2	183
Rural	51.2	3.5	0.7	8.2	9.7	2.7	30.4	954
Ecological zone								
Mountain	34.1	5.2	0.3	6.4	5.7	2.8	39.5	93
Hill	54.1	6.1	1.5	8.9	13.5	5.9	24.9	468
Terai	56.9	5.0	0.7	8.9	7.6	2.3	31.2	577
Development region								
Eastern	72.9	9.4	0.1	15.7	14.2	0.5	9.2	247
Central	53.9	7.4	2.0	7.5	7.8	8.5	34.4	391
Western	52.3	2.6	1.3	7.8	9.0	2.0	25.5	208
Mid-western	27.2	1.1	0.0	4.7	15.4	0.3	44.5	149
Far-western	51.0	2.0	0.2	5.4	3.7	3.2	39.4	143
Subregion								
Eastern mountain	55.8	6.2	1.3	6.5	4.2	0.0	27.6	22
Central mountain	50.6	10.9	0.0	8.6	6.8	11.5	19.8	23
Western mountain	16.5	2.0	0.0	5.3	5.8	0.0	54.0	48
Eastern hill	45.1	7.9	0.0	18.0	19.2	0.9	14.2	77
Central hill	72.4	10.1	3.9	8.6	13.0	14.0	16.4	168
Western hill	61.7	2.6	0.0	10.9	13.6	2.5	20.8	107
Mid-western hill	28.4	1.3	0.0	0.0	13.9	0.1	40.1	76
Far-western hill	23.6	4.6	0.6	3.9	4.2	1.4	62.8	40
Eastern terai	89.8	10.7	0.0	15.8	13.2	0.4	3.9	149
Central terai	38.8	4.6	0.6	6.3	3.6	3.5	51.2	200
Western terai	42.1	2.7	2.6	4.5	4.2	1.5	31.0	99
Mid-western terai	26.6	1.4	0.0	10.3	17.9	0.6	56.8	53
Far-western terai	80.5	0.0	0.0	7.0	4.8	5.2	14.2	76
Education								
No education	48.3	0.8	0.4	2.6	2.9	1.9	33.9	279
Primary	46.7	2.6	1.2	7.5	7.7	4.7	33.8	389
Some secondary	55.3	6.0	0.1	12.3	12.6	3.6	29.8	271
SLC and above	73.7	16.7	2.4	14.6	20.2	5.0	13.1	199
Wealth quintile								
Lowest	31.8	0.8	0.4	4.7	4.1	2.1	39.1	261
Second	47.9	1.7	0.0	6.9	8.3	1.0	35.5	240
Middle	60.4	1.7	2.0	7.2	13.3	2.7	29.8	204
Fourth	61.8	6.7	0.0	13.0	13.5	2.0	23.2	217
Highest	73.1	17.6	2.7	12.5	11.8	11.9	16.0	215
Total	53.9	5.5	1.0	8.7	9.9	3.8	29.3	1,137

Uterine Prolapse

Uterine prolapse occurs when the uterus has moved from its normal position in the abdominal cavity, usually into a lower position. Prolapsed uterus may occur because of underlying weak muscles, or simply as a result of repeated term pregnancies. Uterine prolapse is considered a major cause of maternal morbidity among women in Nepal. The UNFPA estimates that there may be around 600,000 women with uterine prolapse in Nepal (UNFPA, 2006). Women age 15-49 who have had a pregnancy were asked whether they had ever experienced signs of uterine prolapse (*patheghar khasne/ang khasne*). Seven percent of women said they had experienced symptoms of uterine prolapse (data not shown). There is a significant variation by age group, with symptoms ranging from a low of 2 percent among women under 20 years of age to 9 percent among women 45–49 years. The percentage of women having experienced symptoms of uterine prolapse is directly related to the number of pregnancies they have had: this ranges from a low of 2 percent among women who have had a single pregnancy to a high of 9 percent among women who have had at least five pregnancies.

10.3 POSTNATAL CARE

A large proportion of maternal and neonatal deaths occur during the 24 hours following delivery. In addition, the first two days following delivery are critical for monitoring complications arising from the delivery. A postnatal care visit is also an ideal time to educate a new mother on how to care for herself and her newborn. Safe motherhood programs emphasize the importance of postnatal care, recommending that all women receive at least two postnatal checkups and iron supplementation for 45 days following a delivery (Department of Health Services, 2006b). To assess the extent of postnatal care utilization, mothers were asked whether they had received a health check after the delivery for the last birth in the five years preceding the survey, when they received the first check, and what type of health provider they saw for postnatal care.

Table 10.8 shows that in the five years preceding the survey, one-third (33 percent) of women received postnatal care for their last birth. One in five women received postnatal care within four hours of delivery, more than one in four (27 percent) received care within the first 24 hours, and 4 percent of women were seen 1-2 days following delivery. Differences by mother's age, birth order, place of residence, wealth quintile, and education are pronounced. Young mothers less than 20 years of age, mothers of first births, urban women, women in the highest wealth quintile, and highly educated mothers are much more likely to have received postnatal care within the first 24 hours than their counterparts. Women living in the terai zone, women living in the Central region, and women from the Central terai and Central hill subregions are more likely to have received postnatal care within the first 24 hours following delivery than mothers living elsewhere.

Table 10.9 presents information on the type of postnatal care provider by mother's background characteristics. Nineteen percent of mothers received postnatal care from an SBA, and 3 percent of mothers received care from a health assistant, auxiliary health worker, MCHW or VHW. One in ten mothers received postnatal care from a traditional birth attendant. Mothers of first order births, mothers with SLC and higher education, those from the wealthiest households, and those in urban areas are more likely to have received postnatal care from an SBA than other mothers.

Table 10.9 also shows that 22 percent of mothers had a pelvic examination during their postnatal checkup. The pattern of variation of pelvic examinations by background characteristics is similar to that discussed for postnatal care from an SBA.

Table 10.8 Timing of first postnatal checkup

Percent distribution of women age 15-49 with a birth in the five years preceding the survey by timing of first postnatal checkup for last live birth, according to background characteristics, Nepal 2006

Background characteristic	Timing after delivery of mother's first postnatal checkup					No checkup	Total	Number of women
	Less than 4 hours	4-23 hours	1-2 days	3-41 days	Don't know/ missing			
Mother's age at birth								
<20	21.8	8.1	5.2	1.8	0.2	62.9	100.0	720
20-34	20.0	7.5	4.5	1.0	0.6	66.4	100.0	2,971
35-49	13.3	4.0	2.1	0.0	1.3	79.3	100.0	375
Birth order								
1	27.7	10.0	4.9	1.0	0.8	55.6	100.0	1,094
2-3	19.4	6.8	4.4	1.2	0.8	67.4	100.0	1,786
4-5	13.0	6.8	4.4	1.1	0.0	74.7	100.0	725
6+	12.5	3.6	3.0	0.4	0.7	79.9	100.0	461
Place of delivery								
Health facility	56.4	24.5	4.5	0.8	2.6	11.3	100.0	630
Elsewhere	13.0	4.2	4.3	1.1	0.3	77.2	100.0	3,436
Residence								
Urban	32.7	15.7	3.5	0.8	1.5	45.7	100.0	536
Rural	17.7	6.1	4.5	1.1	0.5	70.2	100.0	3,530
Ecological zone								
Mountain	8.3	2.7	0.4	0.2	0.0	88.4	100.0	340
Hill	17.6	7.1	1.3	0.3	1.2	72.4	100.0	1,677
Terai	23.3	8.3	7.5	1.7	0.3	58.9	100.0	2,049
Development region								
Eastern	17.4	5.2	3.7	1.2	0.2	72.3	100.0	884
Central	26.5	13.2	8.1	1.4	1.3	49.4	100.0	1,329
Western	22.8	4.2	1.7	0.3	0.8	70.3	100.0	755
Mid-western	14.8	3.8	1.0	0.3	0.0	80.1	100.0	514
Far-western	7.9	4.1	3.1	1.7	0.2	83.0	100.0	584
Subregion								
Eastern mountain	17.0	2.9	0.9	0.9	0.0	78.3	100.0	80
Central mountain	11.2	4.4	0.7	0.0	0.0	83.7	100.0	66
Western mountain	3.7	2.0	0.2	0.0	0.0	94.1	100.0	194
Eastern hill	12.0	3.2	0.0	0.1	0.0	84.7	100.0	248
Central hill	24.4	15.8	2.9	0.9	2.8	53.1	100.0	550
Western hill	20.8	2.7	1.2	0.0	1.0	74.2	100.0	455
Mid-western hill	11.5	3.2	0.3	0.1	0.0	85.0	100.0	270
Far-western hill	3.6	1.7	0.0	0.1	0.0	94.6	100.0	154
Eastern terai	19.8	6.5	5.8	1.7	0.2	66.0	100.0	556
Central terai	29.6	12.0	12.9	1.9	0.3	43.3	100.0	713
Western terai	26.2	6.6	2.5	0.6	0.3	63.8	100.0	295
Mid-western terai	22.9	6.3	2.4	0.8	0.0	67.5	100.0	171
Far-western terai	12.4	5.7	5.9	3.0	0.3	72.7	100.0	313
Education								
No education	13.5	5.5	5.2	1.1	0.6	74.1	100.0	2,357
Primary	17.1	6.0	3.1	1.0	1.0	71.8	100.0	743
Some secondary	32.7	9.9	2.4	0.9	0.6	53.5	100.0	683
SLC and above	46.5	19.9	5.3	1.3	0.0	27.0	100.0	282
Wealth quintile								
Lowest	7.8	3.3	0.7	1.0	0.3	86.8	100.0	956
Second	14.5	4.4	5.7	0.5	0.5	74.4	100.0	859
Middle	18.4	6.4	8.0	1.3	0.0	65.9	100.0	811
Fourth	23.5	9.4	3.3	1.5	1.5	60.8	100.0	752
Highest	40.1	15.4	4.7	0.8	1.0	38.0	100.0	687
Total	19.7	7.3	4.4	1.0	0.6	67.0	100.0	4,066

Table 10.9 Provider at first postnatal checkup

Percent distribution of women age 15-49 with a birth in the five years preceding the survey by provider at first postnatal health check for the last live birth and the percentage who had a pelvic examination, according to background characteristics, Nepal 2006

Background characteristic	Provider at first postnatal checkup							No checkup	Total	Percentage who had a pelvic examination	Number of women
	Doctor	Nurse/ midwife	Health assistant/ AHW	MCH worker	VHW	Traditional birth attendant	Other				
Age at birth											
<20	11.9	10.2	2.1	1.1	0.0	11.4	0.4	62.9	100.0	26.4	720
20-34	9.1	9.8	2.2	0.6	0.3	11.2	0.4	66.4	100.0	21.6	2,971
35-49	5.2	4.5	1.4	1.2	0.0	8.4	0.0	79.3	100.0	12.7	375
Birth order											
1	18.9	14.2	1.6	1.1	0.4	7.7	0.4	55.6	100.0	35.2	1,094
2-3	7.5	9.9	2.5	0.5	0.3	11.5	0.4	67.4	100.0	20.7	1,786
4-5	2.2	4.5	2.6	1.0	0.1	14.7	0.2	74.7	100.0	11.6	725
6+	3.8	3.3	1.1	0.6	0.0	11.0	0.3	79.9	100.0	9.0	461
Place of delivery											
Health facility	43.6	44.0	0.3	0.6	0.0	0.0	0.2	11.3	100.0	79.2	630
Elsewhere	2.9	3.0	2.5	0.8	0.3	13.0	0.4	77.2	100.0	11.1	3,436
Residence											
Urban	28.0	20.0	1.7	0.1	0.0	4.4	0.0	45.7	100.0	46.9	536
Rural	6.4	7.7	2.2	0.8	0.3	12.0	0.4	70.2	100.0	17.8	3,530
Ecological zone											
Mountain	2.3	4.5	1.6	1.9	0.4	1.0	0.0	88.4	100.0	9.5	340
Hill	12.6	11.0	1.7	0.6	0.1	1.3	0.2	72.4	100.0	24.5	1,677
Terai	7.6	8.8	2.6	0.7	0.3	20.6	0.6	58.9	100.0	21.3	2,049
Development region											
Eastern	6.8	9.6	4.0	1.2	0.5	5.5	0.1	72.3	100.0	22.9	884
Central	15.0	11.5	1.8	0.2	0.4	20.7	1.0	49.4	100.0	26.6	1,329
Western	8.8	10.5	1.4	0.9	0.0	8.2	0.1	70.3	100.0	23.1	755
Mid-western	6.1	6.5	1.5	1.1	0.0	4.7	0.0	80.1	100.0	15.0	514
Far-western	3.0	5.1	1.5	1.0	0.0	6.4	0.0	83.0	100.0	12.5	584
Subregion											
Eastern mountain	2.6	8.5	2.4	6.2	1.7	0.1	0.0	78.3	100.0	18.1	80
Central mountain	4.7	5.4	4.3	0.0	0.0	1.9	0.0	83.7	100.0	11.8	66
Western mountain	1.3	2.6	0.3	0.7	0.0	1.0	0.0	94.1	100.0	5.2	194
Eastern hill	2.1	5.1	6.0	0.0	0.5	1.6	0.0	84.7	100.0	13.1	248
Central hill	26.7	17.6	1.0	0.0	0.2	0.7	0.7	53.1	100.0	41.9	550
Western hill	9.2	11.6	1.2	1.2	0.0	2.5	0.0	74.2	100.0	22.7	455
Mid-western hill	5.2	6.9	1.1	1.6	0.0	0.4	0.0	85.0	100.0	14.0	270
Far-western hill	2.4	2.5	0.1	0.1	0.0	0.3	0.0	94.6	100.0	4.6	154
Eastern terai	9.5	11.7	3.4	1.0	0.3	8.0	0.2	66.0	100.0	27.9	556
Central terai	7.0	7.4	2.3	0.3	0.7	37.7	1.3	43.3	100.0	16.2	713
Western terai	8.2	8.8	1.5	0.4	0.0	16.9	0.3	63.8	100.0	24.0	295
Mid-western terai	9.0	8.0	2.8	0.0	0.0	12.8	0.0	67.5	100.0	19.7	171
Far-western terai	4.2	7.0	2.6	1.7	0.0	11.7	0.0	72.7	100.0	19.7	313
Education											
No education	3.6	4.3	1.6	0.6	0.1	15.3	0.4	74.1	100.0	11.9	2,357
Primary	8.0	10.5	2.3	1.2	0.4	5.8	0.0	71.8	100.0	22.0	743
Some secondary	17.1	18.6	3.1	0.7	0.4	5.9	0.7	53.5	100.0	36.7	683
SLC and above	39.9	25.9	3.7	1.4	0.2	1.3	0.5	27.0	100.0	65.8	282
Wealth quintile											
Lowest	1.9	3.0	1.7	1.0	0.3	5.3	0.0	86.8	100.0	7.3	956
Second	3.1	5.7	1.6	0.7	0.4	14.0	0.2	74.4	100.0	11.0	859
Middle	3.5	7.1	1.4	0.5	0.2	20.6	0.7	65.9	100.0	17.3	811
Fourth	9.4	12.5	4.0	0.9	0.2	11.5	0.7	60.8	100.0	26.4	752
Highest	33.5	21.9	2.1	0.6	0.2	3.4	0.4	38.0	100.0	54.8	687
Total	9.2	9.3	2.1	0.8	0.3	11.0	0.4	67.0	100.0	21.7	4,066

10.4 Newborn Care

Although there has been marked progress in a number of health indicators in recent years, newborns are still an at-risk and largely neglected population. The state of newborns in Nepal still compares poorly to that of almost all other developing countries. Nepal's neonatal mortality rate is the third highest in the world (Save the Children/US, 2002). There is a dearth of information on the state of newborns in Nepal, with the exception of some hospital-based studies that have attempted to highlight the situation. The 2006 NDHS attempted to shed further light on the care of newborns at the national level.

Women who did not deliver their last-born child in a health institution were asked about the practice of taking care of newborns, including the use of safe delivery kits, cord cutting practices, drying and bathing practices, and health services for newborn children.

The primary care of newborns includes the proper practice of cutting the umbilical cord. Traditionally, the cord is usually cut with a razor blade, knife, sickle, or even a piece of wood, none of which is generally sterile. In some cultures, the cord is not cut until the placenta is delivered, and it is cut only after cord pulsation stops upon the delivery of the placenta (Save the Children/US, 2002). The 2006 NDHS indicates that 18 percent of noninstitutional births involved the use of instruments from a clean home delivery kit (Table 10.10). There has been a significant increase over the past ten years in the use of instruments from a clean home delivery kit (from 2 percent in 1996 and 9 percent in 2001 to 18 percent in 2006). The clean home delivery kit is used most in the Far-western terai subregion (39 percent) and least in the Far-western hill subregion (4 percent). The use of these kits is more common among highly educated women and those in the highest wealth quintile.

In addition to the use of instruments from a safe delivery kit, a new or boiled blade is used in 61 percent of births. A hasiya or sickle is used in 12 percent of births and a used blade in 5 percent of births. About a quarter of the babies had some material (usually oil, ash, or ointment) placed on their stump, a practice that could lead to infection.

Table 10.10 Use of clean home delivery kits and other instruments to cut the umbilical cord

Percent distribution of noninstitutional live births in the five years preceding the survey, by type of instrument used to cut the umbilical cord, and the percentage who had something placed on stump after the umbilical cord was cut, according to background characteristics, Nepal 2006

	Instrument used to cut the umbilical cord										
Background characteristic	Instruments from a clean home delivery kit	New/ boiled blade	Used blade	Knife	Hasiya (sickle)	Khukuri (curved knife)	Other	Don't know/ missing	Total	Placed something on stump after cutting umbilical cord	Number of births
Residence											
Urban	17.1	74.7	2.2	0.5	3.4	0.3	0.0	1.8	100.0	30.1	259
Rural	17.6	59.5	5.4	2.6	13.1	0.2	1.1	0.5	100.0	25.1	3,016
Ecological zone											
Mountain	12.2	40.1	7.8	5.4	32.0	0.4	1.2	0.8	100.0	15.8	315
Hill	15.0	49.7	8.4	4.4	20.2	0.3	1.2	0.8	100.0	13.7	1,279
Terai	20.5	73.0	2.2	0.3	2.8	0.1	0.8	0.3	100.0	36.2	1,682
Development region											
Eastern	19.8	66.8	5.8	1.9	1.3	0.4	3.1	0.8	100.0	34.1	729
Central	15.8	70.7	2.3	3.0	7.1	0.2	0.9	0.0	100.0	29.0	962
Western	14.5	65.3	4.9	1.0	12.4	0.3	0.1	1.4	100.0	20.9	614
Mid-western	17.2	38.2	8.2	6.2	29.3	0.0	0.2	0.8	100.0	18.6	435
Far-western	21.3	47.6	7.3	0.3	23.3	0.2	0.0	0.0	100.0	18.3	536
Subregion											
Eastern mountain	14.4	54.6	6.6	11.6	4.3	1.9	5.3	1.5	100.0	6.0	73
Central mountain	18.7	59.1	5.5	4.3	12.6	0.0	0.0	0.0	100.0	3.9	58
Western mountain	9.3	28.3	9.1	3.3	49.2	0.0	0.0	0.7	100.0	23.4	184
Eastern hill	15.5	60.6	12.4	1.7	2.7	0.0	6.0	1.2	100.0	16.3	232
Central hill	17.0	52.9	2.6	8.4	18.2	0.6	0.3	0.0	100.0	11.0	304
Western hill	19.2	56.7	6.5	0.6	14.3	0.5	0.0	2.1	100.0	10.7	366
Mid-western hill	12.1	24.0	11.6	10.3	41.5	0.0	0.3	0.1	100.0	19.3	232
Far-western hill	4.3	48.7	13.9	0.5	32.7	0.0	0.0	0.0	100.0	13.9	145
Eastern terai	23.1	72.3	2.1	0.4	0.0	0.3	1.2	0.5	100.0	48.7	424
Central terai	15.0	80.8	1.8	0.2	0.9	0.0	1.2	0.1	100.0	40.5	600
Western terai	7.8	79.2	2.7	0.0	9.7	0.0	0.3	0.4	100.0	36.2	244
Mid-western terai	22.4	69.1	2.0	0.8	4.4	0.0	0.0	1.3	100.0	19.7	135
Far-western terai	38.6	53.5	2.9	0.3	4.3	0.4	0.0	0.0	100.0	16.1	278
Mother's education											
No education	12.3	61.1	6.1	3.2	16.1	0.1	0.9	0.3	100.0	27.1	2,156
Primary	21.6	63.0	5.1	1.3	7.2	0.3	1.1	0.5	100.0	22.6	598
Some secondary	32.1	58.5	1.8	0.2	3.6	0.9	1.6	1.3	100.0	22.9	432
SLC and above	47.7	47.1	0.0	0.0	1.1	0.0	1.0	3.1	100.0	17.2	90
Wealth quintile											
Lowest	8.3	44.2	10.6	5.5	29.4	0.0	1.7	0.3	100.0	17.3	909
Second	17.4	65.4	4.3	2.4	9.0	0.1	1.0	0.4	100.0	25.2	779
Middle	20.3	69.8	2.1	0.7	5.9	0.2	0.7	0.4	100.0	32.4	716
Fourth	24.4	66.6	3.7	0.7	3.1	0.5	0.7	0.3	100.0	30.3	577
Highest	26.5	65.6	1.0	0.2	2.9	0.9	0.4	2.6	100.0	25.4	295
Total	17.6	60.7	5.2	2.4	12.4	0.2	1.0	0.6	100.0	25.5	3,275

The practice of keeping the newborn warm is not common in Nepal. The general practice is to look for clothes after the baby is born, and in most cases, families do not have warm clothes ready at the time of delivery. The newborn is kept naked or covered by a thin piece of cloth until the placenta is delivered or the umbilical cord is cut (Save the Children/US, 2002). The 2006 NDHS revealed that slightly more than two in five babies (43 percent) are dried and a similar number (44 percent) are wrapped in cloth before the placenta is delivered (Table 10.11). Nine in ten babies were given a bath within 24 hours of delivery (74 percent in the first hour), although health professionals recommend bathing the newborn at least 24 hours after birth to prevent hypothermia (Save the Children/US and CEDPA, 2002). Four percent of babies (3 percent within 24 hours of delivery) received postnatal care from an SBA (data not shown).

Table 10.11 Newborn care practices

Percentage of noninstitutional live births in the five years preceding the survey that were dried before the placenta was delivered; the percentage wrapped in cloth before the placenta was delivered; and the percent distribution of live births by timing of first bath, according to background characteristics, Nepal 2006

Background characteristic	Dried before the placenta was delivered	Wrapped in cloth before the placenta was delivered	Timing of first bath					Number of births
			Within 1 hour	2-24 hours	After 24 hours	Don't know/ missing	Total	
Residence								
Urban	52.8	57.4	72.9	17.0	9.3	0.7	100.0	259
Rural	41.7	43.3	72.9	17.0	9.3	0.8	100.0	3,016
Ecological zone								
Mountain	27.5	29.7	90.5	7.6	1.4	0.5	100.0	315
Hill	39.8	44.4	85.9	10.0	3.7	0.5	100.0	1,279
Terai	47.5	47.3	59.7	24.2	15.0	1.1	100.0	1,682
Development region								
Eastern	47.1	51.3	73.6	13.5	11.9	1.0	100.0	729
Central	37.4	37.8	64.8	19.5	14.9	0.9	100.0	962
Western	44.4	47.7	81.2	10.4	7.4	1.0	100.0	614
Mid-western	48.8	50.1	85.8	12.4	0.9	0.9	100.0	435
Far-western	38.7	38.7	66.4	28.9	4.7	0.0	100.0	536
Subregion								
Eastern mountain	17.9	26.5	86.4	10.5	2.2	0.9	100.0	73
Central mountain	30.8	38.2	93.7	4.4	1.9	0.0	100.0	58
Western mountain	30.3	28.3	91.1	7.6	0.9	0.4	100.0	184
Eastern hill	14.7	23.5	91.0	6.7	1.6	0.8	100.0	232
Central hill	41.7	48.0	83.3	12.0	4.7	0.0	100.0	304
Western hill	49.1	53.8	80.2	11.2	7.5	1.1	100.0	366
Mid-western hill	57.3	57.8	92.2	7.2	0.5	0.1	100.0	232
Far-western hill	24.6	24.8	87.0	12.2	0.9	0.0	100.0	145
Eastern terai	69.8	70.7	61.9	17.7	19.2	1.1	100.0	424
Central terai	35.9	32.6	52.6	24.7	21.3	1.4	100.0	600
Western terai	36.6	38.1	82.3	9.4	7.5	0.9	100.0	244
Mid-western terai	35.3	38.1	75.4	20.9	1.5	2.2	100.0	135
Far-western terai	54.3	55.5	44.2	47.5	8.3	0.0	100.0	278
Mother's education								
No education	39.0	41.0	72.4	16.6	10.2	0.7	100.0	2,156
Primary	45.1	46.9	76.6	15.4	7.5	0.5	100.0	598
Some secondary	54.4	57.2	70.6	20.0	8.5	0.9	100.0	432
SLC and above	55.7	48.7	70.4	23.6	3.0	2.9	100.0	90
Wealth quintile								
Lowest	28.9	32.2	84.9	11.1	4.0	0.0	100.0	909
Second	44.8	46.3	67.0	20.7	11.6	0.6	100.0	779
Middle	49.9	49.3	65.1	19.1	14.7	1.2	100.0	716
Fourth	43.9	46.2	71.3	18.2	9.3	1.3	100.0	577
Highest	58.5	62.3	73.3	18.6	6.4	1.7	100.0	295
Total	42.6	44.4	72.9	17.0	9.3	0.8	100.0	3,275

Abortion and Miscarriage

The abortion law that came into effect in 2002 in Nepal allows women to terminate their pregnancy under the following conditions: pregnancies of 12 weeks gestation or less for any woman; pregnancies of 18 weeks gestation if the pregnancy is a result of rape or incest; and pregnancies of any duration with the recommendation of an authorized medical practitioner if the life of the mother is at risk, if her physical or mental health is at risk, or if the fetus is deformed. However, the law prohibits abortions done without the consent of pregnant women, sex selective abortions, and abortions performed outside the legally permissible criteria. Abortion services are provided at service delivery points with surgical facilities located at district hospitals and some primary health care centers. The 2006 NDHS included several questions specific to abortion.

Only one in three women in Nepal is aware that abortion is legal in Nepal. Just over one in two women mentioned that they know of a place where abortions are carried out (data not shown).

Table 10.12 shows that 13 percent of women age 15-49 reported having an abortion or a miscarriage in the five years preceding the survey. Women are more than three times as likely to report having had a miscarriage (10 percent) as an abortion (3 percent). Abortions are most commonly reported by women in the age group 35-39 (6 percent), urban women (6 percent), and women living in the hills (4 percent) and in the Western region (5 percent). Abortions are also most common among women with SLC or higher level of education and women living in the wealthiest households (7 percent each). The highest rate of miscarriage is among women in the oldest age group (19 percent), rural women (10 percent), and women living in the mountains (11 percent) and the Mid-western and Far-western regions (13 percent each). Miscarriage is also more likely to be reported by women with no education (14 percent) and women from the lowest two wealth quintiles (12 percent each).

Table 10.12 Abortion and associated complications

Percentage of women age 15-49 who have had an abortion or miscarriage in the five years preceding the survey, and among women who had an abortion or miscarriage, the percentage who had any complications associated with the last abortion or miscarriage, and the percentage who had their uterus cleaned at a health facility for the last abortion or miscarriage, according to background characteristics, Nepal 2006

	Among all women			Among women who had abortion or miscarriage		
Background characteristic	Percentage who had an abortion	Percentage who had a miscarriage	Number of women	Percentage who had any complications associated with the last abortion or miscarriage	Percentage who had their uterus cleaned at a health facility for the last abortion or miscarriage	Number of women
Age						
15-19	0.3	1.5	2,437	(68.1)	(38.6)	42
20-24	1.5	7.2	1,995	64.3	43.4	172
25-29	4.9	11.3	1,773	58.7	44.7	283
30-34	5.3	12.0	1,336	68.3	38.6	222
35-39	5.5	15.4	1,220	55.1	36.0	233
40-44	3.4	15.9	1,121	52.3	31.1	208
45-49	2.5	19.2	912	50.0	17.1	193
Residence						
Urban	5.7	7.8	1,687	46.3	64.8	218
Rural	2.5	10.4	9,106	60.8	30.2	1,135
Ecological zone						
Mountain	1.5	11.2	753	84.8	14.6	94
Hill	3.8	9.9	4,598	57.3	39.5	598
Terai	2.5	9.9	5,443	55.7	35.5	662
Development region						
Eastern	1.6	8.9	2,392	51.9	33.7	245
Central	2.5	7.8	3,553	54.7	42.6	358
Western	4.9	11.4	2,070	52.1	43.9	315
Mid-western	3.3	13.2	1,250	68.8	27.2	198
Far-western	3.5	12.5	1,528	70.5	24.2	238
Education						
No education	2.2	13.5	5,728	61.9	24.3	871
Primary	3.3	8.4	1,901	58.3	44.6	213
Some secondary	3.3	4.7	2,225	56.2	55.5	168
SLC and above	6.6	4.5	938	32.0	83.2	101
Wealth quintile						
Lowest	1.7	11.9	1,961	76.3	15.3	257
Second	1.7	12.0	2,079	60.7	19.7	277
Middle	1.7	10.1	2,214	50.9	28.2	254
Fourth	2.8	9.6	2,226	62.5	46.0	263
Highest	6.6	7.1	2,313	44.0	65.5	303
Total	3.0	10.0	10,793	58.4	35.8	1,354

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

Among women who reported having had an abortion or miscarriage in the five years preceding the survey, nearly three-fifths (58 percent) reported that they had complications associated with their last abortion or miscarriage and more than one-third (36 percent) reported that they had had their uterus cleaned at a health facility for their last abortion or miscarriage.

10.5 Problems in Accessing Health Care

Many factors can prevent women from getting medical advice or treatment for themselves when they are sick. Information on such factors is particularly important in understanding and addressing the barriers women may face in seeking care during pregnancy and at the time of delivery.

In the 2006 NDHS, women were asked whether or not each of the following factors would be a big problem in seeking medical care: getting permission to go for treatment, getting money for treatment, distance to a health facility, having to take transport, not wanting to go alone, security concerns, concern that there may not be a female health provider—or any health provider available—and concern that there may be no drugs available. The results are shown in Table 10.13.

An overwhelming majority (86 percent) of women expressed at least one problem in accessing health care for themselves. About one in two women expressed concern that there may not be a health provider or a female health provider available, that there may be no drugs available for treatment, and that they did not want to go alone, and expressed concerns about security. Concerns about money, transport and distance were cited by about two in five women. Few women perceived getting permission from someone else as a barrier to seeking health care for themselves. Not surprisingly, rural women, women with no education, and those from the poorest households were more likely to state that accessing health care for any reason was a big problem.

Table 10.13 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 and background characteristics, Nepal 2006

Background characteristic	Problems in accessing health care										Number of women
	Getting permission to go for treatment	Getting money for treatment	Distance to health facility	Having to take transport	Not wanting to go alone	Concern about security	Concern no female provider available	Concern no provider available	Concern no drugs available	At least one problem accessing health care	
Age											
15-19	9.0	36.1	39.0	38.7	58.6	49.5	52.0	58.2	54.7	87.8	2,437
20-34	7.6	37.8	38.5	37.4	51.1	47.7	49.1	56.0	52.6	84.8	5,104
35-49	4.5	42.4	44.8	41.8	56.3	49.9	51.2	58.2	54.5	88.0	3,252
Number of living children											
0	8.2	35.1	36.6	36.5	55.6	49.6	49.8	56.8	53.4	86.0	3,044
1-2	7.2	36.0	38.0	35.9	49.7	45.6	47.9	55.5	52.2	83.2	3,520
3-4	6.6	42.0	42.5	40.9	55.8	50.6	53.1	58.5	54.7	88.4	2,954
5+	4.2	47.8	52.0	48.9	60.7	51.3	52.6	59.1	55.7	91.8	1,274
Marital status											
Never married	6.4	33.3	34.9	34.9	54.6	48.3	49.6	57.7	53.1	84.9	2,149
Married	7.2	39.3	41.8	39.9	54.2	48.8	50.5	56.9	53.6	86.7	8,257
Divorced/separated/widowed	6.5	57.0	43.8	43.1	56.0	50.2	53.4	58.2	57.6	89.0	387
Employed last 12 months											
Not employed	8.8	31.3	25.2	25.0	52.3	49.7	48.1	51.3	42.3	80.4	1,975
Employed for cash	5.2	38.2	34.8	32.3	51.5	46.4	43.7	54.5	47.7	82.4	2,867
Employed not for cash	7.3	41.6	48.3	46.9	56.4	49.6	54.3	60.3	60.2	90.4	5,951
Residence											
Urban	7.2	32.2	15.0	12.2	39.8	41.5	41.6	43.7	40.7	76.0	1,687
Rural	6.9	40.0	45.2	44.0	57.0	50.1	52.0	59.6	56.0	88.4	9,106
Ecological zone											
Mountain	10.2	43.1	54.8	57.4	60.5	59.2	62.6	70.3	74.2	94.3	753
Hill	6.5	36.8	43.5	42.6	53.1	44.9	57.4	61.4	61.3	90.4	4,598
Terai	7.0	39.8	36.0	33.4	54.5	50.6	42.8	51.7	44.3	82.0	5,443
Development region											
Eastern	10.7	39.6	43.7	43.1	59.4	60.8	60.1	64.6	64.7	85.0	2,392
Central	7.6	42.6	35.8	35.8	55.7	49.3	43.6	51.9	43.9	85.8	3,553
Western	3.2	38.4	39.3	37.8	48.8	38.2	47.6	52.7	50.3	86.4	2,070
Mid-western	4.7	34.2	37.5	40.8	51.9	41.5	66.6	70.9	75.3	93.4	1,250
Far-western	6.7	33.0	50.4	40.3	52.5	48.7	41.5	52.5	45.7	84.6	1,528
Subregion											
Eastern mountain	5.0	30.1	48.1	44.8	65.4	65.4	69.1	74.2	77.2	91.7	189
Central mountain	14.5	46.7	64.6	65.2	57.1	57.7	57.5	63.5	71.2	88.9	202
Western mountain	10.5	47.9	52.8	59.7	59.9	56.7	62.1	72.0	74.4	98.6	362
Eastern hill	4.8	23.1	51.5	50.6	57.3	51.4	54.6	61.3	61.6	87.3	627
Central hill	9.8	42.8	36.7	33.6	57.0	51.5	50.3	53.4	50.9	88.6	1,713
Western hill	3.1	37.5	43.0	43.7	48.1	35.7	56.8	58.0	59.1	88.1	1,267
Mid-western hill	3.5	34.7	46.8	49.0	48.4	38.6	79.6	82.7	85.1	98.6	650
Far-western hill	11.0	33.8	58.7	56.9	53.3	46.6	58.3	73.9	75.9	98.5	341
Eastern terai	13.8	47.3	40.0	39.9	59.6	64.0	61.3	64.7	64.5	83.3	1,576
Central terai	4.4	41.9	31.3	34.4	54.3	46.0	34.9	48.9	33.1	82.4	1,638
Western terai	3.4	38.9	32.1	26.9	49.2	42.0	31.9	43.3	35.0	83.3	783
Mid-western terai	4.7	24.9	22.9	24.7	53.7	39.6	51.4	57.5	64.4	83.9	457
Far-western terai	4.2	32.1	46.3	30.5	51.6	48.5	31.1	39.7	28.6	77.1	989
Education											
No education	7.5	48.0	48.8	46.8	60.9	51.8	53.1	59.0	55.4	90.3	5,728
Primary	8.7	39.8	38.4	38.5	53.8	49.2	53.3	57.5	54.7	87.9	1,901
Some secondary	6.0	26.0	31.4	29.9	47.3	46.5	48.0	55.8	52.4	83.1	2,225
SLC and above	2.7	10.6	15.3	14.2	32.4	34.3	33.8	47.8	43.7	67.6	938
Wealth quintile											
Lowest	7.6	49.1	63.3	61.5	62.4	52.1	61.0	66.1	67.5	94.7	1,961
Second	7.4	50.8	49.4	49.3	59.1	50.8	52.0	60.5	56.1	90.9	2,079
Middle	6.8	41.4	44.8	42.3	60.3	51.9	51.4	58.6	53.7	88.5	2,214
Fourth	7.5	32.4	33.3	33.2	52.2	48.4	51.8	58.8	55.4	85.9	2,226
Highest	5.8	23.0	16.0	13.1	39.7	41.4	37.7	43.5	37.8	73.9	2,313
Total	7.0	38.8	40.5	39.0	54.3	48.8	50.4	57.1	53.6	86.4	10,793

CHILD HEALTH 11

Countless numbers of children die each year from epidemics of communicable diseases supplemented by malnutrition and micronutrient deficiencies which are easily prevented by simple treatment and preventive measures. To control the exceptionally high morbidity and mortality among children under five, the Ministry of Health and Population (MOHP) initiated several child survival intervention strategies: the Expanded Program on Immunization (EPI) began in 1979 following the eradication of smallpox; a comprehensive nutrition program was also introduced in 1979; the Control of Diarrheal Diseases Program began in 1982; and the Control of Acute Respiratory Infections Program was initiated in 1987. These latter two programs were merged into the Community-Based Integrated Management of Childhood Illnesses (CB-IMCI) in 1998. These child survival interventions were initially launched as vertical programs under the MOHP but were subsequently integrated and brought under the umbrella of the Child Health Division of the MOHP in 1995. The current Health Sector Reform Strategy recognizes the management of childhood illnesses as a core component of the Essential Health Care strategy.

This chapter presents findings on the prevalence and treatment of childhood illnesses, the extent of utilization of health care services in the event of an illness, and immunization coverage, to gauge the impact of ongoing intervention strategies that target young children. Information on birth weight and birth size, also presented here, is important for the design and implementation of programs aimed at reducing neonatal and infant mortality.

Information on immunization coverage focuses on children 12-23 months. Overall coverage levels at the time of the survey and coverage by 12 months of age are shown for this age group. Additionally, the source of the immunization information (whether based on a written immunization card or on the mother's recall) is shown. Information on the differentials in immunization coverage between population subgroups are an important factor in program design and planning.

Treatment practices and contact with health services among children with the three most common childhood illnesses (acute respiratory infections or ARIs, fever, and diarrhea) help in assessing national programs aimed at reducing the mortality impact of these illnesses. Information is provided on the prevalence and treatment of ARIs and administration of antibiotics, as well as on the prevalence of fever and its treatment with antimalarial drugs and antibiotics. Information on the treatment of diarrheal diseases with oral rehydration therapy (ORT), including increased fluids, aids in the assessment of programs in Nepal that recommend such treatment. Because appropriate sanitary practices can help prevent and reduce the severity of diarrheal diseases, information was also collected in the survey on the disposal of children's fecal matter.

11.1 Child's Weight and Size at Birth

A child's birth weight or size at birth is an important indicator of a child's vulnerability to the risk of childhood illnesses and the chances of survival. Children whose birth weight is less than 2.5 kilograms or children reported to be "very small" or "smaller than average" are considered to have a higher than average risk of early childhood death. For births in the five years preceding the survey, birth weight was recorded in the questionnaire if available from either a written record or the mother's recall. Since birth weight may not be known for many babies, the mother's estimate of the baby's size at birth was also obtained. The mother's estimate, even though subjective, can be a useful proxy for the weight of the child.

Table 11.1 presents information on children's weight and size at birth according to background characteristics. Seventeen percent of children born in the past five years were weighed at birth. This is not surprising because the majority of births do not take place in a health facility, and children are less likely to be weighed at birth in a noninstitutional setting. Among children born in the five years before the survey with a reported birth weight, 14 percent are of low birth weight, that is, weighed less than 2.5 kg at birth. Low birth weight is higher among children born to younger mothers (less than 20 years of age at birth) than among children born to mothers age 20-34. Children born to mothers who smoke are more than twice as likely to be of low birth weight as children born to mothers who do not smoke (31 percent versus 13 percent). There is little difference in the percentage of children of low birth weight by urban-rural residence. However, there are obvious differences by ecological zone and development region. The percentage of children with low birth weight varies from 11 percent in the mountains to 13 percent in the hills and 16 percent in the *terai;* it is highest in the Far-western region, and particularly in the Far-western terai subregion (28 percent). Children of women with primary education are most likely to be of low birth weight (23 percent) and children of mothers with SLC or higher education least likely (5 percent). The percentage of children of low birth weight also varies by wealth quintile and ranges from a low of 12 percent among children in the fourth and highest quintiles to a high of 22 percent among those in the second wealth quintile.

In the absence of birth weight, a mother's subjective assessment of the size of the baby at birth may be a useful proxy. Six percent of children were reported to be very small at birth and 14 percent were reported as smaller than average. The differences in children's size by background characteristics follow a similar pattern to that observed for the reported birth weight. Children living in the mountains are much more likely to be reported as very small or smaller than average than children living in the hills and terai, and children living in the Western mountain subregion are most likely to be reported as being smaller than average. In addition, children born to mothers with no education or primary education are more likely to be reported as smaller than average than children of mothers with at least some secondary education, as are children from households in the lowest wealth quintile.

Table 11.1 Child's weight and size at birth

Among live births in the five years preceding the survey, percent distribution of births with a reported birth weight, percentage of all births with a reported birth weight, and percent distribution of births by mother's estimate of size of child at birth, according to background characteristics, Nepal 2006

Background characteristic	Percent distribution of births with a reported birth weight[1]				Percentage of all births with a reported birth weight	Percent distribution of all live births by size of child at birth					
	Less than 2.5 kg	2.5 kg or more	Total	Number of births		Very small	Smaller than average	Average or larger	Don't know/ missing	Total	Number of births
Mother's age at birth											
<20	19.2	80.8	100.0	229	19.8	5.5	16.1	78.4	0.0	100.0	1,156
20-34	12.4	87.6	100.0	693	17.5	5.3	12.7	81.9	0.1	100.0	3,957
35-49	(19.7)	(80.3)	(100.0)	34	7.9	7.2	16.6	76.2	0.0	100.0	433
Birth order											
1	15.4	84.6	100.0	511	30.5	6.5	15.0	78.4	0.1	100.0	1,676
2-3	11.2	88.8	100.0	357	15.2	4.6	11.9	83.4	0.1	100.0	2,342
4-5	16.7	83.3	100.0	61	6.5	4.8	13.6	81.6	0.1	100.0	946
6+	(28.8)	(71.2)	(100.0)	27	4.7	6.7	17.8	75.5	0.0	100.0	580
Mother's smoking status											
Smokes cigarettes/ tobacco	31.3	68.7	100.0	49	4.5	6.4	17.5	76.1	0.0	100.0	1,084
Does not smoke	13.3	86.7	100.0	907	20.3	5.2	12.8	81.8	0.1	100.0	4,461
Residence											
Urban	12.7	87.3	100.0	312	46.1	5.4	8.8	85.5	0.3	100.0	677
Rural	15.0	85.0	100.0	644	13.2	5.5	14.4	80.1	0.1	100.0	4,868
Ecological zone											
Mountain	11.1	88.9	100.0	26	5.4	7.8	20.1	72.1	0.0	100.0	483
Hill	13.2	86.8	100.0	471	20.8	7.3	13.2	79.3	0.2	100.0	2,261
Terai	15.6	84.4	100.0	458	16.4	3.5	13.1	83.4	0.0	100.0	2,802
Development region											
Eastern	17.7	82.3	100.0	185	15.4	5.2	13.1	81.6	0.1	100.0	1,200
Central	11.2	88.8	100.0	458	25.3	5.1	11.0	83.8	0.2	100.0	1,811
Western	16.8	83.2	100.0	178	17.3	7.4	12.9	79.5	0.1	100.0	1,033
Mid-western	8.5	91.5	100.0	76	10.8	4.8	15.5	79.7	0.0	100.0	702
Far-western	26.8	73.2	100.0	60	7.5	4.8	20.4	74.8	0.0	100.0	800
Subregion											
Eastern mountain	(4.2)	(95.8)	(100.0)	7	6.2	13.8	19.3	66.9	0.0	100.0	112
Central mountain	(5.0)	(95.0)	(100.0)	11	12.5	7.2	6.1	86.7	0.0	100.0	88
Western mountain	*	*	*	8	2.9	5.6	24.8	69.6	0.0	100.0	282
Eastern hill	(12.8)	(87.2)	(100.0)	27	7.8	6.9	16.9	75.9	0.2	100.0	349
Central hill	11.6	88.4	100.0	280	39.7	8.0	9.8	81.7	0.4	100.0	705
Western hill	20.3	79.7	100.0	118	19.4	8.8	10.7	80.3	0.2	100.0	609
Mid-western hill	(1.8)	(98.2)	(100.0)	35	9.4	4.0	15.1	80.8	0.0	100.0	372
Far-western hill	(14.2)	(85.8)	(100.0)	11	4.8	7.3	21.1	71.6	0.0	100.0	226
Eastern terai	19.2	80.8	100.0	151	20.4	3.1	10.3	86.6	0.0	100.0	739
Central terai	11.1	88.9	100.0	167	16.4	2.8	12.1	85.0	0.0	100.0	1,018
Western terai	9.9	90.1	100.0	60	14.4	5.4	16.2	78.4	0.0	100.0	418
Mid-western terai	15.5	84.5	100.0	37	16.7	5.8	13.5	80.7	0.0	100.0	225
Far-western terai	28.3	71.7	100.0	44	10.9	3.0	17.0	80.0	0.0	100.0	402
Mother's education											
No education	14.8	85.2	100.0	247	7.4	5.7	14.8	79.4	0.1	100.0	3,343
Primary	22.6	77.4	100.0	184	18.2	4.7	14.6	80.5	0.2	100.0	1,009
Some secondary	16.2	83.8	100.0	294	34.7	5.5	10.2	84.3	0.0	100.0	848
SLC and above	4.7	95.3	100.0	231	66.9	4.8	9.8	85.3	0.0	100.0	345
Wealth quintile											
Lowest	16.8	83.2	100.0	60	4.3	6.4	17.0	76.6	0.0	100.0	1,412
Second	22.1	77.9	100.0	104	8.8	4.6	14.3	81.1	0.1	100.0	1,180
Middle	18.2	81.8	100.0	128	11.3	5.9	13.0	81.1	0.0	100.0	1,132
Fourth	12.2	87.8	100.0	213	21.6	4.8	11.9	83.1	0.2	100.0	983
Highest	12.0	88.0	100.0	451	53.9	5.3	10.5	83.9	0.3	100.0	838
Total	14.3	85.7	100.0	956	17.2	5.5	13.7	80.7	0.1	100.0	5,545

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] Based on written record or mother's recall

11.2 IMMUNIZATION COVERAGE

To strengthen the regular immunization program and to eradicate polio from Nepal as recommended by WHO, National Immunization Days (NIDs) have been conducted since 1996. Nine rounds of NIDs have been successfully completed to date with financial and technical support from WHO, UNICEF, Rotary International and JICA. Two new antigens against Hepatitis B and Japanese Encephalitis were recently introduced in the routine immunization, with support from the Global Alliance for Vaccines and Immunization (GAVI) and the Global Fund, because of the public hazard of these two diseases among children under five.

Universal immunization of children against the six vaccine-preventable diseases—tuberculosis, diphtheria, whooping cough, tetanus, polio, and measles—is crucial to reducing infant and child mortality. Differences in immunization coverage among subgroups of the population are useful for program planning and targeting resources to areas most in need. Additionally, information on immunization coverage is important for the monitoring and evaluation of the EPI.

The 2006 NDHS collected information on immunization coverage for all living children born in the five years preceding the survey. According to WHO guidelines, children are considered fully immunized when they have received one dose of the vaccine against tuberculosis (BCG), three doses each of the DPT and polio vaccines, and one dose of measles vaccine. BCG is given at birth or at first clinical contact; DPT and polio require three doses at approximately 6, 10, and 14 weeks of age; and measles vaccine is given soon after 9 months of age.

As in the previous NDHS surveys, information on immunization coverage was collected in two ways in the 2006 NDHS: from immunization cards shown to the interviewer and from mothers' reports. If the cards were available, the interviewer copied the immunization dates directly onto the questionnaire. When there was no immunization card for the child, or if a vaccine had not been recorded on the card as being administered, the respondent was asked to recall the specific vaccines given to her child.

Table 11.2 shows the percentage of children age 12-23 months who have received various immunizations by source of information (immunization card or mother's report). This is the youngest cohort of children who have reached the age by which they should be fully immunized. Overall, 83 percent of children age 12-23 months were fully immunized by the time of the survey. With regard to specific vaccines, 93 percent of children age 12-23 months had received the BCG immunization and 85 percent had been immunized against measles. Coverage for the first dose of DPT is relatively high (93 percent). However, only 89 percent went on to receive the third dose of DPT. Ninety-seven percent of children had received the first dose of polio vaccine, and 91 percent went on to receive all three doses of the vaccine. Even though DPT and polio vaccines are often administered at the same time, polio coverage is higher than DPT coverage primarily due to the administration of polio vaccines during national immunization day campaigns. Nevertheless, the dropout between the first and third doses of polio is noticeable—a 6 percent decline. Seventy-six percent of children age 12-23 months received the first dose of the Hepatitis B vaccine, but coverage dropped to 69 percent for the third dose. Table 11.2 also shows that 3 percent of children 12-23 months did not receive any vaccine at all.

Table 11.2 Immunization 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 (immunization card or mother's report), and percentage immunized by 12 months of age, Nepal 2006

Source of information	BCG	DPT 1	DPT 2	DPT 3	Polio 1	Polio 2	Polio 3	Hepatitis B 1	Hepatitis B 2	Hepatitis B 3	Measles	All basic vaccines[1]	Not immunized	Number of children
Immunized at any time before survey														
Immunization card	31.7	31.8	31.3	31.3	31.8	31.4	31.3	29.6	28.0	27.1	28.5	28.3	0.0	313
Mother's report	61.7	60.8	59.1	57.4	65.0	62.7	59.8	46.6	44.3	42.4	56.5	54.5	2.7	671
Either source	93.4	92.7	90.4	88.6	96.9	94.1	91.1	76.3	72.3	69.4	85.0	82.8	2.7	984
Immunized by 12 months of age[2]	93.2	92.5	90.2	88.0	96.7	93.9	90.5	76.0	71.8	68.4	80.0	80.1	3.2	984

[1] BCG, measles, and three doses each of DPT and polio vaccine

[2] For children whose information was based on the mother's report, the proportion immunized during the first year of life was assumed to be the same as for children with a written record of immunization.

Table 11.3 shows the percentage of children age 12-23 months who received specific vaccines at any time before the survey, by background characteristics. Boys are slightly more likely than girls to be fully immunized (85 percent versus 81 percent). Birth order varies inversely with immunization coverage; as birth order increases, immunization coverage generally decreases. Ninety percent of first-born children have been fully immunized, compared with 70 percent of children of birth order six and above.

There are noticeable urban-rural differences in immunization coverage, with children residing in urban areas somewhat more likely to be fully immunized (86 percent) than children in rural areas (82 percent). There are substantial differences in coverage by ecological zone, with 71 percent of children fully immunized in the mountains, compared with 82 percent in the hills and 86 percent in the terai zone. Coverage ranges from a low of 78 percent among children living in the Central region to a high of 89 percent among children living in the Western region. Similarly, children living in the Far-western terai subregion are most likely to be fully immunized (94 percent).

The percentage of children who are fully immunized increases with mother's education. Seventy-four percent of children whose mothers have no education are fully immunized, compared with 99 percent of children born to mothers with SLC or higher level of education. Children in households in the lowest wealth quintile are less likely to be fully immunized (68 percent) than children in households in the highest wealth quintile (94 percent).

Finally, Table 11.3 shows that an immunization card was seen for 32 percent of children age 12-23 months. The actual percentage of children who have an immunization card in Nepal may be higher because in some areas the cards are kept at the health center and not kept by mothers. Cards were more likely to have been seen for boys, first-order births, children living in urban areas, children of mothers with SLC or higher education, and children of mothers in the highest wealth quintile.

Table 11.3 Immunization by background characteristics

Percentage of children age 12-23 months who received specific vaccines at any time before the survey (according to an immunization card or mother's report), and percentage with an immunization card, by background characteristics, Nepal 2006

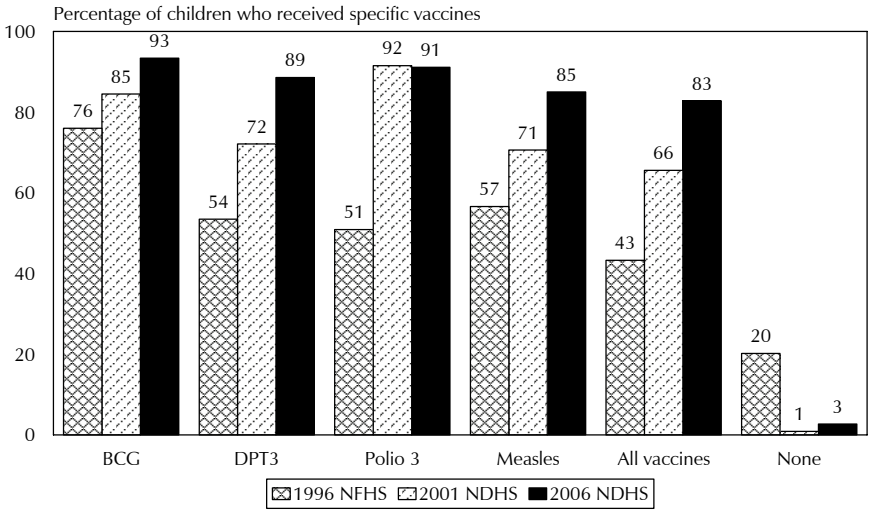
Background characteristic	BCG	DPT			Polio			Hepatitis B			Measles	All basic vaccines[1]	Not immu-nized	Percent-age with immuni-zation card seen	Number of children
		1	2	3	1	2	3	1	2	3					
Sex															
Male	94.9	93.9	92.1	90.3	97.7	95.1	92.4	77.9	74.8	71.4	87.1	84.9	1.9	33.9	515
Female	91.7	91.3	88.6	86.8	96.0	93.1	89.8	74.5	69.6	67.3	82.8	80.6	3.5	29.6	469
Birth order															
1	96.4	96.3	94.8	93.3	98.2	97.1	94.4	82.3	79.0	75.8	92.5	90.2	1.8	35.5	321
2-3	94.8	94.3	92.0	89.9	97.6	95.2	93.0	79.6	75.4	72.4	85.5	83.7	1.9	32.0	393
4-5	88.8	86.4	83.6	81.7	93.9	88.4	85.3	66.8	61.1	58.0	77.1	74.0	5.0	27.6	188
6+	85.2	84.6	81.3	80.2	95.2	90.7	82.7	58.2	56.7	56.2	71.8	70.0	4.8	26.2	81
Residence															
Urban	95.6	95.9	93.6	92.2	96.7	93.7	91.9	86.4	81.8	78.8	88.9	86.3	3.3	43.1	121
Rural	93.1	92.2	90.0	88.1	96.9	94.2	91.0	74.8	71.0	68.1	84.5	82.4	2.6	30.3	863
Ecological zone															
Mountain	88.0	86.9	79.3	76.8	94.4	87.9	80.5	56.4	51.1	48.1	74.5	71.3	5.0	16.3	98
Hill	90.4	89.7	87.6	86.4	95.0	91.5	88.7	73.0	68.0	65.4	83.9	81.6	4.3	32.8	423
Terai	97.2	96.6	95.3	93.2	99.1	97.8	95.6	83.4	80.7	77.7	88.3	86.4	0.7	34.2	463
Development region															
Eastern	93.9	93.3	91.3	90.6	96.6	94.3	91.6	81.9	78.2	77.2	87.9	86.2	3.4	33.8	207
Central	93.0	92.4	90.3	86.7	96.0	93.9	90.9	76.7	73.1	67.5	81.1	78.3	3.5	31.1	297
Western	97.7	96.6	96.2	96.2	100.0	98.6	96.8	83.2	78.5	76.8	89.2	88.9	0.0	35.2	208
Mid-western	88.3	87.9	84.0	82.3	96.3	92.1	87.9	62.3	57.7	55.1	84.1	80.8	2.3	19.7	121
Far-western	91.3	90.6	86.6	84.3	95.1	89.8	85.8	69.4	66.0	63.9	83.8	80.5	4.1	35.7	150
Subregion															
Eastern mountain	91.2	91.2	88.1	85.3	93.7	88.1	86.6	78.8	77.2	74.6	83.8	83.8	6.3	25.7	26
Central mountain	(78.6)	(75.8)	(68.3)	(65.2)	(91.6)	(86.3)	(64.9)	(62.2)	(57.4)	(57.0)	(63.0)	(54.6)	(8.4)	(24.9)	18
Western mountain	89.7	88.6	78.6	76.6	95.7	88.3	82.8	43.4	35.9	31.8	73.8	70.8	3.2	8.7	53
Eastern hill	94.2	92.3	89.0	88.1	97.1	93.9	90.2	83.4	78.6	77.6	85.5	81.4	2.9	37.7	67
Central hill	88.6	87.5	85.6	84.6	91.7	89.4	87.7	79.0	73.9	69.2	83.1	82.1	7.2	38.8	124
Western hill	98.0	98.0	98.0	98.0	100.0	98.0	98.0	81.9	77.5	75.5	88.9	88.9	0.0	35.1	128
Mid-western hill	81.6	81.5	76.9	73.4	93.7	88.5	80.2	48.5	42.6	39.0	78.2	72.4	4.7	17.5	59
Far-western hill	79.7	78.7	75.6	72.4	88.5	79.6	74.3	48.3	42.6	42.3	76.9	71.6	10.1	22.8	44
Eastern terai	94.4	94.4	93.4	93.4	97.0	96.0	93.6	81.7	78.1	77.6	90.3	89.5	3.0	33.3	113
Central terai	98.3	98.3	96.6	90.9	100.0	98.3	96.5	76.5	74.2	67.3	81.5	78.1	0.0	25.8	155
Western terai	97.3	94.5	93.4	93.4	100.0	99.7	94.8	85.2	79.9	78.9	89.7	88.8	0.0	35.8	79
Mid-western terai	95.4	94.3	92.6	92.6	98.2	93.2	92.6	86.9	85.3	85.3	91.7	90.4	0.0	27.5	40
Far-western terai	100.0	100.0	99.1	97.8	100.0	100.0	99.1	96.3	96.3	93.8	95.7	94.4	0.0	55.0	75
Mother's education															
No education	90.1	88.9	85.1	82.1	95.6	91.2	86.7	67.7	62.8	59.3	77.6	74.3	3.6	29.4	554
Primary	94.7	94.4	94.4	94.4	96.5	95.4	93.2	82.6	80.5	79.0	89.2	88.2	3.5	30.6	186
Some secondary	100.0	100.0	99.7	99.1	100.0	99.7	99.7	90.2	86.8	83.4	98.3	97.7	0.0	38.0	179
SLC and above	99.3	99.3	99.3	99.0	100.0	100.0	99.0	92.4	89.6	89.6	99.3	99.0	0.0	38.9	65
Wealth quintile															
Lowest	84.7	83.4	78.3	75.2	92.7	86.5	79.1	59.8	53.4	49.6	73.2	68.0	6.0	22.5	254
Second	94.7	93.5	91.6	88.0	97.7	95.4	92.8	71.2	69.2	66.2	84.9	82.4	2.0	28.5	199
Middle	97.4	97.4	96.7	96.0	99.6	99.2	98.1	84.1	81.9	78.8	87.4	87.1	0.4	35.6	205
Fourth	96.6	95.7	93.9	93.4	98.9	95.7	94.5	83.5	80.5	78.6	91.3	90.7	1.1	35.1	169
Highest	97.0	97.0	96.7	96.3	97.0	96.7	95.9	91.2	85.7	83.5	94.5	93.5	3.0	42.9	157
Total	93.4	92.7	90.4	88.6	96.9	94.1	91.1	76.3	72.3	69.4	85.0	82.8	2.7	31.8	984

Note: Figures in parentheses are based on 25-49 unweighted cases.
[1] BCG, measles and three doses each of DPT and polio vaccine

Trends in Immunization Coverage

Trends in immunization coverage over the past ten years can be seen by comparing similarly collected data from the three DHS surveys conducted in 1996, 2001 and 2006 (Figure 11.1). The data show that immunization coverage in Nepal has improved over the past ten years. The percentage of children age 12-23 months fully immunized at the time of the survey almost doubled from 43 percent in 1996 to 83 percent in 2006, with the increase higher in the first five years (from 43 percent in 1996 to 66 percent in 2001) than in the second five years (from 66 percent in 2001 to 83 percent in 2006). The percentage who did not receive any of the six basic immunizations decreased from 20 percent to 3 percent over the same ten-year period. A marked increase (80 percent) in the coverage of polio vaccine was observed between 1996 and 2001, with little change between 2001 and 2006.

Figure 11.1 **Trends in Immunization Coverage Among Children 12-23 Months**



NDHS 2006

11.3 ACUTE RESPIRATORY INFECTIONS

Acute respiratory infections (ARIs) are a leading cause of childhood morbidity and mortality throughout the world. Early diagnosis and treatment with antibiotics can reduce the number of deaths caused by ARIs, particularly deaths resulting from pneumonia. Pneumonia has emerged as the leading cause of death among children under age five in Nepal. In 1995, community-based ARI intervention was initiated to increase the accessibility to care and to reduce pneumonia mortality with assistance from WHO, UNICEF and USAID. Under this intervention program, female community health volunteers are trained to diagnose pneumonia with the help of a sound timer and to treat infected children at the ward level with the antibiotic Cotrimoxazole. In the 2006 NDHS, 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 and difficulty breathing as a result of a problem in the chest, in the two weeks preceding the survey. These symptoms are compatible with ARI. It should be noted that the morbidity data collected are subjective in the sense that they are based on the mother's perception of illness without validation by medical personnel.

Table 11.4 shows that 5 percent of children under five years of age showed symptoms of ARI at some time in the two weeks preceding the survey. Prevalence of ARI varies by age of the child. Children age 6-11 months are most likely to have ARI symptoms (10 percent) compared with children in the other age groups. There is little variation in the prevalence of ARI by other background characteristics.

Forty-three percent of children under five with symptoms of ARI were taken to a health facility or provider. Children of mothers who do not smoke, children living in urban areas, in the hills and in the Eastern development region, and children whose mothers had some secondary education are more likely than their counterparts to be taken to a health facility or provider for treatment.

Table 11.4 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 who received specific treatments, according to background characteristics, Nepal 2006

			Among children with symptoms of ARI:		
Background characteristic	Percentage of children with symptoms of ARI[1]	Number of children	Percentage for whom treatment was sought from a health facility or provider[2]	Percentage who received antibiotics	Number of children
Age in months					
<6	4.8	484	(35.4)	(35.7)	23
6-11	10.2	494	51.8	29.9	50
12-23	6.8	984	38.6	28.9	67
24-35	4.4	1,147	32.6	15.9	51
36-47	3.9	1,049	(56.8)	(31.9)	41
48-59	4.0	1,094	(42.6)	(12.4)	44
Sex					
Male	5.6	2,681	42.2	28.6	151
Female	4.9	2,571	43.8	20.8	126
Mother's smoking status					
Smokes cigarettes/tobacco	6.2	1,013	36.7	27.8	63
Does not smoke	5.1	4,239	44.7	24.3	214
Cooking fuel					
LPG, natural gas, biogas	4.0	452	*	*	18
Kerosene	3.1	102	*	*	3
Coal, lignite, charcoal, wood	6.0	3,913	41.3	12.0	236
Agricultural crops/straw/ shrubs/grass	4.9	272	*	*	13
Animal dung	1.2	508	*	*	6
Residence					
Urban	5.0	652	53.7	14.1	33
Rural	5.3	4,600	41.5	26.6	244
Ecological zone					
Mountain	6.3	443	43.5	24.5	28
Hill	6.3	2,171	44.7	26.8	136
Terai	4.3	2,638	40.7	23.1	113
Development region					
Eastern	4.9	1,146	51.2	29.8	56
Central	4.4	1,726	35.5	20.4	75
Western	5.7	984	45.8	18.9	56
Mid-western	6.4	647	43.4	32.0	42
Far-western	6.5	748	41.1	28.2	49
Mother's education					
No education	4.6	3,129	36.1	21.8	145
Primary	6.1	957	46.0	33.1	59
Some secondary	6.7	824	59.7	24.0	55
SLC and above	5.3	342	*	*	18
Wealth quintile					
Lowest	5.5	1,328	36.0	32.4	73
Second	4.9	1,117	36.3	23.2	54
Middle	5.0	1,053	43.5	22.3	52
Fourth	5.9	950	49.9	26.2	56
Highest	5.0	804	(54.0)	(16.5)	40
Total	5.3	5,252	42.9	25.1	277

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. Total includes children living in households using electricity or other cooking fuel that are not shown separately.
[1] Symptoms of ARI (cough accompanied by short, rapid breathing that is chest-related) is considered a proxy for pneumonia.
[2] Excludes pharmacy, shop, and traditional practitioner

One in four children with ARI symptoms received antibiotics. More than one in ten (14 percent) children in urban areas received antibiotics, compared with about three in ten (27 percent) children living in rural areas. Children of mothers with primary education (33 percent) and children from households belonging to the lower wealth quintiles (32 percent) are more likely to receive antibiotics than children of highly educated mothers and children living in wealthier households. Furthermore, children living in the hill zone and those living in the Mid-western and Eastern regions are more likely than children living in other areas to receive antibiotics for the treatment of ARI. Of the different antibiotics received, 11 percent of children with ARI are given Cotrimozaxole (data not shown).

One in four children with symptoms of ARI are taken to a pharmacy for treatment and one in five are taken to a government health facility. Additionally, 17 percent of children with ARI symptoms are treated at an NGO/private facility, 8 percent are treated at a government hospital/clinic, and 9 percent receive treatment from a female community health volunteer (FCHV) (data not shown).

The percentage of children with symptoms of ARI has been declining over the past tem years. It dropped from 34 percent in 1996 to 23 percent in 2001 and 5 percent in 2006. However, although all three surveys were fielded around the same time, it must be noted that the current survey adopted stricter guidelines in the definition of ARI, which restricts direct comparison over time. The percentage of ill children with cough or fast breathing (ARI) taken to a health facility or a provider has increased sharply from 18 percent in 1996 to 43 percent in 2006, which is an encouraging sign, but it is still low.

11.4 Fever

Fever is a major manifestation of malaria and other acute infections in children. Malaria and fever contribute to high levels of malnutrition and mortality. While fever can occur year-round, malaria is more prevalent after the end of the rainy season, and particularly in the terai, inner terai, and basins of the hill districts of Nepal. For this reason, temporal factors must be taken into account when interpreting fever as an indicator of malaria prevalence. Since malaria is a major contributory cause of death in infancy and childhood in many developing countries, presumptive treatment of fever with antimalarial medication is advocated in many countries where malaria is endemic. The 2006 NDHS fieldwork was carried out from mid-February to mid-August, before and during the rainy season.

Table 11.5 shows the percentage of children under five with fever during the two weeks preceding the survey and the percentage receiving various treatments, by selected background characteristics. Seventeen percent of children under five were reported to have had fever in the two weeks preceding the survey. The prevalence of fever varies by age of child. Children age 6-11 months and 12-23 months are more prone to have fever (27 percent and 22 percent, respectively) than other children.

Fever is more prevalent among children living in urban areas (22 percent) than among those living in rural areas (16 percent). The prevalence of fever is also higher among children residing in the mountain and hill zones than in the terai. The prevalence of fever is higher among children in the highest wealth quintile (21 percent) than among those in the other wealth quintiles.

One in three children with fever (34 percent) was taken to a health facility or provider for treatment. Children age 36-47 months, male children, and children of mothers with some secondary or higher education were more likely to be taken to a health facility or provider for treatment of fever than other children. Children living in urban areas, in the hills, in the Western development region, and especially in the Western hill subregion were also more likely than children living elsewhere to be taken to a health provider for treatment. About two-fifths of children living in households in the fourth and highest wealth quintiles were taken to a health facility for treatment, in contrast with only one in four children living in the poorest households.

Table 11.5 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 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, Nepal 2006

			Among children with fever:			
Background characteristic	Percentage of children with fever	Number of children	Percentage for whom treatment was sought from a health facility or provider[1]	Percentage who took antimalarial drugs	Percentage who took antibiotic drugs	Number of children
Age in months						
<6	14.2	484	31.4	0.0	36.1	69
6-11	27.1	494	38.2	0.0	23.7	134
12-23	22.2	984	30.5	0.0	24.3	218
24-35	16.8	1,147	32.4	0.0	12.6	193
36-47	12.6	1,049	40.3	0.0	21.2	132
48-59	13.2	1,094	31.0	0.5	8.0	144
Sex						
Male	17.1	2,681	35.5	0.0	21.9	459
Female	16.8	2,571	31.7	0.2	16.9	431
Residence						
Urban	22.3	652	40.8	0.0	14.9	145
Rural	16.2	4,600	32.3	0.1	20.4	745
Ecological zone						
Mountain	18.8	443	30.7	0.0	15.9	83
Hill	18.4	2,171	36.0	0.0	17.5	399
Terai	15.5	2,638	32.0	0.2	22.1	408
Development region						
Eastern	15.3	1,146	32.4	0.0	23.6	175
Central	18.4	1,726	29.6	0.0	16.4	318
Western	15.4	984	45.9	0.0	23.3	152
Mid-western	16.1	647	34.2	0.7	19.4	104
Far-western	18.8	748	30.8	0.0	17.4	140
Subregion						
Eastern mountain	18.7	106	36.8	0.0	26.4	20
Central mountain	22.9	84	(33.7)	(0.0)	(16.0)	19
Western mountain	17.5	253	26.6	0.0	11.2	44
Eastern hill	17.6	333	27.5	0.0	26.4	59
Central hill	19.8	692	33.5	0.0	11.3	137
Western hill	16.0	595	48.5	0.0	17.7	95
Mid-western hill	15.6	340	29.8	0.0	21.3	53
Far-western hill	26.2	211	35.7	0.0	19.6	55
Eastern terai	13.7	707	34.4	0.0	21.3	97
Central terai	17.1	950	25.8	0.0	20.7	162
Western terai	14.8	384	41.6	0.0	32.7	57
Mid-western terai	19.6	211	38.9	1.7	18.3	41
Far-western terai	13.1	385	30.6	0.0	19.7	50
Mother's education						
No education	15.5	3,129	26.8	0.1	14.2	486
Primary	17.0	957	36.3	0.0	28.3	163
Some secondary	21.5	824	43.5	0.0	27.1	177
SLC and above	18.9	342	52.2	0.0	16.3	64
Wealth quintile						
Lowest	16.2	1,328	23.7	0.0	16.2	215
Second	15.7	1,117	31.4	0.0	14.5	176
Middle	16.5	1,053	31.2	0.0	21.9	174
Fourth	16.6	950	41.1	0.0	32.5	158
Highest	21.0	804	44.3	0.4	14.4	169
Total	16.9	5,252	33.7	0.1	19.5	890

Note: Figures in parentheses are based on 25-49 unweighted cases.
[1] Excludes pharmacy, shop, and traditional practitioner

Table 11.5 also shows that 20 percent of children with fever received antibiotics. Children under six months, male children, children residing in rural areas, and those living in the terai zone, in the Eastern and Western regions, and especially in the Western terai subregion, are more likely than other children to receive antibiotic treatment. Furthermore, children of mothers with primary education and those living in households in the fourth wealth quintile are more likely to receive antibiotics for fever than other children. Almost no children received antimalarial drugs.

One in four children with fever were treated at a pharmacy, 13 percent were taken to a government health facility, 10 percent were treated at an NGO/private clinic, 7 percent were seen by an FCHV, and 5 percent were taken to a government hospital/clinic (data not shown).

The prevalence of fever has declined over time, from 39 percent in 1996 to 32 percent in 2001 and to 17 percent in 2006. Similarly, the percentage of children with fever for whom medical care was sought has increased from 18 percent in 1996 to 24 percent in 2001 and 34 percent in 2006.

11.5 Prevalence of 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. In interpreting the findings of the 2006 NDHS survey, it should be borne in mind that the prevalence of diarrhea varies seasonally.

Table 11.6 shows the percentage of children under five with diarrhea in the two weeks preceding the survey according to selected background characteristics. Overall, 12 percent of all children under the age of five had diarrhea in the two weeks before the survey, while 2 percent had diarrhea with blood.

Table 11.6 Prevalence of diarrhea

Percentage of children under age five who had diarrhea in the two weeks preceding the survey, by background characteristics, Nepal 2006

Background characteristic	Percentage of children with any diarrhea	Percentage of children with diarrhea with blood	Number of children
Age in months			
<6	10.9	0.9	484
6-11	22.6	3.2	494
12-23	19.6	2.2	984
24-35	10.6	2.5	1,147
36-47	7.8	2.0	1,049
48-59	5.8	1.1	1,094
Sex			
Male	12.8	2.4	2,681
Female	10.9	1.5	2,571
Residence			
Urban	11.5	1.0	652
Rural	11.9	2.1	4,600
Ecological zone			
Mountain	15.5	2.9	443
Hill	12.6	1.9	2,171
Terai	10.7	1.9	2,638
Development region			
Eastern	11.7	1.4	1,146
Central	12.2	1.7	1,726
Western	12.6	2.1	984
Mid-western	10.2	2.4	647
Far-western	11.9	2.8	748
Subregion			
Eastern mountain	22.5	3.5	106
Central mountain	14.9	1.9	84
Western mountain	12.7	2.9	253
Eastern hill	13.6	1.7	333
Central hill	12.4	0.8	692
Western hill	12.6	2.6	595
Mid-western hill	10.9	2.4	340
Far-western hill	14.0	3.0	211
Eastern terai	9.3	0.9	707
Central terai	11.7	2.4	950
Western terai	12.8	1.4	384
Mid-western terai	6.8	1.5	211
Far-western terai	10.9	3.1	385
Mother's education			
No education	11.7	2.3	3,129
Primary	11.5	1.5	957
Some secondary	14.2	1.7	824
SLC and above	8.3	0.3	342
Wealth quintile			
Lowest	13.3	2.5	1,328
Second	11.7	2.7	1,117
Middle	10.7	1.7	1,053
Fourth	11.4	1.3	950
Highest	11.7	1.2	804
Source of drinking water[1]			
Improved	11.7	1.9	4,202
Unimproved	12.6	2.1	1,049
Toilet facility[2]			
Improved, not shared	11.6	1.0	967
Unimproved or shared	11.9	2.2	4,282
Total	11.9	2.0	5,252

Note: Total includes 2 children with other/missing information on source of drinking water.
[1] See Table 2.5 for definition of categories.
[2] See Table 2.6 for definition of categories.

Diarrhea is relatively more common among young children age 6–11 months and 12–23 months, presumably because babies are usually weaned off breast milk around that age. Additionally, prevalence of diarrhea is higher among male children, children living in the mountains and in the Eastern mountain subregion, children whose mothers have some secondary education, and those in the lowest wealth quintile.

Since the prevalence of diarrhea is seasonal, data comparisons over the years must take this into consideration. It is worth noting that all three DHS surveys were conducted around the same time of the year, and the data are therefore comparable. Prevalence of diarrhea among children under five is lower now than it was several years ago. The prevalence of diarrhea has decreased steadily from 28 percent in 1996 to 20 percent in 2001 and 12 percent in 2006. Similarly, the prevalence of bloody diarrhea is also lower in 2006 (2 percent) than it was in 1996 (6 percent). A survey conducted in the 17 core program districts of the Nepal Family Health Program showed the prevalence of diarrhea among children under five years in the two weeks preceding the survey to be 9 percent (VaRG, 2005).

11.6 Diarrhea Treatment

In the 2006 NDHS, mothers of children who had diarrhea were asked about what was done to treat the illness. Table 11.7 shows the percentage of children with diarrhea who received specific treatments according to background characteristics. Twenty-seven percent of children with diarrhea were taken to a health provider. Children age 36-47 months, male children, children with bloody diarrhea, urban children, children living in the mountains and terai, children living in the Mid-western region, children of mothers with some education and children from the wealthiest households are more likely than their counterparts to be taken to a health facility for treatment.

Twenty-nine percent of children were treated with oral rehydration salts (ORS) or prepackaged liquid, 22 percent were given increased fluids, and 41 percent were given oral rehydration therapy (either ORS or increased fluids).

Eight percent of children with diarrhea were given antibiotic pills or syrups, 13 percent were given other pills or syrups, 23 percent were given some unknown pill or syrup, and 7 percent were treated with home remedies. However, about one-third (34 percent) of children with diarrhea did not receive any treatment at all.

Use of oral rehydration therapy (ORT) varies by age from a low of 26 percent among children less than six months of age to a high of 50 percent among children age 24-35 months. ORT use is also higher among male than female children and among children with bloody diarrhea than among those without. There is little difference in the use of ORT by urban-rural residence and ecological zone, but ORT use varies by region, ranging from 37 percent in the Central region to 45 percent in the Eastern and Mid-western regions. ORT use is much higher among children of mothers with some secondary education than among women with little or no education. ORT use is positively associated with increasing wealth quintile, ranging from a low of 27 percent among children in the poorest households to a high of 59 percent among children in the wealthiest households.

Children with diarrhea are most likely to be taken to a pharmacy for treatment (25 percent). Fifteen percent of children are taken to government health facilities, while 9 percent are taken to FCHVs for treatment (data not shown).

The proportion of children with diarrhea taken to a health provider for treatment has increased from 14 percent in 1996 to 21 percent in 2001 and 27 percent in 2006. The percentage of children getting ORS increased from 26 percent in 1996 to 32 percent in 2001, but dropped to 29 percent in 2006.

Table 11.7 Diarrhea treatment

Among children under age five who had diarrhea in the two weeks preceding the survey, the percentage who were taken for treatment to a health provider, the percentage given ORS packets or prepackaged liquid, the percentage given increased fluids, the percentage given ORS or increased fluids, and the percentage given other treatments, by background characteristics, Nepal 2006

Background characteristic	Percentage of children with diarrhea taken to a health provider[1]	Oral rehydration therapy (ORT)			Other treatments												
		ORS packets or pre-packaged liquid	In-creased fluids	ORS or in-creased fluids	Anti-biotic pill or syrup	Anti-motility drugs	Zinc supple-ments	Other pill or syrup	Un-known pill or syrup	Anti-biotic injec-tion	Un-known injec-tion	Intra-venous solu-tion	Home remedy	Other	Missing	No treat-ment	Number of chil-dren
Age in months																	
<6	13.6	9.6	17.0	25.7	20.2	0.0	0.0	18.4	5.9	0.0	0.0	0.0	4.6	7.2	0.0	40.4	53
6-11	30.7	28.0	15.1	36.9	3.7	1.6	0.9	16.7	27.9	0.4	0.3	0.0	4.0	4.5	0.0	29.8	111
12-23	28.8	28.4	23.9	40.9	12.2	2.0	0.2	14.6	20.9	0.0	1.1	0.0	4.6	0.8	0.0	36.3	193
24-35	25.8	36.1	32.7	50.1	5.5	0.7	1.0	10.1	25.2	0.0	0.0	0.0	5.3	3.8	0.0	27.4	121
36-47	33.1	38.5	21.1	45.9	3.2	0.8	0.0	9.8	24.1	0.0	2.2	2.2	12.4	0.0	0.0	34.4	81
48-59	20.0	25.8	16.1	35.0	4.9	2.0	0.0	9.4	24.9	0.0	0.0	0.0	13.8	0.0	1.9	37.6	64
Sex																	
Male	29.1	33.9	24.8	46.1	10.8	2.0	0.4	15.4	22.2	0.1	0.7	0.5	7.0	2.1	0.0	30.4	342
Female	24.3	23.7	19.3	34.2	5.0	0.6	0.4	10.6	22.9	0.0	0.6	0.0	6.1	2.8	0.4	37.5	281
Type of diarrhea																	
Non-bloody	24.6	28.7	21.7	39.5	7.5	1.3	0.2	12.3	20.8	0.1	0.3	0.3	5.9	2.5	0.2	36.2	521
Bloody	39.0	32.5	25.5	46.8	11.5	1.4	1.2	18.0	31.2	0.0	2.3	0.0	9.9	1.7	0.0	20.4	103
Residence																	
Urban	28.4	29.3	19.8	39.9	12.2	0.9	0.0	10.0	15.6	0.0	0.0	0.0	5.6	8.9	1.6	35.0	75
Rural	26.7	29.3	22.6	40.9	7.6	1.4	0.5	13.7	23.5	0.1	0.8	0.3	6.7	1.5	0.0	33.4	548
Ecological zone																	
Mountain	30.3	22.0	23.0	38.1	9.0	1.2	0.9	8.5	14.0	0.7	0.0	0.0	9.9	1.0	0.0	41.2	69
Hill	22.5	24.4	29.4	40.3	4.6	1.6	0.7	10.4	15.5	0.0	0.2	0.0	4.4	2.6	0.0	43.1	272
Terai	30.4	35.7	15.2	41.8	11.3	1.2	0.0	17.1	31.3	0.0	1.2	0.6	7.9	2.6	0.4	22.6	282
Development region																	
Eastern	20.9	30.8	25.6	45.1	8.7	2.8	0.4	16.6	9.3	0.0	1.1	0.0	11.5	1.2	0.0	34.1	135
Central	23.2	27.0	22.3	37.4	10.6	0.6	0.9	11.5	26.9	0.0	0.9	0.9	2.8	5.0	0.6	30.6	210
Western	33.1	25.7	25.4	41.5	4.8	1.9	0.0	13.1	24.7	0.0	0.0	0.0	2.3	0.8	0.0	36.1	124
Mid-western	35.0	37.9	17.0	44.8	6.4	1.2	0.0	8.9	24.9	0.0	0.0	0.0	4.8	2.0	0.0	41.6	66
Far-western	30.3	31.1	16.9	38.0	7.4	0.0	0.0	15.6	27.4	0.6	1.0	0.0	15.5	0.6	0.0	30.6	89
Mother's education																	
No education	18.7	24.0	13.6	31.2	4.3	1.0	0.5	7.9	22.0	0.1	1.0	0.5	8.3	1.5	0.3	43.6	367
Primary	39.0	26.0	19.8	41.8	10.6	4.0	0.3	16.3	21.8	0.0	0.3	0.0	5.5	2.6	0.0	24.3	110
Some secondary	36.6	41.9	46.0	63.7	16.0	0.0	0.0	26.3	27.5	0.0	0.0	0.0	3.5	3.0	0.0	11.9	117
SLC and above	(47.3)	(57.6)	(46.7)	(64.7)	(15.9)	(0.0)	(1.0)	(16.0)	(11.7)	(0.0)	(0.0)	(0.0)	(1.6)	(11.2)	(0.0)	(30.5)	28
Wealth quintile																	
Lowest	21.4	17.9	12.0	26.6	5.6	1.3	0.5	4.5	15.0	0.3	0.5	0.0	6.3	0.2	0.0	55.4	177
Second	26.8	29.3	18.2	38.2	5.2	0.0	0.7	9.1	29.6	0.0	0.0	1.4	9.2	1.0	0.9	32.7	131
Middle	29.8	29.9	20.8	39.5	10.7	2.8	0.3	18.4	27.2	0.0	0.0	0.0	9.8	2.7	0.0	19.9	113
Fourth	28.9	38.3	33.1	52.6	10.3	2.6	0.3	20.6	20.7	0.0	3.0	0.0	6.3	3.6	0.0	21.8	108
Highest	31.8	39.6	36.9	58.6	11.6	0.0	0.0	20.6	23.2	0.0	0.0	0.0	0.0	6.8	0.0	23.8	94
Total	26.9	29.3	22.3	40.7	8.1	1.3	0.4	13.2	22.5	0.1	0.7	0.3	6.6	2.4	0.2	33.6	623

Note: ORT includes solution prepared from packets of oral rehydration salts (ORS), prepackaged ORS liquid, and increased fluids. Figures in parentheses are based on 25-49 unweighted cases.

[1] Excludes pharmacy, shop, and traditional practitioner

11.7 FEEDING PRACTICES DURING DIARRHEA

Mothers are encouraged to continue feeding children with diarrhea normally and to increase the amount of fluids. Sixty-two percent of children who had diarrhea were given the same amount of liquid as usual, 22 percent were given more, 11 percent were given somewhat less than the usual amount, and 2 percent were given much less. Two percent of children who had diarrhea were not given any liquids (Table 11.8).

Table 11.8 Feeding practices during diarrhea

Percent distribution of children under age five who had diarrhea in the two weeks preceding the survey by amount of liquids and food offered compared with normal practice, the percentage of children given increased fluids and continued feeding during the diarrhea episode, and the percentage of children given ORT and continued feeding during the episode of diarrhea, by background characteristics, Nepal 2006

	Amount of liquids offered						Amount of food offered									
Background characteristic	More	Same as usual	Some-what less	Much less	None	Total	More	Same as usual	Some-what less	Much less	None	Never gave food	Total	Percentage given increased fluids and continued feeding [1,2]	Percentage given ORT and continued feeding[1]	Number of children with diarrhea
Age in months																
<6	17.0	65.3	3.6	0.0	14.1	100.0	1.0	15.4	5.0	0.0	0.0	78.7	100.0	5.8	14.4	53
6-11	15.1	64.7	14.5	4.5	1.1	100.0	3.1	58.5	24.1	4.3	2.5	7.5	100.0	13.0	35.3	111
12-23	23.9	62.1	11.3	1.5	1.3	100.0	6.7	60.7	27.3	1.5	3.4	0.5	100.0	22.0	40.9	193
24-35	32.7	50.3	12.5	4.0	0.6	100.0	12.0	57.2	29.6	1.1	0.0	0.0	100.0	32.7	50.1	121
36-47	21.1	65.1	11.8	2.0	0.0	100.0	4.2	68.5	27.3	0.0	0.0	0.0	100.0	21.1	45.9	81
48-59	16.1	72.1	8.8	0.0	3.0	100.0	5.9	79.3	14.8	0.0	0.0	0.0	100.0	16.1	35.0	64
Sex																
Male	24.8	60.3	10.5	2.2	2.2	100.0	7.0	56.8	22.8	1.7	2.0	9.6	100.0	21.9	43.9	342
Female	19.3	64.0	12.2	2.4	2.2	100.0	5.2	60.9	25.5	1.1	0.8	6.4	100.0	18.6	34.1	281
Type of diarrhea																
Non-bloody	21.7	63.1	10.2	2.3	2.7	100.0	5.7	60.7	21.8	1.3	1.8	8.8	100.0	19.7	38.3	521
Bloody	25.5	56.1	16.3	2.1	0.0	100.0	9.0	48.6	35.1	2.2	0.0	5.1	100.0	24.1	45.4	103
Residence																
Urban	19.8	59.9	11.2	7.8	1.3	100.0	9.4	51.1	22.8	4.4	0.3	12.0	100.0	19.4	39.4	75
Rural	22.6	62.2	11.2	1.5	2.3	100.0	5.8	59.7	24.2	1.0	1.7	7.6	100.0	20.5	39.5	548
Ecological zone																
Mountain	23.0	64.3	9.5	1.9	1.2	100.0	8.2	63.1	20.5	5.3	0.7	2.1	100.0	21.1	37.5	69
Hill	29.4	55.3	9.9	2.8	2.5	100.0	7.4	58.3	23.5	1.7	0.7	8.4	100.0	26.8	37.7	272
Terai	15.2	67.7	12.9	1.9	2.2	100.0	4.6	57.9	25.3	0.3	2.5	9.4	100.0	14.0	41.7	282
Development region																
Eastern	25.6	53.6	14.8	2.7	3.3	100.0	6.4	63.5	23.1	1.0	1.6	4.4	100.0	25.6	45.1	135
Central	22.3	57.5	12.7	3.8	3.7	100.0	7.3	55.7	24.4	2.2	1.4	8.9	100.0	19.1	35.5	210
Western	25.4	62.6	10.0	1.9	0.2	100.0	3.8	50.5	32.2	0.6	1.6	11.3	100.0	22.1	38.9	124
Mid-western	17.0	70.8	9.4	0.6	2.2	100.0	9.1	62.2	13.6	2.8	2.5	9.8	100.0	17.0	44.8	66
Far-western	16.9	77.6	5.5	0.0	0.0	100.0	4.4	67.0	20.9	0.5	0.6	6.6	100.0	15.7	37.3	89
Mother's education																
No education	13.6	67.6	14.6	2.8	1.4	100.0	5.3	58.2	26.8	2.0	2.3	5.5	100.0	12.7	31.1	367
Primary	19.8	66.3	9.2	1.4	3.3	100.0	2.8	58.2	25.3	0.5	0.7	12.6	100.0	15.5	38.3	110
Some secondary	46.0	42.3	5.2	2.3	4.2	100.0	8.8	62.5	17.5	0.6	0.2	10.4	100.0	43.1	60.9	117
SLC and above	(46.7)	(53.3)	(0.0)	(0.0)	(0.0)	(100.0)	(21.1)	(50.4)	(10.2)	(1.6)	(0.0)	(16.8)	(100.0)	(45.1)	(64.7)	28
Wealth quintile																
Lowest	12.0	67.7	14.3	1.6	4.4	100.0	2.0	64.7	25.0	1.0	1.6	5.7	100.0	11.6	26.3	177
Second	18.2	64.7	14.6	1.4	1.2	100.0	6.2	56.6	30.2	1.9	0.6	4.5	100.0	17.8	38.2	131
Middle	20.8	65.6	11.5	2.1	0.0	100.0	7.4	54.8	24.2	0.5	2.7	10.5	100.0	17.3	38.3	113
Fourth	33.1	53.0	7.6	2.8	3.5	100.0	6.6	53.1	23.5	0.8	2.4	13.7	100.0	28.4	48.9	108
Highest	36.9	53.1	4.6	4.6	0.8	100.0	12.4	61.2	14.0	3.5	0.0	8.9	100.0	35.1	56.8	94
Total	22.3	61.9	11.2	2.3	2.2	100.0	6.2	58.7	24.0	1.4	1.5	8.2	100.0	20.4	39.5	623

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

Regarding the amount of food offered to children who had diarrhea, 59 percent were given the same amount of food as usual and only 6 percent were given more. On the other hand, 24 percent of children were given somewhat less than the usual amount of food, 1 percent were given much less than the usual amount of food, and 2 percent did not receive food.

Children age 24-35 months suffering from diarrhea are more likely than children in other age groups to be given ORT and fed normally. Children under six months of age are least likely to be given ORT, water or food during diarrhea, but this is probably because these children may not have started supplementary feeding yet.

There are variations in feeding practices by other background characteristics as well. Male children and children suffering from bloody diarrhea, children residing in the terai and in the Eastern and Mid-western regions, children of mothers with some secondary education, and children from the wealthiest households are more likely than other children to receive ORT and continued feeding.

The percentage of children with diarrhea receiving more liquids than usual has declined over the last ten years, from 30 percent in 1996 to 27 percent in 2001 and 22 percent in 2006.

11.8 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 ORS knowledge is in Nepal, female respondents were asked whether they know about ORS packets.

Knowledge of ORS is universal among women with a birth in the five years preceding the survey, and due to the high overall level of knowledge about ORS, there is little difference in ORS knowledge by background characteristics (data not shown).

11.9 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 11.9 presents information on the disposal of children's stools, by background characteristics. Twenty-six percent of mothers of children under age five dispose of their youngest child's stools safely (that is, children use a toilet or latrine, the stools are rinsed in the toilet or latrine, or the stools are buried). Fourteen percent of mothers put or rinse their children's stools into a drain or ditch, 35 percent throw it into the garbage, and 20 percent of mothers leave it in the open.

There are pronounced differences in the manner of disposal of children's stools by mother's level of education and type of household toilet facilities. Seventy-four percent of highly educated mothers dispose of their children's stools in a safe manner, compared with 13 percent of mothers with no education. Similarly, children's stools are much more likely to be disposed of hygienically if they live in households with improved toilets that are not shared with other households than if they live in households using non-improved or shared toilet facilities (60 percent versus 18 percent).

Mothers living in urban areas, in the hills, in the Western region and in the Central hill subregion, as well as mothers living in the wealthiest households, are also more likely to dispose of their children's stools safely than mothers in the other categories.

There seems to be some improvement regarding the safe disposal of children's stools over the last five years. In 2001, only 18 percent of mothers disposed of their children's stools safely, compared with 26 percent in 2006.

Table 11.9 Disposal of children's stools

Percent distribution of youngest children under age five living with the mother by the manner of disposal of the child's last fecal matter, and percentage of children whose stools are disposed of safely, according to background characteristics, Nepal 2006

Background characteristic	Manner of disposal of children's stools								Total	Percentage of children whose stools are disposed of safely	Number of children
	Child used toilet or latrine	Put/rinsed into toilet or latrine	Buried	Put/rinsed into drain or ditch	Thrown into garbage	Left in the open	Other	Missing			
Age in months											
<6	0.3	8.6	0.6	50.9	29.5	4.6	5.1	0.4	100.0	9.5	478
6-11	0.6	13.8	2.2	29.2	42.1	7.5	4.7	0.0	100.0	16.6	490
12-23	1.9	20.1	2.7	9.6	48.0	14.1	3.7	0.0	100.0	24.6	938
24-35	11.3	12.9	1.8	4.5	41.1	23.1	5.3	0.0	100.0	26.0	897
36-47	25.5	9.2	0.5	3.2	23.3	30.1	7.9	0.3	100.0	35.2	625
48-59	38.4	2.8	1.0	2.0	10.5	37.7	7.8	0.0	100.0	42.1	509
Toilet facility											
Improved, not shared[1]	31.3	26.9	1.6	9.7	20.3	8.8	1.4	0.0	100.0	59.9	766
Non-improved or shared	7.5	8.8	1.6	14.9	38.2	22.4	6.5	0.1	100.0	17.9	3,169
Residence											
Urban	27.9	31.1	0.5	12.9	15.6	7.0	5.1	0.0	100.0	59.5	521
Rural	9.7	9.4	1.8	14.1	37.6	21.7	5.6	0.1	100.0	20.9	3,417
Ecological zone											
Mountain	8.9	5.4	0.5	16.9	37.8	28.1	2.5	0.0	100.0	14.8	328
Hill	18.0	19.3	1.0	15.2	23.3	20.5	2.5	0.1	100.0	38.3	1,624
Terai	7.9	7.7	2.3	12.4	43.4	17.7	8.5	0.1	100.0	17.8	1,985
Development region											
Eastern	12.1	13.2	3.0	15.9	32.1	14.7	9.0	0.0	100.0	28.3	863
Central	13.6	14.8	1.4	12.9	35.5	14.8	6.8	0.1	100.0	29.8	1,290
Western	15.5	19.1	1.2	15.7	24.7	21.0	2.5	0.3	100.0	35.7	728
Mid-western	10.0	5.9	0.9	10.3	37.3	33.4	2.2	0.0	100.0	16.7	492
Far-western	6.5	2.0	1.1	13.9	47.3	25.2	4.1	0.0	100.0	9.6	565
Subregion											
Eastern mountain	15.5	11.2	1.1	16.6	26.4	28.7	0.5	0.0	100.0	27.7	77
Central mountain	19.0	11.6	1.2	16.2	26.3	21.6	4.1	0.0	100.0	31.8	65
Western mountain	2.6	0.8	0.0	17.2	46.6	30.1	2.7	0.0	100.0	3.4	186
Eastern hill	19.2	17.2	3.7	18.6	17.6	21.0	2.7	0.0	100.0	40.1	240
Central hill	22.2	26.8	0.4	15.4	19.1	13.0	3.3	0.0	100.0	49.3	535
Western hill	20.5	24.1	0.5	14.7	23.5	15.9	0.4	0.5	100.0	45.1	442
Mid-western hill	8.0	7.2	1.1	11.3	29.8	40.9	1.8	0.0	100.0	16.3	257
Far-western hill	10.6	2.9	0.4	16.7	36.1	25.7	7.5	0.0	100.0	14.0	150
Eastern terai	8.4	11.7	3.0	14.6	39.2	10.0	13.0	0.0	100.0	23.1	546
Central terai	6.4	5.9	2.2	10.6	49.2	15.6	9.8	0.3	100.0	14.5	689
Western terai	7.9	11.4	2.3	16.6	26.9	29.2	5.8	0.0	100.0	21.6	282
Mid-western terai	14.5	5.6	0.9	9.0	45.0	23.0	2.0	0.0	100.0	21.0	164
Far-western terai	6.7	2.3	1.8	10.3	52.5	23.0	3.4	0.0	100.0	10.7	304
Mother's education											
No education	7.1	4.5	1.4	13.8	40.6	25.7	7.0	0.0	100.0	13.0	2,276
Primary	14.6	11.1	1.8	15.1	33.9	18.9	4.3	0.3	100.0	27.5	720
Some secondary	20.2	27.1	1.8	15.5	25.4	6.3	3.7	0.0	100.0	49.1	667
SLC and above	27.6	44.2	2.1	8.2	10.2	5.5	1.6	0.7	100.0	73.9	274
Wealth quintile											
Lowest	2.2	2.2	0.8	15.4	40.5	33.2	5.6	0.0	100.0	5.3	934
Second	6.5	4.8	2.4	14.7	42.1	22.2	7.0	0.3	100.0	13.7	831
Middle	7.6	6.0	1.1	12.5	45.8	20.6	6.5	0.0	100.0	14.6	782
Fourth	17.1	15.6	2.6	17.5	27.8	13.3	6.1	0.0	100.0	35.3	735
Highest	33.2	39.9	1.2	8.5	11.4	3.8	1.8	0.3	100.0	74.3	656
Total	12.1	12.3	1.6	13.9	34.7	19.8	5.5	0.1	100.0	26.0	3,937

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

NUTRITION OF CHILDREN AND WOMEN 12

This chapter reviews the nutritional status of children and women in Nepal. The specific issues discussed are infant and young child feeding practices, including breastfeeding and feeding with solid/semi-solid foods; diversity of foods fed and frequency of feeding; micronutrient intake among children and women; and prevalence of anemia. The section also covers anthropometric assessment of the nutritional status of children under five years of age and the nutritional status of women 15 to 49 years of age.

The poor nutritional status of children and women has been considered a serious problem in Nepal for many years. The most common forms of malnutrition in the country are protein energy malnutrition (PEM), iodine deficiency disorders (IDD), vitamin A deficiency (VAD), and iron deficiency anemia (IDA). Initiatives have been underway for more than three decades with national nutritional strategies developed in 1978 (National Nutrition Strategy), 1986 (National Nutrition Strategy for Nepal), and 1998 (Nepal National Plan of Action). Several programs with an explicit nutrition component have been launched in Nepal under the initiative of the Nutrition Section of the Ministry of Health and Population. It was in 2004-05 that a National Nutrition Policy and Strategy was compiled and approved, which provided a comprehensive documentation on nutrition policy and strategy (Ministry of Health and Population, 2006). The major partners in initiating programs to address the problem of malnutrition are the United Mission to Nepal, World Food Program, Save the Children Alliance, and USAID. Additionally, UNICEF-Nepal and the Micronutrient Initiative-Nepal have also played important roles. The findings in the following section are highlighted with respect to these initiatives.

12.1 INITIATION OF BREASTFEEDING

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

Table 12.1 shows the percentage of all children born in the five years before the survey by breastfeeding status and the timing of initial breastfeeding, by background characteristics. Breastfeeding is nearly universal in Nepal, with 98 percent of children born in the five years preceding the survey having been breastfed at some time. The percentage of children ever breastfed does not vary much by background characteristics.

More than one in three children are breastfed within one hour of birth (35 percent) and 85 percent within one day of birth. Thirty-seven percent of children are given a prelacteal feed, that is, something other than breast milk during the first three days of life. The percentage of children who are breastfed early has increased in the past five years, the increase being more pronounced for children breastfed within one day of birth. There has been a rise in the percentage of children breastfed within one day of birth by about 31 percent, from 65 percent in the 2001 NDHS to 85 percent in 2006. The percentage of children receiving a prelacteal feed has therefore decreased over the years.

Table 12.1 Initial breastfeeding

Among children born in the five years preceding the survey, percentage ever breastfed, and among last-born children ever breastfed, percentage who started breastfeeding within 1 hour of birth, percentage who started breastfeeding within one day of birth, and percentage who received a prelacteal feed, by background characteristics, Nepal 2006

			Among last-born children ever breastfed:			
Background characteristic	Percentage of children ever breastfed	Number of children born in past five years	Percentage who started breastfeeding within 1 hour of birth	Percentage who started breastfeeding within 1 day of birth[1]	Percentage who received a prelacteal feed[2]	Number of last-born children ever breastfed
Sex						
Male	98.7	2,817	35.5	85.6	36.0	2,127
Female	98.1	2,728	35.3	84.3	37.0	1,893
Residence						
Urban	98.7	677	39.4	82.5	35.4	531
Rural	98.4	4,868	34.8	85.4	36.6	3,489
Ecological zone						
Mountain	98.7	483	31.3	95.0	17.4	339
Hill	99.0	2,261	32.7	95.1	19.6	1,663
Terai	97.9	2,802	38.3	75.0	53.6	2,018
Development region						
Eastern	98.3	1,200	32.9	85.2	38.8	875
Central	98.2	1,811	33.8	74.9	49.7	1,311
Western	98.1	1,033	35.7	86.2	43.4	742
Mid-western	98.6	702	32.5	93.9	18.3	510
Far-western	99.3	800	44.7	98.1	10.3	583
Subregion						
Eastern mountain	97.7	112	33.3	93.8	29.1	79
Central mountain	100.0	88	26.7	94.1	16.3	66
Western mountain	98.8	282	32.1	95.9	13.0	193
Eastern hill	99.3	349	30.6	99.0	13.1	246
Central hill	99.1	705	31.6	90.3	20.4	545
Western hill	99.1	609	44.1	96.8	30.3	450
Mid-western hill	98.2	372	24.3	96.0	15.0	268
Far-western hill	99.2	226	21.4	99.6	4.3	154
Eastern terai	97.9	739	33.9	77.8	51.8	549
Central terai	97.4	1,018	36.2	61.0	75.7	700
Western terai	96.5	418	21.9	69.4	64.2	287
Mid-western terai	99.4	225	42.4	92.0	24.1	169
Far-western terai	99.6	402	63.3	97.0	13.4	313
Mother's education						
No education	98.3	3,343	31.7	81.2	38.6	2,331
Primary	98.2	1,009	37.4	88.8	30.5	733
Some secondary	99.0	848	41.0	90.4	35.5	678
SLC and above	98.8	345	47.2	93.2	36.9	279
Assistance at delivery						
SBA	97.6	1,037	40.5	87.7	36.5	823
Other health worker	97.5	226	41.8	79.1	48.0	161
Traditional birth attendant	99.3	1,042	45.5	79.4	51.6	771
Other	98.5	2,877	29.7	85.6	32.1	2,010
No one	97.8	362	29.0	92.3	18.3	255
Place of delivery						
Health facility	97.9	777	41.2	89.9	32.5	619
At home	98.6	4,492	34.3	84.3	36.9	3,191
Other	96.5	276	34.7	81.1	41.8	210
Wealth quintile						
Lowest	98.8	1,412	29.8	93.0	17.4	951
Second	99.0	1,180	38.1	80.6	42.7	854
Middle	97.8	1,132	34.6	80.8	46.1	799
Fourth	98.7	983	35.0	82.8	46.3	745
Highest	97.5	838	41.2	86.8	33.2	672
Total	98.4	5,545	35.4	85.0	36.5	4,020

Note: Table is based on births in the five years preceding the survey regardless of whether the children were living or dead at the time of 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
SBA = Skilled birth attendant (doctor, nurse, or midwife)

There is no difference in the timing of initial breastfeeding by sex of the child. Children living in the *terai* are least likely to be breastfed within one day of birth, compared with children living in the mountain and hill zones of Nepal. This was also evident from data collected in the 2001 NDHS. Children from the Far-western development region are most likely to be breastfed immediately after birth (45 percent), and nearly all children in this region (98 percent) are breastfed within one day of birth. Children in the Central terai subregion are least likely to be breastfed within one day of birth, with 61 percent being fed this early. As expected, the proportion of children given a prelacteal feed is high in this subregion (76 percent). Although the percentage of children receiving a prelacteal feed has decreased over time, the pattern is similar to that found in the 2001 NDHS, where the highest proportion of children receiving a prelacteal feed was in the Central terai subregion (85 percent).

Women who have completed their SLC or a higher level of education are slightly more likely to initiate breastfeeding within one hour and one day of birth than women with lower levels of education. Moreover, other characteristics of the infant and mother, such as type of assistance at delivery and place of delivery, have important influences on early breastfeeding practices. There is a difference in the timing of initial breastfeeding between children delivered by a skilled birth attendant (SBA) and children delivered by other health workers; 88 percent of children delivered by an SBA were breastfed within a day of delivery, compared with 79 percent delivered by other types of health workers. Initiation of breastfeeding within an hour of delivery for children delivered at a health facility has improved over the past decade, from 21 percent in the 1996 NFHS to 41 percent in the 2006 NDHS. Differences in early breastfeeding by wealth are small, although larger proportions of children in the highest wealth quintile are likely to be breastfed within an hour of birth.

12.2 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 after six months. The nutrition program under the National Nutrition Policy and Strategy 2004-05 promotes exclusive breastfeeding through the age of six months and thereafter introducing complementary foods along with continued breast milk until the child is at least two years of age (Ministry of Health and Population, 2006). Exclusive breastfeeding is recommended in the first few months of life because breast milk is uncontaminated and contains all the nutrients necessary for children.

Information on breastfeeding and supplementation was obtained in the 2006 NDHS by asking mothers about the current breastfeeding status of all children under five years of age and, for the youngest child born in the three years before the survey and living with the mother, food (liquids or solids) given to the child the day before the survey.

Table 12.2 shows the percent distribution of youngest children under three years living with the mother by breastfeeding status and the percentage of children under three years using a bottle with a nipple, according to age in months. Contrary to WHO's recommendations, only about half (53 percent) of children under 6 months are exclusively breastfed in Nepal.

The 2006 NDHS data show that mothers of children under 6 months of age with a higher level of education are less likely to exclusively breastfeed (data not shown). For instance, while two in three children under 6 months whose mothers have a primary education are exclusively breastfed, only one in three children of mothers with SLC and higher level of education are exclusively breastfed. Further, children in the lowest wealth quintile are more likely to be exclusively breastfed than children in the highest wealth quintile (67 percent and 38 percent, respectively).

Table 12.2 Breastfeeding status by age

Percent distribution of youngest children under three years who are living with their mother by breastfeeding status, and the percentage currently breastfeeding; and the percentage of all children under three years using a bottle with a nipple, according to age in months, Nepal 2006

	Percent distribution of youngest children under three years living with their mother by breastfeeding status										
			Breastfeeding and consuming:								
Age in months	Not breast-feeding	Exclusively breastfed	Plain water only	Non-milk liquids/ juice	Other milk	Comple-mentary foods	Total	Percentage currently breast-feeding	Number of youngest children under three years	Percentage using a bottle with a nipple[1]	Number of children under three years
<2	1.2	88.0	1.5	0.0	9.0	0.3	100.0	98.8	118	2.0	119
2-3	0.0	56.0	22.1	1.4	13.9	6.7	100.0	100.0	156	3.5	159
4-5	0.0	30.6	27.0	2.8	14.5	25.2	100.0	100.0	204	5.5	207
6-7	0.0	10.1	17.1	1.6	8.3	62.9	100.0	100.0	159	3.4	159
8-9	1.0	2.2	6.6	0.9	3.7	85.7	100.0	99.0	180	5.6	183
10-11	0.9	0.0	3.4	0.0	1.3	94.4	100.0	99.1	151	1.2	151
12-15	2.5	0.0	1.7	0.0	0.3	95.6	100.0	97.5	300	4.4	305
16-19	2.7	0.0	1.0	0.0	0.0	96.3	100.0	97.3	336	3.0	353
20-23	5.0	0.0	0.0	0.0	0.0	95.0	100.0	95.0	302	3.1	325
24-27	10.4	0.2	0.0	0.0	0.0	89.4	100.0	89.6	314	2.9	362
28-31	22.9	0.0	0.0	0.0	0.2	76.9	100.0	77.1	302	0.5	400
32-35	25.6	0.0	0.0	0.0	0.0	74.3	100.0	74.4	281	0.1	384
<6	0.3	53.0	19.1	1.7	12.9	13.0	100.0	99.7	478	4.0	484
6-9	0.5	5.9	11.5	1.2	5.9	75.0	100.0	99.5	339	4.6	342
12-23	3.4	0.0	0.9	0.0	0.1	95.6	100.0	96.6	938	3.5	984
20-23	5.0	0.0	0.0	0.0	0.0	95.0	100.0	95.0	302	3.1	325

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

[1] Based on all children under three years

It can be noted here that the data reported here on proportion of children less than 6 months who are exclusively breastfed cannot be compared with data from the two previous DHS surveys in 1996 and 2001, because the questions were different in the current survey. The 2006 NDHS asked about more supplementary food items, which could have helped mothers better recall foods given to the infants. This has been noted as well in other countries where the questions were administered differently during different surveys, such as in the Honduras Family Health Survey (Lung'aho, 1999).

Table 12.2 also shows that nearly nine in ten children (88 percent) under 2 months of age were exclusively breastfed, 2 percent consumed breast milk and plain water, and 9 percent consumed other milk in addition to breast milk. The proportion of children exclusively breastfed decreases at 6 months of age, as solid and mushy food are introduced. This could be because among many cultures in Nepal, the first time solid food is given is solemnized with a formal ceremony called Pasnee, or the rice feeding ceremony. This ceremony is considered auspicious starting from the fifth or subsequent odd-numbered month of age for female children and the sixth or even-numbered month of age for male children.

The 2006 NDHS results also indicate that the practice of introducing complementary foods in a timely fashion for many children has improved over the years., The percentage of children who received complementary food at 6-7 months of age increased from 53 percent in the 2001 NDHS to 63 percent in the 2006 NDHS, though some of the apparent increase could also be due to the more intensive questions in the 2006 survey about foods given.

Bottle-feeding is usually associated with increased risk of illness, and especially diarrheal diseases, because of the difficulty in sterilizing the nipples properly. Bottle-feeding also shortens the period of postpartum amenorrhea and increases the risk of pregnancy. The practice of bottle-feeding with a nipple is not widespread in Nepal. However, the percentage of children who are bottle-fed rises from 2 percent among children under two months to 6 percent among children age 8-9 months, after which it declines. The practice of bottle-feeding with a nipple among children 6-9 months has risen slightly from about 3 percent in 2001 to 5 percent in 2006.

12.3 Duration and Frequency of Breastfeeding

Table 12.3 shows the median duration and frequency 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.

The median duration of any breastfeeding in Nepal is 34 months, while the mean duration is about 30 months. Male children are breastfed longer than female children. The median duration of breastfeeding is higher among children living in the Western mountain, Western hill, Mid-western hill, Mid-western terai, and Far-western terai subregions than in other subregions. Children of mothers with some secondary and higher level of education are breastfed for a shorter duration than children of mothers with primary or no education. Both duration and frequency of breastfeeding can affect the length of postpartum amenorrhea.

The median duration of exclusive breastfeeding in Nepal is about 3 months, while the mean duration is 4 months.

Table 12.3 also shows that the overwhelming majority (99 percent) of children under 6 months of age were breastfed six or more times in the 24 hours preceding the survey. In line with expectations, breastfeeding is slightly more frequent in the daytime than at night (mean number of daytime feeds is 8 compared with 6 at night). Breastfeeding during the day and the night is more frequent among children residing in the Central terai subregion than in the other subregions, consistent with the result of the 2001 NDHS.

Table 12.3 Median duration and frequency of breastfeeding

Median duration of any breastfeeding, exclusive breastfeeding, and predominant breastfeeding among children born in the three years preceding the survey, percentage of breastfeeding children under six months of age living with the mother who were breastfed six or more times in the past 24 hours, and mean number of (day/night) feeds, by background characteristics, Nepal 2006

	Median duration (months) of breastfeeding among children born in the past three years[1]				Frequency of breastfeeding among children under six months of age[2]			
Background characteristic	Any breast-feeding	Exclusive breast-feeding	Predom-inant breast-feeding[3]	Number of children	Percentage breastfed 6+ times in past 24 hours	Mean number of day feeds	Mean number of night feeds	Number of children
Sex								
Male	≥36.0	2.8	4.8	1,640	98.7	8.0	5.6	259
Female	30.2	2.2	4.7	1,621	99.4	7.7	5.7	218
Residence								
Urban	≥36.0	2.2	5.1	388	97.8	8.7	6.0	61
Rural	34.1	2.6	4.7	2,872	99.2	7.8	5.6	416
Ecological zone								
Mountain	≥36.0	2.1	2.4	277	94.4	6.3	5.5	29
Hill	33.6	3.2	4.4	1,328	98.6	7.2	5.2	189
Terai	≥36.0	2.3	5.3	1,656	99.7	8.6	6.0	259
Development region								
Eastern	30.9	2.2	4.1	711	99.3	7.7	5.5	109
Central	33.3	2.2	4.9	1,021	98.8	8.7	6.1	163
Western	32.7	3.2	4.8	629	100.0	7.7	5.5	85
Mid-western	34.3	3.4	5.2	409	98.4	6.7	5.2	51
Far-western	≥36.0	3.1	5.3	491	98.1	7.3	5.4	69
Subregion								
Eastern mountain	29.6	0.8	0.8	65	*	*	*	7
Central mountain	33.4	1.6	2.2	49	*	*	*	4
Western mountain	≥36.0	2.4	3.5	163	(95.6)	(5.9)	(5.5)	18
Eastern hill	31.2	2.6	2.7	205	(100.0)	(7.6)	(5.3)	27
Central hill	33.3	3.0	4.4	389	(96.9)	(7.4)	(5.3)	64
Western hill	≥36.0	3.8	5.0	376	(100.0)	(7.4)	(5.2)	52
Mid-western hill	≥36.0	3.6	4.9	219	(100.0)	(6.3)	(4.7)	28
Far-western hill	32.4	2.2	5.0	139	(96.7)	(6.7)	(5.3)	18
Eastern terai	30.9	2.2	5.0	441	100.0	7.8	5.6	76
Central terai	29.7	1.8	5.4	583	100.0	9.6	6.5	95
Western terai	31.0	2.5	4.5	252	(100.0)	(8.2)	(5.8)	33
Mid-western terai	≥36.0	2.7	5.7	137	(100.0)	(7.5)	(6.0)	18
Far-western terai	≥36.0	3.8	6.3	243	(98.2)	(8.1)	(5.4)	37
Mother's education								
No education	≥36.0	2.5	5.1	1,859	98.6	7.7	5.5	239
Primary	≥36.0	3.7	5.7	603	98.5	8.2	5.7	102
Some secondary	31.9	2.2	3.7	569	100.0	7.7	5.4	86
SLC and above	29.3	2.0	2.4	229	(100.0)	(8.2)	(6.3)	49
Wealth quintile								
Lowest	≥36.0	3.6	5.1	820	97.1	7.0	5.1	112
Second	≥36.0	2.2	5.1	684	100.0	7.5	5.1	88
Middle	29.6	2.8	5.0	660	99.4	8.4	5.7	112
Fourth	33.9	2.2	4.0	605	99.7	7.9	6.1	100
Highest	31.4	1.8	4.2	493	99.1	9.1	6.4	65
Total	34.3	2.5	4.8	3,261	99.0	7.9	5.6	477
Mean for all children	29.5	4.0	5.6	na	na	na	na	na

Note: Median and mean durations are based on the distributions at the time of the survey of the proportion of births by months since birth. The median duration of any breastfeeding is shown as ≥36.0 for groups in which the exact median cannot be calculated because the proportion of breastfeeding children does not drop below 50 percent in any age group for children under 36 months of age. Includes children living and deceased at the time of the survey. 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] It is assumed that non-last-born children and last-born children not currently living with the mother are not currently breastfeeding
[2] Excludes children without a valid answer on the number of times breastfed
[3] Either exclusively breastfed or received breast milk and plain water, and/or non-milk liquids only

12.4 TYPES OF COMPLEMENTARY FOODS

WHO recommends the introduction of solid food to infants around the age of 6 months because by that age breast milk by itself is no longer sufficient to maintain a child's optimal growth. Table 12.4 shows information on the types of food given to the youngest child under three years of age living with the mother on the day and night preceding the survey, according to their breastfeeding status.

Table 12.4 Foods and liquids consumed by children in the day and night preceding the survey

Percentage of youngest children under three years of age living with the mother who consumed specific foods and liquids in the day and night preceding the survey, by breastfeeding status and age, Nepal 2006

	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, shellfish, poultry, and eggs	Cheese, yogurt, other milk product	Any solid or semi-solid food	Food made with oil, fat, or butter	Sugary foods	Number of children
BREASTFEEDING CHILDREN															
<2	0.0	9.1	0.0	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	117
2-3	1.0	17.6	1.9	0.0	5.3	0.1	0.0	0.1	0.1	0.0	0.0	6.6	0.0	0.3	156
4-5	3.8	32.0	9.2	2.2	23.0	2.5	2.2	1.8	6.1	1.6	0.3	24.0	3.3	6.1	204
6-7	4.6	44.4	28.9	4.2	58.4	7.8	9.3	14.2	15.8	9.9	6.4	61.2	9.5	14.4	159
8-9	2.4	47.8	33.7	8.8	81.2	30.5	12.7	26.0	34.3	11.2	9.1	82.4	14.0	33.4	178
10-11	2.2	46.8	48.1	5.2	92.9	42.2	20.4	49.9	44.1	12.9	13.3	93.4	16.5	33.0	150
12-15	0.9	49.1	55.9	3.4	93.4	55.8	27.3	66.1	51.4	22.3	17.8	97.5	28.2	53.7	293
16-19	0.9	48.1	59.5	2.4	97.7	58.6	30.5	67.3	54.4	26.5	18.3	99.0	19.6	53.0	327
20-23	1.9	41.4	63.2	2.4	99.0	60.1	32.9	63.8	50.1	29.6	15.8	100.0	21.0	57.3	287
24-27	0.2	45.2	64.1	0.5	97.7	62.2	32.6	62.4	53.9	29.1	19.6	99.8	16.6	51.6	282
28-31	0.0	45.1	67.7	1.2	97.8	61.8	33.6	69.1	48.4	26.9	23.4	99.2	20.3	59.1	233
32-35	1.6	49.0	70.4	1.3	99.2	64.4	35.6	72.2	53.0	31.6	25.3	99.4	19.6	50.6	209
<6	2.0	21.6	4.6	1.0	11.7	1.1	0.9	0.8	2.6	0.7	0.1	12.5	1.4	2.7	477
6-9	3.4	46.2	31.4	6.6	70.5	19.8	11.1	20.4	25.5	10.6	7.8	72.4	11.9	24.4	337
Total	1.5	41.8	47.2	2.6	77.9	43.0	22.8	47.5	39.0	19.5	14.1	79.4	15.9	39.6	2,594
NONBREASTFEEDING CHILDREN															
<24	(8.8)	(84.9)	(48.8)	(2.2)	(94.7)	(60.2)	(33.7)	(69.5)	(60.6)	(33.5)	(7.4)	(95.2)	(21.4)	(56.1)	36
24-27	(0.0)	(49.9)	(68.1)	(0.0)	(93.9)	(60.4)	(38.2)	(59.9)	(52.0)	(32.2)	(28.1)	(93.9)	(38.6)	(40.0)	33
28-31	2.7	54.5	74.9	2.7	98.1	59.8	28.3	77.4	52.7	26.8	16.4	100.0	28.8	50.9	69
32-35	1.0	50.3	69.5	0.0	95.7	64.1	49.7	78.2	62.4	29.1	25.9	95.7	31.1	59.7	72
Total	2.7	57.6	67.5	1.3	96.0	61.4	38.1	73.6	57.3	29.6	19.9	96.8	29.8	53.1	210

Note: Breastfeeding status and food consumed refer to a 24-hour period (yesterday and the past night). Figures in parentheses are based on 25-49 unweighted cases.
[1] Other milk includes fresh, tinned and powdered animal milk
[2] Does not include plain water
[3] Includes fortified baby food
[4] Includes pumpkin, carrot, squash, sweet potato, dark green leafy vegetables such as colocasia leaves, spinach, amaranth leaves, mustard leaves and swiss chard, mango, papaya, apricot, persimmon and other locally grown fruits and vegetables that are rich in vitamin A

The percentage of children receiving solid or semisolid food increases gradually by age. It is encouraging to note that at 6-7 months of age about three in five children are consuming solid or semisolid food.

However, the introduction of other liquids such as water, juice, and formula takes place earlier than the recommended age of 6 months. Even among the youngest group of breastfeeding children (<2 months), 9 percent drink other milk in addition to breast milk. About a quarter of children age 4-5 months have started consuming solid or semisolid food. The early introduction of water and foods increases the risk of infections, and thus contributes to malnutrition.

Consumption of liquids other than milk increases gradually with age, and by age 12-15 months more than one in two children (56 percent) receive liquid supplements other than milk. Consumption of milk other than breast milk peaks at 12-15 months (49 percent) and then stays more or less steady thereafter. Supplementing with infant formula at any age is not very common in Nepal, with children age 6-7 months being the most likely to consume it (5 percent).

At age 6-9 months, children are more likely to consume foods made from grains (71 percent) than other types of solid or semisolid foods. About 20 percent of children 6-9 months consumed vitamin A-rich fruits and vegetables in the day and night preceding the survey. Meat, fish, poultry, and eggs have bodybuilding substances essential to good health, and they are important for balanced physical and mental development. These foods are introduced late into the diet of children in Nepal, and few children consume them. For instance, at age 6-9 months, only one in ten children consume meat, fish, shellfish, poultry or eggs. As expected, more nonbreastfeeding children consume supplements at an earlier age than breastfeeding children.

Infant and Young Child Feeding (IYCF)

Infant and young child feeding (IYCF) practices include timely initiation of feeding solid/semi-solid foods from age 6 months, feeding small amounts, and increasing the amount of foods and frequency of feeding as the child gets older, while maintaining frequent breastfeeding. For the average, healthy breastfed child, solid/semi-solid foods should be provided 2-3 times per day at 6-8 months and 3-4 times per day between ages 9 and 24 months, with an additional snack being offered 1-2 times per day, as desired. The minimum infant and young child feeding (IYCF) practices for children 6-23 months are defined as continued breastfeeding, feeding at least the minimum number of times per day (according to age), and feeding from the minimum number of food groups per day. However, not all infants and young children are breastfed. Therefore, for nonbreastfed children, the criteria reflected under "feeding practices" are receiving breastmilk substitutes (that is, commercially produced infant formula, tinned, powdered, or fresh animal milk, cheese, yogurt, and other milk products), being fed at least the minimum number of times, and eating from the minimum number of food groups for nonbreastfed infants and young children.

As an integral part of the National Nutrition Policy and Strategy, various strategies have been developed by the Nutrition Section of the MOHP, which include creating awareness on growth monitoring and timely introduction of complementary food and feeding practices. The National Strategy for Infant and Young Child Feeding was developed during the current fiscal year and includes training of health workers on IYCF counseling and conducting a workshop on IYCF for all the nutrition focal persons and health education technicians in five development regions (Ministry of Health and Population, 2006). Moreover, the Nutrition Section of the MOHP has also launched a nutrition promotion week in different districts to enhance knowledge on timely initiation of proper feeding practices.

Table 12.5 highlights infant and young child feeding practices among youngest children age 6-23 months living with the mother. The discussion focuses on breastfed and all children, since the percentage of nonbreastfed children is too small to warrant separate analysis. About three out of five children (57 percent) are fed according to recommended IYCF practices; that is, they are given milk or milk products and foods from recommended food groups and are fed at least the recommended minimum number of times. Nearly all children 6-23 months are breastfed or given milk products, about three in five children are given the recommended number of foods (food from three or more groups for breastfed children), and more than four in five children (82 percent) are fed at least as often as is recommended.

Table 12.5 Infant and young child feeding (IYCF) practices

Percentage of youngest children age 6-23 months living with their mother who were fed according to three IYCF practices based on breastfeeding status, number of food groups and times they are fed during the day and night preceding the survey, by background characteristics, Nepal 2006

	Among breastfed children 6-23 months, percentage fed:				Among all children 6-23 months, percentage fed:				
Background characteristic	3+ food groups[1]	Minimum times or more[2]	Both 3+ food groups and minimum times or more	Number of breastfed children 6-23 months	Breast milk or milk products[3]	3+ or 4+ food groups[4]	Minimum times or more[5]	With all 3 IYCF practices	Number of children 6-23 months
Age									
6-7	24.8	59.0	24.1	159	100.0	24.8	59.0	24.1	159
8-9	46.4	69.0	41.1	178	100.0	45.9	68.4	40.8	180
10-11	52.3	79.9	44.8	150	99.1	51.8	80.1	44.4	151
12-15	73.4	84.5	67.0	293	100.0	74.1	84.6	67.5	300
16-19	75.1	90.2	69.3	327	99.5	75.5	89.9	69.0	336
20-23	71.2	93.9	68.9	287	99.4	70.0	91.6	67.2	302
Sex									
Male	64.1	83.3	59.2	726	100.0	64.5	83.1	59.5	741
Female	59.9	81.5	55.3	668	99.3	59.6	80.7	54.6	687
Residence									
Urban	74.7	79.5	66.7	166	99.8	75.0	79.0	66.5	173
Rural	60.4	82.8	56.1	1,227	99.6	60.4	82.4	55.8	1,255
Ecological zone									
Mountain	63.4	83.7	58.9	137	99.9	63.5	83.4	59.1	140
Hill	70.1	87.3	64.7	569	99.8	69.8	86.6	64.2	581
Terai	55.2	78.1	51.0	688	99.5	55.6	77.9	51.0	708
Development region									
Eastern	57.3	82.1	53.6	300	99.8	57.3	81.8	53.7	305
Central	60.3	80.0	54.9	421	99.3	61.0	79.5	55.1	441
Western	70.0	85.2	65.0	277	99.5	69.3	84.7	63.9	283
Mid-western	58.9	82.4	54.1	179	100.0	58.7	81.8	53.8	181
Far-western	64.7	83.8	60.0	217	100.0	64.9	83.7	60.0	218
Mother's education									
No education	54.7	78.4	49.9	785	99.6	54.7	78.0	49.8	802
Primary	61.5	82.6	58.0	266	99.2	61.5	81.8	57.2	275
Some secondary	77.0	92.1	72.2	254	100.0	77.1	91.5	72.0	259
SLC and above	86.1	89.7	78.3	89	100.0	86.6	90.1	79.0	92
Wealth quintile									
Lowest	55.4	80.8	51.1	361	99.9	54.9	80.4	50.6	366
Second	56.0	79.6	50.2	296	99.5	56.4	79.6	50.3	301
Middle	58.3	82.3	54.7	281	99.5	58.7	81.6	55.2	294
Fourth	66.9	85.4	63.7	244	99.2	66.9	84.2	62.4	252
Highest	81.4	85.8	74.2	211	100.0	81.8	85.8	74.4	215
Total	62.1	82.4	57.3	1,393	99.6	62.2	82.0	57.1	1,428

[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, fortified baby food from grains; c. vitamin A-rich fruits and vegetables; d. other fruits and vegetables; e. eggs; f. meat, poultry, fish, and shellfish (and organ meats); g. legumes and nuts; h. foods made with oil, fat, or butter.
[2] At least twice a day for infants 6-8 months and at least three times a day for children 9-23 months
[3] Includes commercial infant formula, fresh, tinned and powdered animal milk, and cheese, yogurt and other milk products
[4] 3+ food groups for breastfed children and 4+ food groups for non-breastfed children
[5] Fed solid or semi-solid food at least twice a day for infants 6-8 months, 3+ times for other breastfed children, and 4+ times for non-breastfed children

These feeding practices are better among children age 12-15 months and older. For example, 24 percent of children 6-7 months are fed according to IYCF recommendations, compared with 68 percent of children 12-15 months. The findings indicate that male children, children in urban areas, children of mothers with some secondary or higher education, and children in the highest wealth quintile are more likely than other children to be fed according to recommendations. Feeding practices in the hills and the Western development region are better than in the other regions.

12.5 FOODS CONSUMED BY MOTHERS

The quality and quantity of food that mothers eat influence their health and their children's health, especially breastfeeding children. The 2006 NDHS included questions on the types of foods that mothers of children under age three ate during the day and night preceding the interview. Table 12.6 shows that most mothers of young children eat foods made from grains (97 percent), nearly three in four (72 percent) eat foods made from roots or tubers, more than half (54 percent) eat foods made from legumes, and nearly two-thirds (65 percent) of mothers eat vitamin A-rich fruits and vegetables. Thirty percent of mothers eat meat, fish, shellfish, poultry and eggs and a similar proportion eat other fruits and vegetables. Smaller proportions of mothers eat cheese, yogurt, milk, or other milk products (23 percent), and 21 percent eat foods made with oil, fat, or butter. Forty-seven percent of mothers drink tea or coffee and 12 percent eat sugary foods.

Table 12.6 Foods consumed by mothers in the day and night preceding the survey

Among mothers age 15-49 with a child under age three years living with them, the percentage who consumed specific types of foods in the day and night preceding the survey, by background characteristics, Nepal 2006

	Liquids			Solid or semisolid foods									
Background characteristic	Milk	Tea/ coffee	Other liquids	Foods made from grains	Foods made from roots/ tubers	Foods made from legumes	Meat/ fish/ shellfish/ poultry/ eggs	Cheese/ yogurt	Vitamin A-rich fruits/ vege-tables[1]	Other fruits/ vege-tables	Foods made with oil/ fat/ butter	Sugary foods	Number of mothers
Age													
15-19	31.4	47.1	47.6	94.5	74.2	52.9	34.0	20.7	68.4	28.8	24.9	19.4	308
20-29	34.9	47.6	50.0	96.7	73.8	55.1	31.1	24.1	64.4	32.4	19.8	13.4	1,880
30-39	28.6	42.3	54.6	98.8	65.8	50.7	24.9	19.9	62.8	27.2	24.6	5.8	545
40-49	16.7	51.7	45.1	95.5	62.0	40.5	23.3	23.6	61.1	17.5	13.9	5.9	70
Residence													
Urban	38.3	73.9	59.6	92.9	81.4	67.9	42.2	20.4	71.0	46.5	31.5	27.4	346
Rural	32.1	42.8	49.2	97.4	70.6	51.6	28.3	23.2	63.6	28.4	19.7	10.3	2,458
Ecological zone													
Mountain	26.7	47.7	52.4	97.4	63.6	45.4	17.4	35.4	60.8	23.5	23.9	12.4	241
Hill	35.6	60.2	50.3	97.0	64.3	55.7	30.8	29.6	67.0	29.8	28.3	13.1	1,139
Terai	31.7	35.6	50.3	96.6	79.5	53.3	31.5	15.3	63.1	32.5	14.9	11.8	1,423
Development region													
Eastern	36.9	59.4	46.3	96.5	81.9	52.0	37.3	25.3	70.9	28.0	17.5	16.2	612
Central	34.8	42.3	44.0	95.9	75.7	49.1	28.7	13.8	69.6	29.2	21.1	11.1	891
Western	35.2	60.0	49.0	97.7	68.4	64.1	28.8	31.7	52.7	30.1	34.0	13.0	523
Mid-western	25.3	40.1	63.1	98.1	49.7	61.9	28.5	17.8	61.9	25.8	8.2	9.1	347
Far-western	26.2	26.5	61.6	97.1	72.4	45.8	25.2	31.5	61.1	42.0	21.2	11.4	430
Education													
No education	26.4	30.9	48.7	97.6	67.4	45.5	27.6	17.8	63.4	23.3	16.0	6.8	1,578
Primary	29.6	56.0	46.4	98.0	72.2	52.7	34.1	22.7	61.8	31.0	18.6	13.4	522
Some secondary	44.7	71.9	58.0	93.2	79.1	71.2	31.8	32.9	66.7	43.8	30.8	20.4	498
SLC and above	61.7	82.3	57.0	96.9	88.8	75.3	34.0	38.3	74.7	54.2	44.1	33.4	205
Wealth quintile													
Lowest	24.2	29.0	50.8	98.6	54.8	37.7	23.2	26.5	66.2	21.7	17.9	7.7	701
Second	26.9	33.1	48.5	97.9	72.8	49.8	29.2	17.5	61.4	26.0	16.9	5.7	590
Middle	34.9	42.1	49.1	95.1	74.5	55.5	28.0	22.1	62.4	26.7	18.6	8.5	563
Fourth	38.3	61.6	46.2	97.2	82.0	63.8	30.4	23.2	64.5	32.9	21.2	13.8	522
Highest	45.7	82.0	59.7	94.2	83.4	70.1	44.6	24.8	68.5	54.2	35.6	32.5	428
Total	32.8	46.7	50.5	96.8	72.0	53.6	30.0	22.9	64.5	30.6	21.1	12.4	2,804

Note: Foods consumed in the past 24-hour period (yesterday and the past night).
[1] Includes pumpkin, carrot, squash, sweet potato, dark green leafy vegetables such as colocasia leaves, spinach, amaranth leaves, mustard leaves and swiss chard, mango, papaya, apricot, persimmon, and other locally grown fruits and vegetables that are rich in vitamin A

12.6 Micronutrient Intake

Micronutrient deficiencies are a result of inadequate intake of micronutrient-rich foods and the inadequate utilization of available micronutrients in the diet as a result of infections, parasitic infestations, and other factors. Measures of micronutrient fortification, micronutrient supplementation with iron and vitamin A, consumption of vitamin A-rich and iron-rich foods, and micronutrient status in terms of anemia and night blindness are discussed in this section for both women and children.

12.6.1 Micronutrient Intake among Children

Micronutrient deficiency has serious consequences for childhood morbidity and mortality. Children can receive micronutrients from foods, fortified foods, and direct supplementation. Vitamin A is an essential micronutrient for the immune system. 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 can slow 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 enough vitamin A for four to six months.

The 2006 NDHS collected information on the consumption of vitamin A-rich foods and supplements. Table 12.7 shows the intake of several key micronutrients among children. Nearly two-thirds (64 percent) of last-born children 6-35 months old living with the mother consumed vitamin A-rich foods in the 24-hour period before the survey. Consumption of vitamin A-rich foods increases from 27 percent among children age 6-9 months to 74 percent among children age 24-35 months. There is no difference by sex in the consumption of vitamin A-rich foods. Breastfeeding children are much less likely to consume foods rich in vitamin A than nonbreastfeeding children. Children of older mothers are somewhat more likely than their counterparts to receive vitamin A-rich foods. Urban children (68 percent) and children living in the hills (69 percent) are more likely than rural children and children living in the other ecological zones to consume vitamin A-rich foods. Children born to mothers with SLC and higher level of education are more likely to have received foods rich in vitamin A than children born to mothers with primary education. Children living in the wealthiest households are much more likely to consume vitamin A-rich foods than children living in other households.

Twenty-four percent of young children consume foods rich in iron. Noticeable differences by background characteristics are also seen in the consumption of iron-rich foods by young children. Consumption of iron-rich foods peaks at 29 percent among children age 24-35 months and is slightly higher among nonbreastfeeding children than breastfeeding children, among children of the youngest mothers than among children of older mothers, and among urban than rural children. Differences by other background variables are similar to those seen for the consumption of vitamin A rich foods.

Although vitamin A deficiency is decreasing, it still poses a serious health problem in Nepal. According to the 1998 Nepal Micronutrient Status Survey, the overall prevalence of sub-clinical VAD (serum retinol levels <0.70 µmol/l) is 17 percent for women and 32 percent for preschool children (Ministry of Health, 1998). An important strategy for overcoming vitamin A deficiency in Nepal has been the distribution of vitamin A capsules through the Nepal National Vitamin A Program, which has been in place since 1993. As of October 2002, the program covers all the districts in the country. During the distribution periods, children 6-11 months receive 100,000 international units (IU) and children 12-59 months receive 200,000 IU of vitamin A. Children under 6 months are not covered because most children in this age group are breastfed and receive vitamin A through breast milk. Vitamin A distribution is carried out during the months of Kartik and Baisakh in the Nepalese calendar, which roughly corresponds to October and April in the Gregorian calendar. The 2006 NDHS fieldwork spanned the two different rounds of vitamin A distribution, and the questionnaire was designed to capture data on the most recent applicable month. Mothers of children under age five were initially asked if they knew about the most recent vitamin A capsule distribution. If the respondent did not know about the distribution, she was asked if someone else in the household might know of such an event. Only in rare cases was information on vitamin A gathered from someone other than the respondent.

Table 12.7 Micronutrient intake among children

Percentage of youngest children age 6-35 months living with their mother who consumed vitamin A-rich and iron-rich foods in the day and night preceding the survey, and among all children age 6-59 months the percentage who were given vitamin A supplements in the six months preceding the survey, and among all children 12-59 months the percentage who were given deworming medication in the six months preceding the survey, by background characteristics, Nepal 2006

	Among last-born children age 6-35 months:			Among all children age 6-59 months:		Among children age 12-59 months:	
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	Number of children	Percentage given deworming medication in past 6 months[3]	Number of children
Age in months							
6-9	27.0	10.5	339	43.8	342	na	na
10-11	47.5	12.8	151	79.6	151	na	na
12-23	70.0	26.5	938	90.9	984	67.2	984
24-35	74.4	29.1	897	91.2	1,147	83.4	1,147
36-47	na	na	na	92.5	1,049	86.4	1,049
48-59	na	na	na	90.6	1,094	88.7	1,094
Sex							
Male	64.3	23.9	1,184	87.7	2,421	81.1	2,172
Female	63.6	24.7	1,141	87.3	2,347	82.5	2,103
Breastfeeding status							
Breastfeeding	62.8	23.7	2,117	85.0	2,605	76.4	2,117
Not breastfeeding	76.1	29.8	209	90.6	2,157	87.0	2,151
Mother's age at birth							
15-19	64.0	27.6	434	85.7	973	81.3	873
20-29	62.9	24.3	1,478	88.0	2,909	82.1	2,606
30-39	67.2	20.4	365	87.7	782	80.9	703
40-49	72.3	24.3	48	88.4	104	84.6	93
Residence							
Urban	67.7	32.8	285	80.6	591	73.7	534
Rural	63.4	23.1	2,041	88.5	4,177	82.9	3,740
Ecological zone							
Mountain	56.4	14.8	212	87.5	414	84.0	369
Hill	68.9	26.8	951	86.9	1,981	83.4	1,799
Terai	61.3	24.0	1,163	88.0	2,373	80.0	2,106
Development region							
Eastern	65.4	28.6	503	86.5	1,036	77.9	928
Central	68.6	23.5	727	86.1	1,561	80.8	1,397
Western	59.7	26.3	438	89.7	896	87.1	808
Mid-western	65.6	24.8	296	90.8	596	83.1	532
Far-western	56.5	17.0	362	86.6	680	81.8	609
Subregion							
Eastern mountain	68.8	27.2	47	91.3	99	89.4	90
Central mountain	56.3	18.7	43	71.7	80	66.5	69
Western mountain	51.6	8.7	122	91.3	235	87.5	210
Eastern hill	74.3	28.2	150	86.0	307	81.4	275
Central hill	78.1	37.2	280	81.8	628	79.7	581
Western hill	62.1	25.2	267	93.1	542	91.9	494
Mid-western hill	65.5	23.2	152	87.9	312	81.0	275
Far-western hill	58.4	5.6	101	85.4	192	78.7	174
Eastern terai	60.5	28.9	306	86.0	631	74.3	563
Central terai	63.4	14.5	404	90.5	853	82.9	747
Western terai	55.7	27.9	170	84.4	349	79.4	309
Mid-western terai	64.9	30.7	101	92.0	193	84.8	174
Far-western terai	61.4	29.0	183	87.1	348	80.9	312
Mother's education							
No education	65.5	23.4	1,338	87.1	2,884	80.4	2,605
Primary	57.5	24.8	420	88.7	855	82.4	760
Some secondary	62.1	24.1	412	87.3	736	83.8	645
SLC and above	72.9	31.2	156	89.0	292	88.2	265
Wealth quintile							
Lowest	65.5	18.5	588	84.9	1,215	80.4	1,090
Second	59.7	23.5	502	87.7	1,025	82.4	911
Middle	62.5	22.9	450	90.5	940	82.3	839
Fourth	61.4	24.1	422	90.0	849	82.2	757
Highest	72.2	36.7	364	84.8	739	81.9	676
Total	64.0	24.3	2,326	87.5	4,768	81.8	4,274

Note: Information on vitamin A and iron supplements and deworming medication is based on the mother's recall. Total includes 2 children for whom information on breastfeeding status was missing and not shown separately.
na = Not applicable
[1] Includes meat (and organ meat), fish, poultry, eggs, pumpkin, squash, carrots, sweet potatoes, dark green leafy vegetables, mango, papaya, apricot, persimmon, and other locally grown fruits and vegetables that are rich in vitamin A
[2] Includes meat, (including organ meat) fish, poultry, and eggs
[3] Deworming for intestinal parasites is commonly done for helminthes and for schistosomiasis.

Nearly nine in ten children age 6-59 months received a vitamin A supplement in the six months before the survey (Table 12.7). This is an improvement over the last five years; the 2001 NDHS reported that 81 percent of children age 6-59 months had received vitamin A supplementation during the most recent distribution preceding the survey. Differences in the consumption of vitamin A supplements by sex, breastfeeding status, and mother's age at birth are small. The urban-rural difference in vitamin A intake is marked, however, with rural children much more likely to receive vitamin A supplements than children in urban areas (89 percent versus 81 percent). Children residing in the Central mountain subregion are least likely (72 percent) to receive vitamin A supplements compared with children in the other subregions. Vitamin A supplementation for children is slightly lower among children of mothers in the lowest and highest wealth quintiles.

Along with vitamin A deficiency, the prevalence of worm infestation has been high in Nepal (MOHP, 2006). The Ministry of Health and Population therefore integrated the deworming of children age two to five years into the national biannual vitamin A supplementation program. By 2004, the entire country was covered. However, as the prevalence of anemia was found to be high among children under age two by the impact study, and according to the recommendation of WHO, the Ministry of Health and Population lowered the age limit for deworming from two years to one year (Ministry of Health and Population, 2006). Information on deworming of children 12-59 months was collected in the 2006 NDHS survey.

Table 12.7 indicates that 82 percent of children 12-59 months received deworming tablets in the 6 months preceding the survey. Children over 24 months are more likely to receive deworming tablets. Children in rural areas are more likely to receive deworming tablets than urban children. There is little variation in whether children receive deworming tablets by ecological zone and development regions. However, fewer children in the Central mountain subregion (67 percent) received deworming tablets than in other subregions. Mother's education has a positive influence on whether their children receive deworming tablets.

It is noteworthy to point out that the low coverage of vitamin A among children age 6-9 months (44 percent), and deworming among children age 12-23 months (67 percent), could be because some children were under six months or twelve months of age, as the case may be, at the time of the last distribution and thus ineligible. Age in the DHS does not refer to the age of the child during the vitamin A or deworming distribution but rather age on the day of the interview (current status). The inclusion of these "ineligible" children in the denominator may account for some underestimation in the coverage of vitamin A and deworming in these specific age groups, at the time of the survey.

12.6.2 Micronutrient Intake among Mothers

A mother's nutritional status during pregnancy is important both for the child's intrauterine development and for protection against maternal morbidity and mortality. Night blindness is an indicator of severe vitamin A deficiency, and pregnant women are especially prone to suffer from it. This section discusses women's micronutrient intake status, both in terms of food intake and supplementation.

Table 12.8 shows data on micronutrient intake among mothers of young children by background characteristics. More than three in four mothers consumed vitamin A-rich foods, and nearly one-third consumed iron-rich foods, in the 24 hours preceding the survey. Consumption of vitamin A-rich foods is higher among mothers residing in urban areas, mothers living in the hill zone, more educated mothers, and those in the highest wealth quintile. Similarly, urban residence, education, and wealth are positively associated with consumption of iron-rich foods.

Women living in the mountains are least likely to receive vitamin A- and iron-rich foods (67 percent and 17 percent, respectively). This is especially true among women living in the Western mountain subregion, where 59 percent of women eat foods rich in vitamin A and only 11 percent eat iron-rich foods. Women in the Far-western hill subregion are least likely to consume iron-rich foods (8 percent) compared with women in other subregions.

Table 12.8 Micronutrient intake among mothers

Among women age 15-49 with a child under age three years living with her, the percentages who consumed vitamin A-rich and iron-rich foods in the 24 hours preceding the survey; among women age 15-49 with a child born in the past five years, the percentage who suffered from night blindness, the percentage who took iron tablets or syrup for specific numbers of days, and the percentage who received a vitamin A dose in the first two months after the birth of the last child, by background characteristics, Nepal 2006

	Among women with a child under three years living with her			Among women with a child born in the past 5 years								
				Percentage who suffered night blindness during pregnancy of last birth		Number of days women took iron tablets or syrup during pregnancy of last birth						
Background characteristic	Percentage consumed vitamin A rich foods[1]	Percentage consumed iron-rich foods[2]	Number of women with a child under 3 years	Night blindness reported	Night blindness adjusted[3]	None	<180	180+	Don't know/ missing	Percentage who received iron tablets post-partum[4]	Percentage of women who received vitamin A dose post-partum[4]	Number of women
Age												
15-19	78.5	34.0	308	10.7	5.6	25.2	66.2	8.7	0.0	29.3	36.6	325
20-29	76.8	31.1	1,880	11.9	5.2	35.5	56.4	8.0	0.2	26.0	32.5	2,586
30-39	73.7	24.9	545	15.1	5.3	52.3	43.8	3.9	0.0	16.9	22.0	933
40-49	76.9	23.3	70	17.5	4.7	75.4	21.6	3.1	0.0	7.6	14.1	221
Residence												
Urban	82.6	42.2	346	6.2	2.2	25.1	56.7	17.6	0.6	36.2	37.8	536
Rural	75.5	28.3	2,458	13.9	5.7	43.0	51.7	5.2	0.0	21.2	28.2	3,530
Ecological zone												
Mountain	66.9	17.4	241	23.4	6.3	59.7	34.6	5.7	0.0	9.6	18.4	340
Hill	78.2	30.8	1,139	12.3	2.6	44.6	45.9	9.3	0.2	20.6	28.3	1,677
Terai	76.5	31.5	1,423	11.6	7.2	34.3	60.7	5.0	0.0	27.6	32.2	2,049
Development region												
Eastern	83.1	37.3	612	12.3	5.2	37.4	57.0	5.6	0.0	23.8	30.6	884
Central	79.6	28.7	891	12.3	6.4	35.0	54.0	10.7	0.2	27.6	29.9	1,329
Western	66.8	28.8	523	11.6	4.7	45.9	48.7	5.3	0.1	16.3	25.4	755
Mid-western	73.5	28.5	347	13.8	4.8	53.9	43.3	2.8	0.0	14.4	21.1	514
Far-western	74.1	25.2	430	15.8	3.6	40.0	54.5	5.4	0.0	28.9	39.4	584
Subregion												
Eastern mountain	81.1	27.0	54	16.6	5.8	58.5	34.3	7.2	0.0	12.0	22.3	80
Central mountain	74.5	25.9	46	13.8	3.5	40.8	47.2	12.0	0.0	16.7	25.4	66
Western mountain	58.9	10.9	140	29.4	7.5	66.6	30.4	3.0	0.0	6.2	14.4	194
Eastern hill	85.2	34.2	176	15.1	2.7	54.1	41.8	4.1	0.0	11.3	23.2	248
Central hill	88.6	42.6	344	7.6	1.7	29.3	51.3	18.8	0.6	35.5	35.9	550
Western hill	67.3	27.2	319	12.7	2.8	43.1	50.4	6.3	0.2	15.5	28.7	455
Mid-western hill	75.3	26.6	181	13.6	4.1	64.1	32.9	3.1	0.0	13.4	18.9	270
Far-western hill	71.1	8.0	119	21.1	2.9	54.2	42.7	3.2	0.0	10.0	24.2	154
Eastern terai	82.4	40.2	382	10.4	6.3	27.0	67.0	6.0	0.0	31.1	35.1	556
Central terai	73.8	19.4	500	15.9	10.4	38.9	56.8	4.4	0.0	22.5	25.6	713
Western terai	65.6	31.2	203	10.0	7.8	49.4	46.8	3.8	0.0	17.9	20.7	295
Mid-western terai	71.1	35.1	119	9.4	5.5	36.3	60.7	3.1	0.0	20.4	29.7	171
Far-western terai	85.3	42.5	220	6.6	2.1	21.5	71.5	6.9	0.1	46.1	54.7	313
Education												
No education	74.9	27.6	1,578	17.1	7.3	52.6	44.6	2.8	0.0	15.2	21.0	2,357
Primary	76.7	34.1	522	11.4	4.0	34.5	58.7	6.8	0.0	23.3	32.4	743
Some secondary	78.9	31.8	498	4.3	1.5	20.8	65.9	13.0	0.3	37.2	45.3	683
SLC and above	80.8	34.0	205	1.8	0.3	5.3	68.5	25.9	0.3	56.1	53.9	282
Wealth quintile												
Lowest	74.4	23.2	701	22.9	6.6	65.7	31.7	2.7	0.0	12.1	17.8	956
Second	73.7	29.2	590	14.7	7.6	44.4	51.3	4.2	0.1	18.3	23.8	859
Middle	75.1	28.0	563	10.8	5.9	35.4	61.0	3.6	0.0	24.0	34.7	811
Fourth	76.8	30.4	522	8.9	3.7	29.2	64.4	6.4	0.0	23.6	31.6	752
Highest	84.3	44.6	428	3.4	1.3	19.9	59.4	20.1	0.5	43.3	44.0	687
Total	76.4	30.0	2,804	12.9	5.2	40.7	52.4	6.8	0.1	23.2	29.4	4,066

[1] Includes meat (and organ meat), fish, poultry, eggs, pumpkin, squash, carrots, sweet potatoes, mango, papaya, apricot, persimmon, and other locally grown fruits and vegetables that are rich in vitamin A
[2] Includes meat (and organ meat), fish, poultry, eggs
[3] Women who reported night blindness but did not report difficulty with vision during the day
[4] In the first two months after delivery

Thirteen percent of mothers reported having difficulty seeing at night but, when this figure is adjusted to include only those mothers who had no difficulty seeing in the daytime, only 5 percent of mothers suffered from night blindness during their most recent pregnancy in the last five years. This is a decrease from the 8 percent of mothers who suffered from night blindness in 2001. Night blindness during pregnancy is more prevalent among mothers in rural areas, those residing in the Central terai region, mothers with no education, and mothers in the poorest households.

Besides improving food intake, supplementation is an important strategy for addressing the problem of micronutrient deficiency. Iron supplementation during pregnancy has been a key health initiative in Nepal since 1980. According to the government policy, all pregnant women are supplied with iron tablets containing 60 mg of elemental iron, free of charge. The iron tablets are provided to all pregnant women from the beginning of the second trimester of pregnancy and are continued for up to 45 days postpartum (225 days total). In order to increase the numbers of pregnant women and postnatal mothers who receive iron tablets and who take them as directed, the Nutrition Section of the Child Health Division has been implementing the "Intensification of Iron Supplementation Program (IAISP)" since 2003-04. The Intensification of Maternal and Neonatal Micronutrient Program (IMNMP) has been in place since 2003. Under this program, FCHVs are trained and equipped to provide iron tablets to pregnant and postnatal women at the community level (Ministry of Health and Population, 2005). The IMNMP covered 20 districts by April 2006.

Presumably as a result of these existing program interventions, the proportion of women receiving iron supplements during pregnancy has risen from 23 percent in 2001 to 59 percent in 2006. However, about two in five mothers (41 percent) did not take any iron supplements during their most recent pregnancy. Further, only about 7 percent of women took the recommended dose of iron supplements for 180 days or more during their pregnancy. Twenty-three percent of women received iron supplements postpartum. Only 5 percent took iron supplements for the recommended duration of 45 days (data not shown).

Supplementation with vitamin A capsules (200,000 IU) for postpartum mothers through health care facilities and community volunteers is a strategy to reduce night blindness caused by vitamin A deficiency. The government has targeted a reduction of VAD among pregnant women to 3 percent by 2007 (Ministry of Health and Population, 2006).

Table 12.8 shows that 29 percent of women received vitamin A postpartum, an improvement from the 10 percent of women receiving vitamin A postpartum reported in the 2001 NDHS. Younger women are more likely to receive vitamin A postpartum. There is a marked urban-rural difference, with 38 percent of urban women receiving vitamin A, compared with 28 percent of women residing in the rural areas. Women in the terai, those with a higher level of education, and those in the highest wealth quintile are also more likely to receive vitamin A postpartum.

12.7 Prevalence of Anemia

The most common cause of anemia in developing countries is inadequate intake of iron, folate, vitamin B_{12}, or other nutrients. Anemia can also result from sickle cell disease, malaria, and intestinal worm infestation. Anemia may be the underlying cause of maternal mortality, spontaneous abortion, premature birth, and low birth weight. Iron and folic acid supplementation and deworming among pregnant women, and six-month deworming for children, are important measures for reducing anemia prevalence among vulnerable groups. Anemia is characterized by a low level of hemoglobin in the blood. The 2006 NDHS measured hemoglobin levels to identify anemia in children and women.

12.7.1 Prevalence of Anemia in Children

Table 12.9 shows the percentage of children age 6-59 months classified as having anemia, by background characteristics. Nearly one in two (48 percent) Nepalese children 6-59 months old are anemic, with 26 percent mildly anemic, 22 percent moderately anemic, and less than 1 percent severely anemic.

It is interesting to note that children 24 months and above are less likely to be anemic than younger children. Rural children are slightly more likely to have anemia than urban children. Children in the terai have the highest prevalence of anemia, with children in the Central terai subregion most likely to be anemic (63 percent). Children of mothers with higher education levels and children in the highest wealth quintile are least likely to be anemic.

Children who received deworming tablets are less likely to be anemic than children who did not receive deworming tablets; 43 percent of children receiving deworming tablets were anemic, compared with 52 percent of children who did not receive deworming tablets even though they were eligible (12-59 months), and 80 percent of children who did not receive deworming tablets because of their young age (less than one year).

Table 12.9 Prevalence of anemia in children

Percentage of children age 6-59 months classified as having anemia, by background characteristics, Nepal 2006

Background characteristic	Anemia status by hemoglobin level: Mild (10.0-10.9 g/dl)	Moderate (7.0-9.9 g/dl)	Severe (< 7.0 g/dl)	Any anemia (<11.0 g/dl)	Number of children
Age in months					
6-9	36.8	42.9	1.4	81.2	291
10-11	32.1	47.1	3.0	82.2	157
12-23	32.2	37.5	1.0	70.6	963
24-35	26.3	19.5	0.5	46.3	1,125
36-47	23.2	13.2	0.5	36.8	1,041
48-59	19.5	9.1	0.1	28.7	1,115
Sex					
Male	25.1	22.3	0.7	48.1	2,404
Female	27.1	21.0	0.6	48.6	2,288
Mother's interview status					
Interviewed	26.4	22.1	0.7	49.1	4,483
Not interviewed but in household	24.7	16.0	0.0	40.7	53
Not interviewed, and not in the household[1]	17.6	12.6	0.0	30.3	156
Deworming status					
Children not eligible	34.1	44.2	2.1	80.3	632
Received deworming medication in past 6 months	24.8	17.4	0.4	42.6	3,255
Did not receive deworming medication in past 6 months	27.1	24.4	0.8	52.3	590
Residence					
Urban	23.4	17.1	0.5	41.1	536
Rural	26.4	22.3	0.7	49.3	4,156
Ecological zone					
Mountain	23.0	21.3	0.9	45.2	414
Hill	22.6	14.0	0.3	36.9	1,947
Terai	29.5	28.2	0.9	58.5	2,332
Development region					
Eastern	24.8	17.0	0.4	42.1	1,021
Central	27.9	22.6	0.4	50.8	1,486
Western	27.0	21.4	1.1	49.5	891
Mid-western	23.1	23.7	0.5	47.3	608
Far-western	25.4	25.4	1.1	51.9	686
Subregion					
Eastern mountain	24.1	9.2	0.5	33.8	99
Central mountain	22.8	9.0	0.7	32.4	76
Western mountain	22.6	30.2	1.2	53.9	238
Eastern hill	19.2	11.8	0.1	31.1	320
Central hill	24.2	11.3	0.0	35.4	570
Western hill	26.3	14.8	0.9	42.0	537
Mid-western hill	18.3	15.4	0.4	34.1	323
Far-western hill	20.9	20.4	0.0	41.3	197
Eastern terai	27.9	21.0	0.5	49.4	603
Central terai	30.9	31.4	0.6	62.9	840
Western terai	28.0	31.2	1.5	60.8	349
Mid-western terai	32.0	29.4	0.5	61.9	198
Far-western terai	28.8	29.1	1.6	59.6	342
Mother's education[2]					
No education	26.7	24.3	0.8	51.8	2,795
Primary	24.9	19.9	0.4	45.2	800
Some secondary	27.1	16.5	0.6	44.2	842
SLC and above	21.0	21.9	0.0	42.9	99
Wealth quintile					
Lowest	25.3	21.2	1.0	47.6	1,206
Second	28.4	22.8	0.4	51.6	1,017
Middle	27.2	26.2	0.4	53.7	946
Fourth	26.1	19.9	1.0	47.0	843
Highest	22.2	16.7	0.4	39.3	681
Total	26.1	21.7	0.6	48.4	4,692

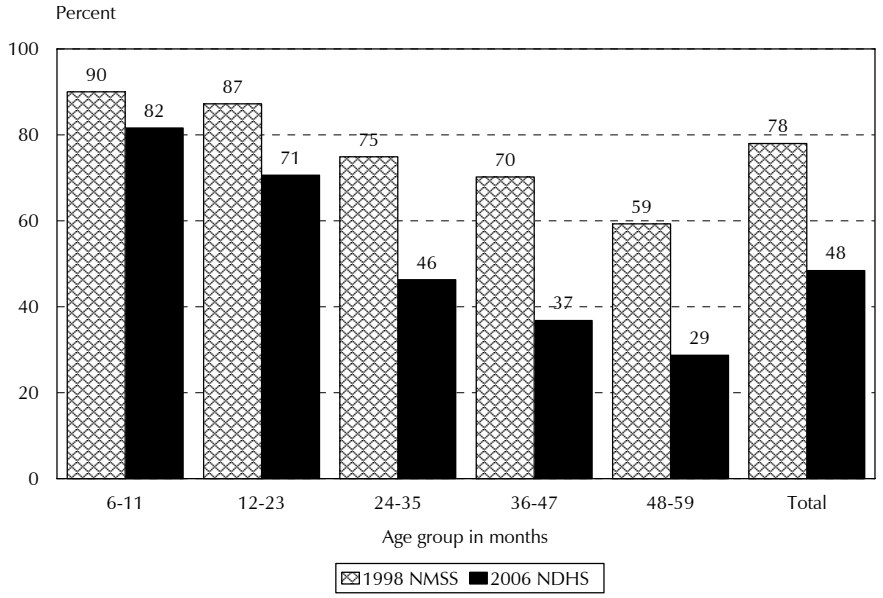
Note: Table is based on children who slept in the household the night before the interview. Prevalence of anemia, based on hemoglobin levels, is adjusted for altitude using CDC formulas (CDC, 1998). Hemoglobin in grams per deciliter (g/dl).

[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.

The continued biannual deworming of children 12 to 59 months old has had a positive impact over the years; levels of childhood anemia have decreased substantially. The 1998 Nepal Micronutrient Status Survey indicated that 78 percent of children 6-59 months suffered from anemia (Ministry of Health, 1998), compared with 48 percent in the 2006 NDHS. This is a 39 percent decrease in the last eight years. The decrease is particularly noticeable among children 24 months and over (Figure 12.1).

Figure 12.1 **Trends in Anemia Status among Children 6-59 Months**



Note: Refers to the prevalence of any anemia (<11.0 g/dl) and adjusted for altitude

NDHS 2006

12.7.2 Prevalence of Anemia in Women

Iron deficiency anemia is one of the most common nutritional problems in Nepal; previous research had shown that nearly three-quarters of all women were anemic, and prevalence was especially high among pregnant women (Ministry of Health, 1998). In order to address the problem of anemia in women, the Iron Supplementation Program was introduced as part of the Ministry of Health and Population's nutrition program, covering all 75 districts. The program involved distributing iron-folate supplements to pregnant women through health facilities. FCHVs have been mobilized to supply iron tablets to pregnant women under the Iron Intensification Program. It was in 2002 that a National Strategy for the Control of Anemia among Women and Children was developed by the Ministry of Health and Population, with the support of the Micronutrient Initiative and UNICEF.

The association of hookworm infestation with pregnancy anemia and its high risk of maternal deaths have been well recognized as also indicated by the Nepal Nutrition Intervention Project in Sarlahi (NIPPS). The government has recently integrated training on deworming of pregnant women into the existing IMNMP (Ministry of Health and Population, 2005). As indicated in the previous chapter, the 2006 NDHS found that one in five women receives deworming tablets during their pregnancy.

Table 12.10 shows that 36 percent of women age 15-49 in Nepal are anemic, with 29 percent mildly anemic, 6 percent moderately anemic, and less than 1 percent severely anemic. Table 12.10 also indicates that two out of five pregnant women are anemic. This represents a decline, since the 1998 Nepal Micronutrient Status Survey indicated that three in four pregnant women in the country were anemic (Ministry of Health, 1998). However, pregnant women are more likely to be anemic than women who are neither pregnant nor breastfeeding (42 percent and 34 percent, respectively).

Table 12.10 Prevalence of anemia in women

Percentage of women age 15-49 with anemia, by background characteristics, Nepal 2006

Background characteristic	Not pregnant / Pregnant	Anemia status by hemoglobin level: Mild anemia	Moderate anemia	Severe anemia	Any anemia	Number of women
		10.0-11.9 g/dl / 10.0-10.9 g/dl	7.0-9.9 g/dl / 7.0-9.9 g/dl	<7.0 g/dl / < 7.0 g/dl	< 12.0 g/dl / <11.0 g/dl	
Age[1]						
15-19		32.1	6.7	0.3	39.0	2,413
20-29		29.6	7.3	0.5	37.4	3,725
30-39		27.0	5.3	0.6	32.8	2,515
40-49		28.9	5.5	0.3	34.8	1,993
Number of children ever born[2]						
0		29.6	6.4	0.4	36.4	2,957
1		28.2	6.6	0.7	35.4	1,350
2-3		29.3	6.3	0.3	35.9	3,337
4-5		29.6	6.4	0.4	36.4	1,827
6+		30.4	6.2	0.6	37.1	1,175
Maternity status[2]						
Pregnant		22.7	19.1	0.7	42.4	604
Breastfeeding		33.0	6.9	0.4	40.3	2,877
Neither		28.5	5.1	0.4	34.0	7,165
Using IUD[2]						
Yes		35.0	8.8	0.0	43.8	57
No		29.4	6.3	0.4	36.2	10,590
Mother's smoking status[2]						
Smokes cigarettes/tobacco		23.1	5.1	0.6	28.8	2,088
Does not smoke		31.0	6.7	0.4	38.0	8,559
Deworming status						
Women not eligible		28.3	5.5	0.5	34.3	6,634
Deworming medication		35.7	7.5	0.1	43.3	810
No deworming medication		30.2	7.9	0.4	38.4	3,177
Don't know/missing		16.4	11.9	5.7	34.0	26
Residence						
Urban		23.7	4.9	0.4	29.0	1,640
Rural		30.5	6.6	0.4	37.5	9,006
Ecological zone						
Mountain		17.0	3.9	0.5	21.5	747
Hill		16.6	3.9	0.2	20.7	4,544
Terai		42.1	8.7	0.6	51.4	5,355
Development region						
Eastern		26.9	3.8	0.5	31.1	2,346
Central		28.3	6.9	0.5	35.8	3,486
Western		25.1	5.8	0.3	31.2	2,053
Mid-western		30.1	6.3	0.3	36.7	1,245
Far-western		41.2	9.8	0.4	51.4	1,517
Subregion						
Eastern mountain		13.9	2.4	0.7	17.0	189
Central mountain		12.6	1.1	0.2	13.9	200
Western mountain		21.2	6.3	0.6	28.1	358
Eastern hill		18.0	3.5	0.0	21.4	626
Central hill		15.9	3.2	0.3	19.4	1,674
Western hill		16.0	4.7	0.3	21.0	1,258
Mid-western hill		17.5	4.3	0.3	22.1	649
Far-western hill		17.0	4.8	0.3	22.1	337
Eastern terai		32.1	4.1	0.7	36.9	1,531
Central terai		43.1	11.5	0.9	55.5	1,612
Western terai		39.6	7.5	0.4	47.5	776
Mid-western terai		48.4	9.6	0.4	58.4	453
Far-western terai		54.9	12.0	0.3	67.2	984
Education						
No education		31.3	7.5	0.5	39.3	5,637
Primary		27.1	4.8	0.4	32.3	1,875
Some secondary		28.1	5.9	0.3	34.3	2,213
SLC and above		25.9	3.9	0.3	30.1	921
Wealth quintile						
Lowest		23.8	6.7	0.5	31.0	1,946
Second		34.0	7.4	0.7	42.1	2,056
Middle		34.1	7.8	0.4	42.3	2,183
Fourth		28.4	6.1	0.2	34.7	2,199
Highest		26.5	4.0	0.4	30.9	2,262
Body Mass Index (BMI)						
<18.5 (thin)		35.0	9.0	0.6	44.6	2,597
18.5 - 24.9 (normal)		28.5	5.8	0.4	34.8	7,138
≥25 (overweight/obese)		20.3	3.0	0.0	23.3	911
Total		29.4	6.3	0.4	36.2	10,646

Note: Table is based on women who slept in the household the night before the interview. Prevalence is adjusted for altitude and for smoking status using formulas recommended by CDC (CDC, 1998).
[1] For women who were not interviewed, information is taken from the Household Questionnaire.
[2] Excludes women for whom this information is not available because they were not interviewed with the Women's Questionnaire

Anemia is higher among rural than urban women (38 percent versus 29 percent). Women residing in the terai are much more likely to be anemic than women living in the other ecological zones. This is specifically seen among women living in the Far-western terai (67 percent) and those living in the Mid-western terai (58 percent) subregions. Women using IUDs are more likely to be anemic (44 percent). Table 12.10 further highlights that thin women (BMI <18.5) are more likely to be anemic than women who are nutritionally healthy (45 percent compared with 35 percent).

12.8 NUTRITIONAL STATUS

The nutritional status of young children and women of reproductive age reflects household, community, and national development. Children and women in developing countries are most vulnerable to malnutrition because of low dietary intake, infectious diseases, lack of appropriate health care, and inequitable distribution of food within the household.

12.8.1 Nutritional Status of Children

The 2006 NDHS included information on the nutritional status of children under five years of age for three indices: weight-for-age, height-for-age, and weight-for-height. Weight measurements were taken using a lightweight electronic SECA scale designed and manufactured under the guidance of UNICEF, and height measurements were carried out using a measuring board from Shorr Productions. Children younger than 24 months were measured lying down (recumbent length) on the board, while standing height was measured for older children. 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.

The nutritional status of children in the survey population is compared with the WHO Child Growth Standards, which are based on an international sample (from Brazil, Ghana, India, Norway, Oman, and the US) of ethnically, culturally, and genetically diverse healthy children living under optimum conditions conducive to achieving a child's full genetic growth potential (WHO, 2006). The WHO Child Growth Standards are used here instead of the previously used NCHS/CDC/WHO reference because of the prescriptive, rather than descriptive, nature of the WHO Child Growth Standards versus the NCHS/CDC/WHO reference. The 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 WHO Child Growth Standards is based on the finding that well-nourished children of all population groups for which data exist follow very similar growth patterns before puberty. The internationally based standard population serves as a point of comparison, facilitating the examination of differences in the anthropometric status of subgroups in a population and of changes in nutritional status over time.

Each of the three nutritional status indicators is expressed in standard deviation units (z-scores) from the median of the reference population. In any large population, there is variation in height and weight; this variation approximates a normal distribution. The three indices—height-for-age, weight-for-height, and weight-for-age—provide different information about growth and body composition, which can be used to assess nutritional status. The height-for-age index indicates linear growth retardation and cumulative growth deficits. Children whose height-for-age z-score is below minus two standard deviations (-2 SD) from the median of the reference population are considered short for their age (stunted) and chronically malnourished. Children who are below minus three standard deviations (-3 SD) from the median of the reference population are considered severely stunted. Stunting reflects failure to receive adequate nutrition over a long period of time and is worsened 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 median of the reference population are considered to be thin for their height (wasted) and acutely malnourished. Wasting represents failure to receive adequate nutrition in the period immediately preceding the survey and may be the result of inadequate food intake during 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 median 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 median of the reference population are classified as underweight. Children whose weight-for-age is below minus three standard deviations (-3 SD) from the median of the reference population are considered severely underweight.

Height and weight data were collected in the sampled household population. A total of 5,578 children under five were identified in the households. Information on height or weight was missing for 3 percent of children and 1 percent had height or weight measures considered to be out of the range for their ages. The final analysis of nutritional status is based on the remaining 5,262 children (94 percent). The results are shown in Table 12.11.

Forty-nine percent of children under five are stunted and 20 percent are severely stunted. Thirteen percent of children under five are wasted and 3 percent are severely wasted. The weight-for-age indicator shows that 39 percent of children under age five are underweight and 11 percent are severely underweight.[1]

Table 12.11 and Figure 12.2 indicate that stunting is apparent even among children less than 6 months of age (12 percent). Stunting increases with the age of the child; this is evidenced by the increase in stunting from 19 percent among children age 6-8 months to 57 percent among children age 48-59 months. Stunting decreases as birth interval increases. Size at birth is an important indicator of the nutritional status of children: stunting is higher among children who were reported to have been small at birth (60 percent) than among children who were average or larger in size at birth (47 percent). More rural children are stunted (51 percent) than urban children (36 percent). Regional variation in nutritional status of children is substantial. Stunting levels are way above the national average in the mountains (62 percent). Stunting among children is highest in the Western mountain subregions (67 percent) and lowest in the Eastern terai subregion (37 percent). The percentage of children stunted decreases as mother's education level increases. Stunting is also related to household wealth status: children in the highest wealth quintile are least likely to be stunted.

Wasting among children increases dramatically in the first two years of life; the highest percentage of wasting is among children age 9-11 months (23 percent). The proportion of children wasted is higher in rural areas (13 percent) than in urban areas (8 percent). Wasting is higher than the national average in the terai (17 percent). Wasting is especially pronounced in the Central terai (21 percent) and Far-western terai (20 percent). The level of wasting is highest among those in the second and middle wealth quintiles.

[1] Comparable data from the previously used NCHS/CDC/WHO reference show that 43 percent of children under five are stunted and 15 percent are severely stunted. Twelve percent of children under five are wasted and 1 percent are severely wasted. The weight-for-age indicator shows that 45 percent of children under five are underweight and 10 percent are severely underweight.

Table 12.11 Nutritional status of children

Percentage of children under five years classified as malnourished according to three anthropometric indices of nutritional status: height-for-age, weight-for-height, and weight-for-age, by background characteristics, Nepal 2006

Background characterisitic	Height-for-age			Weight-for-height			Weight-for-age			Number of children
	Percentage below -3 SD	Percentage below -2 SD[1]	Mean a-score (SD)	Percentage below -3 SD	Percentage below -2 SD[1]	Mean z-score (SD)	Percentage below -3 SD	Percentage below -2 SD[1]	Mean z-score (SD)	
Age in months										
<6	2.8	11.6	-0.6	3.9	12.3	-0.6	5.2	16.2	-0.9	476
6-9	7.9	19.1	-1.1	6.0	17.5	-1.0	9.3	28.0	-1.4	329
10-11	9.2	33.1	-1.4	3.4	22.8	-1.2	13.4	36.1	-1.7	157
12-23	20.4	47.5	-1.9	4.1	18.0	-1.1	12.7	39.0	-1.7	981
24-35	24.7	57.8	-2.2	2.8	12.2	-0.8	12.2	41.3	-1.8	1,141
36-47	26.0	62.4	-2.3	1.0	9.5	-0.7	11.4	43.7	-1.8	1,045
45-59	22.4	57.1	-2.2	1.1	8.5	-0.7	8.8	43.4	-1.8	1,133
Sex										
Male	19.5	49.0	-1.9	3.1	12.9	-0.8	10.1	37.5	-1.7	2,705
Female	20.9	49.6	-1.9	2.2	12.3	-0.8	11.2	39.7	-1.7	2,558
Birth interval in months[2]										
First birth[3]	15.2	40.8	-1.7	2.5	12.1	-0.8	7.5	32.2	-1.5	1,383
<24	21.8	53.3	-2.0	2.1	11.0	-0.9	11.5	40.8	-1.7	939
24-47	23.1	53.4	-2.1	3.0	13.7	-0.9	13.1	41.9	-1.8	1,946
48+	19.8	49.3	-1.9	2.5	12.8	-0.8	9.3	38.7	-1.7	994
Size at birth[2]										
Very small	30.6	58.0	-2.2	6.9	23.9	-1.2	21.3	55.5	-2.2	248
Small	31.7	59.5	-2.3	3.5	19.2	-1.2	19.6	59.3	-2.2	681
Average or larger	17.5	46.9	-1.8	2.2	11.0	-0.8	8.6	34.1	-1.6	4,110
Mother's interview status										
Interviewed	20.1	49.2	-1.9	2.6	12.7	-0.8	10.7	38.5	-1.7	5,048
Not interviewed but in household	30.3	49.1	-2.3	2.9	10.9	-0.7	10.4	43.0	-1.8	57
Not interviewed, and not in the household[4]	18.8	52.2	-2.0	2.1	9.3	-0.7	7.7	39.5	-1.7	157
Mother's nutritional status[5]										
Thin (BMI <18.5)	23.1	54.7	-2.1	4.7	22.0	-1.3	18.9	54.4	-2.1	1,278
Normal (BMI 18.5-24.9)	20.1	49.1	-1.9	2.1	10.2	-0.7	8.6	35.2	-1.6	3,459
Overwieght/obese (BMI ≥ 25)	7.4	27.8	-1.3	0.0	3.1	-0.2	0.7	9.3	-0.9	310
Residence										
Urban	13.7	36.1	-1.5	1.2	7.5	-0.5	4.8	23.1	-1.2	639
Rural	21.1	51.1	-2.0	2.8	13.3	-0.9	11.4	40.7	-1.8	4,623
Ecological zone										
Mountain	28.9	62.3	-2.3	2.9	9.4	-0.7	11.5	42.4	-1.8	448
Hill	21.0	50.3	-2.0	1.6	8.4	-0.6	8.1	33.2	-1.5	2,165
Terai	18.0	46.3	-1.8	3.4	16.6	-1.1	12.6	42.3	-1.8	2,650
Development region										
Eastern	15.7	40.3	-1.7	0.8	10.1	-0.8	7.9	32.9	-1.5	1,161
Central	20.0	50.0	-1.9	3.0	13.8	-0.8	11.4	38.2	-1.7	1,708
Western	22.4	50.4	-2.0	2.3	10.9	-0.8	10.9	38.5	-1.7	977
Mid-western	27.2	57.9	-2.2	3.1	11.6	-0.8	11.3	43.4	-1.8	661
Far-western	18.3	52.5	-1.9	4.8	16.7	-1.1	12.2	43.7	-1.9	755
Subregion										
Eastern mountain	25.4	55.5	-2.2	0.9	8.0	-0.6	8.4	35.6	-1.7	105
Central mountain	23.6	57.3	-2.2	0.0	6.1	-0.5	5.9	33.1	-1.6	87
Western mountain	32.2	66.8	-2.4	4.7	11.2	-0.8	14.6	48.4	-1.9	256
Eastern hill	19.4	42.4	-1.8	1.2	8.6	-0.7	7.6	33.3	-1.5	348
Central hill	15.9	44.9	-1.7	1.0	4.9	-0.3	3.7	21.7	-1.2	663
Western hill	20.4	48.9	-2.0	1.0	9.1	-0.7	8.9	34.4	-1.6	581
Mid-western hill	32.9	65.5	-2.4	2.4	9.1	-0.7	11.0	45.7	-1.8	354
Far-western hill	21.7	58.3	-2.2	4.4	15.7	-1.0	15.0	44.4	-1.9	217
Eastern terai	12.5	37.0	-1.5	0.7	11.2	-0.9	7.9	32.3	-1.5	708
Central terai	22.5	52.8	-2.0	4.6	20.7	-1.2	17.2	50.2	-2.0	958
Western terai	24.9	52.2	-2.1	4.2	13.8	-0.9	13.7	44.6	-1.8	390
Mid-western terai	15.2	42.1	-1.7	3.7	15.7	-1.1	10.5	37.9	-1.8	216
Far-western terai	11.2	43.1	-1.6	4.8	19.6	-1.2	9.6	41.1	-1.8	377

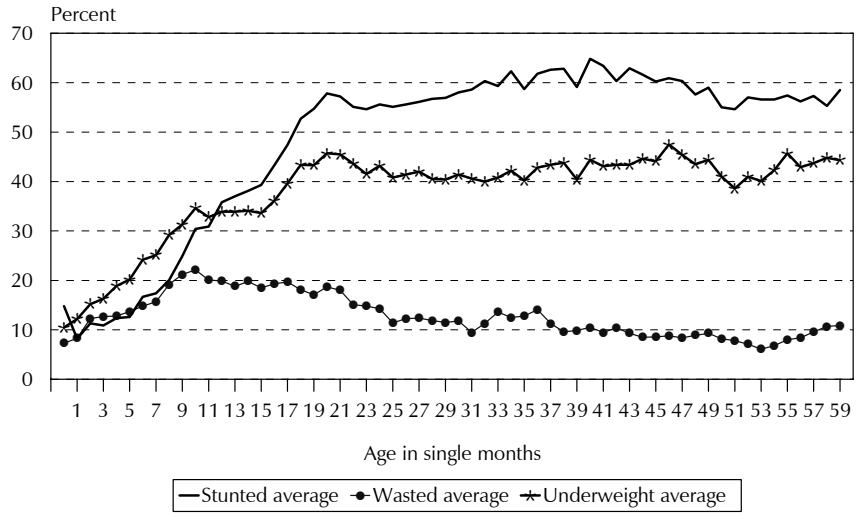
Continued...

Table 12.11—*Continued*

Background characterisitic	Height-for-age Percentage below -3 SD	Height-for-age Percentage below -2 SD[1]	Height-for-age Mean Z-score (SD)	Weight-for-height Percentage below -3 SD	Weight-for-height Percentage below -2 SD[1]	Weight-for-height Mean Z-score (SD)	Weight-for-age Percentage below -3 SD	Weight-for-age Percentage below -2 SD[1]	Weight-for-age Mean Z-score (SD)	Number of children
Mother's education[6]										
No education	26.1	57.7	-2.2	3.2	14.7	-1.0	14.0	46.6	-1.9	3,069
Primary	16.2	46.3	-1.8	1.6	8.4	-0.6	7.5	31.1	-1.5	922
Some secondary	7.6	29.7	-1.4	1.6	11.4	-0.7	4.6	24.0	-1.3	990
SLC and above	5.1	15.6	-0.8	3.8	7.7	-0.5	2.5	11.0	-0.8	125
Wealth quintile										
Lowest	29.3	61.6	-2.3	3.2	11.5	-0.9	14.2	47.0	-1.9	1,319
Second	22.2	54.9	-2.1	3.1	15.2	-1.0	12.9	46.0	-1.9	1,120
Middle	20.2	50.4	-1.9	2.6	15.2	-0.9	12.5	41.7	-1.8	1,074
Fourth	14.0	39.8	-1.7	2.5	12.8	-0.9	7.8	31.0	-1.6	961
Highest	9.5	30.9	-1.4	1.2	7.0	-0.5	2.5	18.8	-1.1	788
Total	20.2	49.3	-1.9	2.6	12.6	-0.8	10.6	38.6	-1.7	5,262

Note: Table is based on children who stayed in the household the night before the interview. Each of the indices is expressed in standard deviation units (SD) from the median of the WHO Child Growth Standards. Table includes 26 children missing information on mother's nutritional status not shown separately. 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 12.12.
[6] For women who are not interviewed, information is taken from the Household Questionnaire. Excludes children whose mothers are not listed in the Household Questionnaire.

Figure 12.2 Nutritional Status of Children Under Age Five



Note: Each of the indices is expressed in standard deviation units (SD) from the median of the WHO Child Growth Standards. Values have been smoothed by a 5-month moving average.

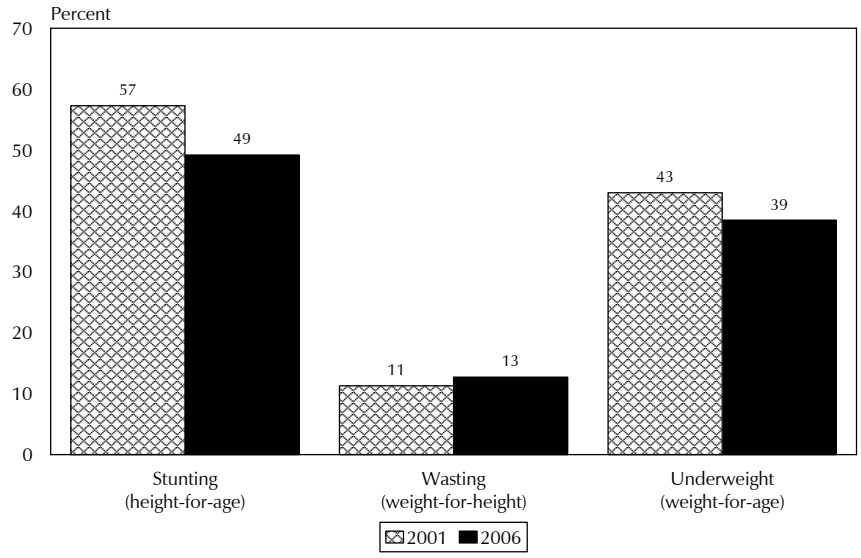
NDHS 2006

Table 12.11 and Figure 12.2 show that the percentage of children who are underweight increases sharply from 16 percent among children under age 6 months to 28 percent among children age 6-8 months, doubles among children age 9-11 months, and is above 40 percent among children age 18 months and above. This may be due to inappropriate and/or inadequate feeding practices, because the increasing levels of children who are underweight for their age coincides with the age at which normal complementary feeding starts. The percentages of underweight children in the Mid-western (43 percent) and Far-western (44 percent) subregions are above the national average. Children of mothers with higher education levels and those living in households in the highest wealth quintile are least likely to be underweight.

12.8.2 Trends in Children's Nutritional Status

Data from the 2006 NDHS can be compared with data collected in the 2001 NDHS, using both the old NCHS/CDC/WHO reference and the new WHO Child Growth Standards. Both mesures show a similar trend. There has been a marked decline in the level of stunting over the last 5 years, a modest decline in the level of children underweight, but a very small increase in the level of wasting over the same period. Figure 12.3 shows this trend with data calculated using the WHO Child Growth Standards. The results indicate that achieving the Millennium Development Goal of a 50 percent reduction in the prevalence of underweight children under five years of age by the year 2015 continues to be a challenge.

Figure 12.3 **Trends in Nutritional Status of Children under Five Years**



Note: Data refer to children of mothers who were interviewed. *Stunting* reflects chronic malnutrition; *wasting* reflects acute malnutrition; *underweight* reflects chronic or acute malnutrition or a combination of both. The data are based on the WHO Child Growth Standards.

NDHS 2006

12.8.3 Nutritional Status of Women

A woman's nutritional status has important implications for her health as well as the health of her children. Malnutrition in women results in reduced productivity, an increased susceptibility to infections, delayed recovery from illness, and heightened risk of adverse pregnancy outcomes. A woman with 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, having a baby with a low birth weight, producing lower quality breast milk, death due to postpartum hemorrhage, and illness for her and her baby.

The 2006 NDHS collected information on the height and weight of women in the reproductive age group. In this report, two indicators of nutritional status are presented—height and 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 is used for the 2006 NDHS.

The index used to measure thinness or obesity is known as the Body Mass Index, or BMI. BMI is defined as weight in kilograms divided by height squared in meters (kg/m^2). A cutoff point of 18.5 is used to define thinness or acute undernutrition, and a BMI of 25 or above usually indicates overweight or obesity. According to WHO, a prevalence of more than 20 percent of women with a BMI less than 18.5 indicates a serious public health problem (Ministry of Health, 1998).

Table 12.12 presents the values of the two indicators of nutritional status and the proportion 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 be estimated (pregnant women and women with a birth in the preceding 2 months) are excluded from this analysis. The data analysis on BMI is based on 10,003 women, while the height analysis is based on 10,730 women age 15-49 years. Overall, 14 percent of women are shorter than 145 cm. Women in the Far-western terai subregion are taller on average than women in the other subregions. The Central hill subregion has the highest proportion of women below 145 cm. Women with SLC and higher level of education are taller than women who have no education. Women in the highest wealth quintile are less likely to be shorter than 145 cm than women in the lowest wealth quintile (11 percent and 18 percent, respectively).

Table 12.12 shows that there are large differentials across background characteristics in the percentage of women assessed as malnourished or "thin" (BMI less than 18.5) and overweight (BMI 25 or higher). Twenty-four percent of women were found to be malnourished, while 9 percent were overweight or obese. Women age 15-19 and women age 40-49 are more likely to be thin or undernourished than women in other age cohorts (26 percent and 27 percent, respectively). Differentials by urban and rural residence are marked. More women have a BMI less than 18.5 in rural areas (26 percent) than in urban areas (17 percent). However, the percentage of overweight or obese women is higher in urban areas (21 percent) than in rural areas (6 percent). The terai (33 percent) has the highest percentage of undernourished women, with a particularly high percentage in the Central terai and Far-western terai (37 percent each). The percentage of women who are thin declines as level of education and household wealth increase. However, the proportion of overweight or obese women increases with increasing educational level and is highest among those in the highest wealth quintile.

Women's nutritional status has improved only slightly over the years. The proportion of malnourished women (BMI <18.5) has decreased by 14 percent in the past decade, from 28 percent in the 1996 NFHS to 24 percent in the 2006 NDHS. However, the level of chronic energy deficiency among nonpregnant women is still high, with more than 20 percent of women having a BMI less than 18.5. The mean BMI has remained more or less constant over the years.

Table 12.12 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, Nepal 2006

	Height		Body Mass Index[1]								
				Normal	Thin			Overweight/obese			
Background characteristic	Percentage under 145 cm	Number of women	Mean Body Mass Index (BMI)	18.5-24.9 (Total normal)	<18.5 (Total thin)	17.0-18.4 (Mildly thin)	<17 (Moderately and severely thin)	≥25.0 (Total overweight or obese)	25.0-29.9 (Overweight)	≥30.0 (Obese)	Number of women
Age											
15-19	14.2	2,421	19.9	71.6	26.3	18.2	8.1	2.1	2.1	0.0	2,260
20-29	12.5	3,752	20.6	69.9	23.3	16.1	7.1	6.9	6.4	0.5	3,286
30-39	14.6	2,541	21.0	65.2	22.2	14.4	7.8	12.6	10.7	1.9	2,448
40-49	16.0	2,016	20.9	59.4	27.0	17.1	9.9	13.6	12.2	1.4	2,009
Residence											
Urban	12.4	1,672	22.0	62.7	16.6	11.0	5.6	20.7	17.1	3.7	1,582
Rural	14.4	9,058	20.3	67.8	25.9	17.4	8.5	6.3	5.9	0.4	8,422
Ecological zone											
Mountain	13.7	749	20.7	78.9	17.1	13.0	4.1	4.0	3.6	0.4	699
Hill	15.8	4,570	21.3	72.8	15.9	11.7	4.2	11.3	10.2	1.1	4,268
Terai	12.7	5,411	20.0	60.4	32.7	20.8	11.9	6.9	6.1	0.8	5,037
Development region											
Eastern	12.7	2,374	20.5	67.2	25.3	17.4	8.0	7.5	6.4	1.1	2,239
Central	16.8	3,528	20.8	64.9	23.6	14.8	8.8	11.4	10.1	1.3	3,264
Western	14.5	2,063	21.0	70.1	19.5	14.2	5.3	10.3	9.4	0.9	1,923
Mid-western	12.7	1,243	20.6	71.7	22.1	15.8	6.3	6.1	5.8	0.4	1,152
Far-western	10.3	1,522	19.6	63.5	33.2	21.7	11.6	3.3	3.1	0.2	1,425
Subregion											
Eastern mountain	15.4	189	21.4	81.5	9.6	6.9	2.7	8.9	8.2	0.7	175
Central mountain	16.9	201	21.0	82.5	12.7	9.5	3.2	4.7	4.0	0.8	193
Western mountain	11.1	359	20.1	75.3	23.7	18.2	5.4	1.0	1.0	0.0	330
Eastern hill	16.0	625	21.1	78.0	13.9	11.5	2.5	8.1	7.4	0.6	592
Central hill	17.8	1,698	21.8	70.6	12.8	9.2	3.6	16.6	14.8	1.7	1,600
Western hill	14.8	1,262	21.3	72.3	16.7	12.6	4.2	10.9	9.9	1.1	1,181
Mid-western hill	13.9	647	20.7	74.4	19.5	13.9	5.6	6.1	5.6	0.5	587
Far-western hill	12.5	338	19.7	73.6	25.6	18.0	7.6	0.8	0.8	0.0	308
Eastern terai	11.1	1,561	20.2	61.1	31.8	21.0	10.8	7.0	5.7	1.3	1,471
Central terai	15.7	1,629	19.7	56.5	36.8	21.6	15.2	6.7	5.8	1.0	1,471
Western terai	14.4	782	20.6	66.0	24.6	17.3	7.3	9.4	8.8	0.7	723
Mid-western terai	10.3	452	20.4	66.1	26.3	18.5	7.9	7.6	7.2	0.3	432
Far-western terai	9.8	988	19.6	58.7	36.6	22.9	13.7	4.7	4.4	0.3	940
Education											
No education	16.5	5,692	20.2	63.6	29.0	18.6	10.5	7.4	6.7	0.7	5,294
Primary	13.9	1,886	20.8	69.2	21.7	15.7	6.0	9.1	8.3	0.8	1,748
Some secondary	10.2	2,218	20.9	71.5	19.8	14.3	5.5	8.6	7.2	1.4	2,091
SLC and above	8.4	934	21.7	72.6	12.8	9.1	3.7	14.5	12.8	1.7	870
Wealth quintile											
Lowest	17.6	1,954	20.0	72.5	25.1	16.6	8.5	2.4	2.4	0.0	1,791
Second	15.8	2,069	19.8	63.5	33.4	22.8	10.7	3.1	2.9	0.2	1,904
Middle	14.2	2,195	20.1	67.0	28.6	18.4	10.2	4.4	4.2	0.1	2,039
Fourth	12.0	2,217	20.6	68.4	23.8	16.3	7.5	7.8	6.9	0.9	2,084
Highest	11.4	2,296	22.3	64.3	12.7	8.8	3.9	23.0	20.0	3.1	2,185
Total	14.1	10,730	20.6	67.0	24.4	16.4	8.0	8.6	7.6	0.9	10,003

Note: The Body Mass Index (BMI) 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 past 2 months

HIV/AIDS-RELATED KNOWLEDGE, ATTITUDES, AND BEHAVIOR

13

Acquired Immune Deficiency Syndrome (AIDS) was first recognized internationally in 1981. As of 2006, an estimated 40 million adults and children around the world were living with human immunodeficiency virus (HIV) and AIDS (Lamptey et al., 2006). AIDS is caused by HIV and once infected with the virus, a large proportion of those infected die within 5-10 years (WHO, 1992). The HIV/AIDS pandemic is one of the most serious health concerns in the world today because of its high case fatality rate and the lack of a curative treatment or vaccines. Epidemiological studies have identified sexual intercourse, intravenous injections, blood transfusions, and fetal transmission from infected mothers as the main routes of transmission of HIV. HIV cannot be transmitted through food, water, insect vectors or casual contact.

The first case of AIDS in Nepal was reported in 1988. The National Centre for AIDS and STD Control (NCASC) of the Ministry of Health and Population has estimated an average of 70,000[1] adult HIV-positive people in Nepal (NCASC, 2006a). As of September 2006, a total of 1,171 AIDS cases among the 7,894 cases of HIV infection were reported to NCASC (NCASC, 2006b). However, these figures are probably grossly underestimated given the existing medical and public health infrastructure and limited HIV/AIDS surveillance system in Nepal.

Under the HIV/AIDS surveillance plan, NCASC has been conducting integrated bio-behavioral surveys (IBBS) on a regular basis since 1999 among the most at-risk populations, such as female sex workers (FSWs), injecting drug users (IDUs), men having sex with men (MSM), labor migrants, and clients of FSWs, in selected geographical areas of Nepal.

The results of the IBBS conducted so far clearly indicate that the HIV epidemic in Nepal is in the early concentrated stage and is driven by injecting drug use, commercial sex, and migration. Findings from the last rounds of the IBBS conducted in 2005 among IDUs show that about 30 percent of male IDUs in Kathmandu (New ERA and SACTS, 2005a), Pokhara (New ERA and SACTS, 2005b), Eastern *terai* (New ERA and SACTS, 2005c), and Western and Far Western terai subregions (New ERA and SACTS, 2005d) reported having sex with FSWs, and more than half do not use condoms when they have sex with FSWs. Similarly, migrants who have sexual intercourse with sex workers in India have a higher risk of HIV infection, and only a few use condoms when they have sex with their spouses (New ERA and SACTS, 2006).

Recognizing the importance of a timely response, the Government of Nepal is committed to the prevention and control of AIDS and other STDs in Nepal through a multi-sectoral approach. In 1988, the Government initiated the National AIDS Prevention and Control Project (NAPCP), with financial and technical support from the World Health Organization (WHO). The project aimed at preventing HIV transmission through sexual contact and blood transfusion, preventing prenatal transmission, and reducing the impact of HIV/AIDS on individuals and families (Chin et al., 1994). The National AIDS Coordination Committee (NACC) was established in 1992 and was made up of representatives from key ministries and non-governmental organizations. The NAPCP became a focal point for NACC and was responsible for coordinating HIV/AIDS prevention and control programs with the various ministries. The activities of the NAPCP were coordinated through the NCASC established in 1993. A national policy was formulated in 1995, which emphasized the importance of multi-sectoral involvement, decentralized implementation, and partnership between the public and private sectors, including local NGOs (World Bank, 2006).

[1] Estimated number ranges between 32,000 and 119,000.

The NCASC has launched two five-year (1997-2001 and 2002-2006) Strategic Plans for HIV/AIDS in Nepal. Currently, the NCASC is in the process of revising the strategic plan for the 2007-2011 period. The activities of the NCASC include screening blood samples; producing strategic information; implementing a comprehensive monitoring and evaluation system which includes a surveillance plan; generating information, education and communication (IEC) materials; promoting condoms; voluntary counseling and testing (VCT) for screening and treatment of sexually transmitted infections (STIs); antiretroviral treatment (ARV); care and support for people living with HIV and AIDS (PLHA); and training health workers in the clinical management of AIDS patients.

The potential risk of HIV transmission among the general population and the limited resources and capacity of NCASC make it imperative to have a more effective and stronger national response to the HIV/AIDS epidemic in Nepal. Recently, the Government has adopted a policy of three "ones": one coordinated action framework, one HIV/AIDS authority, and one HIV/AIDS monitoring framework and has attempted to mobilize all the available resources in a more efficient way.

The 2006 NDHS included a series of questions on knowledge of HIV/AIDS and attitudes toward AIDS. All women age 15-49 and men age 15-59 were first asked if they had ever heard of AIDS. Those who had heard of AIDS were questioned on their knowledge of HIV transmission and prevention. Respondents were also asked if they had used condoms to prevent HIV and about their perception of the precautions a person can take to avoid getting infected with HIV. Additional questions dealt with migration status, destination of migration, and common local misconceptions regarding the mode of transmission of HIV.

This chapter presents current levels of HIV/AIDS knowledge, attitudes, and related behaviors in the general adult population. The chapter also focuses on HIV/AIDS knowledge and patterns of sexual activity among youth, as youth are the main target of many HIV prevention efforts.

13.1 Knowledge of HIV/AIDS and of Transmission and Prevention Methods

13.1.1 Knowledge of AIDS

Findings from the 2006 NDHS show that 73 percent of women and 92 percent of men age 15-49 have heard of AIDS (Table 13.1). Knowledge of AIDS varies by background characteristics, and this is more evident among women than men. Since overall knowledge of AIDS among men is very high, there is little difference by background characteristics.

The level of awareness of AIDS is lower among older respondents, especially among respondents age 40-49, and among ever-married women and men. Respondents living in rural areas are less likely to know about AIDS than urban residents. For example, 69 percent of rural women have heard of AIDS, compared with 91 percent of urban women.

Knowledge is much higher among women residing in the hills than in the mountains and terai. Similarly, knowledge is higher among women in the Western development region than among women in the other regions. Knowledge of AIDS ranges from a low of 43 percent among women in the Central terai to a high of 91 percent among women in the Western hill subregion.

Education and wealth are strongly associated with AIDS awareness. Knowledge of AIDS is universal among women with SLC or higher level of education, compared with just over half of women with no education. Similarly, awareness is lowest among women living in the poorest households and highest among women living in the wealthiest households. Knowledge of AIDS is also higher among women who have traveled away from their home, particularly among those who have been away for six months or more in the past 12 months.

Table 13.1 Knowledge of AIDS

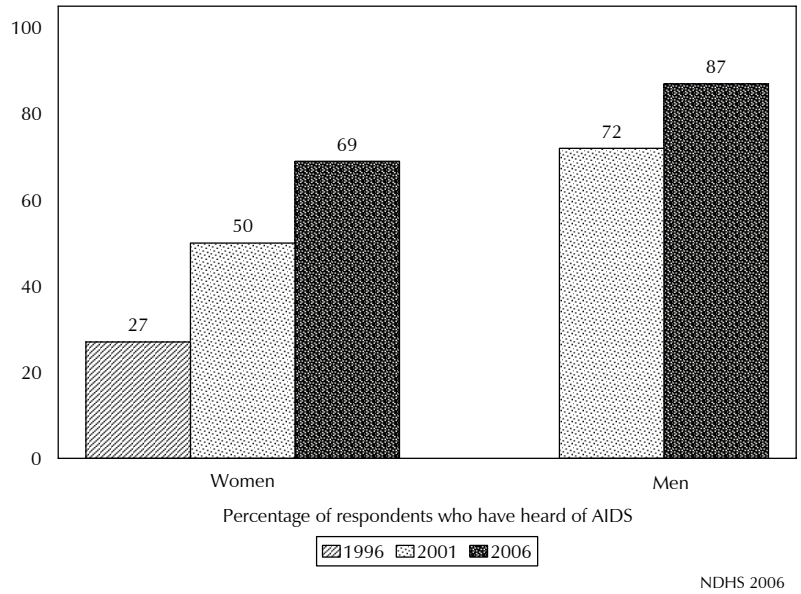
Percentage of women and men age 15-49 who have heard of AIDS, by background characteristics, Nepal 2006

Background characteristic	Women: Has heard of AIDS	Women: Number of women	Men: Has heard of AIDS	Men: Number of men
Age				
15-24	80.1	4,431	96.4	1,573
15-19	81.8	2,437	95.8	941
20-24	77.9	1,995	97.4	632
25-29	73.9	1,773	95.4	524
30-39	71.5	2,556	90.5	943
40-49	56.5	2,033	81.6	813
Marital status				
Never married	87.2	2,149	95.9	1,207
Ever had sex	*	9	99.4	215
Never had sex	87.2	2,141	95.1	992
Married	69.2	8,257	90.1	2,598
Divorced/separated/widowed	63.7	387	(71.4)	48
Residence				
Urban	90.9	1,687	96.8	730
Rural	69.2	9,106	90.5	3,123
Ecological zone				
Mountain	62.4	753	89.0	241
Hill	87.0	4,598	95.3	1,641
Terai	61.8	5,443	89.0	1,972
Development region				
Eastern	74.7	2,392	90.5	849
Central	66.6	3,553	92.4	1,367
Western	84.7	2,070	93.1	716
Mid-western	81.3	1,250	91.0	416
Far-western	59.4	1,528	90.2	506
Subregion				
Eastern mountain	76.5	189	87.5	59
Central mountain	75.8	202	92.1	73
Western mountain	47.5	362	87.7	109
Eastern hill	88.7	627	95.8	215
Central hill	88.5	1,713	95.3	722
Western hill	90.5	1,267	94.6	387
Mid-western hill	85.4	650	95.3	210
Far-western hill	65.8	341	97.0	107
Eastern terai	68.9	1,576	88.9	576
Central terai	42.6	1,638	88.8	571
Western terai	76.3	783	92.3	320
Mid-western terai	79.9	457	87.1	155
Far-western terai	62.3	989	87.5	350
Education				
No education	54.4	5,728	71.6	710
Primary	83.5	1,901	90.7	1,083
Some secondary	98.4	2,225	98.6	1,281
SLC and above	99.9	938	100.0	779
Wealth quintile				
Lowest	60.2	1,961	83.2	621
Second	60.6	2,079	85.5	696
Middle	61.5	2,214	91.0	714
Fourth	82.4	2,226	95.8	861
Highest	94.9	2,313	98.5	961
Time away from home[1]				
Did not travel	68.4	3,550	87.6	1,137
Traveled	74.6	7,237	93.4	2,706
Away for less than 6 months	74.3	7,014	92.9	2,381
Away for 6 months or more	83.5	223	97.4	324
Total 15-49	72.6	10,793	91.7	3,854
Men 50-59	na	na	71.4	543
Total men 15-59	na	na	89.2	4,397

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] Total includes 5 women and 11 men with missing information on time away from home not shown separately.

Knowledge of AIDS among ever-married women and men in the reproductive age groups has increased over time. The percentage of ever-married women who have heard of AIDS has increased by two and a half times in the past 10 years (Figure 13.1). Similarly, the percentage of ever-married men age 15-59 who have heard of AIDS has increased from 72 percent in 2001 to 87 percent in 2006. Messages on HIV/AIDS broadcast through various electronic and print media may have contributed to this increase in awareness.

Figure 13.1 **Trend in HIV/AIDS Knowledge, Ever-married Women 15-49 and Men 15-59, 1996-2006**



13.1.2 Knowledge of HIV/AIDS Prevention Methods

HIV/AIDS prevention programs focus their messages and efforts on three important aspects of behavior: delaying sexual debut (abstinence), limiting the number of sexual partners/staying faithful to one uninfected partner, and use of condoms (the ABC message). To ascertain whether programs have effectively communicated these messages, respondents were asked specific questions about whether it is possible to reduce the chances of getting the AIDS virus by having just one faithful uninfected sexual partner, using a condom at every sexual encounter, and abstaining from sex.

Table 13.2 presents levels of knowledge about the various HIV/AIDS prevention methods by background characteristics. Women are most aware that the chances of getting the AIDS virus can be reduced by limiting sex to one uninfected partner who has no other partners (65 percent) or by abstaining from sexual intercourse (60 percent). Among men, the most commonly known prevention methods are use of condoms (84 percent) and limiting sex to one uninfected partner (83 percent). Knowledge of condoms and the role that they can play in preventing the transmission of AIDS is much less common among women than among men (58 percent versus 84 percent). Fewer women and men (55 percent and 77 percent, respectively) are aware that using condoms and also limiting sex to one uninfected partner can reduce the risk of getting the AIDS virus.

Young women and men age 15-24 are relatively more knowledgeable of the various modes of prevention than older respondents. For instance, about 35 percent of women and 65 percent men age 40-49 mentioned that using condoms and limiting sex to one uninfected partner can reduce the risk of HIV/AIDS infection, compared with 65 percent of women and 83 percent of men age 15-24. Knowledge of HIV/AIDS prevention methods among both women and men is highest among never-married respondents and lowest among those divorced, separated or widowed.

Table 13.2 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, by having one sexual partner who is not infected and has no other partners, and by abstaining from sexual intercourse, by background characteristics, Nepal 2006

	Women					Men				
	Percentage who say HIV can be prevented by:					Percentage who say HIV can be prevented by:				
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]	Abstaining from sexual intercourse	Number of women	Using condoms[1]	Limiting sexual intercourse to one uninfected partner[2]	Using condoms and limiting sexual intercourse to one uninfected partner[1, 2]	Abstaining from sexual intercourse	Number of men
Age										
15-24	67.8	73.2	64.8	67.3	4,431	89.6	88.4	83.0	82.6	1,573
15-19	70.2	75.5	67.3	68.8	2,437	89.0	88.0	82.6	80.7	941
20-24	64.9	70.4	61.8	65.6	1,995	90.4	88.9	83.6	85.4	632
25-29	60.6	66.1	57.4	60.5	1,773	88.2	87.7	82.5	77.5	524
30-39	55.3	62.9	52.0	58.5	2,556	81.4	80.2	74.4	76.9	943
40-49	39.4	46.5	35.4	44.6	2,033	71.3	70.9	64.8	69.3	813
Marital status										
Never married	76.0	81.3	73.1	73.3	2,149	89.1	88.8	83.4	80.9	1,207
Ever had sex	*	*	*	*	9	88.8	92.0	83.8	81.1	215
Never had sex	76.0	81.4	73.1	73.3	2,141	89.2	88.1	83.4	80.9	992
Married	54.2	60.8	51.0	56.7	8,257	81.5	80.2	74.5	76.7	2,598
Divorced/separated/ widowed	49.2	52.6	41.7	51.6	387	(54.9)	(57.8)	(49.2)	(50.7)	48
Residence										
Urban	75.8	81.3	71.0	72.2	1,687	88.1	84.1	78.5	78.9	730
Rural	55.1	61.5	52.1	57.6	9,106	82.5	82.3	76.6	77.4	3,123
Ecological zone										
Mountain	45.0	52.1	40.7	48.9	753	83.0	70.0	66.5	73.1	241
Hill	69.8	76.1	65.3	72.2	4,598	86.4	85.6	79.7	81.0	1,641
Terai	50.5	56.5	48.3	50.9	5,443	81.2	81.6	76.0	75.5	1,972
Development region										
Eastern	58.3	67.8	55.3	59.6	2,392	84.3	76.9	74.9	78.6	849
Central	54.7	59.9	51.4	54.8	3,553	81.2	81.3	73.3	73.5	1,367
Western	67.8	73.1	63.6	71.2	2,070	86.9	87.9	83.1	81.5	716
Mid-western	63.5	68.2	58.9	66.0	1,250	85.2	87.7	82.6	79.6	416
Far-western	49.8	55.8	48.3	51.7	1,528	82.6	84.2	77.1	80.8	506
Subregion										
Eastern mountain	55.3	67.8	51.5	58.0	189	81.4	60.9	59.9	72.2	59
Central mountain	54.9	62.3	49.8	56.6	202	82.5	71.8	66.4	68.4	73
Western mountain	34.2	38.2	30.1	39.8	362	84.3	73.6	70.2	76.8	109
Eastern hill	72.6	78.9	68.0	75.3	627	90.2	87.1	85.0	89.9	215
Central hill	70.7	77.8	65.1	70.2	1,713	81.8	80.6	71.7	76.4	722
Western hill	76.1	79.9	71.9	80.4	1,267	89.0	88.5	84.7	82.6	387
Mid-western hill	62.5	69.4	59.0	66.7	650	89.3	93.4	87.4	84.9	210
Far-western hill	50.6	61.2	49.4	57.3	341	95.2	90.9	90.4	81.2	107
Eastern terai	53.0	63.3	50.8	53.5	1,576	82.4	74.7	72.7	75.0	576
Central terai	38.0	41.0	37.3	38.4	1,638	80.1	83.3	76.2	70.5	571
Western terai	55.2	63.1	51.0	57.2	783	85.2	87.8	81.8	80.8	320
Mid-western terai	69.7	72.6	64.8	68.7	457	81.8	80.8	77.5	72.5	155
Far-western terai	54.7	58.9	53.0	54.0	989	77.0	85.0	74.8	81.1	350
Education										
No education	38.3	44.9	34.9	42.6	5,728	61.1	58.7	52.7	59.7	710
Primary	64.8	73.1	60.4	69.1	1,901	81.7	78.1	72.5	77.3	1,083
Some secondary	88.8	94.7	86.9	85.7	2,225	90.4	92.5	85.6	83.7	1,281
SLC and above	95.1	95.8	91.8	85.2	938	95.3	94.4	91.1	84.9	779
Wealth quintile										
Lowest	42.3	50.0	38.5	48.3	1,961	74.6	71.2	67.2	68.6	621
Second	46.9	52.9	43.9	50.5	2,079	78.2	78.1	72.2	77.3	696
Middle	48.3	55.4	46.1	52.1	2,214	82.4	82.4	75.7	80.5	714
Fourth	67.8	74.2	64.4	66.6	2,226	88.1	86.4	81.1	76.8	861
Highest	82.6	86.9	78.7	79.0	2,313	90.0	90.0	84.0	82.6	961
Time away from home[1]										
Did not travel	52.9	59.8	49.6	56.1	3,550	76.8	76.0	68.8	70.8	1,137
Traveled	61.0	66.9	57.7	61.7	7,237	86.5	85.5	80.5	80.6	2,706
Away for less than 6 months	60.7	66.5	57.4	61.3	7,014	85.6	84.7	79.4	79.9	2,381
Away for 6 months or more	69.7	77.7	69.2	74.3	223	93.0	91.0	88.0	86.2	324
Total 15-49	58.3	64.6	55.0	59.8	10,793	83.5	82.6	77.0	77.7	3,854
Men 50-59	na	na	na	na	na	63.4	62.0	56.6	62.5	543
Total men 15-59	na	na	na	na	na	81.1	80.1	74.5	75.8	4,397

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] Using condoms every time they have sexual intercourse
[2] Partner who has no other partners
[3] Total includes 5 women and 11 men with missing information on time away from home not shown separately

Knowledge of HIV preventive methods is higher among women in urban than in rural areas. Knowledge of the various prevention methods is highest among women living in the hills, Western development region, and Western hill subregion. A similar pattern is observed for men.

Education has a positive impact on respondent's knowledge of AIDS. For example, 92 percent of women with SLC or higher level of education know that using condoms and limiting sexual intercourse to one uninfected partner can reduce a person's chances of getting HIV, compared with 35 percent of women with no education. A similar pattern is seen for men, although the gap in knowledge by education is not as large as that observed for women. Similarly, women and men living in households in the higher wealth quintiles are more likely than those in the lower quintiles to be aware of ways to prevent HIV transmission.

Respondents who have traveled away from home are more likely to be aware of HIV prevention methods than respondents who have not traveled away from home. In addition, those who have been away for six months or more are more likely to know about HIV transmission than those who have been away for less than six months.

13.1.3 Comprehensive Knowledge of HIV/AIDS Transmission

The 2006 NDHS also included questions to assess the prevalence of 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 get HIV/AIDS from mosquito bites, by touching someone who has AIDS, or by sharing food with a person who has AIDS.

The data presented in Tables 13.3.1 and 13.3.2 indicate that many Nepalese adults lack accurate knowledge about the ways in which the AIDS virus can and cannot be transmitted. Only 29 percent of women and 49 percent of men know that AIDS cannot be transmitted by mosquito bites. Relatively larger proportions of respondents (59 percent of women and 75 percent of men) are aware that a healthy-looking person can have the AIDS virus. Similar proportions of women and men (58 percent of women and 77 percent of men) correctly believe that a person cannot get the AIDS virus by touching someone who has AIDS. Forty-five percent of women and 63 percent of men correctly believe that a person cannot become infected by sharing food with a person who has AIDS.

Tables 13.3.1 and 13.3.2 also provide an assessment of the level of comprehensive knowledge of HIV/AIDS prevention and transmission. Comprehensive knowledge is defined as knowing that both consistent condom use and limiting sexual partners to one uninfected person are HIV/AIDS prevention methods; being aware that a healthy-looking person can have HIV; and rejecting the two most common local misconceptions—AIDS can be transmitted by mosquito bites or that HIV/AIDS can be transmitted through sharing food with someone who has AIDS. According to the 2006 NDHS results, 20 percent of women and 36 percent of men in Nepal age 15-49 have comprehensive knowledge of HIV/AIDS prevention and transmission.

Tables 13.3.1 and 13.3.2 document considerable variation in HIV/AIDS knowledge by respondents' background characteristics. Comprehensive knowledge about AIDS decreases with age among both women and men. Comprehensive knowledge is higher among never-married women and men than among ever-married women and men.

Comprehensive knowledge about AIDS is also higher among urban than rural residents, among residents in the hills, and among those from the Western region. Comprehensive knowledge is higher among women residing in the Central hill subregion and among men residing in the Far-western hill subregion.

Table 13.3.1 Comprehensive knowledge about AIDS: Women

Percentage of women age 15-49 who say that a healthy-looking person can have the AIDS virus and who, in response to prompted questions, correctly reject local misconceptions about AIDS transmission or prevention, and the percentage with comprehensive knowledge about AIDS, by background characteristics, Nepal 2006

Background characteristic	Percentage of women who say that: A healthy-looking person can have the AIDS virus	AIDS cannot be transmitted by mosquito bites	A person cannot become infected by sharing food with a person who has AIDS	A person cannot get the AIDS virus by touching someone who has AIDS	Percentage who say that a healthy-looking person can have the AIDS virus and who reject the two most common local misconceptions[1]	Percentage with a comprehensive knowledge about AIDS[2]	Number of women
Age							
15-24	66.7	38.5	55.7	68.0	30.5	27.6	4,431
15-19	68.2	40.3	57.7	71.3	31.9	29.1	2,437
20-24	65.0	36.3	53.2	64.0	28.9	25.8	1,995
25-29	62.2	31.5	46.2	59.3	24.6	21.4	1,773
30-39	57.2	23.5	40.6	54.1	18.3	15.4	2,556
40-49	43.0	14.3	27.0	39.3	9.1	7.3	2,033
Marital status							
Never married	74.3	49.9	67.1	78.2	40.7	36.5	2,149
Ever had sex	*	*	*	*	*	*	9
Never had sex	74.4	49.9	67.1	78.3	40.7	36.5	2,141
Married	55.8	24.3	40.0	53.2	18.4	16.0	8,257
Divorced/separated/ widowed	48.9	20.0	33.8	44.3	13.4	10.4	387
Residence							
Urban	77.5	48.7	72.2	83.2	41.3	35.9	1,687
Rural	55.9	25.7	40.1	53.2	19.2	16.9	9,106
Ecological zone							
Mountain	48.4	15.4	27.9	41.0	10.5	8.5	753
Hill	70.6	34.5	55.3	69.5	27.1	23.8	4,598
Terai	51.2	26.8	38.9	50.4	20.5	18.2	5,443
Development region							
Eastern	62.6	29.4	47.3	59.4	23.2	19.8	2,392
Central	55.9	30.0	45.6	55.5	24.4	21.1	3,553
Western	67.2	32.6	51.7	67.4	24.7	22.7	2,070
Mid-western	62.8	21.3	40.5	54.5	15.8	13.2	1,250
Far-western	48.2	29.4	35.5	51.1	20.5	18.8	1,528
Subregion							
Eastern mountain	63.4	18.8	39.0	51.5	13.9	12.0	189
Central mountain	58.7	24.2	40.7	51.0	17.3	12.0	202
Western mountain	34.9	8.7	15.0	30.1	5.0	4.6	362
Eastern hill	76.7	31.3	55.6	71.1	25.9	22.9	627
Central hill	72.4	43.9	66.3	77.1	35.8	30.4	1,713
Western hill	71.9	36.1	56.8	73.0	27.5	25.9	1,267
Mid-western hill	67.0	17.0	37.5	51.6	11.6	8.9	650
Far-western hill	51.8	20.5	27.8	48.6	14.1	13.1	341
Eastern terai	56.8	29.9	45.1	55.7	23.3	19.5	1,576
Central terai	38.1	16.1	24.7	33.4	13.3	12.6	1,638
Western terai	60.5	27.4	44.0	59.0	20.5	17.9	783
Mid-western terai	61.0	31.9	52.2	64.9	25.7	22.8	457
Far-western terai	51.7	36.5	42.7	57.0	25.6	23.3	989
Education							
No education	40.8	12.4	22.6	35.5	7.1	5.7	5,728
Primary	65.0	28.0	48.9	65.3	19.6	15.6	1,901
Some secondary	87.3	54.6	79.4	92.3	45.9	42.0	2,225
SLC and above	93.6	74.6	93.8	97.8	68.3	62.8	938
Wealth quintile							
Lowest	46.3	12.9	22.3	36.4	8.2	7.3	1,961
Second	47.1	17.1	30.4	43.8	11.1	9.2	2,079
Middle	48.8	22.2	33.2	46.4	15.2	13.4	2,214
Fourth	69.3	35.4	57.6	70.2	29.1	25.3	2,226
Highest	81.5	54.9	77.3	87.9	46.1	41.2	2,313
Time away from home							
Did not travel	53.5	25.7	40.3	52.5	19.0	16.6	3,550
Traveled	62.1	31.0	47.5	60.6	24.4	21.5	7,237
Away for less than 6 months	61.7	30.8	47.1	60.2	24.3	21.3	7,014
Away for 6 months or more	74.3	36.4	59.3	72.7	30.4	27.7	223
Total 15-49	59.2	29.3	45.1	57.9	22.6	19.9	10,793

Note: Total includes 5 women with missing information on time away from home not shown separately. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

[1] Two most common local misconceptions: AIDS can be transmitted by mosquito bites; a person can become infected by sharing food with someone who has AIDS.

[2] Comprehensive knowledge means knowing that consistent use of condoms 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.

Table 13.3.2 Comprehensive knowledge about AIDS: Men

Percentage of men age 15-49 who say that a healthy-looking person can have the AIDS virus and who, in response to prompted questions, correctly reject local misconceptions about AIDS transmission or prevention, and the percentage with comprehensive knowledge about AIDS, by background characteristics, Nepal 2006

Background characteristic	Percentage of men who say that: A healthy-looking person can have the AIDS virus	AIDS cannot be transmitted by mosquito bites	A person cannot become infected by sharing food with a person who has AIDS	A person cannot get the AIDS virus by touching someone who has AIDS	Percentage who say that a healthy-looking person can have the AIDS virus and who reject the two most common local misconceptions[1]	Percentage with a compre-hensive knowledge about AIDS[2]	Number of men
Age							
15-24	80.5	57.7	71.7	84.2	47.3	43.6	1,573
15-19	79.8	57.6	72.9	83.9	48.2	45.3	941
20-24	81.5	57.8	69.9	84.6	45.9	41.1	632
25-29	79.2	47.6	68.7	79.9	38.5	35.4	524
30-39	70.6	43.4	59.1	72.7	33.6	30.0	943
40-49	64.9	37.6	48.5	65.1	29.6	26.9	813
Marital status							
Never married	81.4	62.4	75.8	85.9	52.7	48.1	1,207
Ever had sex	86.4	69.2	80.1	90.9	56.0	48.6	215
Never had sex	80.4	61.0	74.8	84.8	51.9	48.0	992
Married	71.9	42.4	58.0	72.9	33.0	30.1	2,598
Divorced/separated/ widowed	(47.0)	(33.7)	(36.9)	(57.3)	(20.3)	(20.3)	48
Residence							
Urban	82.9	64.7	77.7	89.3	54.5	49.5	730
Rural	72.7	44.8	60.0	73.8	35.4	32.4	3,123
Ecological zone							
Mountain	70.7	30.9	50.0	72.4	24.4	20.7	241
Hill	81.3	55.9	74.1	86.4	48.5	43.9	1,641
Terai	69.5	44.7	56.0	69.3	32.9	30.6	1,972
Development region							
Eastern	73.2	41.8	62.4	76.6	34.1	32.0	849
Central	71.9	50.8	64.4	76.2	38.9	33.9	1,367
Western	79.3	56.9	68.2	80.4	46.9	44.8	716
Mid-western	70.1	42.6	60.5	79.7	33.6	31.6	416
Far-western	81.4	47.1	57.6	71.0	40.9	36.7	506
Subregion							
Eastern mountain	71.7	33.4	66.9	79.1	29.0	25.0	59
Central mountain	67.9	31.1	49.1	66.8	22.4	17.8	73
Western mountain	72.0	29.3	41.4	72.5	23.3	20.4	109
Eastern hill	87.7	47.2	76.1	85.6	43.1	40.6	215
Central hill	77.3	58.7	77.0	87.9	48.5	40.9	722
Western hill	86.4	63.4	74.9	86.7	56.9	54.3	387
Mid-western hill	75.0	39.2	60.5	81.2	33.2	31.3	210
Far-western hill	90.0	59.9	73.3	86.6	58.1	57.9	107
Eastern terai	68.0	40.6	56.8	73.0	31.3	29.6	576
Central terai	65.5	43.4	50.3	62.6	28.8	27.2	571
Western terai	71.3	49.4	60.3	73.4	35.1	33.3	320
Mid-western terai	63.9	53.0	66.3	81.5	38.0	35.8	155
Far-western terai	79.3	45.4	55.6	65.1	38.3	32.8	350
Education							
No education	49.4	19.3	31.2	47.8	10.0	8.8	710
Primary	64.3	32.5	50.0	67.7	21.3	19.6	1,083
Some secondary	85.0	61.4	76.5	89.4	51.3	46.2	1,281
SLC and above	94.8	76.6	89.3	94.9	69.9	65.1	779
Wealth quintile							
Lowest	64.8	31.5	44.4	64.7	22.6	21.4	621
Second	65.7	34.9	49.1	66.4	25.5	23.0	696
Middle	69.7	42.1	57.2	68.7	30.6	28.2	714
Fourth	79.1	54.9	72.1	83.7	46.2	41.8	861
Highest	86.9	68.8	82.5	91.7	59.3	53.9	961
Time away from home							
Did not travel	63.5	48.7	58.9	73.0	35.9	32.5	1,137
Traveled	79.3	48.6	65.3	78.4	40.5	37.0	2,706
Away for less than 6 months	79.0	48.5	64.9	78.0	40.7	37.1	2,381
Away for 6 months or more	80.9	49.6	68.2	81.0	38.9	36.5	324
Total 15-49	74.6	48.6	63.3	76.8	39.0	35.6	3,854
Men 50-59	57.3	27.8	43.9	56.5	20.9	19.8	543
Total men 15-59	72.5	46.0	60.9	74.3	36.8	33.7	4,397

Note: Total includes 11 men with missing information on time away from home not shown separately. Figrues in parentheses are based on 25-49 unweighted cases.

[1] Two most common local misconceptions: AIDS can be transmitted by mosquito bites; a person can become infected by sharing food with someone who has AIDS.

[2] Comprehensive knowledge means knowing that consistent use of condoms 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.

Comprehensive knowledge is positively related to education and wealth, increasing from 6 percent and 9 percent among women and men with no education, respectively, to 63 percent and 65 percent, respectively, among women and men with at least SLC level of education. A similar pattern is observed with regard to comprehensive knowledge and wealth for both women and men. Comprehensive knowledge is slightly higher among women and men who had traveled away from home for more than six months in the past 12 months.

13.2 Attitudes toward People Living with HIV/AIDS

Knowledge and beliefs about AIDS affect how people treat those they know to be living with HIV/AIDS. In the 2006 NDHS, a number of questions were posed to respondents to measure their attitudes towards people living with HIV/AIDS (PLHA), including questions about their willingness to buy vegetables from an infected shopkeeper, 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 female teacher who is not sick should be allowed to continue teaching. Tables 13.4.1 and 13.4.2 show the percentages who express positive attitudes towards people living with HIV among women and men who have heard about HIV/AIDS, by background characteristics.

Nearly all women and men (94 percent and 96 percent, respectively) state that they would be willing to care for a family member with the AIDS virus in their home. Eighty percent of women and 84 percent of men say that they would not want to keep secret that a family member was infected with the AIDS virus, while 79 percent of women and 81 percent of men say that an HIV-positive female teacher should be allowed to continue teaching. A relatively lower proportion of women and men (71 percent and 75 percent, respectively) say they would buy fresh vegetables from a shopkeeper with AIDS. The percentage expressing accepting attitudes on all four measures is low: 56 percent among women and 61 percent among men.

Stigma associated with AIDS and attitudes related to HIV/AIDS differ by respondents' background characteristics. The percentage expressing accepting attitudes toward those living with HIV/AIDS declines as age increases, from 61 percent among women age 15-24 to 49 percent among women age 40-49, and from 63 percent to 56 percent among men in the same age groups. Accepting attitudes are also more widespread among never-married women and men and respondents living in urban areas. Women living in the hills and terai and men living in the hills are much more likely to accept people living with HIV/AIDS, as are women living in the Far-western terai and men living in the Eastern mountain subregions. Furthermore, women and men with SLC and higher level of education, those living in the wealthiest households, and women who have traveled away from home for six months or longer are also more likely to accept people living with HIV/AIDS.

Table 13.4.1 Accepting attitudes toward those living with HIV/AIDS: Women

Among women age 15-49 who have heard of AIDS, percentage expressing specific accepting attitudes toward people with AIDS, by background characteristics, Nepal 2006

Background characteristic	Percentage of women 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 and is not sick should be allowed to continue teaching	Would not want to keep secret that a family member got infected with the AIDS virus	Percentage expressing accepting attitudes on all four indicators	Number of women who have heard of AIDS
Age						
15-24	94.3	77.2	83.6	80.4	61.2	3,548
15-19	93.7	78.0	85.0	80.1	61.7	1,993
20-24	95.1	76.0	81.8	80.8	60.6	1,555
25-29	92.8	70.7	76.4	78.1	56.4	1,310
30-39	94.5	66.1	75.4	78.8	51.6	1,826
40-49	94.1	62.6	70.9	82.3	49.3	1,148
Marital status						
Never married	95.1	83.1	88.3	82.3	67.4	1,873
Married	93.8	67.7	75.6	79.3	53.1	5,712
Divorced/separated/ widowed	94.3	66.5	75.7	76.0	49.0	246
Residence						
Urban	96.3	85.9	88.9	81.4	68.6	1,533
Rural	93.5	67.8	76.2	79.6	53.4	6,298
Ecological zone						
Mountain	89.0	55.2	68.7	75.6	41.4	469
Hill	94.3	70.9	78.2	81.6	57.5	3,999
Terai	94.5	74.1	80.5	78.5	57.2	3,363
Development region						
Eastern	94.6	73.4	80.6	80.4	56.4	1,787
Central	95.9	76.5	82.5	78.8	59.9	2,368
Western	94.2	68.7	78.1	84.4	56.3	1,753
Mid-western	93.7	58.3	64.8	77.5	46.5	1,016
Far-western	88.7	73.8	81.1	75.9	58.7	907
Subregion						
Eastern mountain	96.2	57.2	69.0	82.8	44.4	144
Central mountain	90.2	59.9	73.7	82.0	48.9	153
Western mountain	82.0	49.3	63.9	63.8	32.3	172
Eastern hill	94.2	69.4	80.9	85.4	56.1	556
Central hill	96.9	82.2	87.0	81.3	65.3	1,517
Western hill	94.4	68.1	78.0	88.5	58.6	1,147
Mid-western hill	92.8	51.1	57.5	73.3	40.6	555
Far-western hill	81.0	62.4	65.0	59.9	45.3	224
Eastern terai	94.5	77.7	82.0	77.5	58.2	1,086
Central terai	95.0	67.7	74.9	72.7	50.5	698
Western terai	93.8	69.7	78.3	76.7	51.8	598
Mid-western terai	97.0	71.3	77.1	85.4	59.6	365
Far-western terai	93.0	81.2	88.5	84.5	66.8	616
Education						
No education	91.9	55.9	65.0	76.0	41.1	3,117
Primary	93.3	67.1	77.7	78.7	52.9	1,588
Some secondary	96.0	86.0	90.6	84.7	71.0	2,189
SLC and above	98.3	95.9	97.7	83.8	79.3	937
Wealth quintile						
Lowest	88.7	49.4	59.1	74.7	36.1	1,181
Second	93.0	60.1	70.3	78.5	46.3	1,261
Middle	92.0	67.1	75.9	78.3	50.3	1,362
Fourth	96.4	78.7	83.4	83.0	64.4	1,834
Highest	97.0	86.2	91.7	81.9	70.2	2,195
Time away from home						
Did not travel	93.0	68.3	77.1	79.5	53.0	2,427
Traveled	94.6	72.8	79.4	80.1	58.0	5,399
Away for less than 6 months	94.6	72.7	79.2	80.2	57.9	5,213
Away for 6 months or more	94.5	76.5	84.0	76.6	59.4	186
Total 15-49	94.1	71.4	78.6	79.9	56.4	7,832

Note: Total includes 5 women with missing information on time away from home not shown separately.

Table 13.4.2 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, Nepal 2006

Background characteristic	Percentage of men 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 and is not sick should be allowed to continue teaching	Would not want to keep secret that a family member got infected with the AIDS virus	Percentage expressing accepting attitudes on all four indicators	Number of men who have heard of AIDS
Age						
15-24	95.8	79.8	84.7	82.3	62.7	1,516
15-19	95.5	79.6	85.1	81.8	62.8	901
20-24	96.1	80.1	84.1	82.9	62.6	615
25-29	96.4	76.9	81.9	82.6	61.3	500
30-39	96.3	72.5	80.5	84.9	60.1	854
40-49	94.5	66.9	71.6	88.7	55.6	663
Marital status						
Never married	96.2	83.7	86.4	82.4	66.7	1,157
Ever had sex	96.5	86.4	85.3	84.2	72.5	214
Never had sex	96.1	83.1	86.7	81.9	65.3	943
Married	95.5	71.2	78.3	85.1	57.8	2,342
Divorced/separated/ widowed	(95.9)	(61.8)	(62.7)	(83.8)	(41.5)	34
Residence						
Urban	95.7	85.5	87.1	80.3	66.7	707
Rural	95.8	72.6	79.2	85.1	59.0	2,826
Ecological zone						
Mountain	87.3	68.7	72.2	78.9	54.0	214
Hill	96.5	84.0	87.6	84.4	70.8	1,564
Terai	96.1	68.1	75.8	84.6	52.2	1,755
Development region						
Eastern	94.9	76.4	80.0	78.6	59.0	768
Central	96.0	77.2	79.6	86.2	61.1	1,263
Western	98.0	78.2	81.1	86.8	66.0	667
Mid-western	92.1	69.7	80.8	78.8	53.1	379
Far-western	96.1	67.8	85.2	88.7	59.6	457
Subregion						
Eastern mountain	95.6	86.2	84.3	90.4	79.9	51
Central mountain	87.2	67.8	68.3	77.4	44.6	67
Western mountain	83.0	60.0	68.5	73.8	46.8	96
Eastern hill	94.5	84.3	83.7	84.1	70.7	206
Central hill	97.8	88.8	90.8	82.7	73.2	688
Western hill	99.0	87.6	88.9	88.6	75.6	366
Mid-western hill	90.8	63.8	79.5	85.2	54.9	200
Far-western hill	94.1	78.7	84.7	80.2	68.9	104
Eastern terai	95.0	72.3	78.1	75.1	52.2	512
Central terai	94.8	62.7	65.8	92.0	46.9	508
Western terai	96.8	66.3	71.2	84.3	53.6	296
Mid-western terai	95.5	80.8	86.7	72.7	54.5	135
Far-western terai	99.7	66.3	88.5	93.4	58.3	306
Education						
No education	92.7	52.6	63.1	77.8	36.5	508
Primary	94.2	64.4	71.5	82.2	48.9	983
Some secondary	96.1	82.4	87.2	85.7	68.0	1,263
SLC and above	99.1	91.9	93.7	88.3	78.8	779
Wealth quintile						
Lowest	92.4	63.8	73.4	81.3	50.5	517
Second	93.8	63.3	69.9	84.1	49.4	595
Middle	95.7	67.6	79.8	86.5	53.2	650
Fourth	97.2	80.3	83.0	85.1	67.1	825
Highest	97.5	89.7	90.5	83.4	72.3	946
Time away from home						
Did not travel	96.2	74.7	78.5	84.0	57.9	996
Traveled	95.6	75.4	81.7	84.3	61.6	2,528
Away for less than 6 months	95.4	75.2	81.9	85.3	62.3	2,212
Away for 6 months or more	97.1	76.8	80.6	77.8	56.8	316
Total 15-49	95.7	75.2	80.8	84.2	60.5	3,534
Men 50-59	93.7	67.5	76.3	86.8	59.9	388
Total 15-59	95.5	74.4	80.4	84.4	60.5	3,921

Note: Total includes 9 men with missing information on time away from home not shown separately. Figures in parentheses are based on 25-49 unweighted cases.

13.3 ATTITUDES TOWARD NEGOTIATING SAFER SEX

Knowledge about HIV transmission and ways to prevent it are of little use if women feel powerless to negotiate safer sex practices with their partner. In an effort to assess women's ability to negotiate safer sex with a partner who has a sexually transmitted infection (STI), all women and men in the 2006 NDHS were asked if they believed that a wife is justified in refusing to have sex with her husband when she knows he has a disease that can be transmitted through sexual contact.

Table 13.5 shows that the vast majority of women and men (94 percent and 95 percent, respectively) believe that if a woman knows her husband has an STI, she is justified in refusing to have sex with him. Differences by background characteristics are minimal, with the exception of place of residence by region and subregion among women. Women living in the Eastern region and especially in the Eastern terai subregion are least likely to support a woman's right to negotiate safer sex.

Table 13.5 Attitudes toward negotiating safer sexual relations with husband

Percentage of women and men age 15-49 who believe that, if a husband has a sexually transmitted infection, his wife is justified in refusing to have sexual intercourse with him, by background characteristics, Nepal 2006

	Women		Men	
Background characteristic	Percentage who believe wife is justified in refusing to have sexual intercourse with husband	Number of women	Percentage who believe wife is justified in refusing to have sexual intercourse with husband	Number of men
Age				
15-24	93.6	4,431	94.3	1,573
15-19	92.8	2,437	93.8	941
20-24	94.5	1,995	95.1	632
25-29	94.1	1,773	96.4	524
30-39	94.0	2,556	95.9	943
40-49	92.8	2,033	94.5	813
Marital status				
Never married	93.9	2,149	94.1	1,207
Ever had sex	*	9	96.2	215
Never had sex	93.9	2,141	93.7	992
Married	93.5	8,257	95.5	2,598
Divorced/separated/ widowed	93.8	387	(92.3)	48
Residence				
Urban	92.9	1,687	94.4	730
Rural	93.7	9,106	95.2	3,123
Ecological zone				
Mountain	93.8	753	93.1	241
Hill	95.6	4,598	94.2	1,641
Terai	91.9	5,443	96.0	1,972
Development region				
Eastern	85.5	2,392	94.3	849
Central	95.4	3,553	93.5	1,367
Western	97.7	2,070	96.2	716
Mid-western	97.6	1,250	95.7	416
Far-western	93.5	1,528	98.0	506
Subregion				
Eastern mountain	96.4	189	89.9	59
Central mountain	94.1	202	86.4	73
Western mountain	92.2	362	99.2	109
Eastern hill	94.8	627	95.3	215
Central hill	94.0	1,713	92.0	722
Western hill	98.1	1,267	96.2	387
Mid-western hill	97.6	650	94.6	210
Far-western hill	92.6	341	98.3	107
Eastern terai	80.4	1,576	94.4	576
Central terai	97.0	1,638	96.4	571
Western terai	97.1	783	96.1	320
Mid-western terai	98.4	457	96.2	155
Far-western terai	94.6	989	97.6	350
Education				
No education	91.9	5,728	92.3	710
Primary	95.4	1,901	93.3	1,083
Some secondary	95.6	2,225	96.4	1,281
SLC and above	96.2	938	97.5	779
Total 15-49	93.6	10,793	95.0	3,854
Men 50-59	na	na	96.0	543
Total 15-59	na	na	95.1	4,397

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

13.4 HIGHER-RISK SEXUAL INTERCOURSE

The 2006 NDHS included questions on respondents' sexual partners during the 12 months preceding the survey. For male respondents, an additional question was asked on whether they paid for sex during the 12 months preceding the interview. Information on the use of condoms at the last sexual encounter with each partner in the last 12 months was collected from both women and men. Finally, sexually active women and men were asked about the total number of partners they had had during their lifetime. These questions are, of course, sensitive, and in interpreting the results in this section it is important to remember that respondents' answers may be subject to some reporting bias. The discussion below focuses primarily

on men because less than 1 percent of women reported having multiple sexual partners, and a separate analysis is not statistically meaningful.

13.4.1 Multiple Sexual Partners and Higher-risk Sexual Intercourse

Table 13.6 presents several indicators based on the information collected from men who had ever had intercourse about the number of sexual partners they had had during the 12-month period before the survey and over their lifetime. The first two indicators in the table assess the prevalence of multiple partners and of higher-risk sexual intercourse among men who reported having intercourse during the 12 months prior to the survey. Higher-risk sex involves sexual intercourse with a partner who is neither a spouse nor a cohabiting partner. The third indicator relates to condom use during the last higher-risk sexual encounter. The fourth indicator is the mean number of sexual partners that a man has had during his lifetime. This provides an assessment of lifetime exposure to elements of higher-risk sex.

Three percent of men age 15-49 reported having had two or more sexual partners during the 12 months prior to the survey. About 6 percent of men in the same age group report having had higher-risk intercourse in the past 12 months.

The differentials presented in Table 13.6 suggest that having multiple partners and having higher-risk sexual behavior are concentrated in some population subgroups. These indicators differ by respondents' marital status. About one in five never-married men reported having had multiple partners, compared with only about 2 percent of currently married men.

There is little difference by other background characteristics in the proportion of men who report having multiple partners.

Levels of higher-risk sexual intercourse are quite high among young men age 15-24; one in five reports sexual intercourse with someone other than their spouse or cohabiting partner in the last 12 months. Higher-risk sexual intercourse is especially common among men in the age group 15-19 years, among whom one in three reports higher-risk sexual intercourse in the previous year.

Higher-risk sex is more prevalent among men living in urban areas, among those with some secondary or higher education, among those who belong to the highest wealth quintile, and among those who had been away from home in the last 12 months.

Condom use is an important tool in the fight against the spread of HIV infection. Although truly effective protection would require correct condom use at every sexual encounter, condom use among those at higher risk is a useful indicator in the absence of alternate information. Table 13.6 shows that 71 percent of men who reported higher-risk sexual behavior used a condom during their last higher-risk sexual encounter. An analysis by background characteristics is limited due to the small number of men who reported having higher-risk sex.

Men who have ever had sexual intercourse were asked about the number of sexual partners they had had in their lifetime. Men reported an average of two lifetime sexual partners. The differences in the mean number of sexual partners by background characteristics are small. Nevertheless, the mean number of sexual partners is higher among never-married men, those living in the mountains and in the Mid-western region, and those who have some secondary education.

Table 13.6 Multiple sexual partners and higher-risk sexual intercourse in the past 12 months

Among men age 15-49 who had sexual intercourse in the past 12 months, the percentage who had intercourse with more than one partner and the percentage who had higher-risk sexual intercourse in the past 12 months, and among those having higher-risk sexual intercourse in the past 12 months, the percentage reporting that a condom was used at last higher-risk sexual intercourse, and the mean number of lifetime sexual partners for men who ever had sexual intercourse, by background characteristics, Nepal 2006

	Among men who had sexual intercourse in the past 12 months:			Among men who had higher-risk sexual intercourse in the past 12 months:		Among men who ever had sexual intercourse:	
Background characteristic	Percentage who had 2+ partners in the past 12 months	Percentage who had higher-risk intercourse in the past 12 months[1]	Number	Percentage who reported using a condom at last higher-risk sexual intercourse	Number	Mean number of sexual partners in lifetime	Number
Age							
15-24	6.1	19.6	542	78.4	107	2.1	643
15-19	9.4	35.4	147	79.6	52	1.8	199
20-24	4.9	13.8	396	77.2	55	2.2	444
25-29	2.9	4.7	453	(53.1)	21	1.9	474
30-39	2.5	1.7	916	*	15	2.0	936
40-49	1.4	0.7	778	*	6	1.9	807
Marital status							
Never married	20.1	96.5	100	76.5	96	2.6	215
Married	2.3	1.8	2,576	66.1	45	1.9	2,598
Divorced/separated/ widowed	*	*	14	*	8	(3.4)	47
Residence							
Urban	4.6	10.7	452	71.1	49	2.1	492
Rural	2.7	4.5	2,238	71.3	100	1.9	2,367
Ecological zone							
Mountain	3.0	5.4	176	(76.1)	9	2.5	186
Hill	3.4	6.6	1,084	78.4	72	2.2	1,163
Terai	2.7	4.7	1,429	63.0	68	1.7	1,511
Development region							
Eastern	3.0	6.7	567	(75.7)	38	1.7	605
Central	3.0	5.6	952	(67.5)	53	2.0	1,014
Western	2.8	5.2	490	(75.9)	25	2.0	523
Mid-western	4.6	6.0	324	(74.4)	20	2.7	331
Far-western	1.8	3.6	357	(59.3)	13	1.7	387
Education							
No education	1.5	2.2	634	*	14	1.8	664
Primary	2.4	2.8	836	(59.4)	24	1.8	883
Some secondary	4.4	9.3	725	76.4	68	2.3	781
SLC and above	3.8	8.8	494	(83.6)	43	2.0	532
Wealth quintile							
Lowest	2.0	3.8	464	*	17	2.2	498
Second	2.6	3.9	521	(62.1)	20	1.7	550
Middle	2.1	3.3	524	*	17	1.8	538
Fourth	3.8	5.8	571	(67.0)	33	1.9	625
Highest	4.1	9.9	608	(76.4)	60	2.1	649
Time away from home							
Did not travel	1.4	3.1	779	(62.3)	24	1.7	824
Traveled	3.7	6.6	1,902	73.0	125	2.1	2,028
Away for less than 6 months	3.6	6.5	1,667	73.3	108	2.0	1,776
Away for 6 months or more	4.3	6.9	235	*	16	2.4	252
Total 15-49	3.0	5.5	2,689	71.2	149	2.0	2,860
Men 50-59	1.6	0.0	465	*	0	2.0	540
Total men 15-59	2.8	4.7	3,154	71.2	149	2.0	3,400

Note: Total includes 8 men with missing information on time away from home not shown separately. 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] Sexual intercourse with a partner who was neither a spouse nor who lived with the respondent.
na = Not applicable

13.4.2 Paid Sex

Paid sex is considered a special category of higher-risk sex. Male respondents in the 2006 NDHS were asked whether they had paid money in exchange for sex in the past 12 months. Less than 1 percent of men reported that they had engaged in paid sex in the year before the survey (Table 13.7).

Differerences are small; however, it is interesting to note that payment for sex is slightly higher among men who had been away from their homes for more than six months in the past 12 months.

13.5 KNOWLEDGE ON HIV TESTING

Knowledge of one's HIV status helps HIV-negative individuals make specific decisions to reduce their 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 to prevent mother-to-child transmission. Where migration is common, as in the case of Nepal, knowing one's HIV status is especially important for curbing the spread of the infection and empowering women to seek preventive and curative measures to protect themselves and their children.

In the 2006 NDHS, both male and female respondents were asked whether they know of a place where people can go to get tested for HIV and female respondents were asked whether they themselves had ever been tested for HIV. Table 13.8 shows that, among the adult population age 15-49, men (70 percent) are twice as likely as women (35 percent) to know where to go to be tested for HIV. Knowledge of HIV testing facilities differs by respondents' background characteristics. For instance, older women and men are less likely to know of a place where they can get tested for HIV than their younger counterparts. Similarly, knowledge about HIV testing facilities is higher among urban women and men and those who reside in the Mid-western region. Among women, knowledge of a place where one can get tested for HIV is highest among those residing in the Central hill subregion, while among men, it is highest among those who reside in the Mid-western hill subregion.

Table 13.7 Payment for sexual intercourse

Percentage of men age 15-49 who reported paying for sexual intercourse in the past 12 months, by background characteristics, Nepal 2006

Background characteristic	Percentage who paid for sexual intercourse in the past 12 months	Number
Age		
15-24	1.0	1,573
15-19	0.2	941
20-24	2.0	632
25-29	1.1	524
30-39	0.3	943
40-49	0.0	813
Marital status		
Never married	1.0	1,207
Married	0.4	2,598
Divorced/separated/ widowed	(4.8)	48
Residence		
Urban	1.3	730
Rural	0.5	3,123
Ecological zone		
Mountain	1.0	241
Hill	0.7	1,641
Terai	0.5	1,972
Development region		
Eastern	0.9	849
Central	0.8	1,367
Western	0.2	716
Mid-western	0.6	416
Far-western	0.4	506
Subregion		
Eastern mountain	1.5	59
Central mountain	0.5	73
Western mountain	1.1	109
Eastern hill	0.6	215
Central hill	1.0	722
Western hill	0.4	387
Mid-western hill	0.1	210
Far-western hill	1.1	107
Eastern terai	1.0	576
Central terai	0.6	571
Western terai	0.0	320
Mid-western terai	0.6	155
Far-western terai	0.2	350
Education		
No education	0.7	710
Primary	0.1	1,083
Some secondary	0.8	1,281
SLC and above	1.0	779
Wealth quintile		
Lowest	0.3	621
Second	0.5	696
Middle	0.2	714
Fourth	0.6	861
Highest	1.2	961
Time away from home		
Did not travel	0.3	1,137
Traveled	0.8	2,706
Away for less than 6 months	0.6	2,381
Away for 6 months or more	2.4	324
Total 15-49	0.6	3,854
Men 50-59	0.0	543
Total 15-59	0.6	4,397

Note: Total includes 11 men with missing information on time away from home not shown separately. Figures in parentheses are based on 25-49 unweighted cases.

Table 13.8 Knowledge of source for HIV testing and women ever tested

Percentage of women and men age 15-49 who know where to get an HIV test, and the percentage of women ever tested, according to background characteristics, Nepal 2006

Background characteristic	Percentage of women who know where to get an HIV test	Percentage of women ever tested	Number of women	Percentage of men who know where to get an HIV test	Number of men
Age					
15-24	41.5	1.2	4,431	73.2	1,573
15-19	40.9	0.4	2,437	71.9	941
20-24	42.3	2.1	1,995	75.0	632
25-29	36.5	2.2	1,773	77.3	524
30-39	32.1	1.2	2,556	69.7	943
40-49	22.1	0.6	2,033	58.7	813
Marital status					
Never married	47.6	0.6	2,149	75.1	1,207
Ever had sex	*	*	9	83.7	215
Never had sex	47.6	0.6	2,141	73.2	992
Married	31.9	1.4	8,257	68.0	2,598
Divorced/separated/ widowed	26.6	1.0	387	(35.4)	48
Residence					
Urban	59.2	3.8	1,687	82.8	730
Rural	30.3	0.8	9,106	66.8	3,123
Ecological zone					
Mountain	25.7	0.3	753	49.2	241
Hill	39.6	1.7	4,598	71.5	1,641
Terai	32.0	1.0	5,443	71.0	1,972
Development region					
Eastern	35.6	0.9	2,392	66.5	849
Central	35.4	1.7	3,553	74.0	1,367
Western	37.3	1.9	2,070	66.0	716
Mid-western	38.6	0.6	1,250	82.6	416
Far-western	25.9	0.4	1,528	59.0	506
Subregion					
Eastern mountain	27.9	0.5	189	60.7	59
Central mountain	31.6	0.3	202	53.2	73
Western mountain	21.3	0.1	362	40.4	109
Eastern hill	29.2	0.2	627	71.0	215
Central hill	45.6	2.7	1,713	71.1	722
Western hill	41.6	2.1	1,267	70.6	387
Mid-western hill	37.5	0.3	650	85.3	210
Far-western hill	25.4	0.0	341	51.4	107
Eastern terai	39.0	1.3	1,576	65.5	576
Central terai	25.1	0.8	1,638	80.3	571
Western terai	30.3	1.5	783	61.6	320
Mid-western terai	43.3	1.2	457	85.0	155
Far-western terai	28.4	0.5	989	67.1	350
Education					
No education	18.5	0.4	5,728	43.6	710
Primary	36.3	0.8	1,901	58.6	1,083
Some secondary	56.6	1.9	2,225	77.7	1,281
SLC and above	79.5	5.9	938	96.4	779
Wealth quintile					
Lowest	21.7	0.4	1,961	47.1	621
Second	22.5	0.1	2,079	64.0	696
Middle	25.7	0.8	2,214	65.1	714
Fourth	40.5	1.1	2,226	76.5	861
Highest	60.2	3.5	2,313	86.3	961
Time away from home					
Did not travel	28.3	0.8	3,550	60.8	1,137
Traveled	38.0	1.4	7,237	73.6	2,706
Away for less than 6 months	37.7	1.4	7,014	73.8	2,381
Away for 6 months or more	44.7	2.5	223	72.4	324
Total 15-49	34.8	1.2	10,793	69.8	3,854
Men 50-59	na	na	na	49.5	543
Total men 15-59	na	na	na	67.3	4,397

Note: Total includes 5 women and 11 men with missing information on time away from home not shown separately. 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

Four in five women with SLC or higher education know where to go to get tested for HIV, compared with about one in five of those with no education. Knowledge of an HIV testing facility is nearly universal among men who have SLC or higher education, while just over two in five men with no education have such knowledge. Similarly, both women and men living in households in the highest wealth quintile are more likely to report knowing of a place to go to be tested for HIV than respondents in the other wealth quintiles. Migrants are also more likely than nonmigrants to know of a place to go to get tested.

Only about 1 percent of women were ever tested for HIV. Differentials by background characteristics in the percentage of women tested for HIV are small. However, data presented in Table 13.8 indicate that about 4 percent of urban women have been tested, compared with only about 1 percent of rural women. Similarly, women with SLC or higher level of education, those residing in the wealthiest households, and those who had been away from home for more than six months are more likely to have been tested than women in the other categories.

13.6 Reports of Recent Sexually Transmitted Infections

Information about the prevalence of sexually transmitted infections (STIs) is useful not only as a marker of unprotected sexual intercourse but also as a cofactor for HIV transmission. The 2006 NDHS 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 are 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 genital discharge.

Table 13.9 shows that self-reported STI prevalence among women and men age 15-49 in Nepal is negligible. Less than 1 percent of women and a negligible percent of men reported having had an STI in the 12 months prior to the survey. It is likely that these figures, which are quite low, underestimate the actual prevalence of STIs among the sexually active population in Nepal, as many STI symptoms are not easily recognized or do not have any visible symptoms.

Seven percent of women and 2 percent of men age 15-49 report having had an STI and/or symptoms of an STI in the 12 months prior to the survey. Women who report STI symptoms are somewhat more likely to say they have had a bad-smelling or abnormal genital discharge (7 percent) than to report a genital ulcer or sore (2 percent). One percent of men report bad-smelling or abnormal genital discharge or a genital sore or ulcer.

The percentage of women reporting an STI and/or STI symptoms differs by some background variables. It is higher among currently married than formerly married women and women residing in the Eastern region (and especially in the Eastern terai subregion).

Among men, differences in reported STI prevalence are small (Table 13.9).

Table 13.9 Self-reported prevalence of sexually transmitted infections (STIs) and STI symptoms

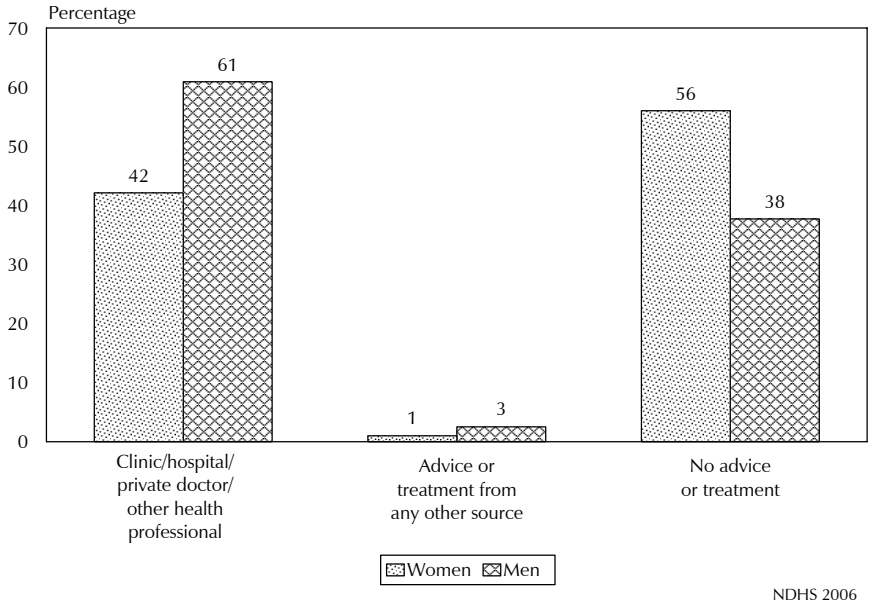
Among women and men age 15-49 who ever had sexual intercourse, the percentage reporting having an STI and/or symptoms of an STI in the past 12 months, by background characteristics, Nepal 2006

	Women					Men				
	Percentage of women who reported having in the past 12 months:					Percentage of men who reported having in the past 12 months:				
Background characteristic	STI	Bad-smelling/ abnormal genital discharge	Genital sore/ ulcer	STI/genital discharge/ sore or ulcer	Number of women who ever had sexual intercourse	STI	Bad-smelling/ abnormal genital discharge	Genital sore/ ulcer	STI/genital discharge/ sore or ulcer	Number of men who ever had sexual intercourse
Age										
15-24	0.3	6.3	2.0	7.1	2,428	0.0	1.0	1.7	2.5	643
15-19	0.0	5.3	0.6	5.5	791	0.0	0.9	3.0	3.6	199
20-24	0.4	6.8	2.7	7.9	1,637	0.0	1.1	1.0	2.1	444
25-29	0.5	7.0	2.1	7.8	1,698	0.5	0.6	1.6	2.2	474
30-39	0.4	7.1	1.9	7.8	2,516	0.1	0.6	0.6	1.1	936
40-49	0.3	6.0	2.0	6.7	2,007	0.1	0.9	0.4	1.3	807
Marital status										
Never married	*	*	*	*	9	0.0	0.6	2.9	3.2	215
Married	0.4	6.7	2.0	7.5	8,255	0.2	0.8	0.8	1.5	2,598
Divorced/separated/ widowed	0.0	4.0	1.1	4.7	385	(0.0)	(0.0)	(0.0)	(0.0)	47
Residence										
Urban	0.7	6.7	3.4	8.6	1,281	0.4	1.0	1.7	2.5	492
Rural	0.3	6.6	1.7	7.1	7,368	0.1	0.8	0.8	1.5	2,367
Ecological zone										
Mountain	0.5	6.8	2.7	7.7	611	0.0	1.6	2.6	3.6	186
Hill	0.3	6.5	2.2	7.3	3,575	0.4	0.9	1.4	2.3	1,163
Terai	0.4	6.8	1.7	7.4	4,463	0.0	0.7	0.4	0.9	1,511
Development region										
Eastern	0.2	11.8	2.9	13.0	1,854	0.0	0.2	0.5	0.7	605
Central	0.5	6.3	2.4	7.0	2,880	0.4	1.3	1.1	2.1	1,014
Western	0.1	3.8	0.9	4.4	1,676	0.0	0.4	0.9	1.3	523
Mid-western	0.9	6.8	2.1	7.3	1,012	0.2	1.5	2.7	4.1	331
Far-western	0.2	3.2	1.0	3.7	1,227	0.0	0.4	0.1	0.4	387
Subregion										
Eastern mountain	0.5	7.4	2.9	8.3	136	0.0	0.0	0.5	0.5	40
Central mountain	1.6	10.9	3.4	11.3	165	0.0	2.8	4.3	5.3	57
Western mountain	0.0	4.3	2.3	5.4	310	0.0	1.5	2.5	3.9	90
Eastern hill	0.0	6.7	1.7	7.5	465	0.0	0.0	1.3	1.3	158
Central hill	0.4	8.4	3.3	9.7	1,284	0.8	1.3	1.3	2.6	486
Western hill	0.0	3.7	1.0	4.3	1,023	0.0	0.5	1.0	1.4	276
Mid-western hill	1.3	7.5	2.8	7.9	512	0.3	1.2	3.1	4.3	166
Far-western hill	0.0	5.2	1.4	5.5	290	0.0	0.6	0.3	0.9	78
Eastern terai	0.3	14.2	3.3	15.5	1,252	0.0	0.3	0.1	0.5	407
Central terai	0.5	3.9	1.5	4.1	1,431	0.0	1.1	0.4	1.2	472
Western terai	0.2	4.2	0.7	4.6	641	0.0	0.3	0.8	1.1	241
Mid-western terai	0.6	5.6	0.7	5.9	373	0.0	2.1	1.2	3.0	123
Far-western terai	0.3	2.7	0.7	3.2	766	0.0	0.0	0.0	0.0	268
Education										
No education	0.4	6.8	2.0	7.3	5,413	0.0	0.4	0.4	0.6	664
Primary	0.5	7.6	2.3	8.5	1,454	0.2	0.8	1.4	2.1	883
Some secondary	0.1	6.2	1.0	6.9	1,223	0.3	1.4	1.2	2.5	781
SLC and above	0.6	3.8	2.5	5.6	558	0.0	0.4	0.6	1.0	532
Wealth quintile										
Lowest	0.4	5.7	2.3	6.5	1,629	0.0	0.6	1.1	1.7	498
Second	0.3	6.3	1.9	6.6	1,711	0.4	1.0	0.9	1.7	550
Middle	0.3	6.5	1.1	6.9	1,828	0.0	0.6	0.7	1.1	538
Fourth	0.3	9.3	2.1	9.9	1,721	0.0	0.6	0.7	1.1	625
Highest	0.6	5.4	2.5	6.9	1,760	0.3	1.2	1.4	2.6	649
Time away from home										
Did not travel	0.2	5.6	2.0	6.4	2,715	0.0	0.5	0.8	1.2	824
Traveled	0.4	7.1	2.0	7.8	5,928	0.2	0.9	1.0	1.8	2,028
Away for less than 6 months	0.5	7.1	2.0	7.8	5,759	0.2	0.8	1.2	1.9	1,776
Away for 6 months or more	0.0	6.2	0.6	6.9	169	0.0	1.5	0.0	1.5	252
Total 15-49	0.4	6.6	2.0	7.4	8,649	0.1	0.8	1.0	1.6	2,860
Men 50-59	na	na	na	na	na	0.0	0.3	0.5	0.8	540
Total men 15-59	na	na	na	na	na	0.1	0.7	0.9	1.5	3,400

Note: Total includes 5 women and 8 men with missing information on time away from home not shown separately. 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

In the 2006 NDHS, women and men who reported an STI or STI symptoms in the past 12 months were asked about the advice or treatment they sought for it. Figure 13.2 shows that 56 percent of women sought no advice or treatment, while about 42 percent sought advice or treatment from a clinic, hospital, private doctor, or other health professional. Similarly, 38 percent of men did not seek any treatment or advice, while about 61 percent sought advice or treatment from a health facility or provider.

Figure 13.2 **Women and Men Seeking Advice or Treatment for STIs**



13.7 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 higher-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.

13.7.1 Comprehensive Knowledge about HIV/AIDS and Source for Condoms

Knowledge of how HIV is transmitted is crucial for enabling young people to avoid HIV infection. Table 13.10 shows that 28 percent of women and 44 percent of men age 15-24 have comprehensive knowledge about HIV/AIDS. The level of comprehensive knowledge about HIV/AIDS does not vary greatly by age within the youth population. Among young women and men, comprehensive knowledge is higher among those who have never been married.

Table 13.10 Comprehensive knowledge about AIDS and knowledge of a source for condoms among youth

Percentage of young women and young men age 15-24 with comprehensive knowledge about AIDS and percentage with knowledge of a source for condoms, by background characteristics, Nepal 2006

	Women age 15-24			Men age 15-24		
Background characteristic	Percentage with comprehensive knowledge of AIDS[1]	Percentage who know a condom source[2]	Number of women	Percentage with comprehensive knowledge of AIDS[1]	Percentage who know a condom source[2]	Number of men
Age						
15-19	29.1	84.8	2,437	45.3	97.0	941
15-17	27.4	83.8	1,515	45.2	96.3	587
18-19	32.0	86.5	921	45.4	98.3	354
20-24	25.8	90.0	1,995	41.1	97.9	632
20-22	26.6	90.2	1,228	42.6	97.6	361
23-24	24.5	89.8	766	39.1	98.4	270
Marital status						
Never married	36.7	87.2	2,007	48.1	97.1	1,121
Ever had sex	*	*	6	48.4	99.6	191
Never had sex	36.8	87.2	2,001	48.0	96.6	930
Ever married	20.2	87.2	2,424	32.5	98.1	452
Residence						
Urban	42.6	92.6	700	57.5	97.8	335
Rural	24.8	86.1	3,731	39.9	97.3	1,238
Ecological zone						
Mountain	13.1	78.3	312	27.0	97.3	93
Hill	32.2	90.0	1,876	51.3	96.8	717
Terai	25.9	86.0	2,243	38.4	98.0	762
Development region						
Eastern	29.4	87.5	1,035	41.9	99.3	350
Central	29.4	84.9	1,390	40.7	95.9	535
Western	29.3	85.8	853	48.0	95.2	310
Mid-western	19.1	95.3	520	42.0	99.2	165
Far-western	25.5	86.8	633	48.6	99.8	213
Subregion						
Eastern mountain	17.0	85.1	81	27.5	94.5	26
Central mountain	20.0	89.8	76	32.4	100.0	25
Western mountain	7.8	69.2	156	23.4	97.4	42
Eastern hill	35.4	89.7	275	52.9	100.0	87
Central hill	40.9	87.8	690	47.5	95.3	318
Western hill	32.3	92.8	498	55.4	95.7	175
Mid-western hill	15.6	97.1	272	42.0	99.2	88
Far-western hill	14.5	77.5	140	75.5	100.0	50
Eastern terai	28.4	86.9	679	39.5	99.6	237
Central terai	17.9	81.0	625	30.6	96.4	193
Western terai	25.3	75.6	350	38.2	94.4	132
Mid-western terai	27.9	97.5	194	46.9	100.0	59
Far-western terai	33.6	96.1	395	43.7	100.0	141
Education						
No education	4.5	72.3	1,231	8.9	89.3	99
Primary	13.7	83.8	1,055	20.2	95.7	382
Some secondary	42.1	96.5	1,606	47.9	98.1	749
SLC and above	64.5	99.9	539	70.3	100.0	343
Wealth quintile						
Lowest	11.6	78.9	759	29.6	94.6	222
Second	14.7	82.4	859	27.3	97.1	278
Middle	19.3	84.9	910	38.9	99.1	284
Fourth	38.8	93.2	982	49.8	97.4	363
Highest	49.3	94.3	920	59.4	97.9	426
Time away from home						
Did not travel	24.2	80.8	1,343	38.6	93.6	429
Traveled	29.2	89.9	3,087	45.6	98.8	1,139
Away for less than 6 months	29.0	90.0	2,944	47.9	98.7	969
Away for 6 months or more	31.5	88.1	142	32.5	99.5	171
Total	27.6	87.2	4,431	43.6	97.4	1,573

Note: Total includes 2 women and 4 men with missing information on time away from home not shown separately. 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 condoms during sexual intercourse and having just one uninfected faithful partner can reduce the chance of getting the AIDS virus, knowing that a healthy-looking person can have the AIDS virus, and rejecting the two most common local misconceptions about AIDS transmission or prevention. The components of comprehensive knowledge are presented in Tables 13.2, 13.3.1, and 13.3.2.

[2] Friends, family members, and home are not considered sources for condoms.

As expected, comprehensive knowledge is higher among urban women (43 percent) than rural women (25 percent) in the 15-24 age group. Higher proportions of female youth from the hills, Central hill subregion, those with SLC and higher education, and from the highest wealth quintile have comprehensive knowledge than other women in their age group. Similarly, among young men, the level of comprehensive knowledge is 58 percent in urban areas and 40 percent in rural areas. Among male youth, comprehensive knowledge is also much higher among those who are from the hills, with variation by development regions not noticeably different. About 70 percent of male youth with SLC and higher education have comprehensive knowledge of AIDS, compared with only 9 percent with no education. Youth who have migrated are also more likely to have comprehensive knowledge than those who have not traveled out of their households in the past 12 months.

Because of the important role that condoms play in combating the transmission of HIV, respondents were asked whether they know of a source of condoms. Only responses about "formal" sources were counted, that is, sources other than friends, family members, and home.

As shown in Table 13.10, young men are more likely than young women to know where to obtain a condom (97 percent compared with 87 percent). Variation in the knowledge of a condom source among male youth by background characteristics is minimal, as almost all male youth have such knowledge. Differences in knowledge among women are more obvious by subregions, education, wealth quintile and migration status.

13.7.2 Age at First Sex and Condom Use at First Sexual Intercourse

Information from the 2006 NDHS can be used to examine several important issues relating to the initiation of sexual activity among youth, including age at first sex and condom use at first sexual intercourse.

Table 13.11 shows the proportions of women and men in the 15-24 age cohort who had sex before age 15 and before age 18. Eight percent of young women and 4 percent of young men had sex by age 15, while 47 percent of young women and 27 percent of young men had sex by age 18. The female-male difference in the age at first sexual debut is primarily due to the earlier age at marriage among women.

Looking at the age patterns for young women and men, the proportions of youth reporting that they had sex before age 15 are markedly lower among those under age 20 than among older youth. Lower percentages of women and men age 18-19 had initiated sex before age 18 than women and men age 20-24. This likely reflects the effect of rising age at marriage, because only very small proportions of never-married youth report that they had sex by age 15 or by age 18.

There are obvious differences in age at first sexual intercourse among youth by development region and subregion, education, and wealth quintile. For example, less than 1 percent of young women with SLC and higher education had first sexual intercourse before the age of 15, and about 11 percent had initiated sexual intercourse before the age of 18. On the other hand, 13 percent and 69 percent of female youth with no education had sexual intercourse before the age of 15 and 18 years, respectively. Similar differences are observed among male youth.

To assess the extent of condom use at first sexual exposure, respondents age 15-24 were asked whether they had used condoms the first time they had sex. Table 13.12 shows that only 5 percent of young women and 26 percent of young men used condoms during their first sexual encounter. Never-married male youth were much more likely than ever-married youth to have used a condom. Among male youth, higher educational attainment, greater wealth, and urban residence are related to the higher use of condoms during the first sexual intercourse. Use of condoms among male youth is highest in the Hill zone and Western region.

Table 13.11 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, Nepal 2006

	Women age 15-24		Women age 18-24		Men age 15-24		Men age 18-24	
Background characteristic	Percentage who had sexual intercourse before age 15	Number of women	Percentage who had sexual intercourse before age 18	Number of women	Percentage who had sexual intercourse before age 15	Number of men	Percentage who had sexual intercourse before age 18	Number of men
Age								
15-19	5.5	2,437	na	na	3.1	941	na	na
15-17	5.8	1,515	na	na	3.6	587	na	na
18-19	5.1	921	39.5	921	2.2	354	25.8	354
20-24	9.9	1,995	50.4	1,995	5.3	632	27.7	632
20-22	9.4	1,228	50.0	1,228	4.2	361	23.2	361
23-24	10.7	766	51.2	766	6.8	270	33.7	270
Marital status								
Never married	0.0	2,007	0.1	815	2.6	1,121	13.1	548
Ever married	13.7	2,424	65.2	2,101	7.4	452	44.5	438
Knows condom source[1]								
Yes	7.3	3,862	45.3	2,592	4.1	1,532	27.2	966
No	8.6	569	60.5	323	(0.0)	41	*	19
Residence								
Urban	7.9	700	37.4	494	3.4	335	21.1	243
Rural	7.4	3,731	48.9	2,422	4.1	1,238	29.0	742
Ecological zone								
Mountain	9.4	312	50.7	213	4.4	93	42.5	46
Hill	6.5	1,876	38.7	1,272	3.4	717	27.0	440
Terai	8.1	2,243	53.7	1,431	4.5	762	25.6	500
Development region								
Eastern	8.1	1,035	41.4	700	4.2	350	19.6	223
Central	6.8	1,390	49.0	938	3.2	535	24.3	350
Western	7.7	853	46.3	580	4.6	310	33.3	194
Mid-western	10.3	520	54.2	315	4.0	165	38.6	94
Far-western	5.4	633	47.2	382	4.5	213	29.4	126
Subregion								
Eastern mountain	5.6	81	26.3	56	1.7	26	(20.2)	13
Central mountain	8.6	76	37.3	50	0.0	25	*	10
Western mountain	11.8	156	69.5	108	8.7	42	(62.1)	24
Eastern hill	5.4	275	31.5	198	0.8	87	26.1	51
Central hill	5.9	690	33.0	484	3.3	318	20.9	212
Western hill	6.3	498	45.1	336	5.9	175	34.7	101
Mid-western hill	8.2	272	42.3	163	1.6	88	34.7	49
Far-western hill	9.3	140	54.9	91	2.0	50	34.4	27
Eastern terai	9.5	679	47.7	447	5.7	237	17.5	159
Central terai	7.5	625	69.6	405	3.4	193	30.0	128
Western terai	10.0	350	48.7	241	3.1	132	31.7	91
Mid-western terai	10.0	194	62.4	121	2.4	59	38.4	36
Far-western terai	3.7	395	37.5	217	6.1	141	22.1	86
Education								
No education	13.0	1,231	69.3	952	9.7	99	35.5	79
Primary	9.4	1,055	55.7	640	4.8	382	37.6	246
Some secondary	4.5	1,606	35.6	850	4.5	749	27.9	375
SLC and above	0.3	539	10.6	473	0.2	343	14.3	286
Wealth quintile								
Lowest	8.0	759	55.2	482	2.2	222	30.7	122
Second	7.7	859	56.5	542	6.5	278	37.4	184
Middle	8.7	910	54.5	586	3.7	284	29.5	162
Fourth	6.7	982	41.4	637	4.4	363	25.1	219
Highest	6.5	920	32.1	669	3.1	426	19.1	298
Time away from home								
Did not travel	6.9	1,343	47.0	787	3.5	429	23.6	228
Traveled	7.7	3,087	46.9	2,128	4.2	1,139	28.1	756
Away for less than 6 months	7.6	2,944	47.1	2,027	4.3	969	28.6	609
Away for 6 months or more	8.6	142	42.9	100	3.6	171	25.9	147
Total	7.5	4,431	47.0	2,916	4.0	1,573	27.0	985

Note: Total includes 2 women and 4 men with missing information on time away from home not shown separately. 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 available
[1] Friends, family members, and home are not considered sources for condoms.

Table 13.12 Condom use at first sexual intercourse among youth

Among young women and young men age 15-24 who have ever had sexual intercourse, percentage who used a condom the first time they had sexual intercourse, by background characteristics, Nepal 2006

Background characteristic	Women age 15-24		Men age 15-24	
	Percentage who used a condom at first sexual intercourse	Number of women who have ever had sexual intercourse	Percentage who used a condom at first sexual intercourse	Number of men who have ever had sexual intercourse
Age				
15-19	6.0	791	29.4	199
15-17	6.8	327	32.4	60
18-19	5.3	463	28.1	139
20-24	4.9	1,637	24.0	444
20-22	6.0	961	29.2	226
23-24	3.5	676	18.6	218
Marital status				
Never married	*	6	52.0	191
Ever married	5.3	2,422	14.5	452
Knows condom source[1]				
Yes	5.7	2,115	26.0	634
No	2.1	313	*	9
Residence				
Urban	6.6	332	33.8	121
Rural	5.1	2,096	23.8	522
Ecological zone				
Mountain	5.0	185	20.2	42
Hill	6.0	943	28.0	276
Terai	4.8	1,300	24.4	325
Development region				
Eastern	3.8	548	25.0	124
Central	4.6	766	24.0	210
Western	7.5	482	33.7	130
Mid-western	7.1	300	18.2	83
Far-western	4.4	332	25.6	95
Subregion				
Eastern mountain	3.6	35	(20.5)	8
Central mountain	8.1	42	*	9
Western mountain	4.2	107	(12.2)	24
Eastern hill	6.1	132	(11.6)	35
Central hill	5.8	305	31.9	105
Western hill	6.3	269	45.2	70
Mid-western hill	6.4	147	10.5	45
Far-western hill	4.9	90	(15.8)	21
Eastern terai	3.1	381	31.4	80
Central terai	3.3	420	13.8	96
Western terai	9.0	212	19.7	59
Mid-western terai	10.1	115	(33.7)	28
Far-western terai	3.4	173	32.2	61
Education				
No education	1.6	971	4.8	63
Primary	3.9	622	17.9	192
Some secondary	9.0	647	28.1	261
SLC and above	15.8	188	42.7	126
Wealth quintile				
Lowest	2.6	445	11.6	103
Second	3.5	510	24.1	139
Middle	3.9	543	16.0	116
Fourth	9.0	505	33.8	140
Highest	7.5	424	37.0	146
Time away from home				
Did not travel	5.6	562	24.9	132
Traveled	5.2	1,864	25.9	509
Away for less than 6 months	5.1	1,765	27.2	404
Away for 6 months or more	6.0	98	21.1	105
Total	5.3	2,428	25.7	643

Note: Total includes 2 women and 1 man with missing information on time away from home not shown separately. 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] Friends, family members, and home are not considered sources for condoms.

13.7.3 Recent Sexual Activity among Never-married Youth

The period between age at first sex and age at first marriage is often a time of sexual experimentation, which can increase the risk of contracting HIV. Table 13.13 presents data on the percentage of never-married young men age 15-24 who had not yet engaged in sex and the percentage who had had sex in the 12 months preceding the survey. Data for young women is not shown separately because almost all never-married women report not having had sex.

Table 13.13 shows that about 83 percent of never-married young men have never had sexual intercourse. As a consequence, among male youth, the proportions reporting sexual activity within the 12-month period before the survey are relatively low (about 8 percent). About three-fourths of never-married young men reporting recent sexual activity used a condom the last time they had sex (data not shown separately). Premarital sexual intercourse among young men is higher at older ages, in urban areas, in the mountains and hill areas, in the Mid-western and Western regions, among highly educated youth, among those in the wealthiest quintiles, and among those who have traveled away from home for more than six months in the past year.

Table 13.13 Premarital sexual intercourse among male youth

Among never-married men age 15-24, the percentage who have never had sexual intercourse and the percentage who had sexual intercourse in the past 12 months, by background characteristics, Nepal 2006

Background characteristic	Men: Percentage who have never had sexual intercourse	Men: Percentage who had sexual intercourse in the past 12 months	Men: Number of never-married respondents
Age			
15-19	88.2	5.6	842
15-17	92.1	3.4	573
18-19	79.8	10.3	269
20-24	67.1	16.0	279
20-22	70.7	12.7	192
23-24	59.3	23.4	87
Knows condom source[1]			
Yes	82.5	8.4	1,088
No	(97.6)	(2.4)	33
Residence			
Urban	79.3	11.2	270
Rural	84.1	7.3	850
Ecological zone			
Mountain	84.9	8.6	61
Hill	81.1	9.3	544
Terai	84.7	7.0	516
Development region			
Eastern	85.6	7.7	264
Central	84.0	7.2	387
Western	79.1	11.2	227
Mid-western	83.0	11.7	99
Far-western	81.2	4.9	144
Subregion			
Eastern mountain	85.6	9.1	21
Central mountain	(84.6)	(10.9)	19
Western mountain	(84.6)	(6.1)	21
Eastern hill	84.1	5.6	61
Central hill	83.3	8.4	255
Western hill	74.2	12.9	142
Mid-western hill	82.1	13.0	53
Far-western hill	86.2	2.2	33
Eastern terai	86.2	8.3	182
Central terai	85.6	3.7	113
Western terai	87.0	8.6	83
Mid-western terai	83.5	9.5	37
Far-western terai	79.5	6.3	101
Education			
No education	(86.1)	(8.1)	41
Primary	84.0	5.3	225
Some secondary	84.0	8.0	581
SLC and above	79.4	11.2	273
Wealth quintile			
Lowest	83.6	7.0	142
Second	84.3	4.9	165
Middle	90.9	4.9	185
Fourth	80.3	8.4	278
Highest	80.0	11.9	350
Time away from home			
Did not travel	88.6	5.8	335
Traveled	80.5	9.3	783
Away for less than 6 months	81.4	9.1	694
Away for 6 months or more	73.2	11.2	89
Total	83.0	8.2	1,121

Note: Total includes 3 men missing information on time away from home not shown separately. Figures in parentheses are based on 25-49 unweighted cases.
[1] Friends, family members, and home are not considered sources for condoms.

13.7.4 Higher-risk Sexual Intercourse

The most common mode of transmission of HIV is through unprotected sex with an infected person. To prevent HIV/AIDS transmission, it is important that young people practice safer sex through the much-advocated ABC method (abstinence, being faithful to one uninfected partner, and condom use). Table 13.14 presents data on the percentage of young men engaging in higher-risk sexual intercourse (sex with a non-marital, noncohabiting partner) in the 12-month period preceding the survey, and the rate of condom use in these higher-risk sexual encounters. Although similar information was collected from women, these data are not shown separately here due to the small numbers of young women reporting higher-risk sexual activity in the past 12 months.

One in five sexually active young men reported engaging in higher-risk sexual intercourse in the 12 months preceding the survey. Three-quarters of these men reported condom use in their last higher-risk encounter (data on condom use is not shown separately due to the small number of cases).

Among young men, there are significant differences in the prevalence of higher-risk sexual intercourse by background characteristics. Youth with some secondary and higher education are much more likely than less educated youth to have engaged in higher-risk sex. Higher-risk sexual activity is more common among men in the highest wealth quintile than among men in other wealth quintiles. Urban youth are considerably more likely than rural youth to have engaged in risky sexual behavior (37 percent versus 16 percent). About 25 percent of male youth from the hills had higher-risk intercourse in the past 12 months, compared with 16 percent each in the mountains and the terai. Similarly, in the Far-western development region, only 12 percent of young men reported higher-risk intercourse in the past 12 months, compared with 22 percent in the Eastern development region.

Figure 13.3 shows the percent of male youth who have practiced abstinence, being faithful and condom use (ABC). Out of the 1,573 men age 15-24, about 60 percent reported never having had sexual intercourse, 7 percent who reported sexual intercourse with a single partner had used a condom, 25 percent had not used a condom, and about 2 percent who reported sexual intercourse with more than one sexual partner had used a condom during their last sexual encounter.

Table 13.14 Higher-risk sexual intercourse among male youth

Among young men age 15-24 who had sexual intercourse in the past 12 months, the percentage who had higher-risk sexual intercourse[1] in the past 12 months, by background characteristics, Nepal 2006

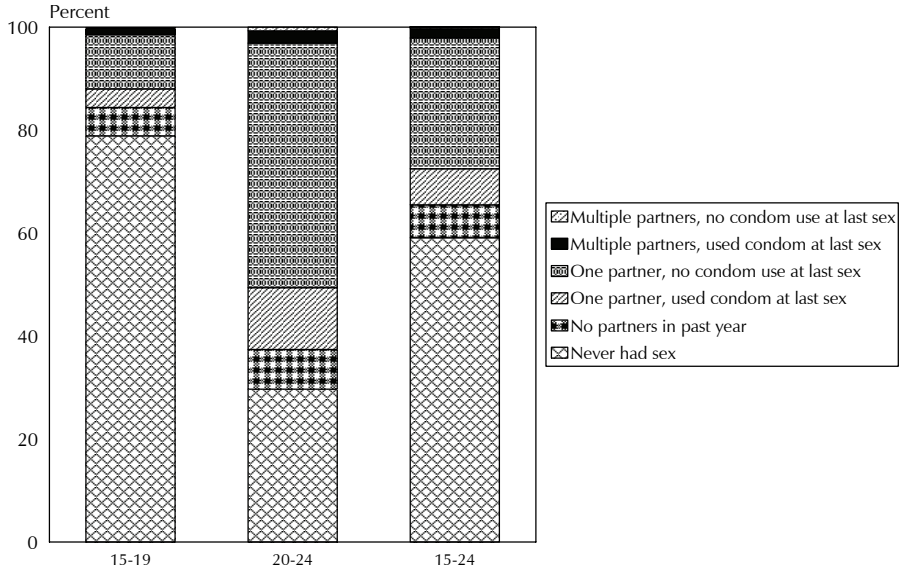
Background characteristic	Among men age 15-24 who had sexual intercourse in the past 12 months: Percentage who had higher-risk sexual intercourse in the past 12 months[1]	Number
Age		
15-19	35.4	147
15-17	(57.7)	34
18-19	28.6	112
20-24	13.8	396
20-22	13.2	193
23-24	14.4	202
Marital status		
Never married	96.2	92
Ever married	4.0	450
Knows condom source[2]		
Yes	20.0	533
No	*	9
Residence		
Urban	36.5	94
Rural	16.1	448
Ecological zone		
Mountain	15.9	37
Hill	25.1	223
Terai	15.8	282
Development region		
Eastern	21.9	106
Central	20.2	176
Western	21.3	108
Mid-western	20.2	78
Far-western	12.2	75
Education		
No education	6.7	61
Primary	10.7	167
Some secondary	24.9	214
SLC and above	31.1	100
Wealth quintile		
Lowest	13.9	89
Second	11.6	121
Middle	12.3	108
Fourth	22.6	108
Highest	36.3	116
Time away from home		
Did not travel	17.2	112
Traveled	20.4	428
Away for less than 6 months	22.7	338
Away for 6 months or more	11.4	91
Total 15-24	19.6	542

Note: Total includes 1 man with missing information on time away from hoome not shown separately. 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] Sexual intercourse with a nonmarital, noncohabiting partner

[2] Friends, family members, and home are not considered sources for condoms.

Figure 13.3 Abstinence, Being Faithful, and Condom Use (ABC) Among Male Youth



Note: Number of partners refers to the 12 months preceding the survey.

NDHS 2006

WOMEN'S EMPOWERMENT AND DEMOGRAPHIC AND HEALTH OUTCOMES

14

This chapter highlights information on indicators of women's empowerment and relates those indices to selected demographic and health outcomes. Nepal is ranked 116th in the world (out of 177 countries) and fourth in South Asia (out of five countries) on the Gender-related Development Index (GDI) (UNDP, 2004). Nepalese society assigns some strict gender roles for men and women that lead to discriminatory practices against women. Data from the 2006 NDHS discussed in earlier chapters show that women in Nepal are predominantly engaged in agricultural occupations, have few skilled manual jobs, and are less likely than men to be engaged in the professional, technical and managerial fields. Further, women lag behind men in educational attainment, literacy, and exposure to mass media, which are critical contributors to women's empowerment and exert considerable influence on the development of their personality and on strengthening their position in the household and in society in general.

The 2006 NDHS explores women's empowerment in terms of type of earnings, women's control over cash earnings, and the magnitude of women's earnings relative to their husband's. In addition, information collected in the survey is used to estimate three different indicators of women's empowerment: women's participation in decisionmaking, the degree of acceptance of wife beating, and the degree of acceptance of a wife's right to refuse sexual intercourse with her husband. The extent to which women's empowerment influences health outcomes (such as their reproductive health care practices, contraceptive use and unmet need) is also examined.

14.1 EMPLOYMENT AND FORM OF EARNINGS

Table 14.1 shows the percentage of currently married women and men age 15-49 who were employed in the 12 months before the survey and the percent distribution of the employed respondents by type of earnings they received (cash, in-kind, both, or neither). Eighty-three percent of currently married women reported being employed in the last 12 months. The percentage of currently married women who were employed increases with age up to 91 percent for age group 35-39 and then decreases slightly for the older age groups.

Although employment is assumed to go hand in hand with payment for work, not all women receive earnings for the work they do, and even among women who do receive earnings, not all are paid in cash. One in seven employed women (14 percent) receives payment in cash only, and one in five (21 percent) receive both cash and in-kind payment. Two in five (41 percent) receive payment only in kind. Nearly one in four employed women do not receive any form of payment for their work.

Table 14.1 also shows that nearly all men age 15-49 were involved in some type of work in the 12 months preceding the survey. Men in the youngest age group (15-19 years) are slightly less likely to be employed. Men are more likely to receive cash for their work than women. About one in two men (46 percent) receive cash only for their work, three in ten (29 percent) receive cash and in-kind payment, one in five (19 percent) are paid in kind only, and about 6 percent do not receive any payment for their work.

Table 14.1 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, Nepal 2006

Age	Currently married respondents		Percent distribution of currently married respondents employed in the past 12 months, by type of earnings					
	Percentage employed	Number of respondents	Cash only	Cash and in-kind	In-kind only	Not paid	Total	Number of respondents
WOMEN								
15-19	72.2	784	5.2	7.5	26.7	60.6	100.0	566
20-24	73.9	1,606	13.2	11.2	33.1	42.6	100.0	1,187
25-29	82.6	1,664	19.2	20.1	33.9	26.8	100.0	1,374
30-34	88.6	1,265	18.5	23.1	41.2	17.2	100.0	1,121
35-39	90.6	1,135	13.8	24.8	52.0	9.4	100.0	1,028
40-44	89.3	1,016	13.4	29.1	51.0	6.6	100.0	908
45-49	88.4	788	9.7	31.5	52.6	6.1	100.0	697
Total 15-49	83.3	8,257	14.4	21.1	41.2	23.4	100.0	6,881
MEN								
15-19	97.1	98	43.3	21.0	10.8	24.9	100.0	95
20-24	98.6	352	54.1	21.0	14.2	10.7	100.0	347
25-29	100.0	442	48.4	28.7	11.9	11.0	100.0	442
30-34	99.6	477	51.8	26.1	17.4	4.7	100.0	476
35-39	99.6	440	47.1	32.2	18.5	2.3	100.0	438
40-44	99.8	405	39.2	35.7	23.5	1.5	100.0	405
45-49	98.9	384	38.0	33.0	28.8	0.2	100.0	380
Total 15-49	99.4	2,598	46.4	29.2	18.6	5.8	100.0	2,582
Men 50-59	97.1	504	27.1	39.8	32.1	1.1	100.0	489
Total men 15-59	99.0	3,102	43.3	30.9	20.7	5.0	100.0	3,071

14.2 Control Over and Relative Magnitude of Women's Earnings

Besides having access to income, women need to be able to have control over their earnings in order to be empowered. As a means to assess this, currently married women who earned cash for their work in the 12 months preceding the survey were asked who the main decisionmaker is with regard to the use of their earnings. Women's perception on the magnitude of their earnings relative to those of their husband is also explored as another measure of their empowerment.

The data are presented in Table 14.2. Almost one-third (31 percent) of currently married women who receive cash earnings report that they alone decide how their earnings are used, while more than half (56 percent) say that they decide jointly with their husband. Only one in ten women report that their husband alone decides how their earnings will be used. The proportion of currently married women who say that they decide by themselves on how their earnings are used decreased from 39 percent in 2001 to the current level of 31 percent. On the other hand, the percentage of currently married women who say that they jointly decide with their husband, increased from 38 percent to 56 percent over the same period.

Table 14.2 Control over women's cash earnings and relative magnitude of women's earnings

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, Nepal 2006

	Person who decides how wife's cash earnings are used						Wife'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 has no earnings	Don't know/ missing	Total	Number of women
Age													
15-19	25.8	39.2	15.6	19.4	0.0	100.0	7.7	67.8	19.0	1.3	4.3	100.0	72
20-24	35.3	43.4	9.4	11.9	0.0	100.0	5.2	73.2	17.5	1.6	2.5	100.0	289
25-29	35.1	48.2	13.0	3.2	0.4	100.0	5.1	75.0	18.2	0.8	1.0	100.0	540
30-34	37.7	52.2	7.8	2.2	0.1	100.0	4.6	70.1	23.7	0.8	0.9	100.0	466
35-39	27.1	63.1	8.8	1.0	0.0	100.0	5.1	67.4	26.0	0.9	0.7	100.0	397
40-44	22.5	68.9	7.2	1.4	0.0	100.0	5.2	63.1	27.3	1.3	3.1	100.0	386
45-49	23.9	63.7	12.2	0.2	0.0	100.0	4.5	66.9	26.5	2.0	0.1	100.0	288
Number of living children													
0	37.4	42.0	5.4	15.2	0.0	100.0	8.5	78.0	10.4	3.2	0.0	100.0	136
1-2	38.6	46.0	10.8	4.5	0.1	100.0	4.9	68.6	22.9	1.4	2.1	100.0	967
3-4	26.1	61.2	10.6	2.0	0.2	100.0	5.5	69.6	23.4	0.8	0.8	100.0	952
5+	20.0	71.1	8.1	0.7	0.0	100.0	2.9	68.9	25.9	0.8	1.6	100.0	382
Residence													
Urban	50.4	37.8	9.4	2.4	0.0	100.0	9.2	65.6	22.2	2.0	1.0	100.0	495
Rural	25.7	60.2	10.1	3.8	0.1	100.0	3.9	70.6	23.0	0.9	1.5	100.0	1,944
Ecological zone													
Mountain	28.7	48.6	19.4	2.4	0.8	100.0	4.3	71.0	23.3	0.3	1.1	100.0	128
Hill	48.8	41.8	7.2	2.1	0.0	100.0	6.3	64.9	26.0	1.6	1.3	100.0	869
Terai	20.0	64.6	10.8	4.5	0.1	100.0	4.3	72.2	21.0	0.9	1.5	100.0	1,441
Development region													
Eastern	29.9	56.2	10.8	3.0	0.1	100.0	3.6	70.3	22.9	0.9	2.3	100.0	599
Central	34.2	50.9	9.9	4.9	0.0	100.0	7.2	67.8	22.9	0.9	1.2	100.0	984
Western	43.4	46.0	7.7	2.7	0.2	100.0	3.7	72.7	20.1	1.7	1.7	100.0	340
Mid-western	24.8	68.4	5.3	1.5	0.0	100.0	3.0	55.9	38.8	2.0	0.3	100.0	208
Far-western	11.2	71.8	14.1	2.4	0.5	100.0	3.5	79.4	15.0	1.3	0.9	100.0	307
Subregion													
Eastern mountain	39.0	46.6	11.3	1.9	1.3	100.0	3.0	70.4	24.4	1.0	1.3	100.0	38
Central mountain	41.7	31.4	21.2	5.6	0.0	100.0	8.3	60.3	30.5	0.0	0.9	100.0	43
Western mountain	8.7	65.8	24.2	0.0	1.2	100.0	1.6	81.3	15.7	0.1	1.2	100.0	47
Eastern hill	35.6	57.7	5.5	1.2	0.0	100.0	5.4	62.6	30.4	1.7	0.0	100.0	130
Central hill	55.0	32.7	9.2	3.1	0.0	100.0	7.8	62.2	26.2	2.0	1.8	100.0	441
Western hill	54.1	42.0	3.7	0.2	0.0	100.0	5.0	76.6	16.7	0.2	1.5	100.0	192
Mid-western hill	27.2	65.6	6.0	1.2	0.0	100.0	3.5	53.1	41.7	1.6	0.0	100.0	80
Far-western hill	38.2	42.8	12.7	6.3	0.0	100.0	2.5	71.4	19.2	5.4	1.5	100.0	26
Eastern terai	27.4	56.6	12.3	3.6	0.0	100.0	3.2	72.6	20.5	0.6	3.1	100.0	431
Central terai	15.2	68.8	9.6	6.4	0.0	100.0	6.7	73.4	19.3	0.0	0.7	100.0	499
Western terai	29.5	51.3	13.1	6.0	0.0	100.0	1.9	68.1	24.7	3.6	1.7	100.0	147
Mid-western terai	26.0	67.3	4.8	1.9	0.0	100.0	2.9	56.9	37.0	2.6	0.6	100.0	112
Far-western terai	8.5	76.8	11.8	2.2	0.6	100.0	3.8	78.5	15.7	1.0	0.9	100.0	251
Education													
No education	25.8	60.2	10.7	3.0	0.2	100.0	3.2	71.7	22.6	0.9	1.6	100.0	1,554
Primary	38.6	47.8	8.9	4.7	0.0	100.0	10.3	63.1	23.5	1.7	1.4	100.0	374
Some secondary	38.4	45.1	13.5	3.0	0.0	100.0	5.4	67.7	26.0	0.6	0.2	100.0	270
SLC and above	41.7	50.1	2.7	5.5	0.0	100.0	8.4	67.7	19.7	2.6	1.5	100.0	241
Wealth quintile													
Lowest	21.5	65.3	12.3	0.7	0.2	100.0	1.9	71.9	22.3	1.1	2.7	100.0	295
Second	23.9	61.7	10.5	3.5	0.3	100.0	4.3	74.9	19.0	0.4	1.3	100.0	470
Middle	21.4	65.3	8.2	5.0	0.0	100.0	4.3	74.1	19.4	1.0	1.2	100.0	480
Fourth	28.2	52.4	13.4	5.8	0.1	100.0	4.5	61.9	30.1	1.5	2.1	100.0	513
Highest	47.9	42.9	7.3	1.9	0.0	100.0	7.7	67.5	22.8	1.5	0.6	100.0	680
Total	30.7	55.7	10.0	3.5	0.1	100.0	5.0	69.6	22.9	1.1	1.4	100.0	2,438

Younger women age 15-19 and older women age 40-49 are less likely to make independent decisions on their earnings than women in the middle age groups. Women with five or more children are much less likely to decide on their own how to use their earnings than women with one to two children and those with no children. Rural women and those with no education are less empowered in terms of this indicator. On the other hand, 71 percent of currently married women with five or more children make joint decisions with their husbands.

Urban women are much more independent in making decisions than rural women (50 percent and 26 percent, respectively). On the other hand, rural women are more likely than urban women to report that they make this decision jointly with their husband (60 percent versus 38 percent).

There are regional variations in the way decisions are made on how women's earnings are used. Women living in the hills, especially those in the Central hills (55 percent) and Western hills (54 percent), have more autonomy over their earnings than women in the other subregions. On the contrary, women in the Far-western *terai* and Western mountain subregions (9 percent each) are least likely to independently decide how to spend the money they earn.

The data indicate a positive relationship between the level of education and women's decisionmaking power about how to use their cash earnings. More than two in five women with SLC or higher education (42 percent) say that they make independent decisions on how to use the money they earn, compared with about one in four women (26 percent) with no education. On the other hand, women with no education are more likely to decide jointly with their husband. Women in the highest wealth quintile are more likely to decide independently on how to spend their earnings than those in the lowest wealth quintile (48 percent and 22 percent, respectively).

Regarding the relative magnitude of women's earnings compared with those of their husband, 70 percent of women say that they earn less than their husband, 23 percent believe that they earn as much as their husband, and only 5 percent believe that they earn more. Women age 15-19, women with any education, those with no children, women in the highest wealth quintile, urban women, and women who live in the Central development region are more likely than their counterparts to report that they earn more than their husband. More than four-fifths of women in the Western mountain subregion report that they earn less than their husband.

14.3 WOMAN'S PARTICIPATION IN DECISIONMAKING

Women's participation in the decisionmaking process is an important indicator of their empowerment. In order to assess women's decisionmaking autonomy, the 2006 NDHS sought information on women's participation in four types of household decisions: her own health care; making large household purchases; making household purchases for daily needs; and visits to family or relatives. Table 14.3.1 shows the percent distribution of currently married women according to the person in the household who usually makes decisions concerning these matters. Women are considered to participate in decisionmaking if they make decisions alone or jointly with their husband or someone else.

Table 14.3.1 Participation in decisionmaking: Women

Percent distribution of currently married women by person who usually makes decisions about four specific issues, Nepal 2006

Decision	Mainly wife	Wife and husband jointly	Mainly husband	Someone else	Other	Total	Number of women
Own health care	20.3	26.8	33.6	19.2	0.1	100.0	8,257
Major household purchases	15.4	37.3	20.2	27.0	0.0	100.0	8,257
Purchases of daily household needs	36.3	21.3	15.7	26.7	0.0	100.0	8,257
Visits to her family or relatives	21.1	35.4	18.7	24.6	0.1	100.0	8,257

The strength of women's role in decisionmaking varies with the type of decision. Thirty-six percent of currently married women reported that they alone made the final decision about daily household purchases. Although 20 percent of women make sole decisions on their own health care, one-third say that their husband makes such decisions mainly by himself. Decisions on large household purchases are most likely to be made jointly by the respondent and husband (37 percent). More than one-third of women say that decisions to visit family or relatives are made jointly with their husband.

In the 2006 NDHS, men were asked about who they think should have a greater say in making decisions about five specific issues: making large household purchases; making household purchases for daily needs; visits to wife's family or relatives; what to do with the money a wife earns; and how many children to have. The majority of men believe that household decisions should be made jointly with their spouse (Table 14.3.2). This is especially so in the case of the number of children to have, where 96 percent of men believe that it should be a joint decision. A sizeable percentage of men also agree that their wife should have a greater say in making decisions on purchasing items for daily household needs (40 percent).

Table 14.3.2 Participation in decisionmaking: Men

Percent distribution of currently married men age 15-49 by person who they think should have a greater say in making decisions about five specific issues, Nepal 2006

Decision	Mainly wife	Wife and husband jointly	Mainly husband	Total	Number of men
Major household purchases	3.4	80.1	16.5	100.0	2,598
Purchases of daily household needs	40.2	44.8	15.1	100.0	2,598
Visits to wife's family or relatives	21.2	68.5	10.3	100.0	2,598
What to do with the money wife earns	22.3	72.5	5.2	100.0	2,598
How many children to have	1.7	96.0	2.3	100.0	2,598

Table 14.4.1 shows the percentage of women who report that they alone or jointly with their husband make specific household decisions, according to background characteristics. The results indicate that 37 percent of currently married women participate in all of the four specified decisions, while 31 percent report that they do not participate in any of the decisions. The majority of currently married women participate in making decisions on daily purchases (58 percent) and visits to family or relatives (57 percent), but fewer participate in making decisions about their own health care (47 percent).

Older women are more likely than younger women to have a say in all the specified decisions. Participation in decisionmaking is highest among women in the highest wealth quintile, urban women, and women who reside in the Western hill subregion. Participation in decisionmaking is lowest among women who live in the Western mountain and Western terai subregions. As expected, employed women who are paid in cash (50 percent) are much more likely to have a say in all the specified decisions than women who are not employed (33 percent) or who are employed but not for cash (31 percent). The relationship between participation in decisionmaking and women's education is mixed.

Table 14.4.1 Women's participation in decisionmaking 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, Nepal 2006

Background characteristic	Specific decisions: Own health care	Making major household purchases	Making purchases for daily household needs	Visits to her family or relatives	Percentage who participate in all four decisions	Percentage who participate in none of the four decisions	Number of women
Age							
15-19	17.0	15.5	18.0	20.1	8.8	71.1	784
20-24	37.1	35.2	38.8	40.2	24.2	47.4	1,606
25-29	48.5	51.2	58.0	54.8	37.3	32.8	1,664
30-34	52.0	62.3	67.9	64.2	42.5	22.1	1,265
35-39	55.2	65.3	72.0	68.2	44.9	17.7	1,135
40-44	58.6	71.7	75.3	75.0	51.2	13.2	1,016
45-49	60.3	71.3	74.6	77.0	52.1	12.6	788
Employment (past 12 months)							
Not employed	43.5	49.7	54.5	51.9	32.6	34.3	1,376
Employed for cash	59.6	72.7	77.4	75.4	50.0	12.2	2,438
Employed not for cash	41.4	42.8	47.8	47.6	31.3	40.7	4,443
Number of living children							
0	21.9	21.3	23.0	26.1	13.1	64.1	860
1-2	45.2	48.3	52.8	52.3	32.7	35.3	3,364
3-4	53.7	63.5	68.5	66.2	45.9	21.4	2,831
5+	55.0	62.5	70.3	67.7	45.3	19.3	1,202
Residence							
Urban	54.6	63.9	71.8	67.7	41.8	18.5	1,226
Rural	45.8	50.8	55.2	54.6	36.2	33.4	7,031
Ecological zone							
Mountain	43.5	47.1	50.1	50.7	32.7	36.2	586
Hill	50.5	57.3	63.6	63.4	40.3	25.7	3,402
Terai	44.9	49.9	53.9	51.9	35.0	35.0	4,269
Development region							
Eastern	46.3	53.8	61.0	57.6	37.6	28.5	1,757
Central	46.7	54.5	61.5	56.9	37.0	29.4	2,736
Western	52.5	51.0	56.3	56.9	40.0	32.4	1,602
Mid-western	45.8	50.0	56.5	60.6	35.2	29.7	976
Far-western	43.1	51.8	46.4	50.5	33.7	39.1	1,187
Subregion							
Eastern mountain	48.4	61.8	65.9	62.5	40.8	25.5	127
Central mountain	46.8	47.2	59.3	55.8	35.4	29.0	157
Western mountain	39.7	40.8	38.6	43.2	27.9	44.5	302
Eastern hill	45.3	59.6	64.4	62.5	38.6	27.0	445
Central hill	46.0	60.2	68.3	65.9	36.1	21.0	1,219
Western hill	61.2	57.3	62.7	64.3	47.5	25.4	965
Mid-western hill	47.1	52.9	59.6	65.1	37.6	26.9	497
Far-western hill	47.2	48.7	51.6	48.1	40.8	42.8	276
Eastern terai	46.4	50.8	59.3	55.2	36.9	29.4	1,185
Central terai	47.4	50.3	55.6	48.9	37.9	37.0	1,359
Western terai	38.4	40.8	45.7	44.9	27.8	43.6	624
Mid-western terai	50.0	53.8	60.9	62.0	38.6	26.0	356
Far-western terai	41.2	53.7	45.9	53.0	31.1	37.2	745
Education							
No education	47.4	54.9	59.3	58.3	39.0	30.4	5,110
Primary	44.7	49.2	54.3	52.0	33.5	35.4	1,404
Some secondary	45.0	44.0	50.8	51.2	32.1	35.4	1,197
SLC and above	55.8	60.7	65.4	63.4	38.9	19.2	547
Wealth quintile							
Lowest	45.7	51.9	56.0	57.1	37.0	32.2	1,537
Second	49.6	52.7	57.0	56.3	39.5	32.4	1,642
Middle	42.7	45.5	49.3	49.6	32.7	39.3	1,747
Fourth	44.6	49.7	55.3	53.7	34.0	32.7	1,640
Highest	53.0	64.0	70.6	66.3	42.0	19.4	1,692
Total	47.1	52.8	57.6	56.6	37.0	31.2	8,257

Women may have a say in some but not other decisions. To assess a woman's overall decisionmaking autonomy, the decisions in which she participates—that is, in which she alone has the final say or she and her husband decide jointly—are added together. The total number of decisions in which a woman participates is one simple measure of her empowerment. The number of decisions which a woman makes herself or jointly with her husband is positively related to women's empowerment and reflects the degree of decisionmaking control women are able to exercise in areas that affect their lives and environments. Figure 14.1 shows the distribution of currently married women according to the number of decisions in which they participate.

Figure 14.1 **Number of Decisions in Which Currently Married Women Participate**

Men were also asked about their attitude toward wives' participation in the decisionmaking process. Table 14.4.2 indicates that 70 percent of currently married men age 15-49 believe that a wife should independently or jointly with her husband have a say on all five specified decisions. Men are most likely to agree on women's participation in deciding the number of children to have (98 percent) and the decision on how to spend her income (95 percent). However, they are somewhat less likely to agree on a wife's decisionmaking participation with regard to the purchase of major household items (84 percent) or the purchase of daily household needs (85 percent). Highly educated men, those in the highest wealth quintile, men who earn cash, and those who live in the Mid-western hills and Far-western terai subregion are more likely to support a wife's participation in decisionmaking in the household than other men.

Table 14.4.2 Men's attitude toward wives' participation in decisionmaking

Percentage of currently married men age 15-49 who think a wife should have the greater say alone or equal say with her husband on five specific kinds of decisions, by background characteristics, Nepal 2006

Background characteristic	Specific decisions					All five decisions	None of the five decisions	Number of men
	Making major household purchases	Making purchases for daily household needs	Visits to her family or relatives	What to do with the money the wife earns	How many children to have			
Age								
15-19	91.7	92.0	84.3	96.0	95.8	75.2	1.0	98
20-24	82.8	84.3	89.1	94.3	97.4	67.0	1.1	352
25-29	85.5	81.7	88.7	95.2	98.5	69.3	0.9	442
30-34	83.9	84.4	90.4	96.1	98.7	69.8	0.0	477
35-39	83.9	86.3	91.6	93.0	97.5	73.9	0.3	440
40-44	80.1	84.8	90.3	94.2	95.6	65.8	1.0	405
45-49	82.2	86.7	89.2	95.2	98.6	70.7	0.3	384
Employment (past 12 months)								
Not employed	*	*	*	*	*	*	*	16
Employed for cash	85.2	86.7	90.7	95.3	97.8	72.8	0.6	1,953
Employed not for cash	78.0	79.5	86.6	93.0	97.2	60.4	0.5	629
Number of living children								
0	86.7	86.3	86.4	96.0	98.4	70.2	0.4	280
1-2	85.6	86.6	91.5	95.3	98.3	73.1	0.6	966
3-4	80.8	83.5	89.1	94.4	97.0	67.0	0.9	957
5+	82.7	83.4	89.3	93.3	97.3	67.8	0.0	395
Residence								
Urban	83.3	88.2	90.7	94.8	97.2	70.9	0.9	419
Rural	83.5	84.3	89.5	94.7	97.8	69.5	0.5	2,180
Ecological zone								
Mountain	69.4	76.7	88.7	91.3	96.2	50.1	0.3	171
Hill	84.8	89.0	91.5	95.3	97.7	73.0	0.0	1,031
Terai	84.3	82.9	88.5	94.8	97.8	69.7	1.0	1,396
Development region								
Eastern	86.4	91.7	94.9	96.4	97.9	76.5	0.4	543
Central	81.1	77.5	85.1	93.0	97.5	64.8	1.0	927
Western	82.7	86.5	86.8	95.0	97.0	67.9	0.6	463
Mid-western	90.7	85.9	89.1	95.3	96.9	71.9	0.2	310
Far-western	80.0	91.2	98.3	96.1	99.5	72.7	0.0	355
Subregion								
Eastern mountain	84.9	84.7	95.8	97.1	98.3	75.6	0.0	37
Central mountain	65.3	71.9	81.9	82.4	92.2	46.1	1.0	50
Western mountain	65.1	76.1	89.5	93.9	97.6	41.5	0.0	84
Eastern hill	86.7	93.2	90.0	94.4	95.7	72.6	0.0	142
Central hill	84.2	87.6	91.7	94.9	98.4	74.1	0.0	427
Western hill	83.5	88.2	88.6	97.8	98.4	72.3	0.0	236
Mid-western hill	91.9	95.5	93.6	97.1	96.8	83.0	0.0	154
Far-western hill	73.2	77.7	97.9	87.5	97.3	48.2	0.0	72
Eastern terai	86.4	91.8	96.7	97.1	98.7	78.2	0.6	365
Central terai	79.9	68.5	79.0	92.3	97.2	58.0	1.9	449
Western terai	82.3	84.9	85.3	92.1	95.5	63.6	1.3	223
Mid-western terai	89.9	79.6	84.7	94.1	97.8	66.5	0.6	115
Far-western terai	88.2	96.2	98.5	98.5	100.0	85.8	0.0	244
Education								
No education	77.4	79.7	86.3	93.6	97.6	64.2	1.2	634
Primary	83.2	84.8	89.0	93.5	97.2	68.1	0.6	831
Some secondary	84.2	86.8	89.9	94.9	98.7	69.5	0.3	675
SLC and above	91.4	89.7	95.5	98.4	97.2	80.8	0.0	457
Wealth quintile								
Lowest	76.6	83.1	88.9	95.2	95.8	61.6	0.1	460
Second	79.7	81.2	86.1	94.1	98.3	66.2	0.7	513
Middle	87.6	84.1	90.1	94.7	97.8	70.3	0.8	514
Fourth	85.6	83.0	89.3	92.7	98.2	72.1	1.0	550
Highest	86.7	92.4	93.7	97.1	98.0	76.9	0.2	561
Total 15-49	83.5	84.9	89.7	94.8	97.7	69.7	0.6	2,598
50-59	81.0	85.7	84.8	92.4	97.1	66.6	0.4	504
Total 15-59	83.1	85.1	88.9	94.4	97.6	69.2	0.6	3,102

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

14.4 ATTITUDES TOWARD WIFE BEATING

The critical problems that women face are many and diverse. One of these, and essentially the most serious, is the issue of violence against women, and Nepal is no exception in this regard. This is a serious issue because it concerns the personal security of women, and the right to personal security is fundamental to all other rights. The attitude of women and men toward wife beating may be considered a proxy indicator for their attitude toward domestic violence.

Women and men were asked whether a husband is justified in hitting or beating his wife in each of the following five situations: if she burns the food; if she argues with him; if she goes out without telling him; if she neglects the children; and if she refuses to have sexual intercourse with him. A lower score on the "number of reasons wife beating is justified" indicates a woman's greater sense of entitlement, self-esteem and status, and reflects positively on her sense of empowerment.

A woman who believes that a husband is justified in hitting or beating his wife, for any of the five specified reasons, may consider herself to be of low status both absolutely and relative to men. Such a perception could act as a barrier to accessing health care for herself and her children, affect her attitude toward contraceptive use, and impact her general well-being.

Table 14.5.1 indicates that about one in four women (23 percent) believe that a husband is justified in beating his wife for at least one of the specified reasons. This is an improvement over the situation five years ago, when 29 percent of ever-married women agreed with at least one reason for wife beating, compared with 23 percent among ever-married women in 2006.

The most widely accepted reason for wife beating among women is neglecting the children (20 percent). Slightly less than one in ten women believe that a husband is justified in beating his wife if she argues with him or goes out without telling him. Only 3 percent of women feel that denying sex or burning foods are justifiable reasons for a man to beat his wife.

Men age 15-49 are almost as likely as women to report that they find physical violence against women justifiable (Table 14.5.2). Overall, about one-fifth of Nepalese men agree with at least one of the reasons for why a man is justified in beating his wife. Men are most likely to justify beating a wife if she neglects the children (16 percent). Like women, men are least likely to say that burning food (3 percent) or refusing to have sex (3 percent) are grounds for wife beating. About 9 percent of men feel that arguing with her husband is a justifiable reason for wife beating. These findings indicate an improvement in men's attitude as well toward wife beating in the country over the past five years.

Tables 14.5.1 and 14.5.2 also show attitudes toward wife beating by background characteristics. There is little difference in attitude toward wife beating among women in relation to age, marital status, employment status, and number of children. However, women with no education and those in the lowest wealth quintile are more likely to justify wife beating for any of the specified reasons (25 percent and 28 percent, respectively). Women in the mountains are more likely to justify wife beating for at least one of the specified reasons (36 percent), particularly those in the Western mountain subregion (39 percent).

Men with no education and men who are employed but do not earn cash are more likely to agree with at least one specified reason for wife beating. Acceptance of wife beating declines as the level of education increases.

There is no difference in acceptance of wife beating for at least one of the specified reasons among urban and rural men (20 percent and 22 percent, respectively). Similarly to women, men's beliefs vary greatly by region. Men in the Central mountain subregion are most likely to agree that wife beating is justified for at least one specified reason.

Table 14.5.1 Attitudes 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, Nepal 2006

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	Percentage who agree with at least one specified reason	Number
Age							
15-19	3.2	7.7	8.9	20.9	2.5	24.4	2,437
20-24	1.9	6.8	7.7	19.7	1.7	22.4	1,995
25-29	3.7	9.4	9.0	20.3	3.7	23.6	1,773
30-34	2.3	5.6	7.2	17.8	1.5	20.8	1,336
35-39	3.5	9.5	9.9	19.1	2.4	23.4	1,220
40-44	3.2	9.6	10.3	20.4	2.6	23.7	1,121
45-49	3.2	10.1	9.9	20.3	3.1	23.7	912
Employment (past 12 months)							
Not employed	2.1	9.4	8.8	20.9	2.0	24.2	1,975
Employed for cash	3.1	9.5	10.3	20.9	2.8	24.4	2,867
Employed not for cash	3.2	7.1	8.1	19.1	2.5	22.3	5,951
Marital status							
Never married	2.7	6.0	6.9	19.8	2.2	22.8	2,149
Married	3.0	8.8	9.3	19.9	2.5	23.3	8,257
Divorced/separated/widowed	3.1	7.3	8.5	20.0	2.7	22.5	387
Number of living children							
0	3.1	7.0	7.7	20.0	2.5	23.2	3,044
1-2	2.4	7.8	8.6	19.9	2.1	23.0	3,520
3-4	3.1	9.0	9.4	20.2	2.6	23.6	2,954
5+	4.1	10.1	10.8	19.0	3.2	23.0	1,274
Residence							
Urban	2.9	6.7	7.9	23.6	1.6	26.5	1,687
Rural	3.0	8.4	9.0	19.2	2.6	22.6	9,106
Ecological zone							
Mountain	7.9	15.5	18.9	31.5	6.4	36.3	753
Hill	2.4	5.3	7.1	20.0	1.7	22.7	4,598
Terai	2.8	9.6	8.8	18.2	2.6	21.8	5,443
Development region							
Eastern	4.5	9.4	11.3	24.6	3.4	28.2	2,392
Central	3.3	8.2	8.1	17.9	2.3	21.3	3,553
Western	0.5	2.1	2.1	11.6	0.4	13.2	2,070
Mid-western	1.6	4.6	7.9	26.3	1.7	29.2	1,250
Far-western	4.6	17.4	16.4	23.1	4.7	28.4	1,528
Subregion							
Eastern mountain	4.7	11.5	15.3	28.9	5.8	31.6	189
Central mountain	4.8	9.5	12.7	30.2	5.5	35.7	202
Western mountain	11.3	20.8	24.2	33.7	7.2	39.1	362
Eastern hill	3.0	6.8	9.6	22.9	2.6	25.8	627
Central hill	3.6	6.2	7.4	21.3	2.0	24.8	1,713
Western hill	0.3	2.1	2.1	11.8	0.2	13.2	1,267
Mid-western hill	0.9	4.6	8.0	28.2	1.7	31.0	650
Far-western hill	6.0	10.8	17.9	22.6	4.5	26.0	341
Eastern terai	5.0	10.2	11.5	24.7	3.5	28.7	1,576
Central terai	2.7	10.1	8.2	12.9	2.3	16.0	1,638
Western terai	0.8	2.2	2.1	11.5	0.8	13.4	783
Mid-western terai	1.2	3.3	7.4	25.5	1.1	27.2	457
Far-western terai	1.7	16.7	11.7	18.5	3.6	24.6	989
Education							
No education	4.1	10.6	10.9	20.5	3.4	24.6	5,728
Primary	2.5	7.3	8.2	20.7	2.0	23.5	1,901
Some secondary	1.3	5.2	6.7	19.9	1.0	22.4	2,225
SLC and above	1.3	2.3	2.2	14.5	1.0	16.0	938
Wealth quintile							
Lowest	4.7	10.7	13.7	24.0	4.0	27.5	1,961
Second	3.8	9.8	10.6	20.1	3.3	23.9	2,079
Middle	2.7	9.7	9.1	18.4	2.5	22.4	2,214
Fourth	1.6	5.6	5.4	17.8	1.4	20.1	2,226
Highest	2.4	5.6	6.1	19.6	1.4	22.7	2,313
Total	3.0	8.2	8.8	19.9	2.5	23.2	10,793

Table 14.5.2 Attitudes 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, Nepal 2006

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	Percentage who agree with at least one specified reason	Number
Age							
15-19	2.4	9.7	7.4	21.3	3.9	27.4	941
20-24	3.2	11.1	8.2	19.3	6.2	24.0	632
25-29	3.9	9.7	7.8	13.8	2.4	21.5	524
30-34	2.1	6.6	7.2	9.0	1.6	15.0	499
35-39	2.5	9.9	8.7	17.5	2.7	21.4	444
40-44	4.9	10.2	6.8	11.3	3.5	17.8	414
45-49	1.7	6.7	6.5	10.6	1.5	16.1	399
Employment (past 12 months)							
Not employed	0.5	2.5	3.1	16.2	2.3	19.2	364
Employed for cash	2.6	9.1	7.2	12.8	3.2	18.9	2,439
Employed not for cash	4.5	12.0	9.9	22.3	4.1	28.4	1,050
Marital status							
Never married	1.9	7.7	6.2	19.5	4.2	24.6	1,207
Married	3.2	9.8	8.2	13.9	2.9	20.0	2,598
Divorced/separated/widowed	(13.0)	(19.5)	(5.8)	(21.0)	(6.2)	(27.8)	48
Number of living children							
0	2.4	8.8	6.6	18.8	4.7	24.7	1,514
1-2	3.1	9.1	8.5	14.4	1.7	18.9	977
3-4	3.6	11.0	7.4	13.7	3.1	21.0	964
5+	2.7	7.7	9.2	12.3	2.8	17.2	400
Residence							
Urban	2.1	6.0	5.7	15.3	4.1	20.2	730
Rural	3.1	10.1	8.0	15.8	3.2	21.8	3,123
Ecological zone							
Mountain	4.0	10.7	11.1	23.8	5.7	28.3	241
Hill	1.3	6.6	7.0	17.6	2.6	22.4	1,641
Terai	4.1	11.4	7.6	13.2	3.7	20.0	1,972
Development region							
Eastern	3.5	7.2	7.6	13.1	4.0	16.8	849
Central	4.0	11.3	8.4	15.2	3.4	23.7	1,367
Western	2.3	8.8	6.2	19.3	2.8	25.0	716
Mid-western	2.0	11.7	12.1	25.2	4.3	29.0	416
Far-western	0.5	6.2	3.1	9.0	2.1	12.4	506
Subregion							
Eastern mountain	2.4	6.3	9.9	19.4	3.5	20.2	59
Central mountain	9.2	13.5	19.2	27.2	8.8	37.1	73
Western mountain	1.4	11.1	6.3	23.7	4.7	26.6	109
Eastern hill	3.7	6.4	7.7	14.1	1.8	17.4	215
Central hill	1.5	7.3	8.5	19.6	3.6	25.8	722
Western hill	0.3	4.9	3.0	13.9	1.3	17.7	387
Mid-western hill	0.0	6.4	8.1	22.9	2.8	25.5	210
Far-western hill	0.5	8.6	7.6	13.9	1.9	20.3	107
Eastern terai	3.5	7.6	7.4	12.0	4.9	16.3	576
Central terai	6.4	16.0	7.0	8.1	2.5	19.3	571
Western terai	4.9	13.6	10.4	25.8	4.7	34.3	320
Mid-western terai	4.5	18.8	17.1	28.0	4.6	33.0	155
Far-western terai	0.6	4.7	2.1	5.5	2.4	8.3	350
Education							
No education	6.4	16.7	11.4	16.8	5.7	26.6	710
Primary	4.3	12.5	10.5	19.5	4.7	26.2	1,083
Some secondary	1.4	6.1	6.1	14.9	2.4	19.6	1,281
SLC and above	0.2	3.4	2.3	10.9	0.8	13.6	779
Wealth quintile							
Lowest	3.2	11.0	8.9	20.0	4.7	26.0	621
Second	4.5	12.6	9.3	15.9	3.1	22.8	696
Middle	3.7	11.9	9.2	13.9	3.8	21.5	714
Fourth	2.5	8.4	7.8	15.6	2.9	20.3	861
Highest	1.3	4.7	3.9	14.4	2.8	18.8	961
Total 15-49	2.9	9.3	7.5	15.7	3.4	21.5	3,854
Men 50-59	3.5	7.4	7.7	12.4	2.4	14.8	543
Total 15-59	3.0	9.1	7.6	15.3	3.2	20.7	4,397

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

14.5 ATTITUDES TOWARD REFUSING SEX WITH HUSBAND

Women's sexual empowerment has important implications for demographic and health outcomes such as transmission of HIV and other STIs. It is also an indicator of women's empowerment overall because it measures women's level of acceptance of norms in certain societies that socialize them to believe that women do not have the right to refuse sexual intercourse with their husband for any reason. The number of reasons a wife can refuse to have sexual intercourse with her husband reflects perceptions of sexual roles and women's rights over their bodies, and relates positively to women's sense of self-esteem.

To measure beliefs about women's sexual empowerment, the 2006 NDHS included questions on whether the respondent thinks that a wife is justified in refusing to have sexual intercourse with her husband under three circumstances: she knows her husband has a sexually transmitted disease (STD); she knows her husband has sexual intercourse with other women; or she is tired or not in the mood. These three circumstances for which women's opinions are sought have been chosen because they are effective in combining the issues of women's rights and consequences for women's health. Tables 14.6.1 and 14.6.2 show the responses of women and men, respectively.

Overall, the majority of women and men agree with each specified reason for a woman to refuse sexual intercourse with her husband. Eighty-three percent of women and 79 percent of men agree that women are justified for all of the specified reasons to refuse to have sexual intercourse with her husband. Only 3 percent of women and 2 percent of men agree with none of the reasons. The most accepted reason for refusing to have sex, among women and men, is if the wife knows her husband has a sexually transmitted disease. For both women and men, the least acceptable reason for a wife to refuse sex is when she knows that her husband has intercourse with other women.

Women with no education and women in the middle wealth quintile are least likely to think all of the reasons for refusing sex are acceptable. Among men, those age 15-19, those who have primary education, men who are employed but not for cash, those who have never married, men who have no children or five or more children, and men in the poorest households are least likely to think all of the reasons for refusing sex are acceptable.

There is hardly any difference by urban-rural residence among women. However, slightly more men in rural areas than urban areas think all those reasons for refusing sex are justified (81 percent versus 75 percent). There are substantial variations by region. Women in the Eastern terai and men in the Central mountain subregions are least likely to think all the reasons for refusing sex are justified (67 percent and 55 percent, respectively).

Table 14.6.1 Attitudes toward refusing sexual intercourse with husband: Women

Percentage of all women age 15-49 who believe that a wife is justified in refusing to have sexual intercourse with her husband in specific situations, by background characteristics, Nepal 2006

Background characteristic	Wife is justified in refusing sexual intercourse with her husband if she: Knows husband has a sexually transmitted disease	Knows husband has sexual intercourse with other women	Is tired or not in the mood	Percentage who agree with all of the specified reasons	Percentage who agree with none of the specified reasons	Number
Age						
15-19	92.8	89.6	91.5	83.9	3.4	2,437
20-24	94.5	90.0	91.7	84.6	2.3	1,995
25-29	94.1	87.8	89.5	81.5	3.4	1,773
30-34	95.0	88.7	91.8	82.9	2.0	1,336
35-39	92.9	87.0	88.6	80.7	4.1	1,220
40-44	93.1	89.6	91.3	83.6	3.2	1,121
45-49	92.5	85.6	88.3	80.4	4.8	912
Employment (past 12 months)						
Not employed	92.5	90.0	90.9	84.4	4.0	1,975
Employed for cash	93.5	87.8	89.7	81.8	3.7	2,867
Employed not for cash	94.1	88.6	91.0	82.8	2.7	5,951
Marital status						
Never married	93.9	90.5	92.7	84.7	2.3	2,149
Married	93.5	88.2	90.1	82.4	3.4	8,257
Divorced/separated/widowed	93.8	86.3	89.5	81.9	4.4	387
Number of living children						
0	93.2	89.0	91.6	83.2	2.9	3,044
1-2	94.2	88.6	90.7	82.5	2.8	3,520
3-4	93.7	88.1	90.1	82.7	3.5	2,954
5+	92.9	89.1	89.3	83.0	4.0	1,274
Residence						
Urban	92.9	90.1	91.7	83.5	2.7	1,687
Rural	93.7	88.4	90.4	82.7	3.3	9,106
Ecological zone						
Mountain	93.8	88.1	89.0	80.8	2.2	753
Hill	95.6	90.6	93.6	85.1	1.1	4,598
Terai	91.9	87.0	88.4	81.2	5.1	5,443
Development region						
Eastern	85.5	79.6	82.8	72.4	9.4	2,392
Central	95.4	91.3	92.7	85.5	1.6	3,553
Western	97.7	93.2	96.5	89.5	0.3	2,070
Mid-western	97.6	89.6	94.2	85.4	0.5	1,250
Far-western	93.5	89.5	87.0	82.0	3.2	1,528
Subregion						
Eastern mountain	96.4	88.3	92.7	83.7	0.7	189
Central mountain	94.1	89.6	90.4	82.5	2.1	202
Western mountain	92.2	87.2	86.3	78.3	3.0	362
Eastern hill	94.8	89.7	91.5	82.7	1.0	627
Central hill	94.0	88.4	91.5	81.1	1.8	1,713
Western hill	98.1	94.9	97.7	91.7	0.2	1,267
Mid-western hill	97.6	89.8	94.5	85.4	0.2	650
Far-western hill	92.6	89.1	90.5	83.8	2.9	341
Eastern terai	80.4	74.6	78.1	66.9	13.9	1,576
Central terai	97.0	94.6	94.4	90.3	1.4	1,638
Western terai	97.1	90.2	94.5	85.7	0.4	783
Mid-western terai	98.4	91.2	95.6	87.6	0.3	457
Far-western terai	94.6	89.7	86.6	82.5	3.2	989
Education						
No education	91.9	86.5	87.4	79.7	4.7	5,728
Primary	95.4	91.7	92.8	85.8	1.5	1,901
Some secondary	95.6	90.7	94.0	86.4	1.8	2,225
SLC and above	96.2	90.5	97.8	87.6	0.5	938
Wealth quintile						
Lowest	93.7	87.6	89.9	81.0	2.6	1,961
Second	93.3	88.7	88.0	82.3	3.8	2,079
Middle	91.6	86.7	87.9	80.3	5.2	2,214
Fourth	95.2	90.0	93.2	85.6	2.4	2,226
Highest	94.2	89.9	93.7	84.7	2.0	2,313
Total	93.6	88.6	90.6	82.8	3.2	10,793

Table 14.6.2 Attitudes toward refusing sexual intercourse with husband: Men

Percentage of all men age 15-49 who believe that a wife is justified in refusing to have sexual intercourse with her husband in specific situations, by background characteristics, Nepal 2006

Background characteristic	Wife is justified in refusing sexual intercourse with her husband if she: Knows husband has a sexually transmitted disease	Knows husband has sexual intercourse with other women	Is tired or not in the mood	Percentage who agree with all of the specified reasons	Percentage who agree with none of the specified reasons	Number
Age						
15-19	93.8	80.4	90.6	75.7	2.5	941
20-24	95.1	83.0	94.1	78.8	1.4	632
25-29	96.4	86.2	92.2	82.1	1.8	524
30-34	97.6	86.0	93.7	82.5	1.0	499
35-39	93.9	85.6	92.7	82.0	1.7	444
40-44	95.0	85.1	90.5	80.7	3.1	414
45-49	94.0	84.5	91.8	77.9	2.1	399
Employment (past 12 months)						
Not employed	96.5	84.6	96.8	81.4	0.4	364
Employed for cash	95.0	85.6	92.4	80.9	2.0	2,439
Employed not for cash	94.7	79.5	89.9	75.4	2.4	1,050
Marital status						
Never married	94.1	80.8	92.1	76.8	2.2	1,207
Married	95.5	85.5	92.2	80.9	1.8	2,598
Divorced/separated/widowed	(92.3)	(74.9)	(89.2)	(68.3)	(1.1)	48
Number of living children						
0	94.3	81.3	92.0	76.8	2.1	1,514
1-2	96.2	86.4	93.2	82.6	1.2	977
3-4	94.6	85.2	91.9	80.9	2.6	964
5+	95.9	84.2	90.9	78.2	1.9	400
Residence						
Urban	94.4	77.9	92.8	75.0	2.2	730
Rural	95.2	85.2	92.0	80.5	1.9	3,123
Ecological zone						
Mountain	93.1	76.5	89.0	70.4	3.2	241
Hill	94.2	78.8	91.3	74.1	1.9	1,641
Terai	96.0	88.9	93.2	85.0	1.8	1,972
Development region						
Eastern	94.3	88.0	88.1	80.7	2.7	849
Central	93.5	83.3	92.0	78.8	2.4	1,367
Western	96.2	78.4	93.4	75.1	1.2	716
Mid-western	95.7	76.9	90.9	73.1	2.3	416
Far-western	98.0	91.8	98.6	90.3	0.3	506
Subregion						
Eastern mountain	89.9	87.5	88.3	75.8	2.2	59
Central mountain	86.4	61.1	81.4	55.3	8.1	73
Western mountain	99.2	80.9	94.5	77.6	0.4	109
Eastern hill	95.3	86.5	87.9	81.0	2.4	215
Central hill	92.0	77.8	89.4	71.9	2.7	722
Western hill	96.2	74.7	94.3	70.7	0.0	387
Mid-western hill	94.6	78.8	91.8	75.4	3.1	210
Far-western hill	98.3	85.2	99.2	84.4	0.0	107
Eastern terai	94.4	88.6	88.1	81.2	2.8	576
Central terai	96.4	93.2	96.7	90.6	1.3	571
Western terai	96.1	83.1	92.1	80.6	2.6	320
Mid-western terai	96.2	74.9	89.8	71.6	1.8	155
Far-western terai	97.6	94.3	98.5	92.3	0.4	350
Education						
No education	92.3	84.8	89.2	78.3	3.2	710
Primary	93.3	82.4	87.2	76.0	3.0	1,083
Some secondary	96.4	86.3	94.5	82.6	1.1	1,281
SLC and above	97.5	81.0	97.9	80.2	0.8	779
Wealth quintile						
Lowest	92.5	79.7	88.8	72.8	3.0	621
Second	96.0	87.7	92.1	82.7	1.7	696
Middle	96.2	84.1	92.0	81.4	2.4	714
Fourth	95.7	84.8	91.3	79.8	1.4	861
Highest	94.6	82.7	95.2	79.6	1.7	961
Total 15-49	95.0	83.9	92.1	79.4	2.0	3,854
Men 50-59	96.0	85.7	94.8	82.6	1.9	543
Total 15-59	95.1	84.1	92.5	79.8	2.0	4,397

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

Women's empowerment is closely associated with the support she receives from her husband and family members. The 2006 NDHS explored men's attitude toward a husband's rights when his wife refuses to have sexual intercourse. Men were asked whether, when a wife refuses to have sexual intercourse with him, a husband has a right to get angry and reprimand her, refuse her financial support, use force to have sex, and have sex with another woman. Table 14.7 indicates that the majority of men tend to be supportive of women's interests. Nationally, only 1 percent of men agree with all of the specified husband's rights. However, 4 percent of men in the Central mountain subregion agree with all the specified husband's rights. Men are most likely (13 percent) to agree that a husband has the right to get angry and reprimand his wife if she refuses to have sex with him and least likely to agree to a husband having sex with another woman (3 percent). Men with no education and those in the lowest wealth quintile are somewhat more likely to agree with all the specified rights (2 percent and 3 percent, respectively) than other men.

Table 14.8 provides a brief overview on how the three basic empowerment indicators—number of decisions in which women participate, number of reasons for which wife beating is justified, and number of reasons given for refusing to have sexual intercourse with husband—relate to each other. The findings indicate that women who participate in three or four of the specified household decisions more often tend to justify their right to refuse sexual intercourse with their husband for all reasons (86 percent). Similarly, women who do not support wife beating for any reason at all are most likely to think all the reasons for refusing sexual intercourse with their husband are justified (85 percent).

Table 14.7 Men's attitudes toward a husband's rights when his wife refuses to have sexual intercourse

Percentage of men age 15-49 who consider that a husband has the right to certain behaviors when his wife refuses to have sexual intercourse with him when he wants her to, by background characteristics, Nepal 2006

Background characteristic	When a wife refuses to have sexual intercourse with her husband, he has the right to: Get angry and reprimand her	Refuse financial support	Use force to have sexual intercourse	Have sexual intercourse with another woman	Percentage who agree with all husband's rights	Percentage who agree with none of husband's rights	Number
Age							
15-19	13.7	7.6	3.7	4.3	0.6	81.5	941
20-24	12.1	6.6	5.7	2.2	0.4	83.4	632
25-29	12.9	7.0	4.6	3.9	0.9	83.0	524
30-34	10.0	6.0	4.6	1.1	0.7	87.2	499
35-39	13.5	9.5	4.5	3.3	1.1	83.5	444
40-44	13.5	8.3	5.8	4.5	2.2	83.6	414
45-49	14.6	7.8	6.3	3.7	1.5	82.2	399
Employment (past 12 months)							
Not employed	8.4	3.5	1.4	2.9	0.5	87.5	364
Employed for cash	11.7	6.0	4.5	2.6	0.5	84.6	2,439
Employed not for cash	17.3	12.3	6.9	5.1	2.1	78.9	1,050
Marital status							
Never married	12.4	6.5	3.1	4.4	0.3	83.0	1,207
Married	13.0	7.8	5.5	2.8	1.2	83.7	2,598
Divorced/separated/widowed	(23.0)	(16.3)	(11.9)	(5.2)	(2.8)	(68.9)	48
Number of living children							
0	12.8	7.0	4.3	4.0	0.5	82.3	1,514
1-2	10.1	6.2	3.9	2.4	0.9	87.1	977
3-4	14.5	8.9	5.5	2.8	1.4	81.8	964
5+	16.2	8.9	8.0	4.6	1.8	81.3	400
Residence							
Urban	12.9	7.2	4.4	5.2	0.3	81.3	730
Rural	12.9	7.5	4.9	2.9	1.1	83.7	3,123
Ecological zone							
Mountain	17.1	11.3	8.0	6.8	2.4	76.6	241
Hill	15.2	8.0	4.4	3.7	0.6	80.5	1,641
Terai	10.5	6.6	4.8	2.7	1.1	86.4	1,972
Development region							
Eastern	13.0	10.1	5.7	2.7	1.0	83.5	849
Central	14.2	7.3	4.3	4.3	1.3	81.6	1,367
Western	10.6	4.7	2.2	2.4	0.3	85.6	716
Mid-western	24.3	14.5	13.1	6.5	2.1	69.7	416
Far-western	3.3	1.8	1.7	0.5	0.1	95.2	506
Subregion							
Eastern mountain	16.3	9.5	2.3	2.3	0.7	81.2	59
Central mountain	27.8	18.7	12.7	10.4	3.7	61.3	73
Western mountain	10.3	7.3	8.0	6.8	2.5	84.4	109
Eastern hill	20.4	16.7	7.3	4.0	2.7	76.6	215
Central hill	17.0	7.6	3.4	4.5	0.0	77.2	722
Western hill	7.8	2.9	1.5	2.4	0.1	88.8	387
Mid-western hill	23.6	13.2	11.4	4.2	1.3	72.6	210
Far-western hill	3.4	1.6	2.1	1.2	0.6	95.5	107
Eastern terai	9.8	7.7	5.5	2.2	0.3	86.3	576
Central terai	8.9	5.4	4.5	3.4	2.5	89.9	571
Western terai	14.2	6.9	3.1	2.4	0.6	81.4	320
Mid-western terai	26.8	15.9	14.1	7.0	2.0	65.8	155
Far-western terai	3.4	2.2	1.8	0.4	0.0	94.8	350
Education							
No education	14.2	8.6	7.7	3.8	2.0	81.3	710
Primary	17.7	11.2	7.7	4.5	1.5	77.5	1,083
Some secondary	11.2	6.0	3.0	2.6	0.4	85.5	1,281
SLC and above	7.9	3.6	1.2	2.6	0.2	89.5	779
Wealth quintile							
Lowest	17.5	11.8	10.3	4.8	2.5	76.7	621
Second	12.6	7.7	5.5	3.2	1.5	85.1	696
Middle	13.5	7.7	4.0	2.2	0.7	83.8	714
Fourth	11.0	5.7	3.2	3.5	0.3	85.3	861
Highest	11.4	5.9	2.9	3.3	0.3	84.1	961
Total 15-49	12.9	7.5	4.8	3.3	1.0	83.3	3,854
Men 50-59	12.1	10.7	5.4	2.6	1.1	82.8	543
Total 15-59	12.8	7.9	4.9	3.3	1.0	83.2	4,397

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

Table 14.8 Indicators of women's empowerment

Percentage of currently married women age 15-49 who participate in all decisionmaking, percentage of all women age 15-49 who disagree with the five reasons for justifying wife beating, and percentage of all women age 15-49 who agree with the three reasons for refusing sexual intercourse with husband/partner, by indicators of women's empowerment, Nepal 2006

Empowerment indicator	Percentage who participate in all decision-making[1]	Number of currently married women	Percentage who disagree with all the reasons justifying wife beating	Percentage who agree with all the reasons for refusing sexual intercourse with husband	Number of women
Number of decisions in which women participate[1]					
0	na	na	78.6	79.1	2,578
1-2	na	na	74.6	79.5	1,606
3-4	na	na	76.2	85.6	4,074
Number of reasons for which wife beating is justified[2]					
0	36.4	6.329	na	84.9	8,288
1-2	38.3	1,461	na	80.7	1,940
3-4	42.3	399	na	61.0	477
5	38.5	68	na	54.8	87
Number of reasons given for refusing to have sexual intercourse with husband[3]					
0	19.5	278	68.5	na	344
1-2	30.6	1,176	67.4	na	1,508
3	38.9	6,803	78.7	na	8,941

[1] Restricted to currently married women. See Table 14.4.1 for the list of decisions.
na = Not applicable
[2] See Table 14.5.1 for the list of reasons
[3] See Table 14.6.1 for the list of reasons

14.6 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 which do not depend on her husband's cooperation. Table 14.9 shows the distribution of currently married women by contraceptive method use, according to the three empowerment indicators.

The data indicate that there is a positive relationship between use of contraception and participation in household decisionmaking. For example, current use of modern contraceptive methods rises from 31 percent among women who participate in none of the household decisions to 50 percent among women who participate in one or more household decisions. Also noteworthy is the finding that women who believe that wife beating is justified for all of the five specified reasons are least likely to use a method of contraception. However, a similar association is not seen between contraceptive use and a woman's rights to refuse sexual intercourse with her husband.

Table 14.9 Current use of contraception by women's empowerment

Percent distribution of currently married women age 15-49 by contraceptive method currently used, according to indicators of women's empowerment, Nepal 2006

Empowerment indicator	Any method	Any modern method	Modern methods: Female sterilization	Male sterilization	Temporary modern female methods[1]	Condom	Any traditional method	Not currently using	Total	Number of women
Number of decisions in which women participate[2]										
0	33.3	30.7	10.9	3.8	11.3	4.7	2.5	66.7	100.0	2,578
1-2	54.3	50.2	20.3	6.4	18.2	5.3	4.0	45.7	100.0	1,606
3-4	54.8	50.4	21.7	7.9	16.2	4.6	4.4	45.2	100.0	4,074
Number of reasons for which wife beating is justified[3]										
0	48.3	44.4	17.8	6.4	15.1	5.1	3.9	51.7	100.0	6,329
1-2	46.4	43.0	16.3	6.2	16.3	4.2	3.4	53.6	100.0	1,461
3-4	51.5	49.0	28.2	6.4	11.2	3.2	2.4	48.5	100.0	399
5	28.9	26.5	15.5	5.5	5.5	0.0	2.5	71.1	100.0	68
Number of reasons given for refusing to have sexual intercourse with husband[4]										
0	46.8	46.8	28.8	3.3	12.0	2.7	0.0	53.2	100.0	278
1-2	48.5	44.9	16.2	6.1	17.4	5.2	3.5	51.5	100.0	1,176
3	47.9	44.0	17.9	6.5	14.8	4.8	3.9	52.1	100.0	6,803
Total	48.0	44.2	18.0	6.3	15.1	4.8	3.7	52.0	100.0	8,257

Note: If more than one method is used, only the most effective method is considered in this tabulation.
[1] Pill, IUD, injectables, and implants
[2] See Table 14.4.1 for the list of decisions.
[3] See Table 14.5.1 for the list of reasons
[4] See Table 14.6.1 for the list of reasons

14.7 IDEAL FAMILY SIZE AND UNMET NEED BY WOMEN'S STATUS

The ability of women to make decisions effectively has important implications for their fertility preferences and the practice of family planning. An increase in women's status and empowerment is recognized as important for efforts to reduce fertility through at least two main pathways: its negative association with desired family size and its positive association with women's ability to meet their own family-size goals through the effective use of contraception.

Table 14.10 shows how women's ideal family size and their unmet need for family planning vary by women's status indicators. The data indicate that there is a positive association between ideal family size and two of the three empowerment indicators. Ideal family size is lower among women who believe that wife beating is not justified for any reason at all (2.3 children) than among women who believe that wife beating is justified for all of the five reasons (2.8 children). Similarly, ideal family size is highest among women who believe that a woman cannot refuse sexual intercourse with her husband for any reason (2.7 children) and lowest among women who believe that sexual intercourse can be refused for all of the three reasons (2.3 children).

Although there is no clear linear relationship between unmet need and women's empowerment, the data show that unmet need is highest among women who do not participate in any household decisions and among women who believe that wife beating is justified for all five reasons. There is no clear relationship between unmet need and women's belief that refusing sexual intercourse is acceptable for any reason.

Table 14.10 Women's empowerment according to ideal number of children and unmet need for family planning

Mean ideal number of children for women age 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, Nepal 2006

Empowerment indicator	Mean ideal number of children[1]	Number of women	Percentage of currently married women with an unmet need for family planning[2]			Number of currently married women
			For spacing	For limiting	Total	
Number of decisions in which women participate[3]						
0	2.4	2,575	18.4	12.3	30.7	2,578
1-2	2.4	1,601	7.2	13.6	20.8	1,606
3-4	2.4	4,066	4.5	17.8	22.3	4,074
Number of reasons for which wife beating is justified[4]						
0	2.3	8,269	9.3	14.9	24.2	6,329
1-2	2.2	1,934	10.7	17.2	27.9	1,461
3-4	2.7	477	6.0	11.6	17.6	399
5	2.8	87	6.2	23.8	30.1	68
Number of reasons given for refusing to have sexual intercourse with husband[5]						
0	2.7	342	9.5	11.6	21.0	278
1-2	2.4	1,500	9.2	14.4	23.6	1,176
3	2.3	8,925	9.4	15.5	24.9	6,803
Total	2.3	10,768	9.4	15.2	24.6	8,257

[1] Mean excludes respondents who gave non-numeric responses.
[2] See Table 7.3.1 for the definition of unmet need for family planning
[3] Restricted to currently married women. See Table 14.4.1 for the list of decisions.
[4] See Table 14.5.1 for the list of reasons
[5] See Table 14.6.1 for the list of reasons

14.8 REPRODUCTIVE HEALTH CARE BY WOMEN'S STATUS

Table 14.11 shows women's use of antenatal, delivery, and postnatal care services by the three indicators of women's empowerment. In societies where health care is widespread, women's empowerment may not affect their access to reproductive health services. In other societies, however, increased empowerment of women is likely to increase their ability to seek out and use health services to better meet their own reproductive health goals, including the goal of safe motherhood.

The data indicate that there is a correlation between women's status, as measured by the number of reasons wife beating is justified, and utilization of health services. Women who believe that wife beating is justified for 3-4 reasons are much less likely to receive maternity care services than women who believe that wife beating is justified for 1-2 reasons or not at all. The relationship between utilization of health services and the other two women's empowerment indicators is less clear.

Table 14.11 Reproductive health care by women's empowerment

Percentage of women age 15-49 with a live birth in the five years preceding the survey who received antenatal care, delivery assistance and postnatal care from a skilled birth attendant (SBA) for the most recent birth, by indicators of women's empowerment, Nepal 2006

Empowerment indicator	Received antenatal care from SBA	Received delivery assistance from SBA	Received postnatal care from SBA within two days of delivery[1]	Number of women
Number of decisions in which women participate[2]				
0	41.2	17.1	13.8	1,518
1-2	49.9	26.9	23.9	773
3-4	43.6	20.8	18.4	1,715
Number of reasons for which wife beating is justified[3]				
0	43.3	20.9	17.8	3,118
1-2	48.9	22.8	20.7	715
3-4	26.0	10.1	8.4	198
5	(26.8)	(7.6)	(4.5)	35
Number of reasons given for refusing to have sexual intercourse with husband[4]				
0	42.4	17.6	15.1	138
1-2	39.7	22.9	19.2	550
3	43.9	20.3	17.6	3,377
Total	43.3	20.6	17.7	4,066

Note: SBA (skilled birth attendant) includes doctor, nurse, or midwife. Figures in parentheses are based on 25-49 unweighted cases.

[1] Includes mothers who delivered in a health facility and those who delivered elsewhere

[2] Restricted to currently married women. See Table 14.4.1 for the list of decisions.

[3] See Table 14.5.1 for the list of reasons

[4] See Table 14.6.1 for the list of reasons

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CAUSES OF DEATH IN CHILDREN UNDER FIVE YEARS OF AGE IN NEPAL

Appendix A

A.1 INTRODUCTION

Accurate data on causes of death are important for health sector planning. If tracked over time, this information can be used to monitor the progress of interventions against specific diseases or conditions, to assess programmatic needs, and to determine priorities for future health interventions. However, in many developing countries, including Nepal, little is known about the causes of childhood death. This is because vital registration systems fail to include much of the population. Medical records may be available, but most child deaths occur at home, and few deaths are attended by a qualified medical professional. As a result, other methods must be employed to describe causea of death at the community level. The verbal autopsy method, which uses caregiver interview data to assign cause of death, has been used previously to ascertain the causes of neonatal, postneonatal, and child deaths in various settings, including Nepal.

The published causes of deaths among children under age five in Nepal have thus far been from selected research sites. As Nepal has three distinctly different ecological regions (*terai*, hills and mountains), the available data is unlikely to be representative for Nepal as whole. Data on causes of under-five child deaths from a nationally representative sample of Nepal has not been available. The 2006 Nepal Demographic and Health Survey (NDHS) offered an opportunity to fill this important gap in information. This is the first time that a verbal autopsy survey has been conducted in a nationally representative sample of Nepal. This chapter describes the methodology of the verbal autopsy survey employed in the 2006 NDHS, presents data on the proportional distribution of causes of death among neonates, post-neonates, and children age 12-59 months, and discusses the implications of the results for Nepal's health program. The data are also presented separately according to child's sex, mother's education, urban and rural residence, ecological zone, development region, and household wealth.

A.2 THE VERBAL AUTOPSY INSTRUMENT

The verbal autopsy instrument was developed by reviewing multiple instruments, including the instrument used in the 2004 Bangladesh Demographic and Health Survey (BDHS) (NIPORT, Mitra and Associates, ORC Macro, 2005) which was adapted from the instrument used in the WHO three-country verbal autopsy validation study (Anker et al., 1999). The neonatal component of the WHO instrument had major limitations and was significantly modified before the 2004 BDHS by a WHO expert panel.[1] The revised neonatal module includes questions about pregnancy, childbirth, and common causes of newborn deaths. In addition, a new module to distinguish between stillbirths and early neonatal deaths was added. For the post-neonates and children, sections were added to obtain additional information on signs of common morbidities, including signs of convulsion, unconsciousness, malnutrition, swelling of lymph nodes, jaundice, vomiting, abdominal pain, mass in the body, color and amount of urine, and history of any surgical operation. The verbal autopsy instrument begins with an open-ended section to elicit a narrative about the child's death, followed by close-ended questions. This instrument was further adapted to the local context and culture of Nepal. Finally, the instrument was translated from English into Nepali, and local terms for specific illnesses were used when appropriate.

[1] The panel included Martha Anker, Abdullah Baqui, Zulfiqar Bhutta, Elizabeth Bocaletti, Gary Darmstadt, Henry Kalter, David Marsh, Jose Martines and Vinod Paul.

A.3 DATA COLLECTION METHODS

Pregnancy histories were taken from all eligible women aged 15-49 years in the households sampled for the 2006 NDHS. Women who reported a stillbirth or death of a child age 0-59 months during the 5 years preceding the survey were administered the Verbal Autopsy Questionnaire after the completion of the Women's Questionnaire. The main survey interview was conducted in a total of 8,707 households, and 10,793 eligible women were interviewed. Of the total eligible women, 27 percent had no pregnancies. Among the 7,878 women who reported at least one pregnancy, 8 percent reported at least one case of stillbirth or death to a child age 0-59 months in the 5 years preceding the survey. Of the 475 deaths reported, 245 were to children whose age of death was 0-27 days, and 230 were to children age 28 days to 59 months at death. The Verbal Autopsy Questionnaire was administered by editors, supervisors, and quality control team members who had received additional training on conducting a verbal autopsy.

A.4 ASSIGNING CAUSE OF DEATH

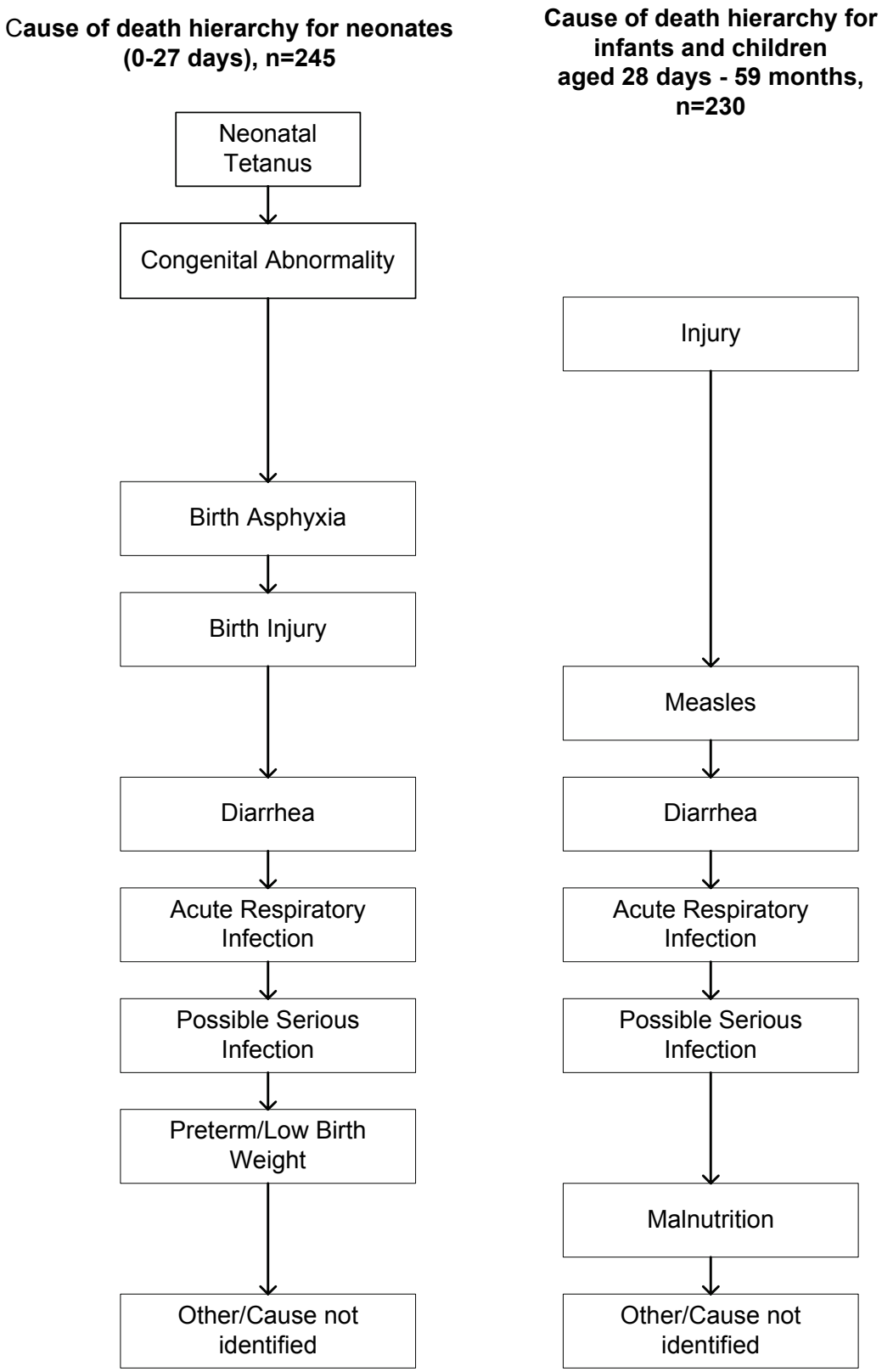
The verbal autopsy interviews captured data on signs and symptoms observed by the immediate care giver, usually the mother of the deceased child prior to the death. These data were then analyzed to assign causes of death. The two established methods of verbal autopsy data analysis are (a) the use of a computer program that uses pre-defined algorithms for different causes of death and (b) physician review. This study has employed both methods. Survey data were entered into a dataset and analyzed using a program created in STATA Version 8.0 that used pre-defined algorithms. Physician review was used only in those cases where the computer algorithm could not assign a cause.

The computer algorithm employed cause of death categories that were previously included in the 2004 BDHS. The case definitions were adapted from the WHO validation study. The assignment of cause of death followed a hierarchical process whereby certain diagnoses were viewed as more certain than others and thus given priority (Figure A.1). For example, a death that met the criteria for neonatal tetanus was assigned the diagnosis of neonatal tetanus and had no chance of being included in another cause that was placed lower in the hierarchy, such as serious infection. However, for measles, diarrhea and acute respiratory infections, the possibility of assigning multiple causes of death was allowed.

Stillbirths were classified into two categories, fresh and macerated. The latter was identified if the respondent said that the baby's skin and tissue was pulpy.

It is generally accepted that the primary causes of death for neonates (children <28 days old) differ from those of older children. Thus, the algorithm for neonates differed from the algorithm for older children, as described below.

Figure A.1 Cause of Death Hierarchy



Neonatal Deaths (Age at death 0-27 days)

Neonatal tetanus was assigned as the cause of death in a child whose age at death was between 4 and 14 days, who had had convulsions any time during this period, and who either cried normally after birth and stopped crying at least one day before death or who suckled normally after birth and stopped suckling at least one day before death.

Congenital abnormality was assigned if the child had a reported malformation at birth.

Birth asphyxia was assigned as the cause if (a) death occurred within 7 days of birth, (b) the baby was not able to cry normally after birth and (c) the baby was either not able to breathe after birth or not able to suckle normally after birth.

Birth injury was assigned if the death occurred within 7 days of birth and the baby had bruises or marks of injury on the body or head at birth.

Measles, acute respiratory infection (ARI) and diarrhea were considered together at the same level of hierarchy, and multiple causes were assigned if the death met the criteria for more than one condition.

ARI was assigned if (a) difficult or rapid breathing started at least 1 day before death and lasted until death, and (b) the child had at least two of the following three specific symptoms: grunting, nostril flaring, and chest in-drawing.

Diarrhea was assigned if frequent liquid or watery or loose or soft stools was reported or the local term "diarrhea" was reported, with a peak of six or more stools in 24 hours.

Other serious infections was assigned as the cause of death if the child had at least two of the following signs: cessation of suckling, cessation of crying, difficulty breathing, rapid breathing, chest in-drawing, convulsions, fever, cold to the touch, lethargy, unresponsiveness or unconsciousness, bulging fontanel, redness or drainage from the umbilical cord stump, a skin rash with bumps containing pus, or vomiting of everything.

Prematurity or low birth weight (LBW) was assigned as the cause of death if the pregnancy ended early or the baby was reported to be very small or smaller than usual.

Deaths to Older Children (Age at death 28 days-59 months)

Injury was assigned as the cause of a death if the respondent said that the child suffered an injury that resulted in death, including a motor vehicle accident, fall, poisoning, drowning or other accident.

Measles, acute respiratory infection (ARI) and diarrhea were considered to be at the same level of hierarchy, and multiple causes were assigned if the death met the criteria for more than one condition. *ARI* included two possible definitions. The first was if (a) the child had a cough that started at least three days before death and lasted until death and (b) the child exhibited at least two of the following six specific symptoms: noisy breathing, stridor, grunting, wheezing, nostril flaring, or chest in-drawing. The second was (a) if the child had difficult breathing or rapid breathing that started at least one day before death and lasted until death and had at least two of the six specific symptoms: noisy breathing, stridor, grunting, wheezing, nostril flaring, or chest in-drawing. *Diarrhea* included two possible definitions. The first definition required that (a) a child had frequent loose or liquid stools starting from 1 to 13 days before death and continuing until death and had a peak number of six or more stools in 24 hours, and at least two of the four following specific symptoms were reported: dry mouth, sunken eyes, loose skin, and very little or no urine. The second definition required that loose or liquid stools started from at least 14 days prior to death and continued until death. *Measles*

was assigned as the cause of death in a child if (a) the child was at least six months old at the time of death, and (b) had rash all over the body and on the face that was present during the month before death, and (c) the rash was accompanied by fever, with no water in the rash, and (d) with at least one of the three following specific symptoms reported: dry cough, red or runny eyes and running nose during the illness.

Other serious infections was assigned as cause of death if the child had at least two of the following signs: difficult breathing, rapid to gasping breath or stopped being able to respond to a voice or stopped being able to follow movements with the eyes, stiff neck, bulging fontanel, and vomiting.

Malnutrition was assigned when no other cause of death had been assigned and the child was reported to have been very thin or the child's feet were reported to have been swollen.

Physician Review

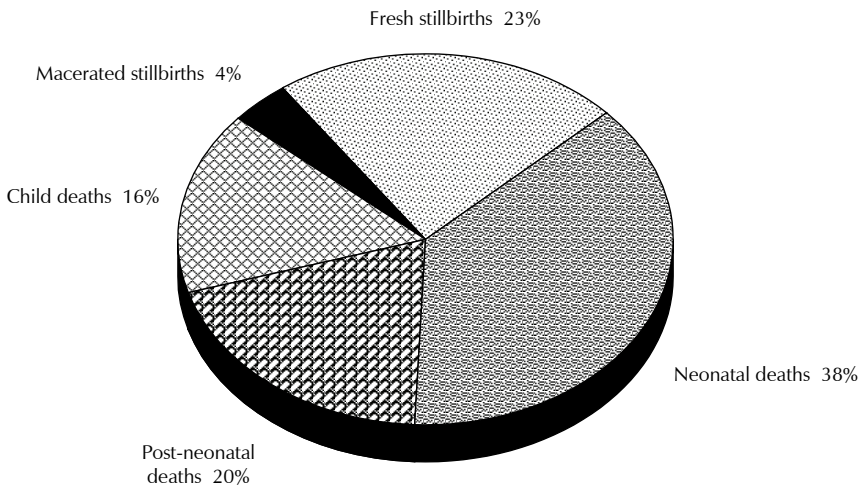
The computer algorithm could not assign a cause in 44 of the 475 reported deaths. A team of two Nepalese pediatricians reviewed these cases independently; the cases with discordant diagnosis were reviewed by a third pediatrician. A diagnosis was accepted if two of the three pediatricians agreed to a cause for a particular case. If a cause could not be ascertained or three pediatricians assigned three different causes to a case, the cause of death of that case was considered undetermined. The pediatricians assigned a cause to 9 of the 44 deaths; the causes of the remaining 35 cases remain undetermined.

A.5 RESULTS

A.5.1 Causes of Deaths by Age

As shown in Figure A.2, the greatest proportion of deaths in this sample occurred in the neonatal period (245 deaths or 38 percent), followed by stillbirths (174 or 27 percent), post-neonatal deaths (127 or 20 percent), and child deaths (103 or 16 percent). Among stillbirths, 86 percent (or 23 percent of all under-five deaths) were assessed as fresh stillbirths presumably because the vast majority of stillbirths occur during the intra-partum period.

Figure A.2 **Distribution of the Verbal Autopsy Sample**



Causes of neonatal deaths

As shown in Table A.1, the most common causes of neonatal deaths were ARI (18 percent), other serious infections (21 percent), birth injury (19 percent), and birth asphyxia (15 percent). Less frequent causes of death were congenital abnormality (8 percent), prematurity or LBW (6 percent), tetanus (2 percent), and diarrhea (1 percent). However, when the criteria for prematurity or LBW were applied to all neonatal deaths independent of the hierarchy, 38 percent showed signs of prematurity or LBW. This suggests that although prematurity or LBW was the direct cause for a small proportion of deaths in neonates, these conditions contributed to a substantial proportion of neonatal deaths. The algorithms failed to assign a cause to 10 percent of all neonatal deaths.

Table A.1 Cause of death among children under five

Percent distribution of deaths among children under five years by cause of death, according to age group, Nepal 2006

	Age group			
Cause of death	Neonatal (0-27 days)	Post-neonatal 28 days-11 months	Child (12-59 months)	Percentage of children under five years
Tetanus	2.3	0.0	0.0	1.2
Congenital abnormality	8.1	0.0	0.0	4.2
Injury	0.0	2.8	10.7	3.1
Birth asphyxia	14.9	0.0	0.0	7.8
Birth injury	18.5	0.0	0.0	9.7
Measles	0.0	0.4	0.8	0.1
Measles followed by ARI or diarrhea	0.0	0.0	0.0	0.2
Diarrhea	0.8	5.3	13.2	4.8
ARI	18.1	36.0	20.4	23.1
ARI and diarrhea	0.5	1.6	7.5	2.4
Other serious infections[1]	20.6	32.3	39.9	27.9
Preterm birth/low birth weight	5.9	0.0	0.0	3.1
Malnutrition	0.0	10.1	2.9	3.2
Cause not identified	10.1	11.4	4.5	9.1
Total	100.0	100.0	100.0	100.0
Number of deaths	245	127	103	475

[1] Other serious infections include possible ARI and possible diarrhea

Causes of post-neonatal deaths

Table A.1 also shows that the two most common causes of post-neonatal deaths were ARI (36 percent) and other serious infections (32 percent). Diarrhea either alone (5 percent) or in combination with signs of ARI (2 percent) accounted for about 7 percent of deaths. Injuries were relatively rare among this age group (3 percent) and all were due to falls (data not shown). One measles case was observed. Malnutrition as a primary cause accounted for 10 percent of the deaths. No cause was identified in 11 percent of deaths.

Causes of deaths in 12-59-month-old children

Other serious infections were the primary cause of death (40 percent) among children aged 12-59 months. ARI was the sole cause in 20 percent of deaths and another 8 percent of deaths were diagnosed as resulting from both ARI and diarrhea (Table A.1). Diarrhea was the third most important primary cause of death (13 percent). One case met the criteria for measles, and this child also showed signs of severe diarrhea. Injury comprised a larger proportion of deaths in this age group (11 percent) than in other age groups and were due to drowning, falling, and motor vehicle and other accidents. Malnutrition accounted for 3 percent of deaths, and 5 percent of deaths were due to unidentified causes.

A.5.2 Differentials in Causes of Under-five Deaths

Because the risk of death is not uniformly distributed within a population, it is important to examine how the risk varies by population characteristics. The causal structure of deaths was investigated by three factors considered to be important determinants of child survival: the sex of the child; mother's education; and parity.

The causal distributions in male and female children were generally similar; however, deaths due to injury were much more common among boys than girls (Table A.2). A greater proportion of female than male children had no cause of death assigned (12 percent versus 7 percent).

Table A.2 Cause of death among children under five by sex of child

Percent distribution of deaths among children under five years by cause of death, according to sex, Nepal 2006

Cause of death	Sex		Percentage of children under five years
	Male	Female	
Tetanus	2.3	0.1	1.2
Congenital abnormality	4.0	4.4	4.2
Injury	5.5	0.8	3.1
Birth asphyxia	6.3	9.2	7.8
Birth injury	10.7	8.6	9.7
Measles	0.2	0.0	0.1
Measles followed by ARI or diarrhea	0.4	0.0	0.2
Diarrhea	5.6	4.0	4.8
ARI	22.0	24.1	23.1
ARI diarrhea	2.6	2.2	2.4
Other serious infections[1]	26.4	29.4	27.9
Preterm birth/low birth weight	3.8	2.3	3.1
Malnutrition	3.2	3.1	3.2
Cause not identified	6.8	11.5	9.1
Total	100.0	100.0	100.0
Number of deaths	248	227	475

[1] Other serious infections include possible ARI and possible diarrhea

Deaths from injury and deaths related to birth asphyxia or birth injury comprised a greater proportion of deaths to children of mothers with a secondary or higher education (Table A.3). Deaths due to ARI also formed a greater proportion of deaths among children of mothers in this educational group, although other infections were less common causes of deaths to children of highly educated mothers. On the other hand, women without education were more likely to experience child deaths related to diarrhea and other serious infections.

Table A.3 Cause of death among children under five by mother's education

Percent distribution of deaths among children under five years by cause of death, according to sex, Nepal 2006

Cause of death	Mother's education			Percentage of children under five years
	No education	Primary	Secondary and above	
Tetanus	0.9	1.2	3.6	1.2
Congenital abnormality	4.7	1.2	5.1	4.2
Injury	2.7	0.4	11.2	3.1
Birth asphyxia	9.1	1.1	8.0	7.8
Birth injury	9.0	6.5	20.2	9.7
Measles	0.1	0.0	0.0	0.1
Measles followed by ARI or diarrhea	0.2	0.0	0.0	0.2
Diarrhea	5.9	0.5	2.6	4.8
ARI	21.3	25.9	32.8	23.1
ARI and diarrhea	2.5	2.1	1.8	2.4
Other serious infections[1]	27.9	37.4	12.6	27.9
Preterm birth/low birth weight	3.5	2.7	0.2	3.1
Malnutrition	2.8	7.0	0.0	3.2
Cause not identified	9.1	13.7	1.7	9.1
Total	100.0	100.0	100.0	100.0
Number of deaths	358	69	48	475

[1] Other serious infections include possible ARI and possible diarrhea

A higher proportion of deaths to high parity women were due to unidentified causes, while low parity women experienced a greater proportion of deaths from birth injury (Table A.4).

Table A.4 Cause of death among children under five by birth order

Percent distribution of deaths among children under five years by cause of death, according to parity, Nepal 2006

Cause of death	Birth order				Percentage of children under five years
	1	2-3	4-5	6+	
Tetanus	1.5	1.4	0.3	1.3	1.2
Congenital abnormality	4.3	3.3	4.3	5.7	4.2
Injury	3.2	5.6	1.3	0.0	3.1
Birth asphyxia	6.9	7.1	10.3	8.2	7.8
Birth injury	13.1	11.7	5.1	4.3	9.7
Measles	0.0	0.4	0.0	0.0	0.1
Measles followed by ARI or diarrhea	0.0	0.0	0.0	1.1	0.2
Diarrhea	1.6	6.7	5.1	6.8	4.8
ARI	22.8	21.4	20.0	30.4	23.1
ARI and diarrhea	2.0	1.9	5.4	0.8	2.4
Other serious infections[1]	28.4	28.8	30.2	22.7	27.9
Preterm birth/low birth weight	5.6	1.2	3.2	1.9	3.1
Malnutrition	4.1	1.1	5.5	2.8	3.2
Cause not identified	6.5	9.3	9.3	13.9	9.1
Total	100.0	100.0	100.0	100.0	100.0
Number of deaths	146	162	92	75	475

[1] Other serious infections include possible ARI and possible diarrhea

There are no significant differences in the causes of under-five deaths by urban-rural residence (Table A.5). However, it is important to note that some of these differences may be muted because of the small sample size in urban areas. Deaths in urban areas accounted for only one-fifth (20 percent) of total deaths.

Table A.5 Cause of death among children under five by urban-rural residence

Percent distribution of deaths among children under five years by cause of death, according to place of residence, Nepal 2006

Cause of death	Place of residence		Percentage of children under five years
	Urban	Rural	
Tetanus	2.7	1.1	1.2
Congenital abnormality	3.9	4.2	4.2
Injury	1.8	3.3	3.1
Birth asphyxia	8.3	7.8	7.8
Birth injury	10.9	9.6	9.7
Measles	0.0	0.1	0.1
Measles followed by ARI or diarrhea	0.0	0.2	0.2
Diarrhea	4.0	4.9	4.8
ARI	20.7	23.3	23.1
ARI and diarrhea	2.9	2.4	2.4
Other serious infections[1]	33.3	27.5	27.9
Preterm birth/low birth weight	0.6	3.3	3.1
Malnutrition	2.3	3.2	3.2
Cause not identified	8.6	9.2	9.1
Total	100.0	100.0	100.0
Number of deaths	97	378	475

[1] Other serious infections include possible ARI and possible diarrhea

There were few differences in mortality pattern by ecological zone (Table A.6). However, ARI constituted a greater proportion of deaths in the mountain (42 percent) than in the hill (24 percent) or terai (18 percent).

Table A.6 Cause of death among children under five by ecological zone

Percent distribution of deaths among children under five years by cause of death, according to ecological region, Nepal 2006

Cause of death	Ecological region			Percentage of children under five years
	Mountain	Hill	Terai	
Tetanus	0.0	3.1	0.3	1.2
Congenital abnormality	2.7	5.6	3.7	4.2
Injury	0.0	2.3	4.4	3.1
Birth asphyxia	6.8	5.1	9.7	7.8
Birth injury	8.6	13.6	7.6	9.7
Measles	0.9	0.0	0.0	0.1
Measles followed by ARI or diarrhea	1.4	0.0	0.0	0.2
Diarrhea	5.3	3.8	5.3	4.8
ARI	41.8	24.2	17.9	23.1
ARI and diarrhea	3.5	2.9	1.8	2.4
Other serious infections[1]	24.5	30.0	27.5	27.9
Preterm birth/low birth weight	0.8	1.8	4.4	3.1
Malnutrition	0.8	2.5	4.1	3.2
Cause not identified	2.8	5.0	13.2	9.1
Total	100.0	100.0	100.0	100.0
Number of deaths	80	167	228	475

[1] Other serious infections include possible ARI and possible diarrhea

Deaths due to birth asphyxia or birth injury were lowest in the Far-western region (12 percent) and high in the Western (22 percent) and Mid-western (20 percent) regions (Table A.7). ARI was the most important cause of death in the Far-western (35 percent) and Mid-western regions (34 percent). Other serious infections are leading causes of deaths identified in the Eastern, Central and Western development regions.

Table A.7 Cause of death among children under five by development region

Percent distribution of deaths among children under five years by cause of death, according to development region, Nepal 2006

Cause of death	Development region					Percentage of children under five years
	Eastern	Central	Western	Mid-western	Far-western	
Tetanus	0.0	0.0	1.9	1.8	2.6	1.2
Congenital abnormality	2.0	4.6	6.4	6.9	1.0	4.2
Injury	2.2	5.8	1.3	1.1	4.0	3.7
Birth asphyxia	15.8	6.8	8.2	4.8	4.7	7.8
Birth injury	2.7	9.6	13.7	15.2	7.1	9.6
Measles	0.0	0.4	0.0	0.0	0.0	0.1
Measles followed by ARI or diarrhea	0.0	0.0	0.0	1.0	0.0	0.2
Diarrhea	4.5	2.7	4.8	3.9	8.8	4.6
ARI	14.0	18.9	20.7	31.0	31.4	22.6
ARI and diarrhea	0.1	1.3	4.1	3.2	3.5	2.4
Other serious infections[1]	34.3	31.1	24.1	21.0	28.2	27.3
Preterm birth/low birth weight	6.0	3.0	2.4	4.3	0.0	2.7
Malnutrition	0.7	4.3	6.0	1.8	2.7	2.9
Cause not identified	17.7	11.4	6.3	4.2	6.0	10.6
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of deaths	85	90	75	111	114	475

[1] Other serious infections include possible ARI and possible diarrhea

About 55 percent of all deaths in the sample occurred in households belonging to the lowest two wealth quintiles (Table A.8). These two groups experienced a greater proportion of deaths due to other serious infections. Birth asphyxia and birth injury accounted for a higher proportion of deaths in wealthier households, with fewer deaths due to infections, in these households.

Table A.8 Cause of death among children under five by wealth quintile

Percent distribution of deaths among children under five years by cause of death, according to wealth quintile, Nepal 2006

Cause of death	Wealth quintile					Percentage of children under five years
	Lowest	Second	Middle	Fourth	Highest	
Tetanus	1.1	0.7	2.2	1.3	0.0	1.2
Congenital abnormality	3.7	6.5	2.6	3.1	6.3	4.2
Injury	1.5	2.4	3.6	3.4	7.8	3.1
Birth asphyxia	5.0	4.8	8.3	18.4	8.0	7.8
Birth injury	8.6	9.7	7.3	8.8	19.0	9.7
Measles	0.0	0.0	0.5	0.0	0.0	0.1
Measles followed by ARI or diarrhea	0.0	0.9	0.0	0.0	0.0	0.2
Diarrhea	5.4	6.1	5.0	3.7	1.7	4.8
ARI	28.3	14.8	25.8	20.4	20.5	23.1
ARI and diarrhea	2.6	4.3	1.6	1.0	2.0	2.4
Other serious infections[1]	34.9	29.6	21.9	23.6	23.8	27.9
Preterm birth/low birth weight	0.4	8.3	4.4	1.4	0.0	3.1
Malnutrition	1.7	3.1	2.5	6.2	5.6	3.2
Cause not identified	6.8	8.7	14.3	8.7	5.3	9.1
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of deaths	164	96	106	60	49	475

[1] Other serious infections include possible ARI and possible diarrhea

A.6 Discussion, Conclusions, and Recommendations

Most developing countries witnessed impressive declines in child mortality during recent decades, although in many of these countries the overall child mortality rates remain high. Government estimates suggest that declines in under-five deaths in Nepal were largely attributed to improved vaccine coverage (Khanal, 2002). As a result of the decline in the number of deaths among older children, neonatal deaths represent a greater proportion of under-five deaths. Stillbirths, which are generally accounted separately from child deaths, also represent an important cause of death in this setting.

In addition to looking at total under-five child mortality, it is useful to examine the burden of mortality due to specific causes. The cause structure of neonatal deaths observed in this analysis is consistent with findings in other studies (Lawn, Cousens and Zupan, 2005) which suggest that early neonatal deaths are usually caused by birth asphyxia and birth injury and that ARI and other infections are the other main causes of death. These findings are also similar to those of the only other published, community-based verbal autopsy study of neonatal deaths in Nepal (Freeman, 2005). In general, the causal structure of under-five deaths is similar to the most recent WHO estimates of the causes of under-five deaths, which attributed 24 percent of deaths to pneumonia and 34 percent of deaths to other neonatal causes (Black, Morris and Bryce, 2003). The individual causes of death, how these findings relate to existing programs, and what the implications are for future program planning, are discussed below.

The proportion of deaths attributed to different causes were applied to the annual birth cohort and neonatal, post-neonatal and child mortality rates prevailing in Nepal to estimate the number of deaths experienced in the country each year due to different causes. Tetanus now represents only 1 percent of under-five deaths and 2 percent of neonatal deaths. If the proportion of neonatal deaths attributable to neonatal tetanus is applied to the annual birth cohort and neonatal mortality rate, Nepal will experience an estimated 436 deaths due to neonatal tetanus each year. Neonatal tetanus as a cause of death has been reduced globally through maternal tetanus toxoid immunization. As described elsewhere in this report, 63 percent of Nepalese women received tetanus immunization during their last pregnancy and 78 had their last pregnancy protected against neonatal tetanus. The 2006 NDHS identified deaths that occurred in the five years prior to the survey. Three out of the 6 deaths attributed to tetanus in this study occurred prior to the tetanus vaccination campaign. This implies that deaths due to neonatal tetanus observed in the 2006 NDHS are less than one per 1,000 live births and this finding is consistent with the result of the MOH/WHO/UNICEF study (WHO, 2006), indicating that neonatal tetanus in Nepal has been virtually eliminated. In addition to the immunization campaign, community-based programs have sought to improve awareness of clean delivery techniques and have distributed clean delivery kits, which also may have reduced deaths due to neonatal tetanus disease. Maintaining high tetanus toxoid immunization coverage, including cold chain maintenance, and further expanding community-based interventions to improve cleanliness during delivery and postpartum period are important contributors to maternal and neonatal health.

Birth asphyxia and birth injury together accounted for 23 percent of under-five deaths, or about 10,000 deaths. One unexpected finding from this study is that birth asphyxia and birth injury represent nearly equal proportions of deaths. Generally, birth asphyxia is thought to be more common than birth injury. For example, in the 2004 BDHS, the same algorithms for assigning cause of death determined that 21 percent of deaths were due to birth asphyxia and 4 percent were due to birth injury. This discrepancy is likely due to limitations of the verbal autopsy method. For example, some terms may be translated in a way that makes them more recognizable in some settings and less recognizable in other settings (Snow, 1992). In addition, local understanding of causes of illness may lead to symptoms being interpreted differently. The signs of birth asphyxia can be relatively subtle, and recognition of those signs may differ by countries or regions. Nonetheless, the interpretation of this finding is that as many as one-third of newborns die primarily as a result of delivery-related complications, particularly prolonged and obstructed labor. The large proportions of neonatal deaths

due to birth asphyxia and birth injury reflect low availability, poor access and quality of skilled birth attendance and poor access to emergency obstetric care (McPherson et al., 2006; Carlough and McCall, 2005). These findings are emphasized by the large proportion of stillbirths that were classified as occurring during the intra-partum period, although these methods of classification have yet to be validated and may lack precision. Improving availability and access to skilled birth attendants and emergency obstetric care are important health priorities. A community-based trial in Nepal was successful at reducing newborn mortality through an action learning cycle (Manandhar et.al., 2004). Efforts are underway to repeat these findings in a controlled situation in other settings. In addition, female community health volunteers (FCHVs) have been trained in the promotion of essential newborn care, and the effectiveness of this program component is being evaluated. It is important to monitor the effects of these efforts on birth asphyxia, birth injury and other common causes of neonatal mortality.

Injury accounts for 3 percent of under-five deaths, or 1,300 in number, presumably because the burden of infections, disease, and neonatal complications are still so high. In comparison, among the wealthiest families, injuries comprise 8 percent of all deaths. Within this category, deaths due to drowning and falling were the most common category of accidents. Further studies should examine the circumstances of these deaths and strategies for preventing them, since injuries will likely cause a greater proportion of deaths if community-based treatment of ARI and serious infections is successful.

The near disappearance of deaths due to measles in Nepal may be attributed to the moderately high coverage of the measles vaccine for infants, combined with a successful second dose measles campaign in 2003. As indicated in this report, 85 percent of Nepalese children age 12-23 months, have been vaccinated against measles. This was made possible through a concerted effort of the Ministry of Health, UNICEF and other United Nations organizations, in coordination with human rights organizations and activists at the central, regional and district level. Mass media was used extensively to sensitize the population about the importance of measles vaccine. The experience of the successful measles campaign can be used to implement other child survival interventions.

This study suggests that diarrhea, which causes about 2,200 deaths, is a much less important cause of death in Nepal than the WHO global estimates would suggest (Black, Morris and Bryce, 2003). This might be explained by the nearly universal coverage of the vitamin A supplementation program and widespread use of ORS. Vitamin A has been found to reduce deaths due to diarrhea (Thapa, Choe and Retherford, 2005). The Vitamin A supplements are distributed by FCHVs, who also distribute ORS and provide education on nutrition to mothers. Although deaths due to diarrhea are generally low among neonates and post-neonates, increasing the coverage of exclusive breastfeeding from the current rate of 53 percent would further reduce the burden of deaths due to diarrhea among children below five years.

Globally, ARI is recognized as one of the most common, yet treatable, causes of child deaths. In total approximately 10,900 under-five child deaths are due to ARI or ARI and diarrhea combined. The need for effective ARI case management is particularly acute in the Mountain zone. Community-based integrated management of childhood illnesses (CB-IMCI) is a relatively new intervention program in Nepal. CB-IMCI was implemented in only 19 of the 75 districts in Nepal by 2003 and was expanded to 35 out of 75 districts by 2006. It will be useful to analyze the data on ARI deaths by district, comparing those with CB-IMCI and those without. Program experience from diarrhea case management suggests that it takes time and effort to successfully implement complex programs such as CB-IMCI and to encourage community members to make full use of new services provided by female community health volunteers.

The other serious infections, which were distinguished in the hierarchy from ARI or diarrhea, caused about 12,200 deaths. Some of these deaths were likely due to ARI or diarrhea, but were not classified as such because of discrepancies in the way that signs of illness among children were observed, recalled and reported. Other infections may include malaria, typhoid, meningitis, encephalitis, or other infectious diseases. However, community-level data regarding the specific

causes of serious illnesses other than diarrhea and ARI among under-five children in Nepal is almost non-existent. Simple and sustainable disease surveillance would be necessary to delineate the common causes of serious infections and to design interventions against them. Some of the deaths due to infections that occur during the neonatal period may result from lack of treatment for maternal infections, absence of aseptic delivery conditions and techniques, or a combination of these factors. As previously stated, efforts are needed to improve clean delivery practices and coverage of skilled birth attendance. Ultimately, the high burden of infectious disease illustrates the need to develop strategies for management of infections at the community level.

At the same time, the importance of improving nutritional status as an illness prevention strategy cannot be ignored. One difference between this study and the Freeman verbal autopsy study or the Lancet estimates is the low proportion of deaths attributed to prematurity or low birth weight; an estimated 1,300 deaths were directly caused by prematurity or low birth weight. This may reflect another limitation with conducting verbal autopsy studies. Since information on birth weight was available for only 26 of the 246 neonatal deaths, the study relied on estimates of the newborn's size at birth, compared to other babies, which yielded low estimates of prematurity as a direct cause of death. To explore this issue, birth weights were compared with the algorithm-assigned cases of low birth weight. Among the 26 newborns that were weighed, 9 babies weighed less than 2.5 kg. The verbal autopsy algorithm captured 8 of these deaths and another 6 babies were incorrectly classified as being of low birth weight. This suggests that the algorithm was sensitive but not very specific. Similarly, malnutrition was identified as a cause of only 3 percent of deaths or about 1,400, but this was the last cause included in the hierarchy and was effectively considered only when other causes were excluded. When stratified by economic status, these data also suggest that more deaths from malnutrition occurred among families in the highest two wealth categories than among those in the lowest two wealth categories. This is improbable and may reflect better recognition of the signs of malnutrition among wealthier families. However, it is well established that undernutrition is a contributing factor in about half of all child deaths, and efforts to promote adequate nutrition are a critical component of public health planning for child survival.

The verbal autopsy methodology has some important limitations and this has been alluded to in the discussion of the various causal definitions. It is important to note that verbal autopsy assumes that (a) caregivers can readily identify symptoms of serious illness and that (b) these symptoms can readily distinguish one cause of death from another. In some cases, these assumptions may not hold. Causal definitions vary in sensitivity and specificity between diseases and between research settings. Efforts are underway to further improve and validate the verbal autopsy methodology using physician diagnosis in a hospital with laboratory facilities as the standard. Recall bias might be a concern with this study; however, validation studies have generally concluded that the symptoms associated with a child's death are well recalled even when data collected occurs years after the death occurs (Snow et al., 1993). Another limitation is that only one cause of death has been assigned, when in fact children often die of multiple causes. As noted, low birth weight and malnutrition are known to underlie many deaths, but these factors are not adequately captured through verbal autopsy.

Despite these limitations, this analysis provides a useful contribution to our understanding of the causes of death among under-five children in Nepal. These data can provide a benchmark for future verbal autopsy studies. These findings also highlight some priorities for health programs in Nepal. Overall, they demonstrate the need to continue strengthening the health system, including community-based case management of infections including neonates, establishment of referral linkages and provision of quality care at the referral level.

SAMPLE IMPLEMENTATION

Appendix B

Table B.1 Sample implementation: Women

Percent distribution of households and eligible women by results of the household and individual interviews, and household, eligible women and overall response rates, according to urban-rural residence and region, Nepal 2006

	Residence		Development region					
Result	Urban	Rural	Eastern	Central	Western	Mid-western	Far-western	Total
Selected households								
Completed (C)	95.6	96.7	97.3	96.0	95.0	96.9	96.7	96.4
Household present but no competent respondent at home (HP)	0.2	0.3	0.2	0.3	0.4	0.4	0.1	0.3
Refused (R)	0.2	0.0	0.0	0.2	0.1	0.0	0.0	0.1
Dwelling not found (DNF)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Household absent (HA)	1.3	0.8	0.8	1.4	0.9	0.8	0.7	1.0
Dwelling vacant/address not A dwelling (DV)	2.4	2.0	1.4	2.1	3.2	1.6	2.2	2.1
Dwelling destroy (DD)	0.3	0.2	0.2	0.0	0.3	0.4	0.1	0.2
Other (O)	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
Number of sampled households	2,534	6,502	2,093	2,439	1,772	1,398	1,334	9,036
Household response rate (HRR)[1]	99.5	99.6	99.7	99.4	99.5	99.6	99.8	99.6
Eligible women								
Completed (EWC)	97.8	98.6	98.4	98.0	98.0	98.8	98.9	98.4
Not at home (EWNH)	1.3	0.7	0.9	1.1	0.8	0.5	0.8	0.9
Postponed (EWP)	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Refused (EWR)	0.3	0.1	0.0	0.3	0.4	0.0	0.1	0.2
Partly completed (EWPC)	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Incapacitated (EWI)	0.4	0.6	0.5	0.4	0.7	0.7	0.3	0.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	3,016	7,957	2,569	2,794	2,149	1,712	1,749	10,973
Eligible women response rate (EWRR)[2]	97.8	98.6	98.4	98.0	98.0	98.8	98.9	98.4
Overall response rate (ORR)[3]	97.3	98.2	98.2	97.5	97.4	98.4	98.7	98.0

[1] Using the number of households falling into specific response categories, the household response rate (HRR) is calculated as:

$$\frac{100 * C}{C + HP + R + DNF}$$

[2] Using the number of eligible women falling into specific response categories, the eligible woman response rate (EWRR) is calculated as:

$$\frac{100 * EWC}{EWC + EWNH + EWP + EWR + EWPC + EWI}$$

[3] The overall response rate (ORR) is calculated as:

$$ORR = HRR * EWRR/100$$

Table B.2 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 region Nepal 2006

	Residence		Development region					
Result	Urban	Rural	Eastern	Central	Western	Mid-western	Far-western	Total
Selected households								
Completed (C)	96.1	96.7	97.2	96.3	95.2	97.3	96.9	96.5
Household present but no competent respondent at home (HP)	0.2	0.3	0.2	0.3	0.3	0.4	0.1	0.3
Refused (R)	0.5	0.0	0.0	0.4	0.2	0.0	0.0	0.2
Household absent (HA)	0.9	0.7	0.4	1.1	1.0	0.6	0.6	0.8
Dwelling vacant/address not a dwelling (DV)	2.0	2.1	1.9	1.9	2.8	1.6	2.2	2.1
Dwelling destroy (DD)	0.4	0.1	0.3	0.0	0.5	0.1	0.1	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of sampled households	1,267	3,263	1,051	1,224	888	696	671	4,530
Household response rate (HRR)[1]	99.3	99.6	99.8	99.2	99.4	99.6	99.8	99.5
Eligible men								
Completed (EMC)	92.7	97.4	95.3	94.6	95.6	99.0	97.2	96.0
Not at home (EMNH)	4.8	2.0	3.8	3.3	3.3	0.6	1.8	2.8
Postponed (EMP)	0.1	0.0	0.0	0.2	0.0	0.0	0.0	0.0
Refused (EMR)	0.9	0.1	0.0	0.9	0.3	0.1	0.0	0.3
Partly completed (EMPC)	0.1	0.0	0.0	0.2	0.0	0.0	0.0	0.1
Incapacitated (EMI)	1.3	0.5	0.9	0.7	0.6	0.3	1.0	0.7
Other (EMO)	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of men	1,403	3,179	1,077	1,230	932	668	675	4,582
Eligible men response rate (EMRR)[2]	92.7	97.4	95.3	94.6	95.6	99.0	97.2	96.0
Overall response rate (ORR)[3]	92.1	97.1	95.1	93.8	95.0	98.5	97.0	95.5

[1] Using the number of households falling into specific response categories, the household response rate (HRR) is calculated as:

$$\frac{100 * C}{C + HP + R + DNF}$$

[2] Using the number of eligible women falling into specific response categories, the eligible woman response rate (EWRR) is calculated as:

$$\frac{100 * EMC}{EMC + EMNH + EMP + EMR + EMPC + EMI}$$

[3] The overall response rate (ORR) is calculated as:

$$ORR = HRR * EMRR/100$$

ESTIMATES OF SAMPLING ERRORS

Appendix C

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 2006 Nepal Demographic and Health Survey (NDHS) 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 2006 NDHS is only one of many samples that could have been selected from the same population, using the same design and expected size. Each of these samples would yield results that differ somewhat from the results of the actual sample selected. Sampling errors are a measure of the variability between all possible samples. Although the degree of variability is not known exactly, it can be estimated from the survey results.

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 by simple random sampling, it would have been possible to use straightforward formulas for calculating sampling errors. However, the 2006 NDHS sample was the result of a multistage stratified design, and, consequently, it is necessary to use more complex formulae. The computer software used to calculate sampling errors for the 2006 NDHS is the ISSA Sampling Error Module. This module uses the Taylor linearization method of variance estimation for survey estimates that are means or proportions. The Jackknife repeated replication method is used for variance estimation of more complex statistics such as fertility and mortality rates.

The Taylor linearization method treats any percentage or average as a ratio estimate, $r = y/x$, where y represents the total sample value for variable y, and x represents the total number of cases in the group or subgroup under consideration. The variance of r is computed using the formula given below, with the standard error being the square root of the variance:

$$SE^2(r) = var(r) = \frac{1-f}{x^2}\sum_{h=1}^{H}\left[\frac{m_h}{m_h-1}\left(\sum_{i=1}^{m_h} z_{hi}^2 - \frac{z_h^2}{m_h}\right)\right]$$

in which

$$z_{hi} = y_{hi} - rx_{hi}\text{, and } z_h = y_h - rx_h$$

where h represents the stratum which varies from 1 to H,
m_h is the total number of clusters selected in the hth stratum,
y_{hi} is the sum of the weighted values of variable y in the ith cluster in the hth stratum,

x_{hi} is the sum of the weighted number of cases in the ith cluster in the hth stratum, and
f is the overall sampling fraction, which is so small that it is ignored.

The Jackknife repeated replication method derives estimates of complex rates from each of several replications of the parent sample, and calculates standard errors for these estimates using simple formulae. Each replication considers *all but one* clusters in the calculation of the estimates. Pseudo-independent replications are thus created. In the 2006 NDHS, there were 260 non-empty clusters. Hence, 260 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 260 clusters,
$r_{(i)}$ is the estimate computed from the reduced sample of 259 clusters (i^{th} cluster excluded), and
k is the total number of clusters.

In addition to the standard error, ISSA computes the design effect (DEFT) for each estimate, which is defined as the ratio between the standard error using the given sample design and the standard error that would result if a simple random sample had been used. A DEFT value of 1.0 indicates that the sample design is as efficient as a simple random sample, while a value greater than 1.0 indicates the increase in the sampling error due to the use of a more complex and less statistically efficient design. ISSA also computes the relative error and confidence limits for the estimates.

Sampling errors for the 2006 NDHS are calculated for selected variables considered to be of primary interest for woman's survey and for man's surveys, respectively. The results are presented in this appendix for the country as a whole, for urban and rural areas, and for each of the 3 ecological zones and for each of the five geographical regions. For each variable, the type of statistic (mean, proportion, or rate) and the base population are given in Table C.1. Tables C.2 to C.12 present the value of the statistic (R), its standard error (SE), the number of unweighted (N) and weighted (WN) cases, the design effect (DEFT), the relative standard error (SE/R), and the 95 percent confidence limits (R±2SE), for each variable. The DEFT is considered undefined when the standard error considering simple random sample is zero (when the estimate is close to 0 or 1). In the case of the total fertility rate, the number of unweighted cases is not relevant, as there is no known unweighted value for woman-years of exposure to childbearing.

The confidence interval (e.g., as calculated for *children ever born to women age 40-49*) can be interpreted as follows: the overall average from the national sample is 4.898 and its standard error is 0.089. Therefore, to obtain the 95 percent confidence limits, one adds and subtracts twice the standard error to the sample estimate, i.e., 4.898±2×0.089. There is a high probability (95 percent) that the *true* average number of children ever born to all women aged 40 to 49 is between 4.719 and 5.077.

Sampling errors are analyzed for the national woman sample and for two separate groups of estimates: (1) means and proportions, and (2) complex demographic rates. The relative standard errors (SE/R) for the means and proportions range between 0.0 percent and 17.0 percent with an average of 4.25 percent; the highest relative standard errors are for estimates of very low values (e.g., *currently using IUD*). If estimates of very low values (less than 10 percent) were removed, then the average drops to 3.375 percent. So in general, the relative standard error for most estimates for the country as a whole is small, except for estimates of very small proportions. The relative standard error for the

total fertility rate is small, 3.3 percent. However, for the mortality rates, the averaged relative standard error for the five 5-year period mortality rates is much higher, 10.1 percent.

There are differentials in the relative standard error for the estimates of sub-populations. For example, for the variable *want no more children*, the relative standard errors as a percent of the estimated mean for the whole country, and for the Eastern region are 1.2 percent and 2.6 percent, respectively.

For the total sample, the value of the design effect (DEFT), averaged over all variables, is 1.90, which means that because of multistage clustering in the sample, the average standard error is increased by a factor of 1.90 over that in an equivalent simple random sample.

Table C.1 List of selected variables for sampling errors, Nepal 2006

Variable	Estimate	Base population
	WOMEN	
Urban residence	Proportion	All women 15-49
Literate	Proportion	All women 15-49
No education	Proportion	All women 15-49
Secondary education or higher	Proportion	All women 15-49
Net attendance ratio for primary school	Proportion	All children 6-10
Never married (not in union)	Proportion	All women 15-49
Currently married (in union)	Proportion	All women 15-49
Married before age 20	Proportion	All women 20-49
Currently pregnant	Proportion	All women 15-49
Children ever born	Mean	All women 15-49
Children surviving	Mean	All women 15-49
Children ever born to women 40-49	Mean	All women 40-49
Knowing any contraceptive method	Proportion	Currently married women 15-49
Ever used any contraceptive method	Proportion	Currently married women 15-49
Currently using any method	Proportion	Currently married women 15-49
Currently using pill	Proportion	Currently married women 15-49
Currently using IUD	Proportion	Currently married women 15-49
Currently using female sterilization	Proportion	Currently married women 15-49
Currently using rhythm or periodic abstinence	Proportion	Currently married women 15-49
Obtained method from public sector source	Proportion	Currently married women 15-49
Want no more children	Proportion	Currently married women 15-49
Want to delay birth at least 2 years	Proportion	Currently married women 15-49
Ideal number of children	Mean	All women 15-49
Mother received tetanus injection	Proportion	Last birth in last 5 years
Skilled birth attendance at delivery	Proportion	Births in last 5 years
Child has diarrhea in the two weeks before survey	Proportion	Children under 5
Treated with oral rehydration salts (ORS)	Proportion	Children under 5 with diarrhea in last 2 weeks
Taken to health provider	Proportion	Children under 5 with diarrhea in last 2 weeks
Immunization card seen	Proportion	Children 12-23 months
Child received BCG vaccination	Proportion	Children 12-23 months
Child received DPT vaccination (3 doses)	Proportion	Children 12-23 months
Child received polio vaccination (3 doses)	Proportion	Children 12-23 months
Child received measles vaccination	Proportion	Children 12-23 months
Child fully immunized	Proportion	Children 12-23 months
Height-for-age (<-2SD)	Proportion	Children under 5 who were measured
Weight-for-height (<-2SD)	Proportion	Children under 5 who were measured
Weight-for-age (<-2SD)	Proportion	Children under 5 who were measured
Any anemia (children)	Proportion	Children under 6-59 months
Any anemia (women)	Proportion	All women 15-49
Total fertility rate (last 3 years)	Rate	All women 15-49
Neonatal mortality rate (last 0-9 years)[1]	Rate	Number of births in last 0-9 years
Postneonatal mortality rate (last 0-9 years)[1]	Rate	Number of births in last 0-9 years
Infant mortality rate (last 0-9 years)[1]	Rate	Number of births in last 0-9 years
Child mortality rate (last 0-9 years)[1]	Rate	Number of births in last 0-9 years
Under-five mortality rate (last 0-9 years)[1]	Rate	Number of births in last 0-9 years
Maternal mortality ratio (last 0-6 years)[2]	Ratio	Number of births in last 0-6 years
	MEN	
Urban residence	Proportion	All men 15-49
Literate	Proportion	All men 15-49
No education	Proportion	All men 15-49
Secondary education or higher	Proportion	All men 15-49
Never married (in union)	Proportion	All men 15-49
Currently married (in union)	Proportion	All men 15-49
Married before age 20	Proportion	All men 20-49
Want no more children	Proportion	Currently married men 15-49
Want to delay birth at least 2 years	Proportion	Currently married men 15-49
Ideal number of children	Mean	All men 15-49
Has heard of HIV/AIDS	Proportion	All men 15-49
Knows condoms reduce HIV/AIDS	Proportion	All men 15-49
Knows limiting partners reduce HIV/AIDS	Proportion	All men 15-49

[1] Last 0-4 years for national sample and 0-9 years for regional sample
[2] Maternal mortality ratio is calculated only for the total sample.

Table C.2 Sampling errors for national sample, Nepal 2006

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
WOMEN								
Urban residence	0.156	0.011	10793	10793	3.133	0.070	0.134	0.178
Literate	0.545	0.012	10793	10793	2.446	0.022	0.522	0.569
No education	0.531	0.012	10793	10793	2.452	0.022	0.507	0.554
Secondary education or higher	0.293	0.011	10793	10793	2.450	0.037	0.272	0.315
Net attendance ratio for primary school	0.866	0.010	6019	6029	2.027	0.012	0.846	0.886
Never married (not in union)	0.199	0.005	10793	10793	1.382	0.027	0.189	0.210
Currently married/in union	0.765	0.005	10793	10793	1.210	0.006	0.755	0.775
Married before age 20	0.781	0.011	8356	8356	2.351	0.014	0.759	0.802
Currently pregnant	0.057	0.003	10793	10793	1.352	0.053	0.051	0.063
Children ever born	2.440	0.032	10793	10793	1.425	0.013	2.377	2.503
Children surviving	2.130	0.025	10793	10793	1.353	0.012	2.080	2.180
Children ever born to women age 40-49	4.898	0.089	1964	2033	1.671	0.018	4.719	5.077
Knowing any contraceptive method	0.999	0.000	8244	8257	1.312	0.000	0.998	1.000
Ever used any contraceptive method	0.679	0.016	8244	8257	3.198	0.024	0.646	0.712
Currently using any contraceptive method	0.480	0.018	8244	8257	3.184	0.037	0.445	0.515
Currently using pill	0.035	0.004	8244	8257	1.956	0.113	0.027	0.043
Currently using IUD	0.007	0.001	8244	8257	1.286	0.170	0.005	0.009
Currently using female sterilization	0.180	0.019	8244	8257	4.495	0.106	0.142	0.219
Currently using rythm method	0.012	0.002	8244	8257	1.457	0.149	0.008	0.015
Obtained method from public sector source	0.771	0.021	3555	3715	2.953	0.027	0.729	0.812
Want no more children	0.710	0.008	8244	8257	1.684	0.012	0.693	0.726
Want to delay birth at least 2 years	0.148	0.005	8244	8257	1.293	0.034	0.138	0.158
Ideal number of children	2.336	0.020	10769	10768	2.576	0.009	2.296	2.376
Mothers received tetanus injection for last birth	0.632	0.018	4182	4066	2.416	0.029	0.596	0.669
Skilled birth attendence at delivery	0.187	0.012	5783	5545	1.993	0.062	0.164	0.210
Had diarrhoea in two weeks before survey	0.119	0.006	5457	5252	1.298	0.050	0.107	0.131
Treated with oral rehydration salts (ORS)	0.293	0.027	659	623	1.462	0.093	0.238	0.348
Taken to a health provider	0.269	0.025	659	623	1.395	0.094	0.219	0.320
Immunization card seen	0.318	0.023	1063	984	1.537	0.072	0.272	0.365
Received BCG	0.934	0.013	1063	984	1.648	0.014	0.907	0.960
Received DPT (3 doses)	0.886	0.015	1063	984	1.471	0.017	0.856	0.916
Received polio (3 doses)	0.911	0.014	1063	984	1.581	0.016	0.882	0.940
Received measles	0.850	0.018	1063	984	1.551	0.021	0.814	0.886
Fully immunized	0.828	0.018	1063	984	1.465	0.022	0.793	0.864
Height-for-age (below -2SD)	0.493	0.012	5420	5262	1.669	0.025	0.469	0.517
Weight-for-height (below -2SD)	0.126	0.006	5420	5262	1.373	0.051	0.113	0.139
Weight-for-age (below -2SD)	0.386	0.012	5420	5262	1.643	0.031	0.362	0.409
Any anemia (children)	0.484	0.010	4871	4692	1.323	0.020	0.464	0.503
Any anemia (women)	0.362	0.020	10661	10646	4.316	0.056	0.322	0.402
BMI <18.5	0.244	0.010	9998	10003	2.279	0.040	0.225	0.264
Total fertility rate (last 3 years)	3.134	0.105	na	29993	2.005	0.033	2.925	3.344
Neonatal mortality (last 5 years)	32.663	3.279	5831	5592	1.292	0.100	26.105	39.220
Post-neonatal mortality (last 5 years)	15.255	1.776	5835	5595	1.104	0.116	11.703	18.807
Infant mortality (last 5 years)	47.918	3.990	5838	5598	1.330	0.083	39.938	55.897
Child mortality (last 5 years)	13.808	1.815	5873	5631	1.180	0.131	10.177	17.439
Under-five mortality (last 5 years)	61.064	4.593	5883	5638	1.394	0.075	51.879	70.249
Maternal mortality ratio (last 0-6 years)	281	52	na	na	na	0.184	178	384
MEN								
Urban residence	0.190	0.016	3842	3854	2.471	0.082	0.158	0.221
Literate	0.810	0.012	3842	3854	1.892	0.015	0.786	0.834
No education	0.184	0.009	3842	3854	1.494	0.051	0.166	0.203
Secondary education or higher	0.535	0.015	3842	3854	1.892	0.028	0.504	0.565
Never married (in union)	0.313	0.010	3842	3854	1.377	0.033	0.293	0.334
Currently married/in union	0.674	0.011	3842	3854	1.419	0.016	0.653	0.696
Married before age 20	0.448	0.018	2903	2913	1.978	0.041	0.411	0.484
Want no more children	0.701	0.011	2586	2598	1.220	0.016	0.679	0.723
Want to delay birth at least 2 years	0.179	0.010	2586	2598	1.363	0.057	0.159	0.200
Ideal number of children	2.377	0.026	3837	3846	1.964	0.011	2.326	2.429
Has heard of HIV/AIDS	0.917	0.007	3842	3854	1.639	0.008	0.902	0.932
Knows condoms reduce HIV/AIDS	0.835	0.012	3842	3854	2.045	0.015	0.811	0.860
Knows limiting partners reduce HIV/AIDS	0.826	0.010	3842	3854	1.653	0.012	0.806	0.846

na = Not applicable

Table C.3 Sampling errors for urban sample, Nepal 2006

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
WOMEN								
Urban residence	1.000	0.000	2949	1687	na	0.000	1.000	1.000
Literate	0.758	0.020	2949	1687	2.572	0.027	0.718	0.799
No education	0.305	0.021	2949	1687	2.456	0.068	0.263	0.347
Secondary education or higher	0.521	0.025	2949	1687	2.728	0.048	0.471	0.571
Net attendance ratio for primary school	0.909	0.014	1410	748	1.625	0.015	0.881	0.937
Never married (not in union)	0.241	0.017	2949	1687	2.108	0.069	0.208	0.274
Currently married/in union	0.727	0.018	2949	1687	2.168	0.024	0.691	0.762
Married before age 20	0.668	0.019	2313	1337	1.909	0.028	0.631	0.706
Currently pregnant	0.046	0.006	2949	1687	1.460	0.123	0.035	0.057
Children ever born	1.877	0.046	2949	1687	1.330	0.024	1.786	1.968
Children surviving	1.720	0.037	2949	1687	1.241	0.022	1.645	1.795
Children ever born to women age 40-49	3.743	0.160	504	291	1.737	0.043	3.422	4.063
Knowing any contraceptive method	0.998	0.001	2177	1226	1.154	0.001	0.996	1.000
Ever used any contraceptive method	0.802	0.014	2177	1226	1.630	0.017	0.774	0.830
Currently using any contraceptive method	0.600	0.017	2177	1226	1.578	0.028	0.567	0.633
Currently using pill	0.047	0.006	2177	1226	1.358	0.131	0.035	0.060
Currently using IUD	0.012	0.004	2177	1226	1.625	0.318	0.004	0.019
Currently using female sterilization	0.179	0.015	2177	1226	1.860	0.085	0.149	0.210
Currently using rythm method	0.013	0.003	2177	1226	1.283	0.240	0.007	0.019
Obtained method from public sector source	0.566	0.022	1098	678	1.472	0.039	0.522	0.610
Want no more children	0.745	0.014	2177	1226	1.448	0.018	0.718	0.772
Want to delay birth at least 2 years	0.137	0.007	2177	1226	0.918	0.049	0.123	0.150
Ideal number of children	2.049	0.032	2942	1678	2.299	0.015	1.986	2.112
Mothers received tetanus injection for last birth	0.724	0.023	995	536	1.561	0.032	0.678	0.770
Skilled birth attendence at delivery	0.506	0.026	1308	677	1.592	0.052	0.453	0.558
Had diarrhoea in two weeks before survey	0.115	0.020	1242	652	2.089	0.172	0.076	0.155
Treated with oral rehydration salts (ORS)	0.293	0.042	128	75	1.058	0.145	0.208	0.377
Taken to a health provider	0.284	0.063	128	75	1.579	0.221	0.158	0.409
Immunization card seen	0.431	0.047	222	121	1.385	0.109	0.336	0.525
Received BCG	0.956	0.027	222	121	1.946	0.029	0.902	1.000
Received DPT (3 doses)	0.922	0.030	222	121	1.651	0.033	0.861	0.983
Received polio (3 doses)	0.919	0.031	222	121	1.682	0.034	0.857	0.982
Received measles	0.889	0.037	222	121	1.689	0.041	0.816	0.962
Fully immunized	0.863	0.037	222	121	1.557	0.043	0.790	0.937
Height-for-age (below -2SD)	0.361	0.018	1209	639	1.177	0.050	0.325	0.397
Weight-for-height (below -2SD)	0.075	0.010	1209	639	1.236	0.137	0.054	0.095
Weight-for-age (below -2SD)	0.231	0.015	1209	639	1.089	0.064	0.201	0.260
Any anemia (children)	0.411	0.026	1056	536	1.499	0.063	0.359	0.462
Any anemia (women)	0.290	0.014	2892	1640	1.593	0.047	0.263	0.317
BMI <18.5	0.166	0.013	2759	1582	1.802	0.077	0.140	0.191
Total fertility rate (last 3 years)	2.136	0.135	na	4765	1.592	0.063	1.867	2.405
Neonatal mortality (last 10 years)	24.750	3.590	2710	1405	1.092	0.145	17.570	31.931
Post-neonatal mortality (last 10 years)	12.475	2.348	2711	1406	1.072	0.188	7.780	17.170
Infant mortality (last 10 years)	37.225	4.465	2712	1406	1.113	0.120	28.295	46.156
Child mortality (last 10 years)	10.227	2.339	2714	1406	1.167	0.229	5.550	14.905
Under-five mortality (last 10 years)	47.072	5.594	2717	1407	1.263	0.119	35.883	58.261
MEN								
Urban residence	1.000	0.000	1149	730	na	0.000	1.000	1.000
Literate	0.901	0.018	1149	730	1.998	0.020	0.866	0.936
No education	0.106	0.014	1149	730	1.551	0.133	0.078	0.134
Secondary education or higher	0.694	0.026	1149	730	1.911	0.037	0.642	0.746
Never married (in union)	0.417	0.022	1149	730	1.480	0.052	0.374	0.460
Currently married/in union	0.573	0.022	1149	730	1.487	0.038	0.530	0.617
Married before age 20	0.273	0.024	864	549	1.615	0.090	0.224	0.322
Want no more children	0.700	0.021	696	419	1.226	0.030	0.658	0.743
Want to delay birth at least 2 years	0.178	0.016	696	419	1.134	0.092	0.145	0.211
Ideal number of children	2.106	0.035	1147	726	1.677	0.017	2.035	2.176
Has heard of HIV/AIDS	0.968	0.009	1149	730	1.695	0.009	0.950	0.986
Knows condoms reduce HIV/AIDS	0.881	0.018	1149	730	1.937	0.021	0.844	0.918
Knows limiting partners reduce HIV/AIDS	0.841	0.019	1149	730	1.783	0.023	0.802	0.879

na = Not applicable

Table C.4 Sampling errors for rural sample, Nepal 2006

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
WOMEN								
Urban residence	0.000	0.000	7844	9106	na	na	0.000	0.000
Literate	0.506	0.014	7844	9106	2.432	0.027	0.478	0.533
No education	0.573	0.013	7844	9106	2.305	0.022	0.547	0.598
Secondary education or higher	0.251	0.012	7844	9106	2.402	0.047	0.227	0.274
Net attendance ratio for primary school	0.860	0.011	4609	5281	1.945	0.013	0.837	0.883
Never married (not in union)	0.191	0.006	7844	9106	1.300	0.030	0.180	0.203
Currently married/in union	0.772	0.005	7844	9106	1.057	0.006	0.762	0.782
Married before age 20	0.802	0.012	6043	7020	2.281	0.015	0.779	0.825
Currently pregnant	0.059	0.003	7844	9106	1.305	0.059	0.052	0.066
Children ever born	2.545	0.037	7844	9106	1.384	0.014	2.471	2.618
Children surviving	2.206	0.029	7844	9106	1.333	0.013	2.147	2.265
Children ever born to women age 40-49	5.090	0.093	1460	1742	1.507	0.018	4.904	5.277
Knowing any contraceptive method	0.999	0.001	6067	7031	1.307	0.001	0.998	1.000
Ever used any contraceptive method	0.658	0.020	6067	7031	3.295	0.031	0.617	0.698
Currently using any contraceptive method	0.459	0.021	6067	7031	3.311	0.046	0.416	0.501
Currently using pill	0.033	0.005	6067	7031	2.008	0.139	0.024	0.042
Currently using IUD	0.006	0.001	6067	7031	1.191	0.197	0.004	0.008
Currently using female sterilization	0.181	0.022	6067	7031	4.502	0.123	0.136	0.225
Currently using rythm method	0.011	0.002	6067	7031	1.428	0.172	0.007	0.015
Obtained method from public sector source	0.817	0.022	2457	3037	2.828	0.027	0.773	0.861
Want no more children	0.703	0.010	6067	7031	1.665	0.014	0.684	0.723
Want to delay birth at least 2 years	0.150	0.006	6067	7031	1.274	0.039	0.138	0.162
Ideal number of children	2.389	0.024	7827	9089	2.648	0.010	2.340	2.438
Mothers received tetanus injection for last birth	0.618	0.021	3187	3530	2.385	0.034	0.576	0.660
Skilled birth attendence at delivery	0.143	0.012	4475	4868	1.978	0.083	0.119	0.166
Had diarrhoea in two weeks before survey	0.119	0.006	4215	4600	1.168	0.052	0.107	0.132
Treated with oral rehydration salts (ORS)	0.293	0.031	531	548	1.418	0.104	0.232	0.354
Taken to a health provider	0.267	0.027	531	548	1.315	0.102	0.213	0.322
Immunization card seen	0.303	0.026	841	863	1.497	0.084	0.252	0.354
Received BCG	0.931	0.015	841	863	1.544	0.016	0.901	0.960
Received DPT (3 doses)	0.881	0.017	841	863	1.386	0.019	0.848	0.914
Received polio (3 doses)	0.910	0.016	841	863	1.500	0.017	0.878	0.942
Received measles	0.845	0.020	841	863	1.465	0.023	0.805	0.884
Fully immunized	0.824	0.020	841	863	1.388	0.024	0.784	0.863
Height-for-age (below -2SD)	0.511	0.013	4211	4623	1.616	0.026	0.484	0.538
Weight-for-height (below -2SD)	0.133	0.007	4211	4623	1.299	0.053	0.119	0.147
Weight-for-age (below -2SD)	0.407	0.013	4211	4623	1.576	0.033	0.380	0.433
Any anemia (children)	0.493	0.011	3815	4156	1.272	0.022	0.472	0.515
Any anemia (women)	0.375	0.023	7769	9006	4.210	0.062	0.329	0.421
BMI <18.5	0.259	0.011	7239	8422	2.132	0.042	0.237	0.281
Total fertility rate (last 3 years)	3.331	0.124	na	25227	1.984	0.037	3.084	3.579
Neonatal mortality (last 10 years)	39.751	2.989	9230	10180	1.281	0.075	33.773	45.730
Post-neonatal mortality (last 10 years)	24.012	1.881	9241	10193	1.130	0.078	20.250	27.773
Infant mortality (last 10 years)	63.763	3.834	9243	10195	1.342	0.060	56.095	71.431
Child mortality (last 10 years)	21.111	1.987	9290	10244	1.265	0.094	17.137	25.085
Under-five mortality (last 10 years)	83.528	4.629	9305	10261	1.407	0.055	74.270	92.786
MEN								
Urban residence	0.000	0.000	2693	3123	na	na	0.000	0.000
Literate	0.789	0.014	2693	3123	1.788	0.018	0.761	0.817
No education	0.203	0.011	2693	3123	1.448	0.055	0.180	0.225
Secondary education or higher	0.497	0.018	2693	3123	1.846	0.036	0.462	0.533
Never married (in union)	0.289	0.012	2693	3123	1.335	0.040	0.266	0.312
Currently married/in union	0.698	0.012	2693	3123	1.380	0.018	0.674	0.722
Married before age 20	0.488	0.020	2039	2363	1.789	0.041	0.449	0.528
Want no more children	0.701	0.012	1890	2180	1.182	0.018	0.676	0.726
Want to delay birth at least 2 years	0.180	0.012	1890	2180	1.344	0.066	0.156	0.203
Ideal number of children	2.441	0.032	2690	3120	2.046	0.013	2.376	2.505
Has heard of HIV/AIDS	0.905	0.009	2693	3123	1.505	0.009	0.888	0.922
Knows condoms reduce HIV/AIDS	0.825	0.014	2693	3123	1.919	0.017	0.797	0.853
Knows limiting partners reduce HIV/AIDS	0.823	0.012	2693	3123	1.584	0.014	0.799	0.846

na = Not applicable

Table C.5 Sampling errors for Mountain region, Nepal 2006

Variable	Value (R)	Standard error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits R-2SE	Confidence limits R+2SE
WOMEN								
Urban residence	0.026	0.006	1480	753	1.376	0.219	0.015	0.037
Literate	0.464	0.033	1480	753	2.540	0.071	0.399	0.530
No education	0.619	0.040	1480	753	3.150	0.064	0.540	0.699
Secondary education or higher	0.190	0.024	1480	753	2.355	0.126	0.142	0.238
Net attendance ratio for primary school	0.839	0.026	819	446	1.946	0.031	0.787	0.892
Never married (not in union)	0.188	0.011	1480	753	1.112	0.060	0.165	0.211
Currently married/in union	0.779	0.012	1480	753	1.101	0.015	0.755	0.802
Married before age 20	0.738	0.024	1142	577	1.814	0.032	0.690	0.785
Currently pregnant	0.056	0.005	1480	753	0.878	0.093	0.046	0.067
Children ever born	2.657	0.118	1480	753	1.797	0.045	2.421	2.894
Children surviving	2.214	0.084	1480	753	1.585	0.038	2.047	2.382
Children ever born to women age 40-49	5.403	0.176	285	144	1.124	0.033	5.051	5.755
Knowing any contraceptive method	1.000	0.000	1101	586	na	0.000	1.000	1.000
Ever used any contraceptive method	0.601	0.032	1101	586	2.174	0.053	0.536	0.665
Currently using any contraceptive method	0.385	0.026	1101	586	1.764	0.067	0.333	0.437
Currently using pill	0.026	0.005	1101	586	1.099	0.202	0.016	0.037
Currently using IUD	0.003	0.001	1101	586	0.888	0.505	0.000	0.006
Currently using female sterilization	0.028	0.010	1101	586	2.086	0.368	0.007	0.049
Currently using rythm method	0.008	0.002	1101	586	0.763	0.260	0.004	0.012
Obtained method from public sector source	0.880	0.034	437	213	2.213	0.039	0.811	0.949
Want no more children	0.669	0.016	1101	586	1.112	0.024	0.637	0.700
Want to delay birth at least 2 years	0.157	0.010	1101	586	0.933	0.065	0.136	0.177
Ideal number of children	2.478	0.052	1476	750	2.239	0.021	2.375	2.581
Mothers received tetanus injection for last birth	0.370	0.048	607	340	2.569	0.130	0.274	0.466
Skilled birth attendence at delivery	0.071	0.013	867	483	1.372	0.177	0.046	0.096
Had diarrhoea in two weeks before survey	0.155	0.020	810	443	1.532	0.126	0.116	0.194
Treated with oral rehydration salts (ORS)	0.220	0.042	132	69	1.149	0.191	0.136	0.304
Taken to a health provider	0.303	0.048	132	69	1.179	0.158	0.207	0.399
Immunization card seen	0.163	0.037	183	98	1.349	0.226	0.089	0.236
Received BCG	0.880	0.043	183	98	1.825	0.049	0.795	0.966
Received DPT (3 doses)	0.768	0.062	183	98	2.030	0.080	0.645	0.892
Received polio (3 doses)	0.805	0.061	183	98	2.117	0.075	0.684	0.926
Received measles	0.745	0.083	183	98	2.627	0.111	0.580	0.910
Fully immunized	0.713	0.075	183	98	2.298	0.105	0.563	0.863
Height-for-age (below -2SD)	0.623	0.023	811	448	1.282	0.037	0.577	0.669
Weight-for-height (below -2SD)	0.094	0.021	811	448	2.070	0.227	0.051	0.137
Weight-for-age (below -2SD)	0.424	0.027	811	448	1.452	0.064	0.370	0.478
Any anemia (children)	0.452	0.023	747	414	1.356	0.052	0.405	0.498
Any anemia (women)	0.215	0.016	1475	747	1.537	0.077	0.182	0.248
BMI <18.5	0.171	0.020	1377	699	1.960	0.116	0.131	0.211
Total fertility rate (last 3 years)	4.077	0.335	na	2084	2.397	0.082	3.408	4.747
Neonatal mortality (last 10 years)	59.417	7.725	1760	976	1.284	0.130	43.966	74.868
Post-neonatal mortality (last 10 years)	39.378	7.982	1760	977	1.726	0.203	23.414	55.341
Infant mortality (last 10 years)	98.795	13.061	1761	977	1.772	0.132	72.672	124.917
Child mortality (last 10 years)	32.054	9.726	1777	990	2.314	0.303	12.603	51.506
Under-five mortality (last 10 years)	127.682	17.122	1779	991	2.011	0.134	93.437	161.927
MEN								
Urban residence	0.025	0.008	503	241	1.076	0.297	0.010	0.041
Literate	0.779	0.042	503	241	2.249	0.054	0.695	0.862
No education	0.223	0.047	503	241	2.552	0.213	0.128	0.317
Secondary education or higher	0.467	0.055	503	241	2.469	0.118	0.357	0.577
Never married (in union)	0.271	0.027	503	241	1.344	0.098	0.217	0.324
Currently married/in union	0.709	0.024	503	241	1.176	0.034	0.662	0.757
Married before age 20	0.432	0.031	365	180	1.209	0.073	0.369	0.495
Want no more children	0.709	0.030	342	171	1.232	0.043	0.648	0.769
Want to delay birth at least 2 years	0.183	0.020	342	171	0.941	0.108	0.144	0.223
Ideal number of children	2.529	0.048	501	239	1.218	0.019	2.433	2.625
Has heard of HIV/AIDS	0.890	0.023	503	241	1.615	0.025	0.845	0.935
Knows condoms reduce HIV/AIDS	0.830	0.036	503	241	2.143	0.043	0.759	0.902
Knows limiting partners reduce HIV/AIDS	0.700	0.038	503	241	1.853	0.054	0.624	0.776

na = Not applicable

Table C.6 Sampling errors for Hill region, Nepal 2006

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
WOMEN								
Urban residence	0.192	0.016	4229	4598	2.595	0.082	0.161	0.224
Literate	0.634	0.012	4229	4598	1.654	0.019	0.609	0.658
No education	0.443	0.012	4229	4598	1.636	0.028	0.418	0.468
Secondary education or higher	0.345	0.016	4229	4598	2.149	0.046	0.314	0.377
Net attendance ratio for primary school	0.911	0.012	2333	2462	1.868	0.013	0.887	0.936
Never married (not in union)	0.222	0.009	4229	4598	1.435	0.041	0.204	0.241
Currently married/in union	0.740	0.009	4229	4598	1.356	0.012	0.722	0.758
Married before age 20	0.702	0.016	3287	3572	2.048	0.023	0.669	0.734
Currently pregnant	0.056	0.004	4229	4598	1.138	0.072	0.048	0.064
Children ever born	2.274	0.051	4229	4598	1.489	0.023	2.171	2.376
Children surviving	2.022	0.043	4229	4598	1.479	0.022	1.935	2.109
Children ever born to women age 40-49	4.638	0.130	775	860	1.514	0.028	4.378	4.899
Knowing any contraceptive method	0.999	0.001	3167	3402	1.174	0.001	0.997	1.000
Ever used any contraceptive method	0.685	0.015	3167	3402	1.842	0.022	0.655	0.716
Currently using any contraceptive method	0.456	0.016	3167	3402	1.850	0.036	0.424	0.489
Currently using pill	0.039	0.006	3167	3402	1.657	0.146	0.028	0.050
Currently using IUD	0.009	0.002	3167	3402	1.267	0.238	0.005	0.013
Currently using female sterilization	0.072	0.010	3167	3402	2.165	0.138	0.052	0.092
Currently using rythm method	0.013	0.003	3167	3402	1.540	0.242	0.007	0.019
Obtained method from public sector source	0.710	0.034	1213	1404	2.592	0.048	0.643	0.778
Want no more children	0.736	0.011	3167	3402	1.401	0.015	0.714	0.758
Want to delay birth at least 2 years	0.131	0.008	3167	3402	1.297	0.059	0.116	0.147
Ideal number of children	2.168	0.019	4225	4590	1.593	0.009	2.130	2.205
Mothers received tetanus injection for last birth	0.542	0.023	1619	1677	1.805	0.042	0.496	0.587
Skilled birth attendence at delivery	0.227	0.019	2232	2261	1.882	0.084	0.189	0.266
Had diarrhoea in two weeks before survey	0.126	0.013	2127	2171	1.620	0.100	0.100	0.151
Treated with oral rehydration salts (ORS)	0.244	0.043	261	272	1.521	0.176	0.158	0.331
Taken to a health provider	0.225	0.041	261	272	1.508	0.181	0.143	0.306
Immunization card seen	0.328	0.030	423	423	1.239	0.091	0.269	0.388
Received BCG	0.904	0.027	423	423	1.814	0.030	0.849	0.959
Received DPT (3 doses)	0.864	0.029	423	423	1.650	0.034	0.806	0.922
Received polio (3 doses)	0.887	0.028	423	423	1.738	0.032	0.831	0.944
Received measles	0.839	0.032	423	423	1.680	0.038	0.775	0.903
Fully immunized	0.816	0.032	423	423	1.586	0.039	0.752	0.880
Height-for-age (below -2SD)	0.503	0.016	2120	2165	1.353	0.032	0.471	0.535
Weight-for-height (below -2SD)	0.084	0.008	2120	2165	1.194	0.095	0.068	0.100
Weight-for-age (below -2SD)	0.332	0.015	2120	2165	1.333	0.046	0.301	0.362
Any anemia (children)	0.369	0.016	1921	1947	1.355	0.043	0.337	0.401
Any anemia (women)	0.207	0.011	4185	4544	1.688	0.051	0.186	0.228
BMI <18.5	0.159	0.008	3917	4268	1.357	0.050	0.143	0.175
Total fertility rate (last 3 years)	2.985	0.155	na	12875	1.749	0.052	2.676	3.295
Neonatal mortality (last 10 years)	28.453	3.545	4558	4662	1.287	0.125	21.363	35.542
Post-neonatal mortality (last 10 years)	18.317	2.461	4563	4669	1.167	0.134	13.394	23.240
Infant mortality (last 10 years)	46.770	4.922	4564	4669	1.375	0.105	36.926	56.614
Child mortality (last 10 years)	16.050	2.302	4582	4681	1.127	0.143	11.446	20.655
Under-five mortality (last 10 years)	62.070	5.740	4589	4689	1.367	0.092	50.589	73.550
MEN								
Urban residence	0.261	0.026	1462	1641	2.274	0.100	0.209	0.313
Literate	0.886	0.013	1462	1641	1.612	0.015	0.859	0.913
No education	0.122	0.011	1462	1641	1.235	0.087	0.101	0.143
Secondary education or higher	0.610	0.019	1462	1641	1.460	0.031	0.573	0.648
Never married (in union)	0.358	0.016	1462	1641	1.303	0.046	0.325	0.391
Currently married/in union	0.628	0.018	1462	1641	1.392	0.028	0.593	0.663
Married before age 20	0.353	0.019	1081	1202	1.312	0.054	0.315	0.391
Want no more children	0.715	0.017	942	1031	1.169	0.024	0.681	0.750
Want to delay birth at least 2 years	0.170	0.015	942	1031	1.227	0.088	0.140	0.201
Ideal number of children	2.280	0.041	1459	1636	1.833	0.018	2.197	2.362
Has heard of HIV/AIDS	0.953	0.007	1462	1641	1.266	0.007	0.939	0.967
Knows condoms reduce HIV/AIDS	0.864	0.015	1462	1641	1.699	0.018	0.834	0.895
Knows limiting partners reduce HIV/AIDS	0.856	0.016	1462	1641	1.741	0.019	0.824	0.888

na = Not applicable

Table C.7 Sampling errors for Terai region, Nepal 2006

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
WOMEN								
Urban residence	0.144	0.018	5084	5443	3.660	0.125	0.108	0.180
Literate	0.482	0.021	5084	5443	2.933	0.043	0.441	0.523
No education	0.592	0.018	5084	5443	2.625	0.031	0.556	0.628
Secondary education or higher	0.263	0.016	5084	5443	2.626	0.062	0.231	0.296
Net attendance ratio for primary school	0.834	0.016	2867	3121	2.076	0.020	0.801	0.867
Never married (not in union)	0.181	0.008	5084	5443	1.492	0.045	0.165	0.197
Currently married/in union	0.784	0.006	5084	5443	1.096	0.008	0.772	0.797
Married before age 20	0.854	0.013	3927	4207	2.265	0.015	0.828	0.879
Currently pregnant	0.058	0.005	5084	5443	1.506	0.085	0.048	0.068
Children ever born	2.551	0.044	5084	5443	1.372	0.017	2.463	2.640
Children surviving	2.210	0.033	5084	5443	1.248	0.015	2.143	2.276
Children ever born to women age 40-49	5.044	0.131	904	1029	1.718	0.026	4.782	5.305
Knowing any contraceptive method	0.999	0.001	3976	4269	1.336	0.001	0.997	1.000
Ever used any contraceptive method	0.685	0.029	3976	4269	3.888	0.042	0.627	0.742
Currently using any contraceptive method	0.511	0.029	3976	4269	3.631	0.056	0.453	0.569
Currently using pill	0.034	0.006	3976	4269	2.181	0.185	0.021	0.046
Currently using IUD	0.006	0.001	3976	4269	1.189	0.247	0.003	0.009
Currently using female sterilization	0.288	0.028	3976	4269	3.884	0.097	0.232	0.344
Currently using rythm method	0.011	0.002	3976	4269	1.352	0.203	0.007	0.016
Obtained method from public sector source	0.800	0.025	1905	2098	2.759	0.032	0.750	0.851
Want no more children	0.694	0.014	3976	4269	1.926	0.020	0.666	0.722
Want to delay birth at least 2 years	0.160	0.008	3976	4269	1.311	0.048	0.145	0.176
Ideal number of children	2.459	0.039	5068	5428	3.377	0.016	2.381	2.537
Mothers received tetanus injection for last birth	0.750	0.025	1956	2049	2.491	0.033	0.700	0.799
Skilled birth attendence at delivery	0.175	0.016	2684	2802	1.967	0.093	0.142	0.207
Had diarrhoea in two weeks before survey	0.107	0.005	2520	2638	0.751	0.044	0.098	0.116
Treated with oral rehydration salts (ORS)	0.357	0.040	266	282	1.329	0.111	0.278	0.437
Taken to a health provider	0.304	0.037	266	282	1.298	0.123	0.230	0.379
Immunization card seen	0.342	0.039	457	463	1.696	0.114	0.264	0.420
Received BCG	0.972	0.008	457	463	1.041	0.008	0.956	0.989
Received DPT (3 doses)	0.932	0.011	457	463	0.890	0.012	0.910	0.954
Received polio (3 doses)	0.956	0.011	457	463	1.075	0.011	0.934	0.977
Received measles	0.883	0.016	457	463	1.043	0.018	0.850	0.915
Fully immunized	0.864	0.017	457	463	1.054	0.020	0.830	0.899
Height-for-age (below -2SD)	0.463	0.020	2489	2650	1.898	0.043	0.423	0.503
Weight-for-height (below -2SD)	0.166	0.010	2489	2650	1.287	0.058	0.147	0.185
Weight-for-age (below -2SD)	0.423	0.019	2489	2650	1.801	0.046	0.384	0.462
Any anemia (children)	0.585	0.011	2203	2332	1.096	0.020	0.562	0.608
Any anemia (women)	0.514	0.025	5001	5355	3.581	0.049	0.463	0.565
BMI <18.5	0.327	0.014	4704	5037	1.987	0.042	0.299	0.354
Total fertility rate (last 3 years)	3.136	0.149	na	15033	2.085	0.047	2.838	3.433
Neonatal mortality (last 10 years)	41.829	4.146	5622	5946	1.374	0.099	33.537	50.121
Post-neonatal mortality (last 10 years)	23.270	2.310	5629	5953	1.149	0.099	18.651	27.890
Infant mortality (last 10 years)	65.099	4.754	5630	5954	1.336	0.073	55.592	74.607
Child mortality (last 10 years)	20.882	2.506	5645	5978	1.326	0.120	15.870	25.895
Under-five mortality (last 10 years)	84.622	5.634	5654	5988	1.397	0.067	73.355	95.890
MEN								
Urban residence	0.150	0.023	1877	1972	2.731	0.150	0.105	0.195
Literate	0.751	0.016	1877	1972	1.640	0.022	0.718	0.783
No education	0.231	0.014	1877	1972	1.397	0.059	0.204	0.258
Secondary education or higher	0.480	0.022	1877	1972	1.902	0.046	0.436	0.524
Never married (in union)	0.281	0.013	1877	1972	1.271	0.047	0.255	0.308
Currently married/in union	0.708	0.013	1877	1972	1.246	0.018	0.682	0.734
Married before age 20	0.523	0.026	1457	1530	1.970	0.049	0.472	0.575
Want no more children	0.689	0.016	1302	1396	1.241	0.023	0.657	0.721
Want to delay birth at least 2 years	0.186	0.016	1302	1396	1.458	0.085	0.154	0.217
Ideal number of children	2.440	0.037	1877	1972	2.169	0.015	2.366	2.514
Has heard of HIV/AIDS	0.890	0.011	1877	1972	1.519	0.012	0.868	0.912
Knows condoms reduce HIV/AIDS	0.812	0.018	1877	1972	2.044	0.023	0.775	0.849
Knows limiting partners reduce HIV/AIDS	0.816	0.013	1877	1972	1.476	0.016	0.790	0.843

na = Not applicable

Table C.8 Sampling errors for Eastern region, Nepal 2006

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
WOMEN								
Urban residence	0.132	0.012	2529	2392	1.772	0.090	0.108	0.156
Literate	0.559	0.026	2529	2392	2.638	0.047	0.507	0.611
No education	0.497	0.024	2529	2392	2.406	0.048	0.449	0.545
Secondary education or higher	0.327	0.024	2529	2392	2.523	0.072	0.280	0.374
Net attendance ratio for primary school	0.856	0.024	1355	1322	2.270	0.028	0.809	0.904
Never married (not in union)	0.226	0.010	2529	2392	1.214	0.045	0.205	0.246
Currently married/in union	0.734	0.011	2529	2392	1.207	0.014	0.713	0.756
Married before age 20	0.706	0.021	1945	1846	2.058	0.030	0.663	0.748
Currently pregnant	0.047	0.005	2529	2392	1.198	0.107	0.037	0.058
Children ever born	2.281	0.055	2529	2392	1.238	0.024	2.171	2.390
Children surviving	2.040	0.041	2529	2392	1.086	0.020	1.957	2.122
Children ever born to women age 40-49	4.721	0.231	479	454	2.126	0.049	4.260	5.183
Knowing any contraceptive method	0.997	0.002	1822	1757	1.466	0.002	0.994	1.000
Ever used any contraceptive method	0.694	0.018	1822	1757	1.691	0.026	0.657	0.730
Currently using any contraceptive method	0.500	0.021	1822	1757	1.807	0.042	0.457	0.542
Currently using pill	0.043	0.008	1822	1757	1.776	0.197	0.026	0.060
Currently using IUD	0.007	0.002	1822	1757	0.995	0.277	0.003	0.011
Currently using female sterilization	0.208	0.022	1822	1757	2.299	0.105	0.164	0.251
Currently using rythm method	0.026	0.005	1822	1757	1.248	0.179	0.017	0.035
Obtained method from public sector source	0.802	0.031	799	805	2.175	0.038	0.741	0.863
Want no more children	0.705	0.018	1822	1757	1.690	0.026	0.669	0.741
Want to delay birth at least 2 years	0.158	0.013	1822	1757	1.576	0.085	0.132	0.185
Ideal number of children	2.348	0.054	2524	2386	3.178	0.023	2.240	2.457
Mothers received tetanus injection for last birth	0.620	0.025	933	884	1.574	0.040	0.570	0.670
Skilled birth attendence at delivery	0.172	0.015	1286	1200	1.290	0.086	0.142	0.202
Had diarrhoea in two weeks before survey	0.117	0.010	1225	1146	1.043	0.084	0.098	0.137
Treated with oral rehydration salts (ORS)	0.308	0.049	161	135	1.207	0.158	0.210	0.405
Taken to a health provider	0.209	0.039	161	135	1.160	0.189	0.130	0.287
Immunization card seen	0.338	0.044	237	207	1.375	0.131	0.249	0.426
Received BCG	0.939	0.017	237	207	1.030	0.018	0.906	0.973
Received DPT (3 doses)	0.906	0.022	237	207	1.093	0.024	0.863	0.949
Received polio (3 doses)	0.916	0.019	237	207	1.034	0.021	0.877	0.955
Received measles	0.879	0.020	237	207	0.919	0.023	0.839	0.920
Fully immunized	0.862	0.023	237	207	1.000	0.027	0.815	0.908
Height-for-age (below -2SD)	0.403	0.017	1225	1161	1.148	0.042	0.369	0.437
Weight-for-height (below -2SD)	0.101	0.009	1225	1161	0.982	0.085	0.084	0.118
Weight-for-age (below -2SD)	0.329	0.019	1225	1161	1.292	0.057	0.291	0.367
Any anemia (children)	0.421	0.015	1091	1021	0.978	0.035	0.392	0.451
Any anemia (women)	0.311	0.012	2493	2346	1.238	0.037	0.288	0.334
BMI <18.5	0.253	0.017	2366	2239	1.857	0.066	0.220	0.287
Total fertility rate (last 3 years)	3.053	0.154	na	6666	1.304	0.050	2.745	3.361
Neonatal mortality (last 10 years)	33.451	5.143	2566	2431	1.310	0.154	23.165	43.736
Post-neonatal mortality (last 10 years)	11.973	2.026	2569	2436	0.955	0.169	7.922	16.025
Infant mortality (last 10 years)	45.424	5.316	2570	2437	1.185	0.117	34.792	56.056
Child mortality (last 10 years)	15.439	3.304	2576	2438	1.253	0.214	8.832	22.046
Under-five mortality (last 10 years)	60.161	6.544	2581	2445	1.279	0.109	47.074	73.249
MEN								
Urban residence	0.138	0.019	896	849	1.691	0.142	0.099	0.177
Literate	0.791	0.024	896	849	1.760	0.030	0.743	0.839
No education	0.191	0.021	896	849	1.587	0.109	0.149	0.233
Secondary education or higher	0.513	0.029	896	849	1.762	0.057	0.454	0.572
Never married (in union)	0.349	0.024	896	849	1.486	0.068	0.301	0.396
Currently married/in union	0.640	0.023	896	849	1.423	0.036	0.594	0.686
Married before age 20	0.343	0.030	668	640	1.642	0.088	0.283	0.404
Want no more children	0.723	0.023	564	543	1.240	0.032	0.676	0.770
Want to delay birth at least 2 years	0.201	0.019	564	543	1.147	0.096	0.162	0.240
Ideal number of children	2.364	0.035	896	849	1.332	0.015	2.295	2.434
Has heard of HIV/AIDS	0.905	0.017	896	849	1.777	0.019	0.870	0.940
Knows condoms reduce HIV/AIDS	0.843	0.017	896	849	1.435	0.021	0.808	0.878
Knows limiting partners reduce HIV/AIDS	0.769	0.025	896	849	1.770	0.032	0.719	0.818

na = Not applicable

Table C.9 Sampling errors for Central region, Nepal 2006

Variable	Value (R)	Standard error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits R-2SE	Confidence limits R+2SE
WOMEN								
Urban residence	0.232	0.022	2739	3553	2.707	0.094	0.188	0.275
Literate	0.505	0.024	2739	3553	2.529	0.048	0.456	0.553
No education	0.558	0.020	2739	3553	2.148	0.037	0.517	0.598
Secondary education or higher	0.274	0.020	2739	3553	2.347	0.073	0.234	0.314
Net attendance ratio for primary school	0.816	0.022	1495	1888	1.831	0.027	0.772	0.860
Never married (not in union)	0.191	0.009	2739	3553	1.208	0.048	0.173	0.209
Currently married/in union	0.770	0.010	2739	3553	1.182	0.012	0.751	0.789
Married before age 20	0.774	0.019	2188	2822	2.111	0.024	0.736	0.812
Currently pregnant	0.062	0.007	2739	3553	1.427	0.106	0.049	0.075
Children ever born	2.455	0.062	2739	3553	1.409	0.025	2.332	2.579
Children surviving	2.151	0.047	2739	3553	1.281	0.022	2.057	2.245
Children ever born to women age 40-49	4.737	0.151	575	743	1.555	0.032	4.435	5.039
Knowing any contraceptive method	0.999	0.001	2107	2736	1.218	0.001	0.998	1.000
Ever used any contraceptive method	0.674	0.020	2107	2736	1.916	0.029	0.635	0.714
Currently using any contraceptive method	0.500	0.021	2107	2736	1.913	0.042	0.458	0.542
Currently using pill	0.030	0.007	2107	2736	1.829	0.226	0.017	0.044
Currently using IUD	0.010	0.003	2107	2736	1.263	0.274	0.005	0.015
Currently using female sterilization	0.175	0.023	2107	2736	2.813	0.133	0.129	0.222
Currently using rythm method	0.011	0.003	2107	2736	1.467	0.300	0.005	0.018
Obtained method from public sector source	0.693	0.034	978	1294	2.306	0.049	0.625	0.761
Want no more children	0.715	0.012	2107	2736	1.203	0.017	0.691	0.739
Want to delay birth at least 2 years	0.145	0.007	2107	2736	0.914	0.048	0.131	0.159
Ideal number of children	2.370	0.039	2732	3541	2.221	0.016	2.292	2.447
Mothers received tetanus injection for last birth	0.711	0.026	1031	1329	1.837	0.037	0.659	0.763
Skilled birth attendence at delivery	0.247	0.026	1422	1811	1.992	0.105	0.195	0.299
Had diarrhoea in two weeks before survey	0.122	0.012	1357	1726	1.293	0.098	0.098	0.145
Treated with oral rehydration salts (ORS)	0.270	0.060	160	210	1.679	0.221	0.151	0.390
Taken to a health provider	0.232	0.052	160	210	1.535	0.223	0.129	0.336
Immunization card seen	0.311	0.035	239	297	1.115	0.111	0.242	0.381
Received BCG	0.930	0.034	239	297	2.018	0.036	0.863	0.998
Received DPT (3 doses)	0.867	0.032	239	297	1.417	0.037	0.804	0.931
Received polio (3 doses)	0.909	0.034	239	297	1.809	0.038	0.840	0.978
Received measles	0.811	0.040	239	297	1.550	0.050	0.730	0.891
Fully immunized	0.783	0.039	239	297	1.421	0.049	0.706	0.861
Height-for-age (below -2SD)	0.500	0.029	1332	1708	1.952	0.057	0.443	0.557
Weight-for-height (below -2SD)	0.138	0.015	1332	1708	1.481	0.106	0.109	0.167
Weight-for-age (below -2SD)	0.382	0.029	1332	1708	1.958	0.075	0.325	0.440
Any anemia (children)	0.508	0.018	1168	1486	1.199	0.036	0.472	0.545
Any anemia (women)	0.358	0.020	2690	3486	2.201	0.057	0.317	0.399
BMI <18.5	0.236	0.015	2518	3264	1.750	0.063	0.207	0.266
Total fertility rate (last 3 years)	2.958	0.213	na	10171	2.085	0.072	2.532	3.383
Neonatal mortality (last 10 years)	34.556	4.582	2963	3715	1.214	0.133	25.391	43.721
Post-neonatal mortality (last 10 years)	17.130	2.815	2964	3716	1.108	0.164	11.500	22.760
Infant mortality (last 10 years)	51.686	6.522	2965	3717	1.446	0.126	38.641	64.731
Child mortality (last 10 years)	16.728	2.921	2972	3727	1.132	0.175	10.886	22.571
Under-five mortality (last 10 years)	67.550	8.218	2975	3731	1.612	0.122	51.113	83.987
MEN								
Urban residence	0.302	0.033	1010	1367	2.284	0.109	0.236	0.368
Literate	0.777	0.025	1010	1367	1.940	0.033	0.726	0.828
No education	0.215	0.020	1010	1367	1.513	0.091	0.176	0.255
Secondary education or higher	0.522	0.030	1010	1367	1.918	0.058	0.462	0.583
Never married (in union)	0.308	0.021	1010	1367	1.467	0.069	0.265	0.350
Currently married/in union	0.678	0.023	1010	1367	1.550	0.034	0.632	0.724
Married before age 20	0.439	0.021	788	1054	1.199	0.048	0.397	0.482
Want no more children	0.707	0.021	698	927	1.217	0.030	0.665	0.749
Want to delay birth at least 2 years	0.149	0.016	698	927	1.222	0.111	0.116	0.182
Ideal number of children	2.367	0.054	1006	1361	1.954	0.023	2.260	2.475
Has heard of HIV/AIDS	0.924	0.011	1010	1367	1.283	0.012	0.903	0.946
Knows condoms reduce HIV/AIDS	0.812	0.020	1010	1367	1.617	0.025	0.772	0.851
Knows limiting partners reduce HIV/AIDS	0.813	0.021	1010	1367	1.671	0.025	0.772	0.854

na = Not applicable

Table C.10 Sampling errors for Western region, Nepal 2006

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
WOMEN								
Urban residence	0.130	0.015	2105	2070	2.009	0.114	0.100	0.159
Literate	0.646	0.029	2105	2070	2.775	0.045	0.588	0.704
No education	0.424	0.026	2105	2070	2.370	0.060	0.373	0.475
Secondary education or higher	0.359	0.028	2105	2070	2.679	0.078	0.303	0.416
Net attendance ratio for primary school	0.903	0.021	1099	1144	2.130	0.023	0.861	0.945
Never married (not in union)	0.190	0.011	2105	2070	1.247	0.056	0.168	0.211
Currently married/in union	0.774	0.009	2105	2070	0.951	0.011	0.757	0.791
Married before age 20	0.765	0.021	1642	1609	1.984	0.027	0.723	0.806
Currently pregnant	0.055	0.005	2105	2070	1.019	0.092	0.045	0.065
Children ever born	2.344	0.088	2105	2070	1.820	0.037	2.168	2.519
Children surviving	2.080	0.072	2105	2070	1.760	0.035	1.935	2.225
Children ever born to women age 40-49	4.567	0.125	373	373	1.028	0.027	4.317	4.816
Knowing any contraceptive method	0.998	0.001	1612	1602	0.980	0.001	0.996	1.000
Ever used any contraceptive method	0.659	0.026	1612	1602	2.193	0.039	0.608	0.711
Currently using any contraceptive method	0.409	0.021	1612	1602	1.674	0.050	0.368	0.450
Currently using pill	0.038	0.007	1612	1602	1.492	0.188	0.023	0.052
Currently using IUD	0.005	0.001	1612	1602	0.833	0.299	0.002	0.008
Currently using female sterilization	0.127	0.019	1612	1602	2.312	0.151	0.089	0.166
Currently using rythm method	0.009	0.003	1612	1602	1.369	0.366	0.002	0.015
Obtained method from public sector source	0.737	0.030	641	596	1.740	0.041	0.677	0.798
Want no more children	0.726	0.020	1612	1602	1.760	0.027	0.686	0.765
Want to delay birth at least 2 years	0.121	0.013	1612	1602	1.571	0.105	0.096	0.147
Ideal number of children	2.226	0.041	2098	2065	2.620	0.018	2.144	2.307
Mothers received tetanus injection for last birth	0.590	0.041	747	755	2.330	0.070	0.507	0.673
Skilled birth attendence at delivery	0.201	0.027	1016	1033	1.929	0.133	0.148	0.254
Had diarrhoea in two weeks before survey	0.126	0.016	964	984	1.482	0.128	0.094	0.158
Treated with oral rehydration salts (ORS)	0.257	0.057	117	124	1.426	0.220	0.144	0.370
Taken to a health provider	0.331	0.067	117	124	1.543	0.203	0.197	0.466
Immunization card seen	0.352	0.036	193	208	1.070	0.102	0.281	0.424
Received BCG	0.977	0.015	193	208	1.448	0.015	0.948	1.000
Received DPT (3 doses)	0.962	0.019	193	208	1.439	0.020	0.925	1.000
Received polio (3 doses)	0.968	0.018	193	208	1.461	0.018	0.932	1.000
Received measles	0.892	0.031	193	208	1.355	0.034	0.831	0.953
Fully immunized	0.889	0.031	193	208	1.373	0.035	0.826	0.951
Height-for-age (below -2SD)	0.504	0.027	951	977	1.652	0.054	0.449	0.558
Weight-for-height (below -2SD)	0.109	0.013	951	977	1.241	0.118	0.084	0.135
Weight-for-age (below -2SD)	0.385	0.027	951	977	1.549	0.069	0.332	0.438
Any anemia (children)	0.495	0.025	859	891	1.478	0.051	0.444	0.545
Any anemia (women)	0.312	0.017	2081	2053	1.687	0.055	0.278	0.346
BMI <18.5	0.195	0.018	1966	1923	2.042	0.094	0.159	0.232
Total fertility rate (last 3 years)	3.079	0.173	na	5754	1.213	0.056	2.733	3.424
Neonatal mortality (last 10 years)	34.790	6.137	2126	2200	1.425	0.176	22.516	47.064
Post-neonatal mortality (last 10 years)	21.178	3.760	2127	2201	1.192	0.178	13.658	28.699
Infant mortality (last 10 years)	55.969	8.524	2127	2201	1.643	0.152	38.920	73.017
Child mortality (last 10 years)	18.050	3.479	2139	2212	1.248	0.193	11.091	25.008
Under-five mortality (last 10 years)	73.008	10.287	2140	2213	1.738	0.141	52.434	93.582
MEN								
Urban residence	0.142	0.017	782	716	1.384	0.122	0.108	0.177
Literate	0.870	0.020	782	716	1.665	0.023	0.830	0.910
No education	0.129	0.017	782	716	1.413	0.131	0.095	0.163
Secondary education or higher	0.589	0.037	782	716	2.114	0.063	0.514	0.663
Never married (in union)	0.336	0.018	782	716	1.052	0.053	0.300	0.371
Currently married/in union	0.648	0.018	782	716	1.027	0.027	0.612	0.683
Married before age 20	0.398	0.024	580	521	1.159	0.059	0.351	0.445
Want no more children	0.700	0.022	499	463	1.071	0.031	0.656	0.744
Want to delay birth at least 2 years	0.179	0.024	499	463	1.414	0.136	0.131	0.228
Ideal number of children	2.403	0.068	782	716	2.270	0.028	2.266	2.539
Has heard of HIV/AIDS	0.931	0.012	782	716	1.288	0.013	0.908	0.955
Knows condoms reduce HIV/AIDS	0.869	0.015	782	716	1.204	0.017	0.840	0.899
Knows limiting partners reduce HIV/AIDS	0.879	0.014	782	716	1.192	0.016	0.851	0.907

na = Not applicable

Table C.11 Sampling errors for Mid-western region, Nepal 2006

Variable	Value (R)	Standard error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits R-2SE	Confidence limits R+2SE
WOMEN								
Urban residence	0.107	0.024	1691	1250	3.216	0.226	0.058	0.155
Literate	0.547	0.022	1691	1250	1.781	0.039	0.504	0.590
No education	0.584	0.026	1691	1250	2.136	0.044	0.533	0.635
Secondary education or higher	0.250	0.025	1691	1250	2.343	0.099	0.201	0.299
Net attendance ratio for primary school	0.921	0.013	1024	783	1.439	0.014	0.896	0.947
Never married (not in union)	0.191	0.018	1691	1250	1.899	0.095	0.155	0.227
Currently married/in union	0.780	0.017	1691	1250	1.726	0.022	0.746	0.815
Married before age 20	0.841	0.019	1276	936	1.891	0.023	0.802	0.880
Currently pregnant	0.066	0.003	1691	1250	0.577	0.053	0.059	0.073
Children ever born	2.669	0.101	1691	1250	1.720	0.038	2.466	2.872
Children surviving	2.212	0.084	1691	1250	1.780	0.038	2.045	2.379
Children ever born to women age 40-49	5.595	0.142	268	206	1.048	0.025	5.312	5.878
Knowing any contraceptive method	1.000	0.000	1354	976	na	0.000	1.000	1.000
Ever used any contraceptive method	0.665	0.022	1354	976	1.751	0.034	0.620	0.710
Currently using any contraceptive method	0.455	0.025	1354	976	1.854	0.055	0.405	0.505
Currently using pill	0.029	0.005	1354	976	1.082	0.171	0.019	0.039
Currently using IUD	0.008	0.003	1354	976	1.402	0.424	0.001	0.015
Currently using female sterilization	0.128	0.018	1354	976	2.035	0.145	0.091	0.164
Currently using rythm method	0.005	0.002	1354	976	1.129	0.431	0.001	0.009
Obtained method from public sector source	0.846	0.021	594	426	1.432	0.025	0.804	0.889
Want no more children	0.700	0.016	1354	976	1.253	0.022	0.668	0.731
Want to delay birth at least 2 years	0.159	0.014	1354	976	1.430	0.089	0.131	0.188
Ideal number of children	2.372	0.040	1690	1250	2.118	0.017	2.293	2.452
Mothers received tetanus injection for last birth	0.494	0.040	730	514	2.135	0.082	0.413	0.574
Skilled birth attendence at delivery	0.142	0.028	1009	702	2.303	0.200	0.085	0.199
Had diarrhoea in two weeks before survey	0.102	0.011	933	647	1.041	0.106	0.081	0.124
Treated with oral rehydration salts (ORS)	0.379	0.059	96	66	1.105	0.157	0.260	0.498
Taken to a health provider	0.350	0.063	96	66	1.182	0.180	0.224	0.476
Immunization card seen	0.197	0.032	182	121	1.044	0.165	0.132	0.262
Received BCG	0.883	0.034	182	121	1.346	0.038	0.816	0.951
Received DPT (3 doses)	0.823	0.046	182	121	1.556	0.056	0.730	0.916
Received polio (3 doses)	0.879	0.033	182	121	1.309	0.038	0.812	0.946
Received measles	0.841	0.044	182	121	1.536	0.052	0.753	0.929
Fully immunized	0.808	0.047	182	121	1.519	0.058	0.714	0.901
Height-for-age (below -2SD)	0.579	0.026	939	661	1.432	0.044	0.528	0.631
Weight-for-height (below -2SD)	0.116	0.012	939	661	1.071	0.105	0.091	0.140
Weight-for-age (below -2SD)	0.434	0.018	939	661	1.012	0.041	0.398	0.469
Any anemia (children)	0.473	0.031	873	608	1.698	0.065	0.411	0.535
Any anemia (women)	0.367	0.023	1682	1245	1.999	0.064	0.320	0.414
BMI <18.5	0.221	0.017	1562	1152	1.603	0.076	0.187	0.255
Total fertility rate (last 3 years)	3.502	0.284	na	3388	2.041	0.081	2.934	4.070
Neonatal mortality (last 10 years)	56.736	7.082	2119	1500	1.257	0.125	42.571	70.900
Post-neonatal mortality (last 10 years)	40.459	5.195	2124	1505	1.221	0.128	30.069	50.849
Infant mortality (last 10 years)	97.195	9.203	2124	1505	1.302	0.095	78.789	115.601
Child mortality (last 10 years)	27.523	7.066	2135	1515	1.889	0.257	13.390	41.656
Under-five mortality (last 10 years)	122.043	11.517	2140	1520	1.404	0.094	99.009	145.077
MEN								
Urban residence	0.106	0.028	577	416	2.168	0.262	0.051	0.162
Literate	0.873	0.020	577	416	1.464	0.023	0.832	0.913
No education	0.161	0.016	577	416	1.072	0.102	0.128	0.194
Secondary education or higher	0.523	0.026	577	416	1.228	0.049	0.472	0.574
Never married (in union)	0.244	0.019	577	416	1.071	0.078	0.206	0.283
Currently married/in union	0.745	0.019	577	416	1.058	0.026	0.707	0.784
Married before age 20	0.563	0.019	449	319	0.823	0.034	0.524	0.602
Want no more children	0.682	0.031	436	310	1.396	0.046	0.619	0.744
Want to delay birth at least 2 years	0.217	0.029	436	310	1.472	0.134	0.158	0.275
Ideal number of children	2.450	0.050	576	415	1.605	0.020	2.350	2.549
Has heard of HIV/AIDS	0.910	0.021	577	416	1.738	0.023	0.869	0.952
Knows condoms reduce HIV/AIDS	0.852	0.030	577	416	2.036	0.035	0.791	0.912
Knows limiting partners reduce HIV/AIDS	0.877	0.024	577	416	1.722	0.027	0.830	0.924

na = Not applicable

Table C.12 Sampling errors for Far-western region, Nepal 2006

Variable	Value (R)	Standard error (SE)	Number of cases Un-weighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits R-2SE	Confidence limits R+2SE
WOMEN								
Urban residence	0.095	0.031	1729	1528	4.374	0.324	0.033	0.157
Literate	0.481	0.025	1729	1528	2.092	0.052	0.430	0.531
No education	0.623	0.018	1729	1528	1.559	0.029	0.586	0.659
Secondary education or higher	0.229	0.019	1729	1528	1.896	0.084	0.190	0.267
Net attendance ratio for primary school	0.890	0.014	1046	892	1.445	0.016	0.862	0.918
Never married (not in union)	0.196	0.017	1729	1528	1.825	0.089	0.162	0.231
Currently married/in union	0.777	0.013	1729	1528	1.264	0.016	0.752	0.802
Married before age 20	0.891	0.012	1305	1144	1.348	0.013	0.868	0.915
Currently pregnant	0.053	0.009	1729	1528	1.632	0.166	0.035	0.070
Children ever born	2.599	0.060	1729	1528	1.038	0.023	2.479	2.720
Children surviving	2.224	0.051	1729	1528	1.091	0.023	2.121	2.326
Children ever born to women age 40-49	5.595	0.107	269	257	0.722	0.019	5.381	5.809
Knowing any contraceptive method	1.000	0.000	1349	1187	0.519	0.000	0.999	1.000
Ever used any contraceptive method	0.706	0.087	1349	1187	6.976	0.123	0.532	0.879
Currently using any contraceptive method	0.517	0.090	1349	1187	6.649	0.175	0.336	0.698
Currently using pill	0.038	0.015	1349	1187	2.889	0.394	0.008	0.069
Currently using IUD	0.001	0.001	1349	1187	1.069	0.803	0.000	0.003
Currently using female sterilization	0.267	0.087	1349	1187	7.252	0.327	0.092	0.442
Currently using rythm method	0.000	0.000	1349	1187	na	na	0.000	0.000
Obtained method from public sector source	0.878	0.040	543	595	2.823	0.045	0.799	0.958
Want no more children	0.691	0.037	1349	1187	2.974	0.054	0.617	0.766
Want to delay birth at least 2 years	0.167	0.014	1349	1187	1.346	0.082	0.140	0.194
Ideal number of children	2.358	0.039	1725	1526	2.535	0.017	2.279	2.437
Mothers received tetanus injection for last birth	0.647	0.080	741	584	4.301	0.124	0.487	0.807
Skilled birth attendence at delivery	0.096	0.014	1050	800	1.346	0.150	0.067	0.124
Had diarrhoea in two weeks before survey	0.119	0.014	978	748	1.292	0.120	0.090	0.147
Treated with oral rehydration salts (ORS)	0.311	0.039	125	89	0.846	0.124	0.234	0.388
Taken to a health provider	0.303	0.029	125	89	0.649	0.097	0.245	0.362
Immunization card seen	0.357	0.102	212	150	2.759	0.285	0.153	0.560
Received BCG	0.913	0.034	212	150	1.486	0.037	0.845	0.980
Received DPT (3 doses)	0.843	0.048	212	150	1.668	0.057	0.747	0.938
Received polio (3 doses)	0.858	0.045	212	150	1.650	0.053	0.768	0.949
Received measles	0.838	0.057	212	150	1.959	0.068	0.725	0.951
Fully immunized	0.805	0.055	212	150	1.789	0.069	0.694	0.916
Height-for-age (below -2SD)	0.525	0.026	973	755	1.536	0.050	0.473	0.578
Weight-for-height (below -2SD)	0.167	0.015	973	755	1.307	0.092	0.137	0.198
Weight-for-age (below -2SD)	0.437	0.022	973	755	1.302	0.050	0.394	0.481
Any anemia (children)	0.519	0.025	880	686	1.489	0.047	0.470	0.569
Any anemia (women)	0.514	0.084	1715	1517	6.968	0.164	0.346	0.682
BMI <18.5	0.332	0.019	1586	1425	1.639	0.058	0.294	0.371
Total fertility rate (last 3 years)	3.456	0.557	na	4080	5.054	0.161	2.341	4.570
Neonatal mortality (last 10 years)	39.077	9.746	2166	1739	1.982	0.249	19.585	58.569
Post-neonatal mortality (last 10 years)	35.319	4.133	2168	1741	0.975	0.117	27.052	43.586
Infant mortality (last 10 years)	74.396	10.572	2169	1741	1.588	0.142	53.253	95.539
Child mortality (last 10 years)	28.163	4.120	2182	1757	1.279	0.146	19.924	36.402
Under-five mortality (last 10 years)	100.464	9.229	2186	1759	1.133	0.092	82.006	118.922
MEN								
Urban residence	0.109	0.043	577	506	3.276	0.390	0.024	0.194
Literate	0.794	0.030	577	506	1.806	0.038	0.733	0.855
No education	0.186	0.022	577	506	1.369	0.119	0.142	0.231
Secondary education or higher	0.537	0.037	577	506	1.784	0.069	0.463	0.611
Never married (in union)	0.294	0.015	577	506	0.801	0.052	0.264	0.325
Currently married/in union	0.701	0.016	577	506	0.841	0.023	0.669	0.733
Married before age 20	0.618	0.050	418	378	2.095	0.081	0.518	0.718
Want no more children	0.667	0.035	389	355	1.446	0.052	0.598	0.737
Want to delay birth at least 2 years	0.195	0.041	389	355	2.034	0.210	0.113	0.276
Ideal number of children	2.331	0.032	577	506	1.194	0.014	2.267	2.395
Has heard of HIV/AIDS	0.902	0.023	577	506	1.895	0.026	0.855	0.949
Knows condoms reduce HIV/AIDS	0.826	0.057	577	506	3.627	0.069	0.711	0.940
Knows limiting partners reduce HIV/AIDS	0.842	0.016	577	506	1.063	0.019	0.809	0.874

na = Not applicable

DATA QUALITY TABLES

Appendix D

Table D.1 Household age distribution

Single-year age distribution of the de facto household population by sex (weighted), Nepal 2006

	Female		Male			Female		Male	
Age	Number	Percent	Number	Percent	Age	Number	Percent	Number	Percent
0	499	2.2	538	2.7	36	313	1.4	205	1.0
1	490	2.2	521	2.6	37	218	1.0	180	0.9
2	600	2.7	582	3.0	38	253	1.1	208	1.1
3	491	2.2	594	3.0	39	212	1.0	160	0.8
4	590	2.6	583	3.0	40	219	1.0	191	1.0
5	547	2.5	601	3.1	41	199	0.9	141	0.7
6	546	2.5	645	3.3	42	265	1.2	211	1.1
7	638	2.9	613	3.1	43	162	0.7	120	0.6
8	574	2.6	616	3.1	44	239	1.1	226	1.1
9	526	2.4	584	3.0	45	197	0.9	161	0.8
10	625	2.8	634	3.2	46	243	1.1	173	0.9
11	541	2.4	535	2.7	47	157	0.7	148	0.7
12	624	2.8	633	3.2	48	202	0.9	172	0.9
13	648	2.9	551	2.8	49	139	0.6	156	0.8
14	401	1.8	429	2.2	50	113	0.5	135	0.7
15	543	2.4	466	2.4	51	196	0.9	147	0.7
16	497	2.2	416	2.1	52	174	0.8	153	0.8
17	517	2.3	388	2.0	53	139	0.6	109	0.6
18	487	2.2	397	2.0	54	145	0.7	173	0.9
19	446	2.0	298	1.5	55	153	0.7	129	0.7
20	410	1.8	272	1.4	56	146	0.7	128	0.7
21	379	1.7	247	1.3	57	114	0.5	98	0.5
22	485	2.2	287	1.5	58	108	0.5	72	0.4
23	397	1.8	239	1.2	59	128	0.6	73	0.4
24	427	1.9	278	1.4	60	136	0.6	102	0.5
25	323	1.5	214	1.1	61	127	0.6	142	0.7
26	456	2.0	272	1.4	62	139	0.6	156	0.8
27	351	1.6	246	1.2	63	66	0.3	87	0.4
28	364	1.6	278	1.4	64	78	0.4	86	0.4
29	287	1.3	193	1.0	65	90	0.4	95	0.5
30	332	1.5	250	1.3	66	70	0.3	82	0.4
31	200	0.9	170	0.9	67	53	0.2	64	0.3
32	323	1.5	263	1.3	68	54	0.2	68	0.3
33	207	0.9	143	0.7	69	66	0.3	48	0.2
34	336	1.5	255	1.3	70+	570	2.6	630	3.2
35	261	1.2	240	1.2					
					Total	22,247	100.0	19,700	100.0

Table D.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, Nepal 2006

Age group	Household population of women age 10-54	Household percent	Interviewed women age 15-49		Percentage of eligible women interviewed
			Number	Percent	
10-14	2,839	na	na	na	na
15-19	2,489	22.5	2,461	22.7	98.8
20-24	2,097	19.0	2,055	18.9	98.0
25-29	1,782	16.1	1,752	16.1	98.3
30-34	1,397	12.7	1,370	12.6	98.1
25-39	1,257	11.4	1,233	11.4	98.2
40-44	1,084	9.8	1,053	9.7	97.2
45-49	938	8.5	927	8.5	98.8
50-54	767	na	na	na	na
15-49	11,045	na	10,852	100.0	98.2

Note: The de facto population includes all residents and nonresidents who stayed in the household the night before the interview. Weights for both household population of women and interviewed women are household weights. Age is based on the household schedule.
na = Not applicable

Table D.2.2 Age distribution of eligible and interviewed men

De facto household population of men age 10-64, interviewed men age 15-59 and percent of eligible men who were interviewed (weighted), Nepal 2006

Age group	Household population of men age 10-64	Household percent	Interviewed men age 15-59		Percentage of eligible men interviewed
			Number	Percent	
10-14	1,392	na	na	na	na
15-19	988	22.1	953	21.3	96.4
20-24	656	14.7	633	14.1	96.4
25-29	585	13.1	541	12.1	92.5
30-34	540	12.1	515	11.5	95.2
25-39	485	10.9	466	10.4	96.0
40-44	447	10.0	428	9.6	95.7
45-49	400	9.0	385	8.6	96.4
50-54	361	8.1	345	7.7	95.4
55-59	217	na	210	4.7	96.7
60-64	333	na	na	na	na
15-59	4,463	na	4,475	100.0	100.3

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 men and interviewed men are household weights. Age is based on the household schedule.
na = Not applicable

Table D.3 Completeness of reporting

Percentage of cases for which information on age-specific demographic and health characteristics is missing (weighted), Nepal 2006

Characteristic	Reference group	Percentage with missing information	Number of cases
Birth date	Births in the 15 years preceding the survey		
Month only		0.02	17,215
Month and year		0.01	17,215
Age at death	Deceased children born in the 15 years preceding the survey	0.00	1,547
Age/date at first union[1]	Ever-married women age 15-49 and ever-married men age 15-59	0.11	8,644
Respondent's education	All women age 15-49 and all men age 15-59	0.00	10,793
Diarrhea in past 2 weeks	Living children age 0-59 months	0.98	5,252
Anthropometry	Living children age 0-59 months (from household questionnaire)		
Height		1.69	5,455
Weight		0.92	5,455
Height or weight		1.71	5,455
Anemia			
Children	Living children age 6-59 months (from household questionnaire)	5.40	2,551
Women	All women (from household questionnaire)	2.77	5,568

[1] Both year and age missing

Table D.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 (L), dead (D), and total (T) children (weighted), Nepal 2006

Calendar year	Number of births			Percentage with complete birth date[1]			Sex ratio at birth[2]			Calendar year ratio[3]		
	L	D	T	L	D	T	L	D	T	L	D	T
2063	120	8	127	100.0	100.0	100.0	126.5	114.7	125.7	na	na	na
2062	1,007	50	1,057	100.0	100.0	100.0	104.4	54.9	101.3	181.1	152.2	179.5
2061	993	58	1,051	100.0	100.0	100.0	107.3	95.9	106.6	92.5	119.2	93.7
2060	1,139	47	1,186	100.0	100.0	100.0	100.1	74.0	98.9	112.8	78.4	110.9
2059	1,027	62	1,089	100.0	100.0	100.0	108.4	77.9	106.3	90.4	96.2	90.7
2058	1,133	82	1,215	100.0	100.0	100.0	100.7	157.9	103.8	107.2	129.8	108.5
2057	1,087	64	1,152	100.0	100.0	100.0	113.5	79.6	111.2	95.7	67.1	93.4
2056	1,140	110	1,250	100.0	100.0	100.0	107.8	140.9	110.4	103.5	114.6	104.4
2055	1,114	127	1,242	99.9	100.0	99.9	109.9	166.8	114.6	102.0	105.2	102.3
2054	1,046	132	1,178	100.0	100.0	100.0	109.5	123.0	110.9	96.0	107.4	97.2
2059-2063	4,285	225	4,510	100.0	100.0	100.0	105.4	76.5	103.7	na	na	na
2054-2058	5,520	516	6,036	100.0	100.0	100.0	108.1	134.2	110.1	na	na	na
2049-2053	5,140	681	5,821	99.9	99.9	99.9	101.1	97.4	100.7	na	na	na
2044-2048	4,103	684	4,787	100.0	99.4	99.9	96.0	102.6	96.9	na	na	na
<2044	3,941	1,244	5,184	99.6	99.3	99.6	104.8	121.0	108.5	na	na	na
All	22,989	3,350	26,339	99.9	99.6	99.9	103.2	110.3	104.1	na	na	na

na = Not applicable
[1] Replace with calendar years in stub. For example, if survey takes place in 2000, 0 becomes 2000, 1 becomes 1999, etc.
[2] Both year and month of birth given
[3] (Bm/Bf)x100, where Bm and Bf are the numbers of male and female births, respectively
[4] [2Bx/(Bx-1+Bx+1)]x100, where Bx is the number of births in calendar year x

Table D.5 Reporting of age at death in days

Distribution of reported deaths under one month of age by age at death in days and the percentage of neonatal deaths reported to occur at ages 0-6 days, for five-year periods of birth preceding the survey (weighted), Nepal 2006

Age at death (days)	Number of years preceding the survey				Total 0-19
	0-4	5-9	10-14	15-19	
<1	53	83	97	88	321
1	22	21	22	19	83
2	18	21	30	8	77
3	16	18	17	29	81
4	11	8	8	10	37
5	4	17	12	20	54
6	5	15	25	11	57
7	1	9	9	11	30
8	4	12	5	4	25
9	5	4	3	4	16
10	1	4	1	6	13
11	3	3	0	5	11
12	8	5	4	12	28
13	7	4	2	2	15
14	1	0	6	3	11
15	2	6	16	8	31
16	0	2	1	6	9
17	3	2	1	0	7
18	0	3	1	2	6
19	2	2	3	1	7
20	2	4	2	6	14
21	4	0	6	3	13
22	3	1	5	3	12
23	0	1	1	0	2
24	0	1	1	3	5
25	1	1	1	0	3
26	0	3	0	0	3
27	4	3	0	2	8
28	0	1	0	0	1
Total 0-30	180	255	280	265	980
Percent early neonatal[1]	71.7	71.7	75.8	69.9	72.4

[1] ≤6 days/≤30 days

Table D.6 Reporting of age at death in months

Distribution of reported deaths under two years of age by age at death in months and the percentage of infant deaths reported to occur at age under one month, for five-year periods of birth preceding the survey, Nepal 2006

Age at death (months)	Number of years preceding the survey				Total
	0-4	5-9	10-14	15-19	0-19
<1[a]	180	255	280	265	980
1	18	34	30	29	110
2	12	25	23	26	86
3	13	23	23	23	82
4	6	11	18	15	50
5	6	13	4	14	38
6	3	12	23	24	62
7	4	10	10	7	31
8	3	9	14	6	32
9	4	9	8	9	30
10	0	11	13	8	31
11	11	10	19	20	61
12	2	10	20	22	54
13	4	12	19	2	38
14	3	7	14	9	33
15	3	3	4	9	19
16	1	2	10	0	12
17	1	4	1	2	8
18	2	8	17	7	34
19	0	4	0	7	11
20	4	2	1	6	13
21	0	5	2	1	7
22	2	2	6	4	14
23	0	2	1	2	5
24+	10	51	85	95	242
Total 0-11	261	422	465	446	1,593
Percent neonatal[1]	69.1	60.4	60.1	59.5	61.5

[a] Includes deaths under one month reported in days
[1] Under one month/under one year

Table D.7 Data on siblings

Number of sisters and brothers reported by interviewed women and completeness of age data for living siblings and age at death (AD) and years since death (YSD), data for dead siblings, Nepal 2006

	Sisters		Brothers		Total	
	Number	Percent	Number	Percent	Number	Percent
All siblings	26,377	100.0	27,418	100.0	53,794	100.0
Living	21,087	79.9	21,334	77.8	42,421	78.9
Dead	5,271	20.0	6,061	22.1	11,333	21.1
Status unknown	18	0.1	23	0.1	41	0.1
Living siblings	21,087	100.0	21,334	100.0	42,421	100.0
Age reported	21,087	100.0	21,334	100.0	42,421	100.0
Age missing	1	0.0	0	0.0	1	0.0
Dead siblings	5,271	100.0	6,061	100.0	11,333	100.0
AD and YSD reported	5,271	100.0	6,061	100.0	11,332	100.0

Table D.8 Indicators on data quality

Percent distribution of respondents and siblings by year of birth, Nepal 2006

Year of birth	Respondents	Siblings
Before 2012	0.0	14.8
2012-2016	6.4	10.0
2017-2022	12.2	12.5
2023-2027	11.2	14.7
2028-2033	15.2	15.4
2034-2038	17.3	14.0
2039-2043	18.7	10.5
2044 or later	19.1	8.2
Total	100.0	100.0
Lower range	2,012	1,980
Upper range	2,048	2,062
Median	2,035	2,034
Number of cases	10,793	53,793

Table D.9 Sibship size and sex ratio of siblings

Mean sibship size and sex ratio of births, Nepal 2006

Year of birth of respondents	Mean sibship size	Sex ratio at birth of siblings
<2020	6.1	106.0
2020-24	6.2	99.4
2025-29	6.4	106.8
2030-34	6.1	106.9
2035-39	6.0	105.1
2040-44	5.8	103.5
2045-49	5.6	99.6
Total	6.0	103.9

Note: The beginning of the year 2053 in the Nepalese calendar roughly corresponds to April 15, 2006 in the Western calendar.

PERSONS INVOLVED IN THE 2006 NEPAL DEMOGRAPHIC AND HEALTH SURVEY

Appendix ***E***

TECHNICAL AND ADMINISTRATIVE STAFF

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Sahanshila Shrestha
Sama Shrestha
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Keshab Khanal
Sharada Bhattarai

Administrative Staff
Pushpa Ratna Tuladhar
Niru Shrestha
Sujan Shrestha
Rajendra Kumar Shrestha

Word Processing
Sanu Raja Shakya
Geeta Shrestha Amatya

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Bashanta Kumar Bhandari
Bhupendra Kumar Katwal
Bigyan Regmi
Bijaya Raj Pant
Bijaya Raj Sharma
Bikram Maharjan
Bishnu Rijal
Buddhi Narayan Shrestha
Chandra Bahadur Rai
Dabal Singh K. C.
Dan Bahadur Karki
Deepak Sharma
Devendra Upadhyaya Lamsal
Dhanendra Roka
Dipesh Kumar Shah
Durga Nath Maraseni
Durga Prasad Phuyal
Ganga Basnet
Hari Kumar Shrestha
Harka Bahadur Karki
Himanshu Pant
Indra Lal Chapagain
Jibesh Dulal
Jitendra Shrestha
Keshab Prasad Khanal
Kripa Acharya
Lal Babu Sah
Mahendra Prasai
Mandeep Regmi
Manoj Kumar Bhattarai
Manoj Pyakurel
Mohan Baniya
Niraj Kumar Shah
Padam Phuyal
Phadindra Nepal
Prahladh Mainali
Prem Narayan Niraula
Rabin Kumar Khadka
Rajendra Bahadur Magar
Ramesh Kumar Lawati
Ramji Prasad Devkota
Rewaty Raman Nepal
Sabin Karki
Santosh G. C.
Shree Krishna Thapa
Shree Ram Dahal
Shreedhar Subedi
Shyam Sundar Prasad Tharu
Surendra Kumar Mahato
Sushil Kumar Sawod
Tara Nidhi Pyakurel
Thakur Prasad Paudyal

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Mahendra Raj Dulal
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Ganga Basnet
Harka Bahadur Karki
Lekh Nath Luitel
Mahesh Prasad Deo
Mandeep Regmi
Mohan Baniya
Niraj Kumar Dahal
Ramesh Kumar Dahal
Ramesh Kumar Lawati

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Babita Bhattarai
Baidehi Mallik
Bandana Baral
Bindiya Shakya
Durga Shrestha
Gita Baral, Pokhrel
Hasina Pradhan
Laxmi Shrestha
Manju Bashyal
Rani Kumari Mallik
Sailaja Wagle
Sunita Baral

Interviewers

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Anu Shrestha
Babita Shah
Baidehi Karna
Bashundhara Rai
Bidhya Devi Niraula
Bimala Guragai
Bimala Sharma
Bipana Bhatta
Birat Chandra Wagle
Bishnu Bahadur Kunwar
Bishnu Rijal
Buddhi Narayan Shrestha
Deba Sharma
Dhan Jyoti Sunuwar
Dipak Sharma
Geeta Tamang
Januka Rai
Jayanti Pokhrel
Kalpana Chaudhari
Kamal Keshari Tyata
Kamala Pokharel
Kishore Neupane
Lalit Bahadur Karki
Mandira Neupane
Nabin Khadka
Nila Deo
Niru Karki
Numa Karki
Pabitra Ghimire
Prem Narayan Niraula
Punam Shrestha
Sabita Kumari Shah
Sabita Parajuli
Sadiksha Paudel
Samira Shrestha
Samjhana Karki
Samjhana Pradhan
Sangita Gurung
Sapana Bhatta
Saraswati Thapa
Sarita Rizal
Shalu Gurung
Shila Shrestha
Shree Ram Dahal
Shyam Sundar Prasad Tharu
Sita Lama
Surendra Kumar Mahato
Tara Nidhi Pyakurel
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10 March 2006

NEPAL DEMOGRAPHIC AND HEALTH SURVEY 2006
HOUSEHOLD QUESTIONNAIRE

IDENTIFICATION

NAME AND CODE OF DISTRICT _____

NAME AND CODE OF VILLAGE/MUNICIPALITY _____

WARD NUMBER . . . . . .

CLUSTER NUMBER . . . . . .

HOUSEHOLD NUMBER . . . . . .

CITY/TOWN/RURAL . . . . . .
(CITY=1, TOWN=2, RURAL=3)

NAME OF HOUSEHOLD HEAD _____

NAME OF RESPONDENT _____

HOUSEHOLD SELECTED FOR MALE SURVEY (YES=1; NO=2)

ALTITUDE . . . . . .

INTERVIEWER VISITS

	1	2	3	FINAL VISIT
DATE				DAY
				MONTH
				YEAR 2 0 6
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

LANGUAGE OF QUESTIONNAIRE ENGLISH 5

LANGUAGE OF INTERVIEW _____

NATIVE LANGUAGE OF RESPONDENT _____

TRANSLATOR USED (YES=1; NO=2) . . . . . .

LANGUAGE CODES: NEPALI=1; BHOJPURI=2; MAITHILI=3; THARU=4; OTHER=5

SUPERVISOR	FIELD EDITOR	OFFICE EDITOR	KEYED BY
NAME _____	NAME _____		
DATE _____	DATE _____		

Introduction and Consent

Hello. My name is _____ and I am working with the MINISTRY OF HEALTH AND POPULATION. We are conducting a national survey about various health issues. We would very much appreciate your participation in this survey. The survey usually takes between 20 and 30 minutes to complete.

As part of the survey we would first like to ask some questions about your household. All of the answers you give will be confidential. Participation in the survey is completely voluntary. If we should come to any question you don't want to answer, just let me know and I will go on to the next question; or you can stop the interview at any time. However, we hope you will participate in the survey since your views are important.

At this time, do you want to ask me anything about the survey?
May I begin the interview now?

Signature of interviewer:_____ Date: _____

RESPONDENT AGREES TO BE INTERVIEWED . . . 1 RESPONDENT DOES NOT AGREE TO BE INTERVIEWED . . . 2 → END

HOUSEHOLD SCHEDULE

							IF AGE 10 OR OLDER			
LINE NO.	USUAL RESIDENTS AND VISITORS	RELATIONSHIP TO HEAD OF HOUSEHOLD	SEX	RESIDENCE		AGE	MARITAL STATUS	ELIGIBILITY		
	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 5-23 FOR EACH PERSON.	What is the relationship of (NAME) to the head of the household? SEE CODES BELOW.	Is (NAME) male or female?	Does (NAME) usually live here?	Did (NAME) stay here last night?	How old is (NAME)?	What is (NAME'S) current marital status? 1 = CURRENTLY MARRIED 2 = MARRIED, BUT GAUNA NOT PERFORMED 3 = DIVORCED/ SEPARATED 4 = WIDOWED 5 = NEVER-MARRIED 8 = DON'T KNOW	CIRCLE LINE NUMBER OF ALL WOMEN AGE 15-49	CIRCLE LINE NUMBER OF ALL MEN AGE 15-59	CIRCLE LINE NUMBER OF ALL CHILDREN AGE 0-5
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
			M F	Y N	Y N	IN YEARS				
01			1 2	1 2	1 2			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
02 = WIFE OR HUSBAND
03 = SON OR DAUGHTER
04 = SON-IN-LAW OR DAUGHTER-IN-LAW
05 = GRANDCHILD
06 = PARENT
07 = PARENT-IN-LAW
08 = BROTHER OR SISTER
09 = BROTHER-IN-LAW OR SISTER-IN-LAW
10 = NIECE/NEPHEW
11 = CO-WIFE
12 = OTHER RELATIVE
13 = ADOPTED/FOSTER/STEPCHILD
14 = NOT RELATED
98 = DON'T KNOW

							IF AGE 10 OR OLDER			
LINE NO.	USUAL RESIDENTS AND VISITORS	RELATIONSHIP TO HEAD OF HOUSEHOLD	SEX	RESIDENCE		AGE	MARITAL STATUS	ELIGIBILITY		
	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 5-23 FOR EACH PERSON.	What is the relationship of (NAME) to the head of the household? SEE CODES BELOW.	Is (NAME) male or female?	Does (NAME) usually live here?	Did (NAME) stay here last night?	How old is (NAME)?	What is (NAME'S) current marital status? 1 = CURRENTLY MARRIED 2 = MARRIED, BUT GAUNA NOT PERFORMED 3 = DIVORCED/ SEPARATED 4 = WIDOWED 5 = NEVER-MARRIED 8 = DON'T KNOW	CIRCLE LINE NUMBER OF ALL WOMEN AGE 15-49	CIRCLE LINE NUMBER OF ALL MEN AGE 15-59	CIRCLE LINE NUMBER OF ALL CHILDREN AGE 0-5
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
			M F	Y N	Y N	IN YEARS				
11			1 2	1 2	1 2			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
02 = WIFE OR HUSBAND
03 = SON OR DAUGHTER
04 = SON-IN-LAW OR DAUGHTER-IN-LAW
05 = GRANDCHILD
06 = PARENT
07 = PARENT-IN-LAW
08 = BROTHER OR SISTER
09 = BROTHER-IN-LAW OR SISTER-IN-LAW
10 = NIECE/NEPHEW
11 = CO-WIFE
12 = OTHER RELATIVE
13 = ADOPTED/FOSTER/ STEPCHILD
14 = NOT RELATED
98 = DON'T KNOW

	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
	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?	Has (NAME) ever partici-pated in a literacy program or any other program that in-volves learning to read and write (not including primary school)?	What is the highest grade (NAME) has completed? SEE CODES BELOW.	Did (NAME) attend school at any time during the 2061 - 2062 (2062/63) year?	During this/that school year, what grade [is/was] (NAME) attending? SEE CODES BELOW.	Did (NAME) attend school at any time during the previous school year, that is, 2060 - 2061 (2061/62)?	During that school year, what grade did (NAME) attend? SEE CODES BELOW.	Does (NAME) have a birth certificate? IF NO, PROBE: Has (NAME)'s birth ever been registered with the VDC/ municipality? 1 = HAS CERTIFICATE 2 = REGISTERED 3 = NEITHER 8 = DON'T KNOW
(12)	(13)	(14)	(15)	(16)	(17)	(17A)	(18)	(19)	(20)	(21)	(22)	(23)
	Y N DK		Y N DK		Y N	Y N	GRADE	Y N	GRADE	Y N	GRADE	
01	1 2 8 → GO TO 15		1 2 8 → GO TO 17		1 2 → GO TO 18	1 2 → GO TO 23		1 2 → GO TO 21		1 2 → GO TO 23		
02	1 2 8 → GO TO 15		1 2 8 → GO TO 17		1 2 → GO TO 18	1 2 → GO TO 23		1 2 → GO TO 21		1 2 → GO TO 23		
03	1 2 8 → GO TO 15		1 2 8 → GO TO 17		1 2 → GO TO 18	1 2 → GO TO 23		1 2 → GO TO 21		1 2 → GO TO 23		
04	1 2 8 → GO TO 15		1 2 8 → GO TO 17		1 2 → GO TO 18	1 2 → GO TO 23		1 2 → GO TO 21		1 2 → GO TO 23		
05	1 2 8 → GO TO 15		1 2 8 → GO TO 17		1 2 → GO TO 18	1 2 → GO TO 23		1 2 → GO TO 21		1 2 → GO TO 23		
06	1 2 8 → GO TO 15		1 2 8 → GO TO 17		1 2 → GO TO 18	1 2 → GO TO 23		1 2 → GO TO 21		1 2 → GO TO 23		
07	1 2 8 → GO TO 15		1 2 8 → GO TO 17		1 2 → GO TO 18	1 2 → GO TO 23		1 2 → GO TO 21		1 2 → GO TO 23		
08	1 2 8 → GO TO 15		1 2 8 → GO TO 17		1 2 → GO TO 18	1 2 → GO TO 23		1 2 → GO TO 21		1 2 → GO TO 23		
09	1 2 8 → GO TO 15		1 2 8 → GO TO 17		1 2 → GO TO 18	1 2 → GO TO 23		1 2 → GO TO 21		1 2 → GO TO 23		
10	1 2 8 → GO TO 15		1 2 8 → GO TO 17		1 2 → GO TO 18	1 2 → GO TO 23		1 2 → GO TO 21		1 2 → GO TO 23		

CODES FOR Qs. 18, 20 AND 22: EDUCATION

00 = LESS THAN 1 YEAR COMPLETED (USE '00' FOR Q. 18 ONLY. THIS CODE IS NOT ALLOWED FOR QS. 20 AND 22)
01-09 = GRADE 1 - GRADE 9

GRADE
10 = COMPLETED SLC
11 = GRADE 11
12 = GRADE 12
13 = BACHELOR'S NOT COMPLETE
14 = BACHELOR'S COMPLETE/HIGHER

94 = SCHOOL BASED PRE-PRIMARY CENTERS
95 = INFORMAL PRESCHOOL
98 = DON'T KNOW

	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
	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?	Has (NAME) ever partici-pated in a literacy program or any other program that in-volves learning to read and write (not including primary school)?	What is the highest grade (NAME) has completed? SEE CODES BELOW.	Did (NAME) attend school at any time during the 2061 - 2062 (2062/63) year?	During this/that school year, what grade [is/was] (NAME) attending? SEE CODES BELOW.	Did (NAME) attend school at any time during the previous school year, that is, 2060 - 2061 (2061/62)?	During that school year, what grade did (NAME) attend? SEE CODES BELOW.	Does (NAME) have a birth certificate? IF NO, PROBE: Has (NAME)'s birth ever been registered with the VDC/ municipality? 1 = HAS CERTIFICATE 2 = REGISTERED 3 = NEITHER 8 = DON'T KNOW
(12)	(13)	(14)	(15)	(16)	(17)	(17A)	(18)	(19)		(21)	(22)	(23)
	Y N DK		Y N DK	DK	Y N	Y N	GRADE	Y N	GRADE	Y N	GRADE	
11	1 2 8 GO TO 15		1 2 8 GO TO 17		1 2 GO TO 18	1 2 GO TO 23		1 2 GO TO 21		1 2 GO TO 23		
12	1 2 8 GO TO 15		1 2 8 GO TO 17		1 2 GO TO 18	1 2 GO TO 23		1 2 GO TO 21		1 2 GO TO 23		
13	1 2 8 GO TO 15		1 2 8 GO TO 17		1 2 GO TO 18	1 2 GO TO 23		1 2 GO TO 21		1 2 GO TO 23		
14	1 2 8 GO TO 15		1 2 8 GO TO 17		1 2 GO TO 18	1 2 GO TO 23		1 2 GO TO 21		1 2 GO TO 23		
15	1 2 8 GO TO 15		1 2 8 GO TO 17		1 2 GO TO 18	1 2 GO TO 23		1 2 GO TO 21		1 2 GO TO 23		
16	1 2 8 GO TO 15		1 2 8 GO TO 17		1 2 GO TO 18	1 2		1 2 GO TO 21		1 2 GO TO 23		
17	1 2 8 GO TO 15		1 2 8 GO TO 17		1 2 GO TO 18	1 2 GO TO 23		1 2 GO TO 21		1 2 GO TO 23		
18	1 2 8 GO TO 15		1 2 8 GO TO 17		1 2 GO TO 18	1 2 GO TO 23		1 2 GO TO 21		1 2 GO TO 23		
19	1 2 8 GO TO 15		1 2 8 GO TO 17		1 2 GO TO 18	1 2 GO TO 23		1 2 GO TO 21		1 2 GO TO 23		
20	1 2 8 GO TO 15		1 2 8 GO TO 17		1 2 GO TO 18	1 2 GO TO 23		1 2 GO TO 21		1 2 GO TO 23		

CODES FOR Qs. 18, 20, AND 22: EDUCATION

GRADE

00 = LESS THAN 1 YEAR COMPLETED (USE '00' FOR Q. 18 ONLY. THIS CODE IS NOT ALLOWED FOR QS. 20 AND 22)
01-09 = GRADE 1 - GRADE 9
10 = COMPLETED SLC
11 = GRADE 11
12 = GRADE 12
13 = BACHELOR'S NOT COMPLETE
14 = BACHELOR'S COMPLETE/HIGHER
94 = SCHOOL BASED PRE-PRIMARY CENTERS
95 = INFORMAL PRESCHOOL
98 = DON'T KNOW

MIGRATION

24	Now I would like to ask you some questions about family members of the head of the household who lived here anytime in the last 12 months but who are now away. Are there any member of (his/her) family who lived here in the last 12 months but who are now away?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 101

			IF AGE 15 AND ABOVE						
LINE NO.	MIGRANTS	AGE	RELATIONSHIP TO HEAD OF HOUSEHOLD	SEX	MARITAL STATUS	EVER ATTENDED SCHOOL		MONTHS AWAY	PLACE TRAVELLED
	Please give me the names of the persons who are living outside of this household?	How old is (NAME)?	What is the relationship of (NAME) to the head of the household? SEE CODES BELOW.	Is (NAME) male or female?	What is (NAME'S) current marital status? 1 = CURRENTLY MARRIED 2 = MARRIED, BUT GAUNA NOT PERFORMED 3 = DIVORCED/ SEPARATED 4 = WIDOWED 5 = NEVER-MARRIED 8 = DON'T KNOW	Has (NAME) ever attended school?	What is the highest grade (NAME) has completed? SEE CODES BELOW.	How many months has (NAME) been away in total in the last 12 months?	Where has (NAME) travelled in the last 12 months? PROMPT: Anywhere else? CIRCLE ALL PLACES MENTIONED. IF 'INDIA' ASK FOR NAME OF CITY AND STATE; IF OTHER THAN INDIA OR NEPAL CIRCLE CODE C AND WRITE NAME OF COUNTRY.
(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)
01	_____	IN YEARS ☐☐	☐☐	M F 1 2	☐	Y N 1 2 ↓ GO TO 33	GRADE ☐☐	MONTH ☐☐	NEPAL . . . . . A INDIA B _____ (SPECIFY CITY/STATE) OTHER X _____ (SPECIFY COUNTRY) DON'T KNOW . . . . . Z
02	_____	IN YEARS ☐☐	☐☐	M F 1 2	☐	Y N 1 2 ↓ GO TO 33	GRADE ☐☐	☐☐	NEPAL . . . . . A INDIA B _____ (SPECIFY CITY/STATE) OTHER X _____ (SPECIFY COUNTRY) DON'T KNOW . . . . . Z
03	_____	IN YEARS ☐☐	☐☐	M F 1 2	☐	Y N 1 2 ↓ GO TO 33	GRADE ☐☐	☐☐	NEPAL . . . . . A INDIA B _____ (SPECIFY CITY/STATE) OTHER X _____ (SPECIFY COUNTRY) DON'T KNOW . . . . . Z
04	_____	IN YEARS ☐☐	☐☐	M F 1 2	☐	Y N 1 2 ↓ GO TO 33	GRADE ☐☐	☐☐	NEPAL . . . . . A INDIA B _____ (SPECIFY CITY/STATE) OTHER X _____ (SPECIFY COUNTRY) DON'T KNOW . . . . . Z
05	_____	IN YEARS ☐☐	☐☐	M F 1 2	☐	Y N 1 2 ↓ GO TO 33	GRADE ☐☐	☐☐	NEPAL . . . . . A INDIA B _____ (SPECIFY CITY/STATE) OTHER X _____ (SPECIFY COUNTRY) DON'T KNOW . . . . . Z

Q.34A TOTAL NUMBER OF MIGRANTS ☐☐

TICK HERE IF CONTINUATION SHEET USED ☐

CODES FOR Q. 28: RELATIONSHIP TO HEAD OF HOUSEHOLD

01 = HEAD
02 = WIFE OR HUSBAND
03 = SON OR DAUGHTER
04 = SON-IN-LAW OR DAUGHTER-IN-LAW
05 = GRANDCHILD
06 = PARENT
07 = PARENT-IN-LAW
08 = BROTHER OR SISTER
09 = BROTHER-IN-LAW OR SISTER-IN-LAW
10 = NIECE/NEPHEW
11 = CO-WIFE
12 = OTHER RELATIVE
13 = ADOPTED/FOSTER/ STEPCHILD
14 = NOT RELATED
98 = DON'T KNOW

CODES FOR Q.32: GRADE COMPLETED

00 = LESS THAN 1 YEAR COMPLET
01-09 = GRADE 1 - GRADE 9
10 = COMPLETED SLC
11 = INTERMEDIATE NOT COMPLETE
12 = INTERMEDIATE COMPLETE
13 = BACHELOR'S NOT COMPLETE
14 = BACHELOR'S COMPLETE/HIGHER
96 = NON-FORMAL EDUCATION
98 = DON'T KNOW

HOUSEHOLD CHARACTERISTICS

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES		SKIP
101	What is the main source of drinking water for members of your household?	PIPED WATER		
		PIPED INTO HOUSE	11	
		PIPED TO YARD/PLOT	12	106
		PUBLIC TAP/STANDPIPE	13	
		TUBE WELL OR BOREHOLE	21	
		DUG WELL		
		PROTECTED WELL	31	103
		UNPROTECTED WELL	32	
		WATER FROM SPRING		
		PROTECTED SPRING	41	
		UNPROTECTED SPRING	42	
		RAINWATER	51	106
		TANKER TRUCK	61	
		SURFACE WATER (RIVER/DAM/ LAKE/POND/STREAM/CANAL/ IRRIGATION CANAL)	71	103
		STONE TAP/DHARA	81	
		BOTTLED WATER	91	
		OTHER _____ (SPECIFY)	96	103
102	What is the main source of water used by your household for other purposes such as cooking and handwashing?	PIPED WATER		
		PIPED INTO HOUSE	11	
		PIPED TO YARD/PLOT	12	106
		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	106
		TANKER TRUCK	61	
		SURFACE WATER (RIVER/DAM/ LAKE/POND/STREAM/CANAL/ IRRIGATION CANAL)	71	
		STONE TAP/DHARA	81	
		OTHER _____ (SPECIFY)	96	
103	Where is that water source located?	IN OWN HOUSE	1	
		IN OWN YARD/PLOT	2	106
		ELSEWHERE	3	
104	How long does it take to go there, get water, and come back?	MINUTES	[ ][ ][ ]	
		ON PREMISES	996	106
		DON'T KNOW	998	
105	Who usually goes to this source to fetch the water for your household?	ADULT WOMAN	1	
		ADULT MAN	2	
		FEMALE CHILD UNDER 15 YEARS OLD	3	
		MALE CHILD UNDER 15 YEARS OLD	4	
		OTHER _____ (SPECIFY)	6	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES		SKIP
106	Do you do anything to the water to make it safer to drink?	YES	1	
		NO	2	
		DON'T KNOW	8	→ 108
107	What do you usually do to make the water safer to drink?	BOIL	A	
		ADD BLEACH/CHLORINE/ PIYUSH/WATERGUARD	B	
	Anything else?	STRAIN THROUGH A CLOTH	C	
	RECORD ALL MENTIONED.	USE WATER FILTER (CERAMIC/ SAND/COMPOSITE/ETC.)	D	
		SOLAR DISINFECTION	E	
		LET IT STAND AND SETTLE	F	
		OTHER _____ (SPECIFY)	X	
		DON'T KNOW	Z	
108	What kind of toilet facility do members of your household usually use?	FLUSH OR POUR FLUSH TOILET		
		FLUSH TO PIPED SEWER SYSTEM	11	
		FLUSH TO SEPTIC TANK	12	
		FLUSH TO PIT LATRINE	13	
		FLUSH TO SOMEWHERE ELSE	14	
		FLUSH, DON'T KNOW WHERE	15	
		PIT LATRINE		
		VENTILATED IMPROVED PIT LATRINE	21	
		PIT LATRINE WITH SLAB	22	
	IF NECESSARY OBSERVE.	PIT LATRINE WITHOUT SLAB/ OPEN PIT	23	
		COMPOSTING TOILET	31	
		BUCKET TOILET	41	
		NO FACILITY/BUSH/FIELD	51	→ 111
		OTHER _____ (SPECIFY)	96	
109	Do you share this toilet facility with other households?	YES	1	
		NO	2	→ 111
110	How many households use this toilet facility?	NO. OF HOUSEHOLDS IF LESS THAN 10	0 [ ]	
		10 OR MORE HOUSEHOLDS	95	
		DON'T KNOW	98	
111	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 table?	TABLE	1 / 2	
	A chair?	CHAIR	1 / 2	
	A bed?	BED	1 / 2	
	A sofa?	SOFA	1 / 2	
	A cupboard?	CUPBOARD	1 / 2	
	A computer?	COMPUTER	1 / 2	
	A watch/clock?	CLOCK	1 / 2	
	A fan?	FAN	1 / 2	
	A dhiki/janto?	DHIKI/JANTO	1 / 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES		SKIP
112	What type of fuel does your household mainly use for cooking?	ELECTRICITY	01	
		LPG	02	→ 115
		NATURAL GAS	03	
		BIOGAS	04	
		KEROSENE	05	
		COAL, LIGNITE	06	
		CHARCOAL	07	
		WOOD	08	
		STRAW/SHRUBS/GRASS	09	
		AGRICULTURAL CROP	10	
		ANIMAL DUNG	11	
		NO FOOD COOKED IN HOUSEHOLD	95	→ 117
		OTHER _____ (SPECIFY)	96	
113	In this household, is food cooked on an open fire, a stove, or a chulo?	OPEN FIRE	1	
		STOVE	2	
		CHULO	3	
	PROBE FOR TYPE.	OTHER _____ (SPECIFY)	6	
114	Does this (fire/stove/chulo/other) have a chimney, a hood, or neither of these?	CHIMNEY	1	
		HOOD	2	
		NEITHER	3	
115	Is the cooking usually done in the house, in a separate building, or outdoors?	IN THE HOUSE	1	
		IN A SEPARATE BUILDING	2	
		OUTDOORS	3	→ 117
		OTHER _____ (SPECIFY)	6	
116	Do you have a separate room which is used as a kitchen?	YES	1	
		NO	2	
117	MAIN MATERIAL OF THE FLOOR.	NATURAL FLOOR		
		EARTH/MUD	11	
	RECORD OBSERVATION.	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	34	
		CARPET	35	
		OTHER _____ (SPECIFY)	96	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
118	MAIN MATERIAL OF THE ROOF. RECORD OBSERVATION.	NATURAL ROOFING NO ROOF . . . . . 11 THATCH/STRAW . . . . . 12 RUDIMENTARY ROOFING RUSTIC MAT . . . . . 21 BAMBOO . . . . . 22 WOOD PLANKS . . . . . 23 CARDBOARD . . . . . 24 FINISHED ROOFING GALVANIZED SHEET . . . . . 31 WOOD . . . . . 32 ASBESTOS . . . . . 33 CERAMIC TILES/SLATE . . . . . 34 CEMENT . . . . . 35 ROOFING SHINGLES . . . . . 36 OTHER _____ 96 (SPECIFY)	
119	MAIN MATERIAL OF THE EXTERIOR WALLS. RECORD OBSERVATION.	NATURAL WALLS NO WALLS . . . . . 11 CANE/PALM/TRUNKS . . . . . 12 MUD/SAND . . . . . 13 RUDIMENTARY WALLS BAMBOO WITH MUD . . . . . 21 STONE WITH MUD . . . . . 22 PLYWOOD . . . . . 23 CARDBOARD . . . . . 24 REUSED WOOD . . . . . 25 FINISHED WALLS CEMENT . . . . . 31 STONE WITH LIME/CEMENT . . . . . 32 BRICKS . . . . . 33 CEMENT BLOCKS . . . . . 34 WOOD PLANKS . . . . . 35 OTHER _____ 96 (SPECIFY)	
120	How many rooms in this household are used for sleeping?	ROOMS . . . . . [ ][ ]	
121	Does any member of this household own: A bicycle/rickshaw? A motorcycle or motor scooter? A tempo? An animal-drawn cart? A car or truck?	YES NO BICYCLE/RICKSHAW . . . . . 1 2 MOTORCYCLE/SCOOTER . . . 1 2 TEMPO . . . . . 1 2 ANIMAL-DRAWN CART . . . . . 1 2 CAR/TRUCK 1 2	
122	Does any member of this household own any agricultural land?	YES . . . . . 1 NO 2	→ 124

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
123	How many bighas/ropani of agricultural land do members of this household own? CIRCLE '1' FOR BIGHAS AND '2' FOR ROPANI	BIGHAS . . . . . 1 [ ][ ] ROPANI . . . . . 2 [ ][ ] 99 OR MORE BIGHAS/ROPANI . . . . . 995 DON'T KNOW 998	
124	Does this household own any livestock, herds, other farm animals, or poultry?	YES . . . . . 1 NO 2	→ 126
125	How many of the following animals does this household own? IF NONE, ENTER '00'. IF MORE THAN 95, ENTER '95'. IF UNKNOWN, ENTER '98'.		
	Buffalo	BUFFALO . . . . . [ ][ ]	
	Milk cows or bulls?	COWS/BULLS . . . . . [ ][ ]	
	Horses, donkeys, or mules?	HORSES/DONKEYS/MULES . . . [ ][ ]	
	Goats?	GOATS . . . . . [ ][ ]	
	Sheep?	SHEEP . . . . . [ ][ ]	
	Chickens?	CHICKENS . . . . . [ ][ ]	
	Ducks?	DUCKS . . . . . [ ][ ]	
	Pigs	PIGS . . . . . [ ][ ]	
	Yaks?	YAKS . . . . . [ ][ ]	
126	Does any member of this household have a bank /cooperative/or other savings account?	YES . . . . . 1 NO 2	
127	Does your household have any mosquito nets that can be used while sleeping?	YES . . . . . 1 NO 2	→ 201
128	How many mosquito nets does your household have? IF 7 OR MORE NETS, RECORD '7'.	NUMBER OF NETS . . . . . [ ]	

WEIGHT, HEIGHT AND HEMOGLOBIN MEASUREMENT FOR CHILDREN AGE 0-5

201	CHECK COLUMN 11. 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).			
		CHILD 1	CHILD 2	CHILD 3
202	LINE NUMBER (COLUMN 11) NAME (COLUMN 2)	LINE NUMBER . . . [ ][ ] NAME _____	LINE NUMBER . . . [ ][ ] NAME _____	LINE NUMBER . . . [ ][ ] NAME _____
203	What is (NAME'S) birth date? IF MOTHER INTERVIEWED, COPY MONTH AND YEAR FROM PREGNANCY HISTORY AND ASK DAY; IF MOTHER NOT INTERVIEWED, ASK DAY, MONTH AND YEAR.	DAY . . . . . [ ][ ] MONTH . . . . . [ ][ ] YEAR [ ][ ][ ][ ]	DAY . . . . . [ ][ ] MONTH . . . . . [ ][ ] YEAR [ ][ ][ ][ ]	DAY . . . . . [ ][ ] MONTH . . . . . [ ][ ] YEAR [ ][ ][ ][ ]
204	CHECK 203: CHILD BORN IN BAISAKH 2057 OR LATER?	YES . . . . . 1 NO . . . . . 2 (GO TO 203 FOR NEXT CHILD OR, IF NO MORE, GO TO 215)	YES . . . . . 1 NO . . . . . 2 (GO TO 203 FOR NEXT CHILD OR, IF NO MORE, GO TO 215)	YES . . . . . 1 NO . . . . . 2 (GO TO 203 FOR NEXT CHILD OR, IF NO MORE, GO TO 215)
205	WEIGHT IN KILOGRAMS	KG. . . . [ ][ ] . [ ]	KG. . . . [ ][ ] . [ ]	KG. . . . [ ][ ] . [ ]
206	HEIGHT IN CENTIMETERS	CM. [ ][ ][ ] . [ ]	CM. [ ][ ][ ] . [ ]	CM. [ ][ ][ ] . [ ]
207	MEASURED LYING DOWN OR STANDING UP?	LYING DOWN . . . . . 1 STANDING UP 2	LYING DOWN . . . . . 1 STANDING UP 2	LYING DOWN . . . . . 1 STANDING UP 2
208	RESULT OF WEIGHT AND HEIGHT MEASUREMENT	MEASURED . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER 6	MEASURED . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER 6	MEASURED . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER 6
209	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, GO TO 215) OLDER 2	0-5 MONTHS . . . . . 1 (GO TO 203 FOR NEXT CHILD OR, IF NO MORE, GO TO 215) OLDER 2	0-5 MONTHS . . . . . 1 (GO TO 203 FOR NEXT CHILD OR, IF NO MORE, GO TO 215) OLDER 2
210	LINE NUMBER OF PARENT/OTHER ADULT RESPONSIBLE FOR THE CHILD (COLUMN 1) RECORD '00' IF NOT LISTED.	LINE NUMBER . . . [ ][ ]	LINE NUMBER . . . [ ][ ]	LINE NUMBER . . . [ ][ ]
211	READ CONSENT STATEMENT TO PARENT/OTHER ADULT RESPONSIBLE FOR CHILD. CIRCLE CODE AND SIGN.	GRANTED 1 _____ (SIGN) REFUSED . . . . . 2 (IF REFUSED, GO TO 213)	GRANTED 1 _____ (SIGN) REFUSED . . . . . 2 (IF REFUSED, GO TO 213)	GRANTED 1 _____ (SIGN) REFUSED . . . . . 2 (IF REFUSED, GO TO 213)
212	RECORD HEMOGLOBIN LEVEL HERE AND IN THE ANEMIA PAMPHLET.	G/DL . [ ][ ] . [ ]	G/DL . [ ][ ] . [ ]	G/DL . [ ][ ] . [ ]
213	RECORD RESULT CODE OF HEMOGLOBIN MEASUREMENT	MEASURED . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER 6	MEASURED . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER 6	MEASURED . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER 6
214		GO BACK TO 203 IN NEXT COLUMN IN THIS QUESTIONNAIRE OR IN THE FIRST COLUMN OF THE ADDITIONAL QUESTIONNAIRE(S); IF NO MORE CHILDREN, GO TO 215.		

CONSENT STATEMENT FOR ANEMIA FOR CHILDREN

As part of this survey, we are asking people all over the country to take an anemia test. Anemia is a serious health problem that usually results from poor nutrition, infection, or chronic disease. This survey will assist the government to develop programs to prevent and treat anemia.

We request that all children born in 2057 or later aged at least 6 months participate in the anemia testing part of this survey and give a few drops of blood from a finger. The equipment used in taking the blood is clean and completely safe. It has never been used before and will be thrown away after each test.

The blood will be tested for anemia immediately, and the result told to you right away. The result will be kept confidential.

Do you have any questions?

You can say yes to the test, or you can say no. It is up to you to decide.
Will you allow (NAME(S) OF CHILD(REN) to participate in the anemia test?

WEIGHT, HEIGHT AND HEMOGLOBIN MEASUREMENT FOR CHILDREN AGE 0-5

		CHILD 4	CHILD 5	CHILD 6
202	LINE NUMBER FROM COLUMN 11 NAME FROM COLUMN 2	LINE NUMBER . . . [ ][ ] NAME _____	LINE NUMBER . . . [ ][ ] NAME _____	LINE NUMBER . . . [ ][ ] NAME _____
203	What is (NAME'S) birth date? IF MOTHER INTERVIEWED, COPY MONTH AND YEAR FROM PREGNANCY HISTORY AND ASK DAY; IF MOTHER NOT INTERVIEWED, ASK DAY, MONTH AND YEAR.	DAY . . . . . [ ][ ] MONTH . . . . . [ ][ ] YEAR [ ][ ][ ][ ]	DAY . . . . . [ ][ ] MONTH . . . . . [ ][ ] YEAR [ ][ ][ ][ ]	DAY . . . . . [ ][ ] MONTH . . . . . [ ][ ] YEAR [ ][ ][ ][ ]
204	CHECK 203: CHILD BORN IN BAISAKH 2057 OR LATER	YES . . . . . 1 NO . . . . . 2 (GO TO 203 FOR NEXT CHILD OR, IF NO MORE, GO TO 215)	YES . . . . . 1 NO . . . . . 2 (GO TO 203 FOR NEXT CHILD OR, IF NO MORE, GO TO 215)	YES . . . . . 1 NO . . . . . 2 (GO TO 203 FOR NEXT CHILD OR, IF NO MORE, GO TO 215)
205	WEIGHT IN KILOGRAMS	KG. . . . [ ][ ] . [ ]	KG. . . . [ ][ ] . [ ]	KG. . . . [ ][ ] . [ ]
206	HEIGHT IN CENTIMETERS	CM. [ ][ ][ ] . [ ]	CM. [ ][ ][ ] . [ ]	CM. [ ][ ][ ] . [ ]
207	MEASURED LYING DOWN OR STANDING UP?	LYING DOWN . . . . . 1 STANDING UP 2	LYING DOWN . . . . . 1 STANDING UP 2	LYING DOWN . . . . . 1 STANDING UP 2
208	RESULT OF WEIGHT AND HEIGHT MEASUREMENT	MEASURED . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER 6	MEASURED . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER 6	MEASURED . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER 6
209	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, GO TO 215) OLDER 2	0-5 MONTHS . . . . . 1 (GO TO 203 FOR NEXT CHILD OR, IF NO MORE, GO TO 215) OLDER 2	0-5 MONTHS . . . . . 1 (GO TO 203 FOR NEXT CHILD OR, IF NO MORE, GO TO 215) OLDER 2
210	LINE NUMBER OF PARENT/OTHER ADULT RESPONSIBLE FOR THE CHILD (COLUMN 1) RECORD '00' IF NOT LISTED.	LINE NUMBER . . . [ ][ ]	LINE NUMBER . . . [ ][ ]	LINE NUMBER . . . [ ][ ]
211	READ CONSENT STATEMENT TO PARENT/OTHER ADULT RESPONSIBLE FOR CHILD. CIRCLE CODE AND SIGN.	GRANTED 1 _____ (SIGN) REFUSED . . . . . 2 (IF REFUSED, GO TO 213)	GRANTED 1 _____ (SIGN) REFUSED . . . . . 2 (IF REFUSED, GO TO 213)	GRANTED 1 _____ (SIGN) REFUSED . . . . . 2 (IF REFUSED, GO TO 213)
212	RECORD HEMOGLOBIN LEVEL HERE AND IN THE ANEMIA PAMPHLET.	G/DL . [ ][ ] . [ ]	G/DL . [ ][ ] . [ ]	G/DL . [ ][ ] . [ ]
213	RECORD RESULT CODE OF HEMOGLOBIN MEASUREMENT	MEASURED . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER 6	MEASURED . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER 6	MEASURED . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER 6
214		GO BACK TO 203 IN NEXT COLUMN IN THIS QUESTIONNAIRE OR IN THE FIRST COLUMN OF ADDITIONAL QUESTIONNAIRE(S); IF NO MORE CHILDREN, GO TO 215.		

TICK HERE IF CONTINUED IN ANOTHER QUESTIONNAIRE. [ ]

WEIGHT, HEIGHT AND HEMOGLOBIN MEASUREMENT FOR WOMEN AGE 15-49

215	CHECK COLUMN 9. RECORD THE LINE NUMBER AND NAME FOR ALL ELIGIBLE WOMEN IN 216. IF THERE ARE MORE THAN THREE WOMEN, USE ADDITIONAL QUESTIONNAIRE(S). A FINAL OUTCOME FOR THE ANEMIA TEST PROCEDURE MUST BE RECORDED IN 228.			
		WOMAN 1	WOMAN 2	WOMAN 3
216	LINE NUMBER (COLUMN 9) NAME (COLUMN 2)	LINE NUMBER . . . . . [ ][ ] NAME _____	LINE NUMBER . . . . . [ ][ ] NAME _____	LINE NUMBER . . . . . [ ][ ] NAME _____
217	WEIGHT IN KILOGRAMS	KG. . . . . [ ][ ][ ].[ ]	KG. . . . . [ ][ ][ ].[ ]	KG. . . . . [ ][ ][ ].[ ]
218	HEIGHT IN CENTIMETERS	CM. . . . . [ ][ ][ ].[ ]	CM. . . . . [ ][ ][ ].[ ]	CM. . . . . [ ][ ][ ].[ ]
219	RESULT OF WEIGHT AND HEIGHT MEASUREMENT	MEASURED . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER 6	MEASURED . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER 6	MEASURED . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER 6
220	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)
221	MARITAL STATUS: CHECK COLUMN 8.	CODE 2 AND 5 (NOT IN UNION/ GAUNA NOT PERF.) . . . . . 1 OTHER . . . . . 2 (GO TO 223)	CODE 2 AND 5 (NOT IN UNION/ GAUNA NOT PERF.) . . . . . 1 OTHER . . . . . 2 (GO TO 223)	CODE 2 AND 5 (NOT IN UNION/ GAUNA NOT PERF.) . . . . . 1 OTHER . . . . . 2 (GO TO 223)
222	RECORD LINE NUMBER OF PARENT/OTHER ADULT RESPON-SIBLE 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 . [ ][ ]
223	READ ANEMIA TEST CONSENT STATEMENT. FOR NEVER-IN-UNION/ NO GAUNA WOMEN AGE 15-17, ASK CONSENT FROM PARENT/OTHER ADULT IDENTIFIED IN 222 BEFORE ASKING RESPON-DENT'S CONSENT.	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 RESPONDENT REFUSED . . . . . 3 _____ (SIGN) (IF REFUSED, GO TO 228).	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 RESPONDENT REFUSED . . . . . 3 _____ (SIGN) (IF REFUSED, GO TO 228).	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 RESPONDENT REFUSED . . . . . 3 _____ (SIGN) (IF REFUSED, GO TO 228).

CONSENT STATEMENT FOR ANEMIA TEST

READ CONSENT STATEMENT TO EACH RESPONDENT. CIRCLE CODE '1' IN 223 IF RESPONDENT CONSENTS TO THE ANEMIA TEST AND CODE '3' IF SHE REFUSES.

FOR NEVER-IN-UNION/NO GAUNA WOMEN AGE 15-17, ASK CONSENT FROM THE PARENT OR OTHER ADULT IDENTIFIED AS RESPONSIBLE FOR THE ADOLESCENT (SEE 222) BEFORE ASKING THE ADOLESCENT FOR HER CONSENT. CIRCLE CODE '2' IN 223 IF THE PARENT (OTHER ADULT) REFUSES. CONDUCT THE TEST ONLY IF BOTH THE PARENT (OTHER ADULT) AND THE ADOLESCENT CONSENT.

As part of this survey, we are asking people all over the country to take an anemia test. Anemia is a serious health problem that usually results from poor nutrition, infection, or chronic disease. This survey will assist the government to develop programs to prevent and treat anemia.

For the anemia testing, we will need a few drops of blood from a finger. The equipment used in taking the blood is clean and completely safe. It has never been used before and will be thrown away after each test.

The blood will be tested for anemia immediately, and the result told to you right away. The result will be kept confidential.

Do you have any questions?

You can say yes to the test, or you can say no. It is up to you to decide.
Will you (allow NAME OF ADOLESCENT to) take the anemia test?

		WOMAN 1	WOMAN 2	WOMAN 3
224	LINE NUMBER (COLUMN 9) NAME (COLUMN 2)	LINE NUMBER . . . . . [ ][ ] NAME _____	LINE NUMBER . . . . . [ ][ ] NAME _____	LINE NUMBER . . . . . [ ][ ] NAME _____
225	PREGNANCY STATUS: CHECK 236 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
226	CHECK 223 AND PREPARE EQUIPMENT AND SUPPLIES FOR THE ANEMIA TEST FOR WHICH CONSENT HAS BEEN OBTAINED AND PROCEED WITH THE TEST(S). A FINAL OUTCOME FOR THE THE ANEMIA TEST PROCEDURE MUST BE RECORDED IN 228 FOR EACH ELIGIBLE WOMAN EVEN IF SHE WAS NOT PRESENT, REFUSED, OR COULD NOT BE TESTED FOR SOME OTHER REASON.			
227	RECORD HEMO-GLOBIN LEVEL HERE AND IN ANEMIA PAMPHLET.	G/DL . . . . . [ ][ ].[ ]	G/DL . . . . . [ ][ ].[ ]	G/DL . . . . . [ ][ ].[ ]
228	RECORD RESULT CODE OF HEMO-GLOBIN MEASURE-MENT	MEASURED . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER 6	MEASURED . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER 6	MEASURED . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER 6

The cutoff point for anemia should be adjusted as follows depending on the altitude measurements noted on the cover page of the Household Questionnaire:

	Minimum Hemoglobin Level for Anemia:					
Altitude of the Place	Severe	Moderate	Mild (non-pregnant)	Mild (pregnant)	Not anemic (non-pregnant)	Not anemic (pregnant)
Less than 1000 metres:	*<7.0 g/dl*	7.0-9.9	10.0-11.9	10.0-10.9	12.0>	11.0>
1000 metres – 1499 metre:	*7.1 g/dl*	7.2-10.1	10.2-12.1	10.2-11.1	12.2>	11.2>
1500 metres – 1999 metres:	*7.4 g/dl*	7.5-10.4	10.5-12.4	10.5-11.4	12.5>	11.5>
2000 metres – 2499 metres:	*7.7 g/dl*	7.8-10.7	10.8-12.7	10.8-11.7	12.8>	11.8>
2500 metres – 2999 metres:	*8.2 g/dl*	8.3-11.2	11.3-13.2	11.3-12.2	13.3>	12.3>
3000 metres – 3499 metres:	*8.8 g/dl*	8.9-11.8	11.9-13.8	11.9-12.8	13.9>	12.9>
3500 metres – 3999 metres:	9.6 *g/dl*	9.7-12.6	12.7-14.6	12.7-13.6	14.7>	13.7>

10 March 2006

NEPAL DEMOGRAPHIC AND HEALTH SURVEY 2006
WOMAN'S QUESTIONNAIRE

IDENTIFICATION

NAME AND CODE OF DISTRICT _____

NAME AND CODE OF VILLAGE/MUNICIPALITY _____

WARD NUMBER . . . . . .

CLUSTER NUMBER . . . . . .

HOUSEHOLD NUMBER . . . . . .

CITY/TOWN/RURAL . . . . . .
(CITY=1, TOWN=2, RURAL=3)

NAME AND LINE NUMBER OF WOMAN _____

NAME OF HOUSEHOLD HEAD _____

WOMAN ELIGIBLE FOR VERBAL AUTOPSY QUESTIONNAIRE (YES=1; NO=2)

INTERVIEWER VISITS

	1	2	3	FINAL VISIT
DATE				DAY
				MONTH
				YEAR 2 0 6
INTERVIEWER'S NAME				INT. NUMBER
RESULT*				RESULT
NEXT VISIT: DATE				TOTAL NUMBER OF VISITS
TIME				

*RESULT CODES:

1	COMPLETED	5	PARTLY COMPLETED
2	NOT AT HOME	6	INCAPACITATED
3	POSTPONED	7	OTHER _____ (SPECIFY)
4	REFUSED		

NUMBER OF STILLBIRTHS

NUMBER OF NEONATAL DEATHS

NUMBER OF CHILD DEATHS

LANGUAGE OF QUESTIONNAIRE ENGLISH 5

LANGUAGE OF INTERVIEW _____

NATIVE LANGUAGE OF RESPONDENT _____

TRANSLATOR USED (YES=1; NO=2) . . . . . .

LANGUAGE CODES: NEPALI=1; BHOJPURI=2; MAITHILI=3; THARU=4; OTHER=5

SUPERVISOR	FIELD EDITOR	OFFICE EDITOR	KEYED BY
NAME _____	NAME _____		
DATE _____	DATE _____		

SECTION 1. RESPONDENT'S BACKGROUND

INTRODUCTION AND CONSENT

INFORMED CONSENT

Hello. My name is _____ and I am working with the MINISTRY OF HEALTH AND POPULATION. We are conducting a national survey that asks women (and men) about various health issues. We would very much appreciate your participation in this survey. This information will help the government to plan health services. The survey usually takes about 1 hour to complete. Whatever information you provide will be kept strictly confidential and will not be shown to other persons.

Participation in this survey is voluntary, and if we should come to any question you don't want to answer, just let me know and I will go on to the next question; or you can stop the interview at any time. However, we hope that you will participate in this survey since your views are important.
At this time, do you want to ask me anything about the survey?
May I begin the interview now?

Signature of interviewer: _____ Date: _____

RESPONDENT AGREES TO BE INTERVIEWED . . . . . 1 ↓ RESPONDENT DOES NOT AGREE TO BE INTERVIEWED . . . 2 → END

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
101	RECORD THE TIME.	HOUR . . . . . [ ][ ] MINUTES . . . . . [ ][ ]	
101A	COLLECT ANY RELEVANT DOCUMENTS THAT MAY HAVE INFORMATION ON THE RESPONDENT'S AGE AND HER CHILDREN'S AGE AND IMMUNISATIONS.		
102	How long have you been living continuously in (NAME OF CURRENT PLACE OF RESIDENCE)? IF LESS THAN ONE YEAR, RECORD '00' YEARS.	YEARS . . . . . [ ][ ] ALWAYS . . . . . 95 VISITOR 96	→ 104
103	Just before you moved here, did you live in a city, in a town, or in the countryside?	CITY . . . . . 1 TOWN . . . . . 2 COUNTRYSIDE 3	
104	Have you travelled away from your home community at any time in the last 12 months?	YES . . . . . 1 NO 2	→ 107
105	How many months in total have you been away in the last 12 months? IF LESS THAN 1 MONTH RECORD '00'.	NUMBER OF MONTHS . . . . . [ ][ ]	
106	Where have you travelled in the last 12 months? PROBE: Anywhere else? RECORD ALL PLACES MENTIONED. IF INDIA, WRITE NAME OF STATE/CITY. IF OTHER THAN INDIA AND NEPAL, WRITE NAME OF THE COUNTRY.	NEPAL . . . . . A INDIA _____ B (SPECIFY CITY/STATE) OTHER _____ X (SPECIFY COUNTRY)	
107	In what month and year were you born?	MONTH . . . . . [ ][ ] DON'T KNOW MONTH . . . . . 98 YEAR . . . . . [ ][ ][ ][ ] DON'T KNOW YEAR 9998	
108	How old were you at your last birthday? COMPARE AND CORRECT 107 AND/OR 108 IF INCONSISTENT.	AGE IN COMPLETED YEARS [ ][ ]	
109	Have you ever attended school?	YES . . . . . 1 NO 2	→ 112

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
110	What is the highest grade you completed?	GRADE . . . . . [ ][ ]	
111	CHECK 110: GRADE 5 OR LOWER [ ] GRADE 6 OR HIGHER [ ] → 115		
112	Now I would like you to read this sentence to me. SHOW CARD TO RESPONDENT. IF RESPONDENT CANNOT READ WHOLE SENTENCE, PROBE: Can you read any part of the sentence to me?	CANNOT READ AT ALL . . . . . 1 ABLE TO READ ONLY PARTS OF SENTENCE . . . . . 2 ABLE TO READ WHOLE SENTENCE. . 3 NO CARD WITH REQUIRED LANGUAGE _____ 4 (SPECIFY LANGUAGE) BLIND/VISUALLY IMPAIRED 5	
113	Have you ever participated in a literacy program or any other program that involves learning to read or write (not including primary school)?	YES . . . . . 1 NO 2	
114	CHECK 112: CODE '2', '3' OR '4' CIRCLED [ ] CODE '1' OR '5' CIRCLED [ ] → 116		
115	Do you read a newspaper or magazine almost every day, at least once a week, less than once a week or not at all?	ALMOST EVERY DAY . . . . . 1 AT LEAST ONCE A WEEK . . . . . 2 LESS THAN ONCE A WEEK . . . . . 3 NOT AT ALL 4	
116	Do you listen to the radio almost every day, at least once a week, less than once a week or not at all?	ALMOST EVERY DAY . . . . . 1 AT LEAST ONCE A WEEK . . . . . 2 LESS THAN ONCE A WEEK . . . . . 3 NOT AT ALL 4	
117	Do you watch television almost every day, at least once a week, less than once a week or not at all?	ALMOST EVERY DAY . . . . . 1 AT LEAST ONCE A WEEK . . . . . 2 LESS THAN ONCE A WEEK . . . . . 3 NOT AT ALL 4	
118	What is your religion?	HINDU 1 BUDDHIST . . . . . 2 MUSLIM . . . . . 3 KIRAT . . . . . 4 CHRISTIAN . . . . . 5 OTHER _____ 6 (SPECIFY)(SPECIFY)	
119	What is your caste/ethnicity? WRITE CASTE/ETHNICITY ON LINE PROVIDED. LEAVE BOX BLANK. CODE WILL BE FILLED BY FIELD EDITOR.	[ ][ ] _____ (CASTE/ETHNICITY)	

SECTION 2. REPRODUCTION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
201	Now I would like to ask you about all the pregnancies that you have had during your life. By this I mean all the children born to you whether they were born alive or dead, whether they are still living or not, whether they live with you or somewhere else, and all the pregnancies that you have had that did not result in a live birth. I understand that it is not easy to talk about children who have died, or pregnancies that ended before full term, but it is important that you tell us about all of them, so that the government can develop programs to improve children's health.		
202	First I would like to ask about all the births you have had during your life. Have you ever given birth?	YES . . . . . 1 NO 2	→ 207
203	Do you have any sons or daughters to whom you have given birth who are now living with you?	YES . . . . . 1 NO 2	→ 205
204	How many sons live with you? And how many daughters live with you? IF NONE, RECORD '00'.	SONS AT HOME . . . . . [ ][ ] DAUGHTERS AT HOME . . . . . [ ][ ]	
205	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	→ 207
206	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 . [ ][ ]	
207	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	→ 209
208	How many boys have died? And how many girls have died? IF NONE, RECORD '00'.	BOYS DEAD . . . . . [ ][ ] GIRLS DEAD . . . . . [ ][ ]	
209	Women sometimes have pregnancies that do not result in a live born child. That is, a pregnancy can end in a miscarriage, or the child can be born dead. Have you ever had a pregnancy that did not end in a live birth?	YES . . . . . 1 NO 2	→ 211
210	How many pregnancies have you had that did not end in a live birth?	PREGNANCY LOSSES . . . . . [ ][ ]	
211	SUM ANSWERS TO 204, 206, 208 AND 210 AND ENTER TOTAL. IF NONE, RECORD '00'.	TOTAL . . . . . [ ][ ]	
212	CHECK 211: Just to make sure that I have this right: you have had in TOTAL _____ pregnancies during your life. Is that correct? YES [ ] ↓ NO [ ] → PROBE AND CORRECT 202-211 AS NECESSARY.		
213	CHECK 211: ONE OR MORE PREGNANCIES [ ] ↓ NO PREGNANCIES [ ] →		236

214	Now I would like to record all your pregnancies, whether born alive, born dead, or lost before full term, starting with the first one you had. RECORD ALL THE PREGNANCIES IN 216. RECORD TWINS AND TRIPLETS ON SEPARATE LINES. (IF THERE ARE MORE THAN 10 PREGNANCIES, USE AN ADDITIONAL QUESTIONNAIRE STARTING WITH THE SECOND ROW).									
215	216	217	218	219	220	221	222	223	224	225
								IF BORN ALIVE AND STILL LIVING:		
	Think back to your first pregnancy. Was that a single or multiple pregnancy?	Was the baby born alive, born dead, or lost before birth?	Did that baby cry, move, or breathe when it was born?	What name was given to the child?	Is (NAME) a boy or a girl?	In what month and year was name born?	Is (NAME) still alive?	How old was (NAME) at his/her last birthday? RECORD AGE IN COM-PLETED YEARS.	Is (NAME) living with you?	RECORD HOUSE-HOLD LINE NUMBER OF CHILD (RECORD '00' IF CHILD NOT LISTED IN HOUSE-HOLD).
01	SING ... 1 MULT ... 2	BORN ALIVE .... 1 (SKIP TO 219) BORN DEAD .... 2 LOST BEFORE FULL TERM .... 3 (SKIP TO 228)	YES . . 1 NO . . . 2 228	_____ NAME	BOY ... 1 GIRL ... 2	MONTH [ ][ ] YEAR [ ][ ][ ][ ]	YES . . 1 NO . . . 2 226	AGE IN YEARS [ ][ ]	YES . . . 1 NO 2	LINE NUMBER [ ][ ] (NEXT PREGNANCY)
02	SING 1 MULT 2	BORN ALIVE .... 1 SKIP TO 219) BORN DEAD .... 2 LOST BEFORE FULL TERM .... 3 (SKIP TO 228)	YES . . 1 NO . . . 2 228	_____ NAME	BOY ... 1 GIRL ... 2	MONTH [ ][ ] YEAR [ ][ ][ ][ ]	YES . . 1 NO . . . 2 226	AGE IN YEARS [ ][ ]	YES . . . 1 NO 2	LINE NUMBER [ ][ ] (SKIP TO 231)
03	SING 1 MULT 2	BORN ALIVE .... 1 SKIP TO 219) BORN DEAD .... 2 LOST BEFORE FULL TERM .... 3 (SKIP TO 228)	YES . . 1 NO . . . 2 228	_____ NAME	BOY ... 1 GIRL ... 2	MONTH [ ][ ] YEAR [ ][ ][ ][ ]	YES . . 1 NO . . . 2 226	AGE IN YEARS [ ][ ]	YES . . . 1 NO 2	LINE NUMBER [ ][ ] (SKIP TO 231)
04	SING 1 MULT 2	BORN ALIVE .... 1 SKIP TO 219) BORN DEAD .... 2 LOST BEFORE FULL TERM .... 3 (SKIP TO 228)	YES . . 1 NO . . . 2 228	_____ NAME	BOY ... 1 GIRL ... 2	MONTH [ ][ ] YEAR [ ][ ][ ][ ]	YES . . 1 NO . . . 2 226	AGE IN YEARS [ ][ ]	YES . . . 1 NO 2	LINE NUMBER [ ][ ] (SKIP TO 231)
05	SING 1 MULT 2	BORN ALIVE .... 1 SKIP TO 219) BORN DEAD .... 2 LOST BEFORE FULL TERM .... 3 (SKIP TO 228)	YES . . 1 NO . . . 2 228	_____ NAME	BOY ... 1 GIRL ... 2	MONTH [ ][ ] YEAR [ ][ ][ ][ ]	YES . . 1 NO . . . 2 226	AGE IN YEARS [ ][ ]	YES . . . 1 NO 2	LINE NUMBER [ ][ ] (SKIP TO 231)
06	SING 1 MULT 2	BORN ALIVE .... 1 SKIP TO 219) BORN DEAD .... 2 LOST BEFORE FULL TERM .... 3 (SKIP TO 228)	YES . . 1 NO . . . 2 228	_____ NAME	BOY ... 1 GIRL ... 2	MONTH [ ][ ] YEAR [ ][ ][ ][ ]	YES . . 1 NO . . . 2 226	AGE IN YEARS [ ][ ]	YES . . . 1 NO 2	LINE NUMBER [ ][ ] (SKIP TO 231)

226	226A	227	228	229	230	231
	IF BORN ALIVE BUT NOW DEAD		IF BORN DEAD OR LOST BEFORE BIRTH			
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.	IF AGE AT DEATH IS REPORTED AS 5 YEARS OR LESS PROBE FOR EXACT NUMBER OF MONTHS AT DEATH FOR AGE AT DEATH MORE THAN 5 YEARS FOLLOW SKIP AS SHOWN	In what month and year did (NAME) die?	In what month and year did this pregnancy end?	How many months did this pregnancy last? RECORD IN COM-PLETED MONTHS.	Did you or someone else do something to end this pregnancy?	Were there any other pregnancies between the previous pregnancy and this pregnancy?
DAYS . . . 1 MONTHS 2 (SKIP TO 227) YEARS . . 3	MONTH (NEXT PREGNANCY)	MONTH YEAR (NEXT PREGNANCY)	MONTH YEAR	MONTHS	YES . . . 1 NO 2	
DAYS . . . 1 MONTHS 2 (SKIP TO 227) YEARS . . 3	MONTH (SKIP TO 231)	MONTH YEAR (SKIP TO 231)	MONTH YEAR	MONTHS	YES . . . 1 NO 2	YES . . . . 1 ADD PREG. NO . . . . . 2 NEXT PREG.
DAYS . . . 1 MONTHS 2 (SKIP TO 227) YEARS . . 3	MONTH (SKIP TO 231)	MONTH YEAR (SKIP TO 231)	MONTH YEAR	MONTHS	YES . . . 1 NO 2	YES . . . . 1 ADD PREG. NO . . . . . 2 NEXT PREG.
DAYS . . . 1 MONTHS 2 (SKIP TO 227) YEARS . . 3	MONTH (SKIP TO 231)	MONTH YEAR (SKIP TO 231)	MONTH YEAR	MONTHS	YES . . . 1 NO 2	YES . . . . 1 ADD PREG. NO . . . . . 2 NEXT PREG.
DAYS . . . 1 MONTHS 2 (SKIP TO 227) YEARS . . 3	MONTH (SKIP TO 231)	MONTH YEAR (SKIP TO 231)	MONTH YEAR	MONTHS	YES . . . 1 NO 2	YES . . . . 1 ADD PREG. NO . . . . . 2 NEXT PREG.
DAYS . . . 1 MONTHS 2 (SKIP TO 227) YEARS . . 3	MONTH (SKIP TO 231)	MONTH YEAR (SKIP TO 231)	MONTH YEAR	MONTHS	YES . . . 1 NO 2	YES . . . . 1 ADD PREG. NO . . . . . 2 NEXT PREG.
DAYS . . . 1 MONTHS 2 (SKIP TO 227) YEARS . . 3	MONTH (SKIP TO 231)	MONTH YEAR (SKIP TO 231)	MONTH YEAR	MONTHS	YES . . . 1 NO 2	YES . . . . 1 ADD PREG. NO . . . . . 2 NEXT PREG.

215	216	217	218	219	220	221	222	223	224	225
								IF BORN ALIVE AND STILL LIVING:		
	Think back to your first pregnancy. Was that a single or multiple pregnancy?	Was the baby born alive, born dead, or lost before birth?	Did that baby cry, move, or breathe when it was born?	What name was given to the child?	Is (NAME) a boy or a girl?	In what month and year was name born?	Is (NAME) still alive?	How old was (NAME) at his/her last birthday? RECORD AGE IN COM-PLETED YEARS.	Is (NAME) living with you?	RECORD HOUSE-HOLD LINE NUMBER OF CHILD (RECORD '00' IF CHILD NOT LISTED IN HOUSE-HOLD).
07	SING 1 MULT 2	BORN ALIVE .... 1 (SKIP TO 219) BORN DEAD .... 2 LOST BEFORE FULL TERM .... 3 (SKIP TO 228)	YES . . 1 NO . . . 2 228	_____ NAME	BOY ... 1 GIRL ... 2	MONTH [ ][ ] YEAR [ ][ ][ ][ ]	YES . . 1 NO . . . 2 226	AGE IN YEARS [ ][ ]	YES . . . 1 NO 2	LINE NUMBER [ ][ ] (SKIP TO 231)
08	SING 1 MULT 2	BORN ALIVE .... 1 (SKIP TO 219) BORN DEAD .... 2 LOST BEFORE FULL TERM .... 3 (SKIP TO 228)	YES . . 1 NO . . . 2 228	_____ NAME	BOY ... 1 GIRL ... 2	MONTH [ ][ ] YEAR [ ][ ][ ][ ]	YES . . 1 NO . . . 2 226	AGE IN YEARS [ ][ ]	YES . . . 1 NO 2	LINE NUMBER [ ][ ] (SKIP TO 231)
09	SING 1 MULT 2	BORN ALIVE .... 1 (SKIP TO 219) BORN DEAD .... 2 LOST BEFORE FULL TERM .... 3 (SKIP TO 228)	YES . . 1 NO . . . 2 228	_____ NAME	BOY ... 1 GIRL ... 2	MONTH [ ][ ] YEAR [ ][ ][ ][ ]	YES . . 1 NO . . . 2 226	AGE IN YEARS [ ][ ]	YES . . . 1 NO 2	LINE NUMBER [ ][ ] (SKIP TO 231)
10	SING 1 MULT 2	BORN ALIVE .... 1 (SKIP TO 219) BORN DEAD .... 2 LOST BEFORE FULL TERM .... 3 (SKIP TO 228)	YES . . 1 NO . . . 2 228	_____ NAME	BOY ... 1 GIRL ... 2	MONTH [ ][ ] YEAR [ ][ ][ ][ ]	YES . . 1 NO . . . 2 226	AGE IN YEARS [ ][ ]	YES . . . 1 NO 2	LINE NUMBER [ ][ ] (SKIP TO 231)

232	Have you had any pregnancy since the last pregnancy mentioned? IF YES, RECORD PREGNANCY(S) IN TABLE.	YES ..... 1 NO 2
233	COMPARE 211 WITH NUMBER OF PREGNANCIES IN HISTORY ABOVE AND MARK: NUMBERS ARE SAME [ ] NUMBERS ARE DIFFERENT [ ] (PROBE AND RECONCILE) CHECK: FOR EACH PREGNANCY: YEAR OF IS RECORDED IN 221, 227 AND 228. FOR EACH BIRTH SINCE BAISAKH 2057: MONTH AND YEAR OF BIRTH ARE RECORDED. FOR EACH LIVING CHILD: CURRENT AGE IS RECORDED IN 223. FOR EACH DEAD CHILD: AGE AT DEATH IS RECORDED IN 226. FOR AGE AT DEATH 12 MONTHS OR 1 YEAR: PROBE TO DETERMINE EXACT	[ ] [ ] [ ] [ ] [ ]
233A	CHECK 228 AND 229 AND ENTER THE NUMBER OF STILLBIRTHS IN 2057 OR LATER AND THE PREGNANCY LASTED FOR 7 MONTHS OR MORE. IF NONE, RECORD '0'.	[ ]
233B	CHECK 226, 226A AND 227 AND ENTER THE NUMBER OF DEATHS AT AGE 0-59 MONTHS IN 2057 OR LATER. IF NONE, RECORD '0'.	[ ]
233C	CHECK 233A AND 233B. IF ONE OR MORE READ THE FOLLOWING STATEMENT: We would like to get more information on the circumstances around the deaths of young children so tha the government can provide services to help reduce these deaths. We would like to come back anc talk with you about your child(ren's) death. Is this okay?	[ ]
234	CHECK 221 AND ENTER THE NUMBER OF BIRTHS IN 2057 OR LATER. IF NONE, RECORD '0'.	[ ]

226	226A	227	228	229	230	231
	IF BORN ALIVE BUT NOW DEAD		IF BORN DEAD OR LOST BEFORE BIRTH			
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.	IF AGE AT DEATH IS REPORTED AS 5 YEARS OR LESS PROBE FOR EXACT NUMBER OF MONTHS AT DEATH FOR AGE AT DEATH MORE THAN 5 YEARS FOLLOW SKIP AS SHOWN	In what month and year did (NAME) die?	In what month and year did this pregnancy end?	How many months did this pregnancy last? RECORD IN COM-PLETED MONTHS.	Did you or someone else do something to end this pregnancy?	Were there any other pregnancies between the previous pregnancy and this pregnancy?
DAYS . . . 1 MONTHS 2 (SKIP TO 227) YEARS . . 3	MONTH (SKIP TO 231)	MONTH YEAR (SKIP TO 231)	MONTH YEAR	MONTHS	YES . . . 1 NO 2	YES . . . . 1 ADD PREG. NO . . . . . 2 NEXT PREG.
DAYS . . . 1 MONTHS 2 (SKIP TO 227) YEARS . . 3	MONTH (SKIP TO 231)	MONTH YEAR (SKIP TO 231)	MONTH YEAR	MONTHS	YES . . . 1 NO 2	YES . . . . 1 ADD PREG. NO . . . . . 2 NEXT PREG.
DAYS . . . 1 MONTHS 2 (SKIP TO 227) YEARS . . 3	MONTH (SKIP TO 231)	MONTH YEAR (SKIP TO 231)	MONTH YEAR	MONTHS	YES . . . 1 NO 2	YES . . . . 1 ADD PREG. NO . . . . . 2 NEXT PREG.
DAYS . . . 1 MONTHS 2 (SKIP TO 227) YEARS . . 3	MONTH (SKIP TO 231)	MONTH YEAR (SKIP TO 231)	MONTH YEAR	MONTHS	YES . . . 1 NO 2	YES . . . . 1 ADD PREG. NO . . . . . 2 NEXT PREG.

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
235	FOR EACH BIRTH SINCE BAISAKH 2057, ENTER 'B' IN THE MONTH OF BIRTH IN THE CALENDAR. WRITE THE NAME OF THE CHILD TO THE RIGHT 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.) CHECK 228 FOR EACH PREGNANCY THAT DID NOT END IN A LIFE BIRTH. CHECK 230. IF YES (CODE '1' CIRCLED), ENTER 'A' FOR ABORTION OR 'T' (IF CODE '2' CIRCLED) FOR MISCARRIAGE OR STILLBIRTH, IN CALENDAR IN THE MONTH THAT THE PREGNANCY TERMINATED AND 'P' FOR THE REMAINING NUMBER OF COMPLETED MONTHS OF PREGNANCY.		
236	Are you pregnant now?	YES . . . . . 1 NO . . . . . 2 UNSURE 8	→ 238A
237	How many months pregnant are you? RECORD NUMBER OF COMPLETED MONTHS. ENTER 'P's IN THE CALENDAR, BEGINNING WITH THE MONTH OF INTERVIEW AND FOR THE TOTAL NUMBER OF COMPLETED MONTHS.	MONTHS . . . . . [ ][ ]	
238	At the time you became pregnant, did you want to become pregnant <u>then</u>, did you want to wait until <u>later</u>, or did you <u>not want</u> to have any (more) children at all?	THEN . . . . . 1 LATER . . . . . 2 NOT AT ALL 3	
238A	CHECK 228: WOMAN HAVING MISCARRIAGE/ABORTION ↓ WOMAN NOT HAVING MISCARRIAGE/ABORTION →		239
238B	Did you suffer any complications from your last miscarriage/abortion?	YES . . . . . 1 NO 2	
238C	Did you have your uterus cleaned at a health facility?	YES . . . . . 1 NO 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
239	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	
240	From one menstrual period to the next, are there certain days when a woman is more likely to become pregnant if she has sexual relations?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 241A
241	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	
241A	Is abortion legal in Nepal?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
241B	Do you know of a place where a woman can go to get an abortion?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 301
241C	Where is that? Any other place? PROBE TO IDENTIFY EACH TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE(S). IF UNABLE TO DETERMINE IF HOSPITAL, HEALTH CENTER OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S))	PUBLIC SECTOR GOVT. HOSPITAL/CLINIC . . . . . A PHC CENTER . . . . . B HEALTH POST . . . . . C SUB-HEALTH POST . . . . . D PHC OUTREACH . . . . . E FCHV . . . . . F OTHER GOVT. _____ G (SPECIFY) NON-GOVT. (NGO) SECTOR FPAN . . . . . H MARIE STOPES . . . . . I ADRA . . . . . J NEPAL RED CROSS . . . . . K UMN . . . . . L OTHER NGO _____ M (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC . . . . . N NURSING HOME . . . . . O PHARMACY . . . . . P PRIVATE DOCTOR . . . . . Q OTHER PRIVATE MEDICAL _____ R (SPECIFY) OTHER SOURCE TBA . . . . . S OTHER _____ X (SPECIFY)	

SECTION 3A. MARRIAGE AND COHABITATION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
301	What is your current marital status?	CURRENTLY MARRIED . . . . . 1 MARRIED, GAUNA NOT PERFORMED 2 WIDOWED . . . . . 3 DIVORCED . . . . . 4 SEPARATED . . . . . 5 NEVER MARRIED 6	 → 305 → 307 → 312
302	Are you living with your husband now or is he staying elsewhere?	LIVING WITH HUSBAND . . . . . 1 STAYING ELSEWHERE 2	→ 304
303	For how long have you and your husband not been living together? IF LESS THAN 1 YEAR, RECORD MONTHS, OTHERWISE RECORD IN COMPLETED YEARS.	MONTHS . . . . . 1 [ ][ ] YEARS . . . . . 2 [ ][ ]	
304	RECORD THE HUSBAND'S NAME AND LINE NUMBER FROM THE HOUSEHOLD QUESTIONNAIRE. IF HE IS NOT LISTED IN THE HOUSEHOLD, RECORD '00'.	NAME _____ LINE NO. . . . . [ ][ ]	
305	Besides yourself, does your husband have other wives?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	 → 307
306	How many other wives does your husband have?	NUMBER OF OTHER WIVES [ ][ ] DON'T KNOW 98	
307	Have you been married only once or more than once?	ONLY ONCE . . . . . 1 MORE THAN ONCE 2	 → 308A
308	In what month and year did you get married?	MONTH . . . . . [ ][ ] DON'T KNOW MONTH 98	
308A	Now I would like to ask about when you married your first husband. In what month and year was that?	YEAR . . . . . [ ][ ][ ][ ] DON'T KNOW YEAR 9998	→ 310
309	How old were you when you (first) got married?	AGE . . . . . [ ][ ]	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
310	CHECK 307: MARRIED ONLY ONCE → In what month and year did you start living with your husband? MARRIED MORE THAN ONCE → Now I would like to ask about when you started living with your first husband. In what month and year was that?	MONTH . . . . . [ ][ ] DON'T KNOW MONTH . . . . . 98 YEAR . . . . . [ ][ ][ ][ ] → 312 DON'T KNOW YEAR . . . . . 9998 HAS NOT STARTED LIVING WITH HIM . . . . . 9996 → 312	
311	How old were you when you first started living with him? PROMPT: At gauna?	AGE . . . . . [ ][ ]	
312	CHECK FOR THE PRESENCE OF OTHERS. BEFORE CONTINUING, MAKE EVERY EFFORT TO ENSURE PRIVACY.		
313	Now I need to ask you some questions about sexual activity in order to gain a better understanding of some important life issues. How old were you when you had sexual intercourse for the very first time?	NEVER HAD SEXUAL INTERCOURSE . . . . . 00 AGE IN YEARS . . . . . [ ][ ] → 314 FIRST TIME WHEN STARTED LIVING WITH (FIRST) HUSBAND . . . . . 95 → 314	
313A	Do you intend to wait until you get married or until gauna has taken place to have sexual intercourse for the first time?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/UNSURE 8	

SECTION 3B. CONTRACEPTION

314	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. Which ways or methods have you heard about? FOR METHODS NOT MENTIONED SPONTANEOUSLY, ASK: Have you ever heard of (METHOD)? CIRCLE CODE 1 IN 314 FOR EACH METHOD MENTIONED SPONTANEOUSLY. THEN PROCEED DOWN COLUMN 314, READING THE NAME AND DESCRIPTION OF EACH METHOD NOT MENTIONED SPONTANEOUSLY. CIRCLE CODE 1 IF METHOD IS RECOGNIZED, AND CODE 2 IF NOT RECOGNIZED. PERFORM THE CHECK IN 315. IF '00' IS NOT CIRCLED IN 313, THEN, FOR EACH METHOD WITH CODE 1 CIRCLED IN 314, ASK 316.		316 Have you ever used (METHOD)?
01	FEMALE STERILIZATION Women can have an operation to avoid having any more children.	YES . . . . . 1 NO 2	Have you ever had an operation to avoid having any more children? YES . . . . . 1 NO 2
02	MALE STERILIZATION Men can have an operation to avoid having any more children.	YES . . . . . 1 NO 2	Have you ever had a partner who had an operation to avoid having any more children? YES . . . . . 1 NO 2
03	PILL Women can take a pill every day to avoid becoming pregnant.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
04	IUD Women can have a loop or coil placed inside them by a doctor or a nurse.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
05	INJECTABLES Women can have an injection by a health provider that stops them from becoming pregnant for one or more months.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
06	IMPLANTS Women can have several small rods placed in their upper arm by a doctor or nurse which can prevent pregnancy for one or more years.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
07	CONDOM Men can put a rubber sheath on their penis before sexual intercourse.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
08	RHYTHM METHOD Every month that a woman is sexually active she can avoid pregnancy by not having sexual intercourse on the days of the month she is most likely to get pregnant.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
09	WITHDRAWAL Men can be careful and pull out before climax.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
10	EMERGENCY CONTRACEPTION As an emergency measure after unprotected sexual intercourse, women can take special pills at any time within three days to prevent pregnancy.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
11	Have you heard of any other ways or methods that women or men can use to avoid pregnancy?	YES . . . . . 1 _____ (SPECIFY) _____ (SPECIFY) NO 2	YES . . . . . 1 NO . . . . . 2 YES . . . . . 1 NO 2
315	CHECK 313: CODE 'OO' CIRCLED → SKIP TO 319 CODE 'OO' NOT CIRCLED → GO TO 316 FOR KNOWN METHODS		
317	CHECK 316: NOT A SINGLE "YES" (NEVER USED) → AT LEAST ONE "YES" (EVER USED) → 321		

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
318	Have you ever used anything or tried in any way to delay or avoid getting pregnant?	YES . . . . . 1 NO 2	→ 320
319	ENTER '0' IN THE CALENDAR IN EACH BLANK MONTH.		→ 345
320	What have you used or done? CORRECT 316 AND 317 (AND 314 IF NECESSARY).		
321	Now I would like to ask you about the first time that you did something or used a method to avoid getting pregnant. How many living children did you have at that time, if any? IF NONE, RECORD '00'.	NUMBER OF CHILDREN . . . [ ][ ]	
322	CHECK 316 (01): WOMAN NOT STERILIZED ☐ ↓ WOMAN STERILIZED ☐		→ 325A
323	CHECK 236: NOT PREGNANT OR UNSURE ☐ ↓ PREGNANT ☐		→ 334
324	Are you currently doing something or using any method to delay or avoid getting pregnant?	YES . . . . . 1 NO 2	→ 334
325 325A	Which method are you using? CIRCLE ALL MENTIONED. IF MORE THAN ONE METHOD MENTIONED, FOLLOW SKIP INSTRUCTION FOR HIGHEST METHOD ON LIST. CIRCLE 'A' FOR FEMALE STERILIZATION.	FEMALE STERILIZATION . . . . . A MALE STERILIZATION . . . . . B PILL . . . . . C IUD . . . . . D INJECTABLES . . . . . E IMPLANTS . . . . . F CONDOM . . . . . G DIAPHRAGM . . . . . I FOAM/JELLY . . . . . J RHYTHM METHOD . . . . . L WITHDRAWAL . . . . . M OTHER _____ X (SPECIFY)	→ 331A
326	The last time you obtained (HIGHEST METHOD ON LIST IN 325), how much did you pay in total, including the cost of the method and any consultation you may have had?	COST . . . . . [ ][ ][ ][ ] FREE . . . . . 9995 DON'T KNOW 9998	
326A	CHECK 325/325A: WOMAN/MAN STERILIZED (CODE 'A' OR 'B' CIRCLED) ☐ ↓ WOMAN/MAN NOT STERILIZED (CODE 'A' OR 'B' NOT CIRCLED) ☐		→ 331A
327	In what facility did the sterilization take place? PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. IF UNABLE TO DETERMINE IF HOSPITAL, HEALTH CENTER OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	PUBLIC SECTOR GOVT. HOSPITAL/CLINIC . . . . . 11 PHC CENTER . . . . . 12 MOBILE CLINIC . . . . . 13 OTHER GOVT. _____ 16 (SPECIFY) NON-GOVT (NGO) SECTOR FPAN . . . . . 21 MARIE STOPES . . . . . 22 ADRA . . . . . 23 NEPAL RED CROSS . . . . . 24 UMN . . . . . 25 OTHER NGO _____ 26 (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC/ NURSING HOME . . . . . 31 OTHER PRIVATE MEDICAL _____ 36 (SPECIFY) OTHER _____ 96 (SPECIFY) DON'T KNOW . 98	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
328	CHECK 325/325A: CODE 'A' CIRCLED → Before your sterilization operation, were you told that you would not be able to have any (more) children because of the operation? CODE 'A' NOT CIRCLED → Before the sterilization operation, was your husband/partner told that he would not be able to have any (more) children because of the operation?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
329	Do you regret that you/your husband had the operation?	YES . . . . . 1 NO 2	→ 331
330	Why do you regret the operation?	RESPONDENT WANTS ANOTHER CHILD . . . . . 1 HUSBAND WANTS ANOTHER CHILD . . . . . 2 SIDE EFFECTS . . . . . 3 MARITAL STATUS HAS CHANGED . 4 OPERATION FAILED . . . . . 5 CHILD DIED 7 OTHER _____ 6 (SPECIFY)	
331	In what month and year was the sterilization performed?		
331A	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 . . . . . [ ][ ][ ][ ]	
332	CHECK 331/331A, 221 AND 228: ANY BIRTH OR PREGNANCY TERMINATION AFTER MONTH AND YEAR OF START OF USE OF CONTRACEPTION IN 331/331A — YES → / NO ↓ GO BACK TO 331/331A, PROBE AND RECORD MONTH AND YEAR AT START OF CONTINUOUS USE OF CURRENT METHOD (MUST BE AFTER LAST BIRTH OR PREGNANCY TERMINATION).		
333	CHECK 331/331A: YEAR IS 2057 OR LATER → ENTER CODE FOR METHOD USED IN MONTH OF INTERVIEW IN THE CALENDAR AND IN EACH MONTH BACK TO THE DATE STARTED USING. THEN CONTINUE WITH 334. YEAR IS 2056 OR EARLIER → ENTER CODE FOR METHOD USED IN MONTH OF INTERVIEW IN THE CALENDAR AND EACH MONTH BACK TO BAISAKH 2057. THEN SKIP TO → 343		
334	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 BAISAKH 2057. USE NAMES OF CHILDREN, DATES OF BIRTH, AND PERIODS OF PREGNANCY AS REFERENCE POINTS. 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?		
335	CHECK 325/325A: CIRCLE METHOD CODE: IF MORE THAN ONE METHOD CODE CIRCLED IN 325/325A, CIRCLE CODE FOR HIGHEST METHOD IN LIST.	NO CODE CIRCLED . . . . . 00 FEMALE STERILIZATION . . . . . 01 MALE STERILIZATION . . . . . 02 PILL . . . . . 03 IUD . . . . . 04 INJECTABLES . . . . . 05 IMPLANTS . . . . . 06 CONDOM . . . . . 07 DIAPHRAGM . . . . . 09 FOAM/JELLY . . . . . 10 RHYTHM METHOD . . . . . 12 WITHDRAWAL . . . . . 13 OTHER METHOD 96	→ 345 → 338 → 347 → 336A → 347 → 347

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
336 336A	Where did you obtain (CURRENT METHOD) when you started using it? Where did you learn to use the rhythm method? IF UNABLE TO DETERMINE IF HOSPITAL, HEALTH CENTER, OR CLINIC, OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S))	PUBLIC SECTOR GOVT. HOSPITAL/CLINIC ..... 11 PHC CENTER ..... 12 HEALTH POST ..... 13 SUB-HEALTH POST ..... 14 PHC OUTREACH ..... 15 MOBILE CLINIC ..... 17 FCHV ..... 18 CONDOM BOX ..... 19 OTHER GOVT. _____ 16 (SPECIFY) NON-GOVT. (NGO) SECTOR FPAN ..... 21 MARIE STOPES ..... 22 ADRA ..... 23 NEPAL RED CROSS ..... 24 UMN ..... 25 OTHER NGO. _____ 26 (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC/ NURSING HOME ..... 31 PHARMACY ..... 32 OTHER PRIVATE MEDICAL _____ 36 (SPECIFY) OTHER SOURCE SHOP ..... 41 FRIEND/RELATIVE ..... 42 OTHER _____ 96 (SPECIFY)	
337	CHECK 325/325A: CIRCLE METHOD CODE: IF MORE THAN ONE METHOD CODE CIRCLED IN 325/325A, CIRCLE CODE FOR HIGHEST METHOD IN LIST.	PILL ..... 03 IUD ..... 04 INJECTABLES ..... 05 IMPLANTS ..... 06 CONDOM ..... 07 DIAPHRAGM ..... 09 FOAM/JELLY ..... 10 RHYTHM METHOD 12	 → 344 → 341 → 341 → 347
338	You obtained (CURRENT METHOD FROM 335) from (SOURCE OF METHOD FROM 327 OR 336) in (DATE FROM 331/331A). At that time, wereyou told about side effects or problems you might have with the method?	YES ..... 1 NO 2	→ 340
339	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	 → 341
340	Were you told what to do if you experienced side effects or problems?	YES ..... 1 NO 2	
341	CHECK 338: 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 335) from (SOURCE OF METHOD FROM 327 OR 336) were you told about other methods of family planning that you could use?	YES ..... 1 NO 2	→ 343
342	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	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
343	CHECK 325/325A: CIRCLE METHOD CODE: IF MORE THAN ONE METHOD CODE CIRCLED IN 325/325A, CIRCLE CODE FOR HIGHEST METHOD IN LIST.	FEMALE STERILIZATION . . . . . 01 MALE STERILIZATION . . . . . 02 PILL . . . . . 03 IUD . . . . . 04 INJECTABLES . . . . . 05 IMPLANTS . . . . . 06 CONDOM . . . . . 07 DIAPHRAGM . . . . . 09 FOAM/JELLY . . . . . 10 RHYTHM METHOD . . . . . 12 WITHDRAWAL . . . . . 13 OTHER METHOD 96	→ 347 → 347
344	Where did you obtain (CURRENT METHOD) the last time? PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. IF UNABLE TO DETERMINE IF HOSPITAL, HEALTH CENTER OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	PUBLIC SECTOR GOVT. HOSPITAL/CLINIC . . . . . 11 PHC CENTER . . . . . 12 HEALTH POST . . . . . 13 SUB-HEALTH POST . . . . . 14 PHC OUTREACH . . . . . 15 MOBILE CLINIC . . . . . 17 FCHV . . . . . 18 CONDOM BOX . . . . . 19 OTHER GOVT. _____ 16 (SPECIFY) NON-GOVT. (NGO) SECTOR FPAN . . . . . 21 MARIE STOPES . . . . . 22 ADRA . . . . . 23 NEPAL RED CROSS . . . . . 24 UMN . . . . . 25 OTHER NGO. _____ 26 (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC/ NURSING HOME . . . . . 31 PHARMACY . . . . . 32 PRIVATE DOCTOR . . . . . 33 OTHER PRIVATE MEDICAL _____ 36 (SPECIFY) OTHER SOURCE SHOP . . . . . 41 FRIEND/RELATIVE . . . . . 42 OTHER _____ 96 (SPECIFY)	
344A	How long did it take you to travel from your house to this place?	MINUTES . . . . . 1 [ ][ ] HOURS . . . . . 2 [ ][ ] DON'T KNOW 998	→ 347
345	Do you know of a place where you can obtain a method of family planning?	YES . . . . . 1 NO 2	→ 347

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
346	Where is that? Any other place? PROBE TO IDENTIFY EACH TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE(S). IF UNABLE TO DETERMINE IF HOSPITAL, HEALTH CENTER OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S))	PUBLIC SECTOR GOVT. HOSPITAL/CLINIC . . . . . A PHC CENTER . . . . . B HEALTH POST . . . . . C SUB-HEALTH POST . . . . . D PHC OUTREACH . . . . . E MOBILE CLINIC . . . . . F FCHV . . . . . G CONDOM BOX . . . . . H OTHER GOVT. _____ I (SPECIFY) NON-GOVT. (NGO) SECTOR FPAN . . . . . J MARIE STOPES . . . . . K ADRA . . . . . L NEPAL RED CROSS . . . . . M UMN . . . . . N OTHER NGO. _____ O (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC/ NURSING HOME . . . . . P PHARMACY . . . . . Q PRIVATE DOCTOR . . . . . R OTHER PRIVATE MEDICAL _____ S (SPECIFY) OTHER SOURCE SHOP . . . . . T FRIEND/RELATIVE . . . . . U OTHER _____ X (SPECIFY)	
347	In the last 12 months, were you visited by a fieldworker who talked to you about family planning?	YES . . . . . 1 NO 2	
348	In the last 12 months, have you visited a health facility for care for yourself (or your children)?	YES . . . . . 1 NO 2	→ 401
349	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 234: ONE OR MORE BIRTHS IN 2057 OR LATER ☐ / NO BIRTHS IN 2057 OR LATER ☐ → 548			
402	CHECK 221: ENTER IN THE TABLE THE LINE NUMBER, NAME, AND SURVIVAL STATUS OF EACH BIRTH IN 2057 OR LATER. ASK THE QUESTIONS ABOUT ALL OF THESE BIRTHS. BEGIN WITH THE LAST BIRTH. (IF THERE ARE MORE THAN 3 BIRTHS, USE LAST 2 COLUMNS OF ADDITIONAL QUESTIONNAIRES). Now I would like to ask you some questions about the health of all your children born in the last five years. (We will talk about each separately.)			
403	LINE NUMBER FROM 215	LAST BIRTH LINE NO. ☐☐	NEXT-TO-LAST BIRTH LINE NO. ☐☐	SECOND-FROM-LAST BIRTH LINE NO. ☐☐
404	FROM 219 AND 222	NAME _____ LIVING ☐ DEAD ☐	NAME _____ LIVING ☐ DEAD ☐	NAME _____ LIVING ☐ DEAD ☐
405	At the time you became pregnant with (NAME), did you want to become pregnant then, did you want to wait until later, or did you not want to have any (more) children at all?	THEN . . . . . 1 (SKIP TO 407) LATER . . . . . 2 NOT AT ALL . . . . . 3 (SKIP TO 407)	THEN . . . . . 1 (SKIP TO 414) LATER . . . . . 2 NOT AT ALL . . . . . 3 (SKIP TO 414)	THEN . . . . . 1 (SKIP TO 414) LATER . . . . . 2 NOT AT ALL . . . . . 3 (SKIP TO 414)
406	How much longer would you have liked 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
407	Did you see anyone for antenatal care for this pregnancy? IF YES: Whom did you see? Anyone else? PROBE TO IDENTIFY EACH TYPE OF PERSON AND RECORD ALL MENTIONED.	HEALTH PERSONNEL DOCTOR . . . . . A NURSE/MIDWIFE B HEALTH ASST./ HLTH. WKR . C MCH WORKER . D VHW . . . . . E OTHER PERSON TRADITIONAL BIRTH ATTENDANT . F FCHV . . . . . G OTHER_____ X (SPECIFY) NO ONE . . . . . Y (SKIP TO 413A)		
407A	CHECK 407:	☐ FCHV NOT CIRCLED / ☐ FCHV CIRCLED (SKIP TO 408)		
407B	Did you discuss your pregnancy with an FCHV?	YES . . . . . 1 NO 2		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____
408	Where did you receive antenatal care for this pregnancy? Anywhere else? PROBE TO IDENTIFY TYPE(S) OF SOURCE(S) AND CIRCLE THE APPROPRIATE CODE(S). 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(S))	HOME YOUR HOME . . . A OTHER HOME . . . B GOVT. SECTOR GOVT. HOSPITAL C PHC CENTER . D HEALTH POST . E SUB-HEALTH . F PHC OUTREACH G OTHER GOVT. _____ H (SPECIFY) NON-GOVT. (NGO) UMN/RED CROSS HOSPITAL . . . I OTHER NGO _____ J (SPECIFY) PRIVATE MED. SECTOR PVT. HOSPITAL/ CLINIC/NURSING HOME . . . . . K OTHER PRIVATE MED. _____ L (SPECIFY) OTHER_____ X (SPECIFY)
409	How many months pregnant were you when you first received antenatal care for this pregnancy?	MONTHS . . . [ ][ ] DON'T KNOW 98
410	How many times did you receive antenatal care during this pregnancy?	NUMBER OF TIMES . [ ][ ] DON'T KNOW 98
411	As part of your antenatal care during this pregnancy, were any of the following done at least once? Were you weighed? Was your blood pressure measured? Did you give a urine sample? Did you give a blood sample?	YES NO WEIGHT . . . 1 2 BP . . . . . 1 2 URINE . . . . . 1 2 BLOOD . . . 1 2
412	During (any of) your antenatal care visit(s), were you advised to use a skilled birth attendant?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
412A	During (any of) your antenatal care visit(s), were you told about the signs of pregnancy complications?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 413B) ←┤ DON'T KNOW 8

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____		
413	Were you told where to go if you had any of these complications?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW . . . . . 8 (SKIP TO 413B)		
413A	Did you discuss your pregnancy with an FCHV?	YES . . . . . 1 NO 2		
413B	What kind of preparation did you make beforehand for the delivery of (NAME)? Anything else? CIRCLE ALL MENTIONED	SAVED MONEY . . . . . A ARRANGED FOR TRANSPORT . . . . . B FOUND BLOOD DONOR . . . . . C CONTACTED HLTH WKR TO HELP WITH DELIVERY . . . . . D BOUGHT SAFE DELIVERY KIT . . . . . E OTHER _____ X (SPECIFY) NO PREPARATION . . . . . Y		
414	During this pregnancy, were you given an injection in the arm to prevent you and the baby from getting tetanus?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 416) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 421) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 421) DON'T KNOW 8
415	During this pregnancy, how many times did you get this tetanus injection? IF MORE THAN 7, WRITE '7'.	TIMES . . . . . [ ] DON'T KNOW 8	TIMES . . . . . [ ] DON'T KNOW 8	TIMES . . . . . [ ] DON'T KNOW 8
416	During this pregnancy, were you given or did you buy any iron/folic acid tablets? SHOW TABLETS.	YES . . . . . 1 NO . . . . . 2 (SKIP TO 418) DON'T KNOW 8		
417	During the whole pregnancy, for how many days did you take the tablets? IF ANSWER IS NOT NUMERIC, PROBE FOR APPROXIMATE NUMBER OF DAYS.	DAYS . [ ][ ][ ] DON'T KNOW . . . 998		
418	During this pregnancy, did you take any drug for intestinal worms?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8		
419	During this pregnancy, did you have difficulty with your vision during daylight?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8		
420	During this pregnancy, did you suffer from night blindness (ratandho) [USE LOCAL TERM]?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8		
421	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
422	Was (NAME) weighed at birth?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 424) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 424) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 424) DON'T KNOW 8

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
423	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 . 99.8	KG FROM CARD 1 [ ] . [ ] KG FROM RECALL 2 [ ] . [ ] DON'T KNOW . 99.8	KG FROM CARD 1 [ ] . [ ] KG FROM RECALL 2 [ ] . [ ] DON'T KNOW . 99.8
424	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 . . . . . A NURSE/MIDWIFE . B HEALTH ASST./ HLTH. WRK. . . . . C OTHER PERSON TRADITIONAL BIRTH ATTENDANT . . D FCHV . . . . . E RELATIVE/FRIEND F OTHER _____ X (SPECIFY) NO ONE . . . . . Y	HEALTH PERSONNEL DOCTOR . . . . . A NURSE/MIDWIFE . B HEALTH ASST./ HLTH. WRK. . . . . C OTHER PERSON TRADITIONAL BIRTH ATTENDANT . . D FCHV . . . . . E RELATIVE/FRIEND . F OTHER _____ X (SPECIFY) NO ONE . . . . . Y	HEALTH PERSONNEL DOCTOR . . . . . A NURSE/MIDWIFE . B HEALTH ASST./ HLTH. WRK. . . . . C OTHER PERSON TRADITIONAL BIRTH ATTENDANT . . D FCHV . . . . . E RELATIVE/FRIEND F OTHER _____ X (SPECIFY) NO ONE . . . . . Y
425	Where did you give birth to (NAME)? 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 (SKIP TO 432) ←┤ OTHER HOME . . . 12 GOVT. SECTOR GOVT. HOSPITAL 21 PHC CENTER 22 HEALTH POST 23 SUB-HEALTH POST . . . . . 24 OTHER GOVT. _____ 26 (SPECIFY) NON-GOVT. SECTOR UMN/RED CROSS 31 OTHER GOVT. _____ 36 (SPECIFY) PRIVATE MED. SECTOR PVT. HOSPITAL/ CLINIC . . . . . 41 OTHER PRIVATE MED._____ 46 (SPECIFY) OTHER_____ 96 (SPECIFY) (SKIP TO 432) ←┘	HOME YOUR HOME . . . 11 (SKIP TO 433) ←┤ OTHER HOME . . . 12 GOVT. SECTOR GOVT. HOSPITAL 21 PHC CENTER 22 HEALTH POST 23 SUB-HEALTH POST . . . . . 24 OTHER GOVT. _____ 26 (SPECIFY) NON-GOVT. SECTOR UMN/RED CROSS 31 OTHER GOVT. _____ 36 (SPECIFY) PRIVATE MED. SECTOR PVT. HOSPITAL/ CLINIC . . . . . 31 OTHER PRIVATE MED._____ 36 (SPECIFY) OTHER_____ 96 (SPECIFY) (SKIP TO 433) ←┘	HOME YOUR HOME . . . 11 (SKIP TO 433) ←┤ OTHER HOME . . . 12 GOVT. SECTOR GOVT. HOSPITAL 21 PHC CENTER 22 HEALTH POST 23 SUB-HEALTH POST . . . . . 24 OTHER GOVT. _____ 26 (SPECIFY) NON-GOVT. SECTOR UMN/RED CROSS 31 OTHER GOVT. _____ 36 (SPECIFY) PRIVATE MED. SECTOR PVT. HOSPITAL/ CLINIC . . . . . 31 OTHER PRIVATE MED._____ 36 (SPECIFY) OTHER_____ 96 (SPECIFY) (SKIP TO 433) ←┘
425A	Did you receive a blood transfusion at this facility when (NAME) was born?	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
426	How long after (NAME) was delivered did you stay there? IF LESS THAN ONE DAY, RECORD HOURS. IF LESS THAN ONE WEEK, RECORD DAYS.	HOURS 1 [ ][ ] DAYS 2 [ ][ ] WEEKS 3 [ ][ ] DON'T KNOW . 998	HOURS 1 [ ][ ] DAYS 2 [ ][ ] WEEKS 3 [ ][ ] DON'T KNOW . . . 998	HOURS 1 [ ][ ] DAYS 2 [ ][ ] WEEKS 3 [ ][ ] DON'T KNOW . . . 998

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
427	Was (NAME) delivered by caesarean section?	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
428	Before you were discharged after (NAME) was born, did any health care provider check on your health?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 431)	YES . . . . . 1 (SKIP TO 444) NO 2	YES . . . . . 1 (SKIP TO 444) NO 2
429	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		
430	Who checked on your health at that time? PROBE FOR MOST QUALIFIED PERSON.	HEALTH PERSONNEL DOCTOR . . . . . 11 NURSE/MIDWIFE 12 HEALTH ASST./ AHW . . . . . 13 MCH WORKER ... 14 VHW . . . . . 15 OTHER PERSON TRADITIONAL BIRTH ATTENDANT . 21 OTHER _____ 96 (SPECIFY) (SKIP TO 431A)		
431	After you were discharged, did any health care provider or a traditional birth attendant check on your health?	YES . . . . . 1 (SKIP TO 434) NO . . . . . 2 (SKIP TO 442)	YES . . . . . 1 (SKIP TO 444) NO 2	YES . . . . . 1 (SKIP TO 444) NO 2
431A	As part of your postnatal care, were you examined for pelvic discharge or normal involution of the uterus or abnomality of the lochia or bleeding?	YES . . . . . 1 (SKIP TO 442) NO . . . . . 2 (SKIP TO 442)		
432	Why didn't you deliver in a health facility? PROBE: Any other reason? RECORD ALL MENTIONED.	COST TOO MUCH . . A FACILITY NOT OPEN . B TOO FAR/ NO TRANS-PORTATION C DON'T TRUST FACILITY/POOR QUALITY SERVICE D NO FEMALE PROVID-ER AT FACILITY . . E HUSBAND/FAMILY DID NOT ALLOW . . F SECURITY CONCERNS . .. . G NOT NECESSARY . . H NOT CUSTOMARY . . I OTHER _____ (SPECIFY) X		
432A	Was a special safe delivery kit used? SHOW SAFE DELIVERY KIT MARKETED BY CRS	YES . . . . . 1 (SKIP TO 432C) NO . . . . . 2 DON'T KNOW . . . 8		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
432B	When (NAME) was born, what instrument was used to cut the umblical cord?	NEW/BOILED BLADE . . . . . 1 USED BLADE . . . 2 KNIFE . . . . . 3 HASIYA . . . . . 4 KHUKURI . . . . . 5 SCISSORS . . . . . 7 OTHER 6 _____ (SPECIFY) DON'T KNOW . . . 8		
432C	Was anything placed on the stump after the umblical cord was cut?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW . . . 8		
432D	Was (NAME) dried before the placenta was delivered?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW . . . 8		
432E	Was (NAME) wrapped in cloth before the placenta was delivered?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW . . . 8		
432F	How long after delivery was (NAME) bathed for the first time? IF LESS THAN ONE DAY, RECORD HOURS. IF LESS THAN ONE WEEK, RECORD DAYS.	HOURS 1 [ ][ ] DAYS 2 [ ][ ] WEEKS 3 [ ][ ] DON'T KNOW . . . 998		
433	After (NAME) was born, did any health care provider or a traditional birth attendant check on your health?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 438)	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
434	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		
435	Who checked on your health at that time? PROBE FOR MOST QUALIFIED PERSON.	HEALTH PERSONNEL DOCTOR . . . . . 11 NURSE/MIDWIFE 12 HEALTH ASST./ AHW . . . . . 13 MCH WORKER ... 14 VHW . . . . . 15 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 _____
436	Where did this first check 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 GOVT. SECTOR GOVT. HOSPITAL 21 PHC CENTER 22 HEALTH POST 23 SUB-HEALTH 24 PHC OUTREACH 25 OTHER GOVT. _____ 26 (SPECIFY) NON-GOVT. SECTOR UMN/RED CROSS 31 OTHER GOVT. _____ 36 (SPECIFY) PRIVATE MED. SECTOR PVT. HOSPITAL/ CLINIC . . . . . 41 OTHER PRIVATE MED._____ 46 (SPECIFY) OTHER_____ 96 (SPECIFY)		
436A	As part of your postnatal care, were you examined for pelvic discharge or normal involution of the uterus or abnomality of the lochia or bleeding?	YES . . . . . 1 NO 2		
437	CHECK 431:	YES ☐ → (SKIP TO 442) NOT ASKED ☐ →		
438	In the two months 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 442) ← DON'T KNOW 8		
439	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		
440	Who checked on (NAME)'s health at that time? PROBE FOR MOST QUALIFIED PERSON.	HEALTH PERSONNEL DOCTOR . . . . . 11 NURSE/MIDWIFE 12 HEALTH ASST./ AHW . . . . . 13 MCH WORKER ... 14 VHW . . . . . 15 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 _____
441	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 GOVT. SECTOR GOVT. HOSPITAL 21 PHC CENTER 22 HEALTH POST 23 SUB-HEALTH 24 PHC OUTREACH 25 OTHER GOVT. _____ 26 (SPECIFY) NON-GOVT. SECTOR UMN/RED CROSS 31 OTHER GOVT. _____ 36 (SPECIFY) PRIVATE MED. SECTOR PVT. HOSPITAL/ CLINIC . . . . . 41 OTHER PRIVATE MED._____ 46 (SPECIFY) OTHER_____ 96 (SPECIFY)		
442	In the first two months after delivery, did you receive a vitamin A dose (like this/any of these)? SHOW COMMON TYPES OF AMPULES/CAPSULES/SYRUPS.	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8		
442A	After delivery were you given or did you buy any iron/folic acid tablets? SHOW TABLETS.	YES . . . . . 1 NO . . . . . 2 (SKIP TO 443) DON'T KNOW 8		
442B	After delivery, for how many days did you take the tablets? IF ANSWER IS NOT NUMERIC, PROBE FOR APPROXIMATE NUMBER OF DAYS.	DAYS . [ ][ ] DON'T KNOW . . . 98		
443	Has your menstrual period returned since the birth of (NAME)?	YES . . . . . 1 (SKIP TO 445) NO . . . . . 2 (SKIP TO 446)		
444	Did your period return between the birth of (NAME) and your next pregnancy?		YES . . . . . 1 NO . . . . . 2 (SKIP TO 448)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 448)
445	For how many months after the birth of (NAME) did you <u>not</u> have a period?	MONTHS . . . [ ][ ] DON'T KNOW 98	MONTHS . . . [ ][ ] DON'T KNOW 98	MONTHS . . . [ ][ ] DON'T KNOW 98

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
446	CHECK 236: IS RESPONDENT PREGNANT?	NOT PREGNANT ☐ PREGNANT OR UNSURE ☐ (SKIP TO 448)		
447	Have you begun to have sexual intercourse again since the birth of (NAME)?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 449)		
448	For how many months after the birth of (NAME) did you <u>not</u> have sexual intercourse?	MONTHS . . . ☐☐ DON'T KNOW 98	MONTHS . . . ☐☐ DON'T KNOW 98	MONTHS . . . ☐☐ DON'T KNOW 98
449	Did you ever breastfeed (NAME)?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 456)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 456)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 456)
450	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 ☐☐		
451	In the first three days after delivery, was (NAME) given anything to drink other than breast milk?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 453)		
452	What was (NAME) given to drink? Anything else? RECORD ALL LIQUIDS MENTIONED.	MILK (OTHER THAN BREAST MILK) . A PLAIN WATER . . . B SUGAR OR GLUCOSE WATER . . . C GRIPE WATER . . . D SUGAR-SALT-WATER SOLUTION . . . . . E FRUIT JUICE . . . . . F INFANT FORMULA . G TEA/INFUSIONS . . . H HONEY . . . . . I OTHER _____ X (SPECIFY)		
453	CHECK 404: IS CHILD LIVING?	LIVING ☐ DEAD ☐ (SKIP TO 455)		
454	Are you still breastfeeding (NAME)?	YES . . . . . 1 (SKIP TO 457) NO 2		
455	For how many months did you breastfeed (NAME)?	MONTHS . . . ☐☐ DON'T KNOW . . . 98	MONTHS . . . ☐☐ STILL BF . . . . . 95 DON'T KNOW . . . 98	MONTHS . . . ☐☐ STILL BF . . . . . 95 DON'T KNOW . . . 98

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
456	CHECK 404: IS CHILD LIVING?	LIVING ☐ (SKIP TO 459) DEAD ☐ (GO BACK TO 405 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 501)	LIVING ☐ (SKIP TO 459) DEAD ☐ (GO BACK TO 405 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 501)	LIVING ☐ (SKIP TO 459) DEAD ☐ (GO BACK TO 405 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE BIRTHS, GO TO 501)
457	How many times did you breastfeed last night between sunset and sunrise? IF ANSWER IS NOT NUMERIC, PROBE FOR APPROXIMATE NUMBER.	NUMBER OF NIGHTTIME FEEDINGS . ☐☐		
458	How many times did you breastfeed yesterday during the daylight hours? IF ANSWER IS NOT NUMERIC, PROBE FOR APPROXIMATE NUMBER.	NUMBER OF DAYLIGHT FEEDINGS . ☐☐		
459	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
460		GO BACK TO 405 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 501.	GO BACK TO 405 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 501.	GO BACK TO 405 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE BIRTHS, GO TO 501.

SECTION 5. CHILD IMMUNIZATION AND HEALTH AND CHILD'S AND WOMAN'S NUTRITION

501	ENTER IN THE TABLE THE LINE NUMBER, NAME, AND SURVIVAL STATUS OF EACH BIRTH IN 2057 OR LATER. ASK THE QUESTIONS ABOUT ALL OF THESE BIRTHS. BEGIN WITH THE LAST BIRTH. (IF THERE ARE MORE THAN 3 BIRTHS, USE LAST 2 COLUMNS OF ADDITIONAL QUESTIONNAIRES).			
502	LINE NUMBER FROM 215	LAST BIRTH LINE NUMBER . . . . . [ ][ ]	NEXT-TO-LAST BIRTH LINE NUMBER . . . . . [ ][ ]	SECOND-FROM-LAST BIRTH LINE NUMBER . . . . . [ ][ ]
503	FROM 219 AND 222	NAME_____ LIVING [ ] DEAD [ ] (GO TO 503 IN NEXT COLUMN OR, IF NO MORE BIRTHS, GO TO 545)	NAME_____ LIVING [ ] DEAD [ ] (GO TO 503 IN NEXT COLUMN OR, IF NO MORE BIRTHS, GO TO 545)	NAME_____ LIVING [ ] DEAD [ ] (GO TO 503 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE, OR IF NO MORE BIRTHS, GO TO 545)
504	Do you have a card where (NAME'S) vaccinations are written down? IF YES: May I see it please?	YES, SEEN . . . . . 1 (SKIP TO 506) YES, NOT SEEN . . . . . 2 (SKIP TO 508) NO CARD 3	YES, SEEN . . . . . 1 (SKIP TO 506) YES, NOT SEEN . . . . . 2 (SKIP TO 508) NO CARD 3	YES, SEEN . . . . . 1 (SKIP TO 506) YES, NOT SEEN . . . . . 2 (SKIP TO 508) NO CARD 3
505	Did you ever have a vaccination card for (NAME)?	YES . . . . . 1 (SKIP TO 508) NO 2	YES . . . . . 1 (SKIP TO 508) NO 2	YES . . . . . 1 (SKIP TO 508) NO 2

506 (1) COPY VACCINATION DATE FOR EACH VACCINE FROM THE CARD.
(2) WRITE '44' IN 'DAY' COLUMN IF CARD SHOWS THAT A VACCINATION WAS GIVEN, BUT NO DATE IS RECORDED.
(3) IF HEP. B IS GIVEN IN COMBINATION WITH DPT, RECORD SEPARATELY FOR BOTH DPT AND HEP. B.

	LAST BIRTH			NEXT-TO-LAST BIRTH			SECOND-FROM-LAST BIRTH		
	DAY	MONTH	YEAR	DAY	MONTH	YEAR	DAY	MONTH	YEAR
BCG				BCG			BCG		
POLIO 1				P1			P1		
POLIO 2				P2			P2		
POLIO 3				P3			P3		
DPT 1				D1			D1		
DPT 2				D2			D2		
DPT 3				D3			D3		
HEP. B 1				H1			H1		
HEP. B 2				H2			H2		
HEP. B 3				H3			H3		
MEASLES				MEA			MEA		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
507	Has (NAME) received any vaccinations that are not recorded on this card, including vaccinations received in a national immunization day campaign? RECORD 'YES' ONLY IF RESPONDENT MENTIONS BCG, POLIO 0-3, DPT 1-3, HEP. B 1-3 AND/OR MEASLES VACCINES.	YES . . . . . 1 (PROBE FOR VACCINATIONS AND WRITE '66' IN THE CORRESPONDING DAY COLUMN IN 506) (SKIP TO 510) NO . . . . . 2 (SKIP TO 510) DON'T KNOW 3	YES . . . . . 1 (PROBE FOR VACCINATIONS AND WRITE '66' IN THE CORRESPONDING DAY COLUMN IN 506) (SKIP TO 510) NO . . . . . 2 (SKIP TO 510) DON'T KNOW 3	YES . . . . . 1 (PROBE FOR VACCINATIONS AND WRITE '66' IN THE CORRESPONDING DAY COLUMN IN 506) (SKIP TO 510) NO . . . . . 2 (SKIP TO 510) DON'T KNOW 3
508	Did (NAME) ever receive any vaccinations to prevent him/her from getting diseases, including vaccinations received in a national immunization campaign?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 512) DON'T KNOW 3	YES . . . . . 1 NO . . . . . 2 (SKIP TO 512) DON'T KNOW 3	YES . . . . . 1 NO . . . . . 2 (SKIP TO 512) DON'T KNOW 3
509	Please tell me if (NAME) received any of the following vaccinations:			
509A	A BCG vaccination against tuberculosis, that is, an injection in the right arm 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
509B	Polio vaccine, that is, drops in the mouth?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 509D) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 509D) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 509D) DON'T KNOW 8
509C	How many times was the polio vaccine received?	NUMBER OF TIMES . . . . . [ ]	NUMBER OF TIMES . . . . . [ ]	NUMBER OF TIMES . . . . . [ ]
509D	A DPT vaccination, that is, an injection given in the left thigh, sometimes given at the same time as polio drops?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 509F) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 509F) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 509F) DON'T KNOW 8
509E	How many times was a DPT vaccination received?	NUMBER OF TIMES . . . . . [ ]	NUMBER OF TIMES . . . . . [ ]	NUMBER OF TIMES . . . . . [ ]
509F	A HEP.B vaccination, that is, an injection given in the right thigh, sometimes given at the same time as DPT?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 509H) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 509H) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 509H) DON'T KNOW 8
509G	How many times was a HEP.B vaccination received?	NUMBER OF TIMES . . . . . [ ]	NUMBER OF TIMES . . . . . [ ]	NUMBER OF TIMES . . . . . [ ]
509H	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
510	Were any of the vaccinations (NAME) received during the last two years given as part of a national immunization day campaign?	YES . . . . . 1 NO . . . . . 2 NO VACCINATION IN THE LAST 2 YRS. 3 DON'T KNOW . . . 8 (SKIP TO 512)	YES . . . . . 1 NO . . . . . 2 NO VACCINATION IN THE LAST 2 YRS. 3 DON'T KNOW . . . 8 (SKIP TO 512)	YES . . . . . 1 NO . . . . . 2 NO VACCINATION IN THE LAST 2 YRS. 3 DON'T KNOW . . . 8 (SKIP TO 512)

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
511	At which national immunization day campaigns did (NAME) receive the polio vaccinations? RECORD ALL CAMPAIGNS MENTIONED.	MARG 2061 . . . . . A PAUSH 2061 . . . . . B MOP-UP . . . . . C NOT GIVEN . . . . . D	MARG 2061 . . . . . A PAUSH 2061 . . . . . B MOP-UP . . . . . C NOT GIVEN . . . . . D	MARG 2061 . . . . . A PAUSH 2061 . . . . . B MOP-UP . . . . . C NOT GIVEN . . . . . D
511A	At which national immunization day campaigns did (NAME) receive the measles injections? RECORD ALL CAMPAIGNS MENTIONED.	ASWIN 2061 . . . . . A PAUSH 2061 . . . . . B CHAITRA 2061 . . . C NOT GIVEN . . . . . D	ASWIN 2061 . . . . . A PAUSH 2061 . . . . . B CHAITRA 2061 . . . C NOT GIVEN . . . . . D	ASWIN 2061 . . . . . A PAUSH 2061 . . . . . B CHAITRA 2061 . . . C NOT GIVEN . . . . . D
512	Do you remember the recent vitamin A capsule distribution? IF NO, ASK: Does anyone in the household remember the event? SPEAK TO THAT PERSON.	YES . . . . . 1 NO . . . . . 2 (SKIP TO 515) ←┤ DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 515) ←┤ DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 515) ←┤ DON'T KNOW 8
513	Did (NAME) receive a vitamin A capsule during the event in Kartik/Baisakh? IF THE INTERVIEW IS BEFORE BAISAKH, ASK ABOUT KARTIK. IF THE INTERVIEW IS AFTER BAISAKH, ASK ABOUT BAISAKH.	YES . . . . . 1 NO . . . . . 2 (SKIP TO 515) ←┤ DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 515) ←┤ DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 515) ←┤ DON'T KNOW 8
514	Please tell me what happened when you took (NAME) for vitamin A? IF MENTIONS SPONTANEOUSLY, CIRCLE CODE '1'. FOR ALL NOT MENTIONED, PROBE AND CIRCLE '2' IF YES AND '8' IF NO OR DON'T KNOW. SHOW CAPSULE.	YES YES NO SPN. PF DK. RED CAPSULE 1 2 8 CAPSULE WAS CUT 1 2 8 CHILD'S NAME WRITTEN 1 2 8 CENTRAL SITE 1 2 8	YES YES NO SPN. PF DK. RED CAPSULE 1 2 8 CAPSULE WAS CUT 1 2 8 CHILD'S NAME WRITTEN 1 2 8 CENTRAL SITE 1 2 8	YES YES NO SPN. PF DK. RED CAPSULE 1 2 8 CAPSULE WAS CUT 1 2 8 CHILD'S NAME WRITTEN 1 2 8 CENTRAL SITE 1 2 8
515	Has (NAME) taken any drug for intestinal worms in the last six months (including any deworming tablet given during the vitamin A distribution?)	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	Has (NAME) had diarrhea in the last 2 weeks?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 529) ←┤ DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 529) ←┤ DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 529) ←┤ DON'T KNOW 8
517	Was there any blood in the stools?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
518	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
519	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
520	Did you seek advice or treatment for the diarrhea from any source?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 524A)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 524A)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 524A)
521	Where did you seek advice or treatment? Anywhere else? PROBE TO IDENTIFY EACH TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE(S). IF UNABLE TO DETERMINE IF A HOSPITAL, HEALTH CENTER, OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S))	GOVT. SECTOR GOVT HOSPITAL/ CLINIC A PHC CENTER B HEALTH POST C SUB-HTH POST D PHC OUTREACH CLINIC E FCHV F OTHER GOVT. _____ G (SPECIFY) NON-GOVT. (NGO) SECT. UMN/RED CROSS H OTHER NGO. _____ I (SPECIFY) PRIVATE MED. SECTOR PVT. HOSPITAL J CLINIC/NURSING HOME K PHARMACY . . . L OTHER PRIVATE MED. _____ M (SPECIFY) OTHER SOURCE SHOP . . . . . N TRADITIONAL PRACTITIONER O OTHER _____ X (SPECIFY)	GOVT. SECTOR GOVT HOSPITAL/ CLINIC A PHC CENTER B HEALTH POST C SUB-HTH POST D PHC OUTREACH CLINIC E FCHV F OTHER GOVT. _____ G (SPECIFY) NON-GOVT. (NGO) SECT. UMN/RED CROSS H OTHER NGO. _____ I (SPECIFY) PRIVATE MED. SECTOR PVT. HOSPITAL J CLINIC/NURSING HOME K PHARMACY . . . L OTHER PRIVATE MED. _____ M (SPECIFY) OTHER SOURCE SHOP . . . . . N TRADITIONAL PRACTITIONER O OTHER _____ X (SPECIFY)	GOVT. SECTOR GOVT HOSPITAL/ CLINIC A PHC CENTER B HEALTH POST C SUB-HTH POST D PHC OUTREACH CLINIC E FCHV F OTHER GOVT. _____ G (SPECIFY) NON-GOVT. (NGO) SECT. UMN/RED CROSS H OTHER NGO. _____ I (SPECIFY) PRIVATE MED. SECTOR PVT. HOSPITAL J CLINIC/NURSING HOME K PHARMACY . . . L OTHER PRIVATE MED. _____ M (SPECIFY) OTHER SOURCE SHOP . . . . . N TRADITIONAL PRACTITIONER O OTHER _____ X (SPECIFY)
521A	CHECK 521:	☐ FCHV CIRCLED ☐ FCHV NOT CIRCLED (SKIP TO 521C)	☐ FCHV CIRCLED ☐ FCHV NOT CIRCLED (SKIP TO 521C)	☐ FCHV CIRCLED ☐ FCHV NOT CIRCLED (SKIP TO 521C)
521B	Did you seek advice or treatment from an FCHV?	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
521C	CHECK 521:	☐ PHARM. CIRCLED ☐ PHARM. NOT CIRCLED (SKIP TO 522)	☐ PHARM. CIRCLED ☐ PHARM. NOT CIRCLED (SKIP TO 522)	☐ PHARM. CIRCLED ☐ PHARM. NOT CIRCLED (SKIP TO 522)
521D	At the pharmacy: a. Was (NAME) examined? b. Did you get advice on type of medication to buy? c. Did you know exactly what medication to buy and only went there to buy it?	YES NO DK 1 2 8 1 2 8 1 2 8	YES NO DK 1 2 8 1 2 8 1 2 8	YES NO DK 1 2 8 1 2 8 1 2 8
522	CHECK 521:	☐ TWO OR MORE CODES CIRCLED ☐ ONLY ONE CODE CIRCLED (SKIP TO 524)	☐ TWO OR MORE CODES CIRCLED ☐ ONLY ONE CODE CIRCLED (SKIP TO 524)	☐ TWO OR MORE CODES CIRCLED ☐ ONLY ONE CODE CIRCLED (SKIP TO 524)
523	Where did you first seek advice or treatment? USE LETTER CODE FROM 521.	FIRST PLACE . . . ☐	FIRST PLACE . . . ☐	FIRST PLACE . . . ☐
524	How many days after the diarrhea began did you first seek advice or treatment for (NAME)? IF THE SAME DAY, RECORD '00'.	DAYS . . . . . ☐☐ (SKIP TO 525)	DAYS . . . . . ☐☐ (SKIP TO 525)	DAYS . . . . . ☐☐ (SKIP TO 525)
524A	Did you seek advice or treatment from an FCHV?	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
525	Does (NAME) still have diarrhea?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
526	Was he/she given a fluid made from a special packet such as Jeevan Jal/Navajeevan to drink?	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	Was anything (else) given to treat the diarrhea?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 529) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 529) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 529) DON'T KNOW 8

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
528	What (else) was given to treat the diarrhea? Anything else? RECORD ALL TREATMENTS GIVEN.	PILL OR SYRUP ANTIBIOTIC . . . . . A ANTIMOTILITY . B ZINC . . . . . C OTHER (NOT ANTI-BIOTIC, ANTI-MOTILITY, OR ZINC) . . . . . D UNKNOWN PILL OR SYRUP . . . E INJECTION ANTIBIOTIC . . . . . F NON-ANTIBIOTIC . G UNKNOWN INJECTION . . . H (IV) INTRAVENOUS . I HOME REMEDY/ HERBAL MED-ICINE . . . . . J OTHER _____ X (SPECIFY)	PILL OR SYRUP ANTIBIOTIC . . . . . A ANTIMOTILITY . B ZINC . . . . . C OTHER (NOT ANTI-BIOTIC, ANTI-MOTILITY, OR ZINC) . . . . . D UNKNOWN PILL OR SYRUP . . . E INJECTION ANTIBIOTIC . . . . . F NON-ANTIBIOTIC . G UNKNOWN INJECTION . . . H (IV) INTRAVENOUS . I HOME REMEDY/ HERBAL MED-ICINE . . . . . J OTHER _____ X (SPECIFY)	PILL OR SYRUP ANTIBIOTIC . . . . . A ANTIMOTILITY . B ZINC . . . . . C OTHER (NOT ANTI-BIOTIC, ANTI-MOTILITY, OR ZINC) . . . . . D UNKNOWN PILL OR SYRUP . . . E INJECTION ANTIBIOTIC . . . . . F NON-ANTIBIOTIC . G UNKNOWN INJECTION . . . H (IV) INTRAVENOUS . I HOME REMEDY/ HERBAL MED-ICINE . . . . . J OTHER _____ X (SPECIFY)
529	Has (NAME) been ill with a fever at any time in the last 2 weeks?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
530	Has (NAME) had an illness with a cough at any time in the last 2 weeks?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 533) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 533) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 533) DON'T KNOW 8
531	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 534) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 534) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 534) DON'T KNOW 8
532	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 534)	CHEST ONLY . . . 1 NOSE ONLY . . . . . 2 BOTH . . . . . 3 OTHER _____ 6 (SPECIFY) DON'T KNOW . . . . . 8 (SKIP TO 534)	CHEST ONLY . . . 1 NOSE ONLY . . . . . 2 BOTH . . . . . 3 OTHER _____ 6 (SPECIFY) DON'T KNOW . . . . . 8 (SKIP TO 534)
533	CHECK 529: HAD FEVER?	YES NO OR DK (GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 545)	YES NO OR DK (GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 545)	YES NO OR DK (GO BACK TO 503 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE OR IF NO MORE BIRTHS, GO TO 545)
534	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

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
535	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
536	Did you seek advice or treatment for the illness from any source?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 540A)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 540A)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 540A)
537	Where did you seek advice or treatment? Anywhere else? PROBE TO IDENTIFY EACH TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE(S). IF UNABLE TO DETERMINE IF A HOSPITAL, HEALTH CENTER, OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S))	GOVT. SECTOR GOVT HOSPITAL/ CLINIC . . . . . A PHC CENTER . . . B HEALTH POST . . . C SUB-HTH POST . D PHC OUTREACH E FCHV . . . . . F OTHER GOVT. _____ G (SPECIFY) NON-GOVT. (NGO) SECT. UMN/RED CROSS H OTHER GOVT. _____ I (SPECIFY) PRIVATE MED. SECTOR PVT. HOSPITAL J CLINIC/NURSING HOME K PHARMACY . . . L OTHER PRIVATE MED. _____ M (SPECIFY) OTHER SOURCE SHOP . . . . . N TRADITIONAL PRACTITIONER O OTHER _____ X (SPECIFY)	GOVT. SECTOR GOVT HOSPITAL/ CLINIC . . . . . A PHC CENTER . . . B HEALTH POST . . . C SUB-HTH POST . D PHC OUTREACH E FCHV . . . . . F OTHER GOVT. _____ G (SPECIFY) NON-GOVT. (NGO) SECT. UMN/RED CROSS H OTHER GOVT. _____ I (SPECIFY) PRIVATE MED. SECTOR PVT. HOSPITAL J CLINIC/NURSING HOME K PHARMACY . . . L OTHER PRIVATE MED. _____ M (SPECIFY) OTHER SOURCE SHOP . . . . . N TRADITIONAL PRACTITIONER O OTHER _____ X (SPECIFY)	GOVT. SECTOR GOVT HOSPITAL/ CLINIC . . . . . A PHC CENTER . . . B HEALTH POST . . . C SUB-HTH POST . D PHC OUTREACH E FCHV . . . . . F OTHER GOVT. _____ G (SPECIFY) NON-GOVT. (NGO) SECT. UMN/RED CROSS H OTHER GOVT. _____ I (SPECIFY) PRIVATE MED. SECTOR PVT. HOSPITAL J CLINIC/NURSING HOME K PHARMACY . . . L OTHER PRIVATE MED. _____ M (SPECIFY) OTHER SOURCE SHOP . . . . . N TRADITIONAL PRACTITIONER O OTHER _____ X (SPECIFY)
537A	CHECK 537:	FCHV CIRCLED NOT CIRCLED FCHV (SKIP TO 537C)	FCHV CIRCLED NOT CIRCLED FCHV (SKIP TO 537C)	FCHV CIRCLED NOT CIRCLED FCHV (SKIP TO 537C)
537B	Did you seek advice or treatment from an FCHV?	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
537C	CHECK 537:	PHARM. CIRCLED PHARM. NOT CIRCLED (SKIP TO 538)	PHARM. CIRCLED PHARM. NOT CIRCLED (SKIP TO 538)	PHARM. CIRCLED PHARM. NOT CIRCLED (SKIP TO 538)
537D	At the pharmacy: a. Was (NAME) examined? b. Did you get advice on type of medication to buy? c. Did you know exactly what medication to buy and only went there to buy it?	YES NO DK 1 2 8 1 2 8 1 2 8	YES NO DK 1 2 8 1 2 8 1 2 8	YES NO DK 1 2 8 1 2 8 1 2 8

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
538	CHECK 537:	TWO OR MORE CODES CIRCLED ☐ / ONLY ONE CODE CIRCLED ☐ (SKIP TO 540)	TWO OR MORE CODES CIRCLED ☐ / ONLY ONE CODE CIRCLED ☐ (SKIP TO 540)	TWO OR MORE CODES CIRCLED ☐ / ONLY ONE CODE CIRCLED ☐ (SKIP TO 540)
539	Where did you first seek advice or treatment? USE LETTER CODE FROM 537.	FIRST PLACE . . . ☐	FIRST PLACE . . . ☐	FIRST PLACE . . . ☐
540	How many days after the illness began did you first seek advice or treatment for (NAME)? IF THE SAME DAY, RECORD '00'.	DAYS . . . . . ☐☐ (SKIP TO 541)	DAYS . . . . . ☐☐ (SKIP TO 541)	DAYS . . . . . ☐☐ (SKIP TO 541)
540A	Did you seek advice or treatment from an FCHV?	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
541	Is (NAME) still sick with a (fever/ cough)?	FEVER ONLY . . . . . 1 COUGH ONLY . . . 2 BOTH FEVER AND COUGH . . . . . 3 NO, NEITHER . . . . . 4 DON'T KNOW . . . 8	FEVER ONLY . . . . . 1 COUGH ONLY . . . 2 BOTH FEVER AND COUGH . . . . . 3 NO, NEITHER . . . . . 4 DON'T KNOW . . . 8	FEVER ONLY . . . . . 1 COUGH ONLY . . . 2 BOTH FEVER AND COUGH . . . . . 3 NO, NEITHER . . . . . 4 DON'T KNOW . . . 8
542	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 545) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 545) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (GO BACK TO 503 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE OR IF NO MORE BIRTHS, GO TO 545)
543	What drugs did (NAME) take? Any other drugs? RECORD ALL MENTIONED.	ANTIMALARIAL DRUGS CHLOROQUINE A PRIMAQUINE . . . B QUININE . . . . . C OTHER _____ D (SPECIFY) ANTIBIOTIC DRUGS COTRIMOXAZOLE E AMOXYCILLIN . F CIPROFLOXACIN G PROCAINE PENICILLIN INJECTION . H OTHER DRUGS PARACETAMOL . I IBUPROFEN . . . J COUGH SYRUP K OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z	ANTIMALARIAL DRUGS CHLOROQUINE A PRIMAQUINE . . . B QUININE . . . . . C OTHER _____ D (SPECIFY) ANTIBIOTIC DRUGS COTRIMOXAZOLE E AMOXYCILLIN . F CIPROFLOXACIN G PROCAINE PENICILLIN INJECTION . H OTHER DRUGS PARACETAMOL . I IBUPROFEN . . . J COUGH SYRUP K OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z	ANTIMALARIAL DRUGS CHLOROQUINE A PRIMAQUINE . . . B QUININE . . . . . C OTHER _____ D (SPECIFY) ANTIBIOTIC DRUGS COTRIMOXAZOLE E AMOXYCILLIN . F CIPROFLOXACIN G PROCAINE PENICILLIN INJECTION . H OTHER DRUGS PARACETAMOL . I IBUPROFEN . . . J COUGH SYRUP K OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z
544		GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 545.	GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 545.	(GO BACK TO 503 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE OR IF NO MORE BIRTHS, GO TO 545)

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
545	CHECK 221 AND 224, ALL ROWS: NUMBER OF CHILDREN BORN IN 2057 OR LATER LIVING WITH THE RESPONDENT ONE OR MORE ☐ ↓ NONE ☐ →		548
546	The last time (NAME OF YOUNGEST CHILD) 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)	
547	CHECK 526, ALL COLUMNS: NO CHILD RECEIVED JEEVAN JAL OR NAVAJEEVAN OR OTHER ORS OR NOT ASKED ☐ ↓ ANY CHILD RECEIVED JEEVAN JAL OR NAVAJEEVAN OR OTHER ORS ☐ →		549
548	Have you ever heard of a special product called Jeevan Jal or Navajeevan you can get for the treatment of diarrhea?	YES . . . . . 1 NO 2	→ 549
548A	Have you ever seen a packet like this? SHOW PACKET OF JEEVAN JAL OR NAVAJEEVAN OR OTHER TYPES OF ORS.	YES . . . . . 1 NO 2	
549	CHECK 221 AND 224, ALL ROWS: HAS AT LEAST ONE CHILD BORN IN 2059 OR LATER AND LIVING WITH HER ☐ ↓ DOES NOT HAVE ANY CHILDREN BORN IN 2059 OR LATER AND LIVING WITH HER ☐ → RECORD NAME OF YOUNGEST CHILD LIVING WITH HER (AND CONTINUE WITH 550) _____ (NAME)		601
550	Now I would like to ask you about liquids or foods (NAME FROM 549) had yesterday during the day or at night. Did (NAME FROM 549) (drink/eat):	YES NO DK	
	Plain water?	PLAIN WATER 1 2 8	
	Commercially produced infant formula such as Lactogen?	FORMULA 1 2 8	
	Any fortified baby food such as Cerelac, Nestum, Champion?	BABY CEREAL 1 2 8	
	Any (other) porridge or gruel, such as Lito, Sarbottam Pitho?	OTHER PORRIDGE/GRUEL. . 1 2 8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
551	Now I would like to ask you about (other) liquids or foods that (NAME FROM 549)/you may have had yesterday during the day or at night. I am interested in whether your child/you had the item even if it was combined with other foods.		

Did (NAME FROM 549)/you drink (eat):		CHILD YES	CHILD NO	CHILD DK	MOTHER YES	MOTHER NO	MOTHER DK
a. Milk such as tinned, powdered, or fresh animal milk?	**a**	1	2	8	1	2	8
b Tea or coffee?	**b**	1	2	8	1	2	8
c. Any other liquids?	**c**	1	2	8	1	2	8
d. Any food such as roti or porridge, made from grains, like rice, millet, wheat, maize, buckwheat or barley ?	**d**	1	2	8	1	2	8
e. Pumpkin, carrots, squash or sweet potatoes (shakharkhanda) that are yellow or orange inside?	**e**	1	2	8	1	2	8
f. White potatoes, white yams, colocasia, or any other foods made from roots?	**f**	1	2	8	1	2	8
g. Any dark green, leafy vegetables such as colocasia leaves, spinach, amaranth leaves, mustard leaves, swiss chard?	**g**	1	2	8	1	2	8
h. Ripe mangoes, papayas, apricot, persimmom?	**h**	1	2	8	1	2	8
i. Any other fruits or vegetables such as banana, apple, guava, amala, orange, tomatoes?	**i**	1	2	8	1	2	8
j. Liver, kidney, heart or other organ meats?	**j**	1	2	8	1	2	8
k. Chicken, goat, lamb, buffalo, pork, duck or any other meat?	**k**	1	2	8	1	2	8
l. Eggs?	**l**	1	2	8	1	2	8
m. Fresh or dried fish or shellfish?	**m**	1	2	8	1	2	8
n. Any foods made from beans, peas, lentils (daal) or nuts?	**n**	1	2	8	1	2	8
o. Cheese, yogurt or other milk products?	**o**	1	2	8	1	2	8
p. Any ghee, oil, fats, or butter, or foods made with any of these?	**p**	1	2	8	1	2	8
q. Any sugary foods such as chocolates, sweets, candies, pastries, cakes, or biscuits?	**q**	1	2	8	1	2	8
r. Any other solid or semi-solid food?	**r**	1	2	8	1	2	8

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
552	CHECK 550 (LAST 2 CATEGORIES: BABY CEREALS OR OTHER PORRIDGE/GRUEL) AND 551 (CATEGORIES d THROUGH r FOR CHILD):	AT LEAST ONE "YES' ☐ ↓ NOT A SINGLE "YES" ☐ →	601
553	How many times did (NAME FROM 549) 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. SEXUAL LIFE

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
601	CHECK 313: HAS NOT HAD SEXUAL INTERCOURSE (313 = 00) ☐ → 617 ☐ HAS HAD SEXUAL INTERCOURSE		
	READ TO RESPONDENTS Now I need to ask you some more questions about relationships and sexual life. Once again, let me assure you that your answers are completely confidential. If we should come to any question that you don't want to answer, just let me know and I will skip to the next question.		
602	CHECK 108: 15-24 YEARS OLD ☐ 25-49 YEARS OLD ☐ → 606		
603	How old was the person you first had sexual intercourse with?	AGE OF PARTNER . . . . . ☐☐ DON'T KNOW 98	→ 604A
604	Would you say this person was ten or more years older than you?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
604A	What was this person's relationship to you?	HUSBAND . . . . . 01 LIVE-IN PARTNER . . . . . 02 BOYFRIEND NOT LIVING WITH RESPONDENT . . . . . 03 RELATIVE . . . . . 04 CASUAL ACQUAINTANCE . . . . . 05 SEX WORKER . . . . . 06 OTHER _____ (SPECIFY) 96	
605	The first time you had sexual intercourse, was a condom used?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/DON'T REMEMBER . . . 8	
606	When was the last time you had sexual intercourse? IF LESS THAN 12 MONTHS, ANSWER MUST BE RECORDED IN DAYS, WEEKS, OR MONTHS AGO. IF 12 MONTHS OR MORE, ANSWER MUST BE RECORDED IN YEARS AGO.	DAYS AGO . . . . . 1 ☐☐ WEEKS AGO . . . . . 2 ☐☐ MONTHS AGO . . . . . 3 ☐☐ YEARS AGO . . . . . 4 ☐☐	→ 608 → 617

NO.	QUESTIONS AND FILTERS	LAST SEXUAL PARTNER	SECOND-TO-LAST SEXUAL PARTNER
607	When was the last time you had sexual intercourse with this other person?		DAYS AGO . . . . . 1 WEEKS AGO . . . . 2 MONTHS AGO . . . 3
608	The last time you had sexual intercourse (with this other person), was a condom used?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 610)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 610)
609	Did you use a condom every time you had sexual intercourse with this person in the last 12 months?	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
610	What was this person's relationship to you?	HUSBAND . . . . . 01 (SKIP TO 615) LIVE-IN PARTNER . . . . . 02 BOYFRIEND NOT LIVING WITH RESPONDENT . . . . . 03 RELATIVE . . . . . 04 CASUAL ACQUAINTANCE . . . . . 05 SEX WORKER CLIENT . . . . . 06 OTHER _____ 96 (SPECIFY)	HUSBAND . . . . . 01 (SKIP TO 616) LIVE-IN PARTNER . . . . . 02 BOYFRIEND NOT LIVING WITH RESPONDENT . . . . . 03 RELATIVE . . . . . 04 CASUAL ACQUAINTANCE . . . . . 05 SEX WORKER CLIENT . . . . . 06 OTHER _____ 96 (SPECIFY)
611	For how long (have you had/did you have) a sexual relationship with this person? IF ONLY HAD SEXUAL RELATIONS WITH THIS PERSON ONCE, RECORD '01' DAYS.	DAYS . . . . . 1 MONTHS . . . . . 2 YEARS 3	DAYS . . . . . 1 MONTHS . . . . . 2 YEARS 3
612	CHECK 108:	15-24 YEARS OLD 25-49 YEARS OLD (SKIP TO 615)	15-24 YEARS OLD 25-49 YEARS OLD (SKIP TO 616)
613	How old is this person?	AGE OF PARTNER . . . . . . (SKIP TO 615) DON'T KNOW 98	AGE OF PARTNER . . . . . . (SKIP TO 616) DON'T KNOW 98
614	Would you say this person is ten or more years older than you?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
615	Apart from this person, have you had sexual intercourse with any other person in the last 12 months?	YES . . . . . 1 (GO BACK TO 607 IN NEXT COLUMN) NO . . . . . 2 (SKIP TO 617)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
616	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.	NUMBER OF PARTNERS IN LAST 12 MONTHS . . . . . [ ][ ] DON'T KNOW 98	
617	Do you know of a place where a person can get condoms?	YES . . . . . 1 NO 2	→ 701
618	Where is that? Any other place? IF UNABLE TO DETERMINE IF A HOSPITAL, HEALTH CENTRE, OR CLINIC IS PUBLIC OR PRIVATE MEDICAL SECTOR, WRITE THE NAME OF THE PLACE(S). _____ (NAME OF PLACE(S)) RECORD ALL SOURCES MENTIONED.	PUBLIC SECTOR GOVT. HOSPITAL/CLINIC . . . . . A PHC CE . . . . . B HEALTH POST . . . . . C SUB-HEALTH POST . . . . . D PHC OUTREACH . . . . . E MOBILE CLINIC . . . . . F FCHV . . . . . G OTHER GOVT. _____ H (SPECIFY) NON-GOVT. (NGO) SECTOR FPAN . . . . . I MARIE STOPES . . . . . J ADRA . . . . . K NEPAL RED CROSS . . . . . L UMN . . . . . M OTHER NGO. _____ N (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC/ . . . NURSING HOME O PHARMACY . . . . . P OTHER PRIVATE MEDICAL _____ Q (SPECIFY) OTHER SOURCE SHOP . . . . . R FRIEND/RELATIVE . . . . . S OTHER _____ T (SPECIFY) OTHER _____ X (SPECIFY)	
619	If you wanted to, could you yourself get a condom?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/UNSURE 8	

SECTION 7. FERTILITY PREFERENCES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
701	CHECK 301: NEVER MARRIED WIDOWED/DIVORCED/SEPARATED OTHER (CODE 1 AND 2)		713
702	CHECK 325/325A: CODE 'A' OR CODE 'B' CIRCLED OTHER		713
703	CHECK 236: NOT PREGNANT OR UNSURE 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? PREGNANT Now I have some questions about the future. After the child you are expecting now, would you like to have another child, or would you prefer not to have any more children?	HAVE (A/ANOTHER) CHILD . . . . . 1 NO MORE/NONE . . . . . 2 SAYS SHE CAN'T GET PREGNANT . . . 3 UNDECIDED/DON'T KNOW: AND PREGNANT . . . . . 4 AND NOT PREGNANT OR UNSURE 5	 705 713 710 709
704	CHECK 236: 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 GAUNA . . . . . 995 OTHER _____ 996 (SPECIFY) DON'T KNOW 998	 709 713 709
705	CHECK 236: NOT PREGNANT OR UNSURE PREGNANT		709
706	CHECK 324: USING A CONTRACEPTIVE METHOD? NOT ASKED NOT CURRENTLY USING CURRENTLY USING		713
707	CHECK 704: NOT ASKED 24 OR MORE MONTHS OR 02 OR MORE YEARS 00-23 MONTHS OR 00-01 YEAR		710

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
708	CHECK 703: WANTS TO HAVE A/ANOTHER CHILD → You have said that you do not want (a/another) child soon, but you are not using any method to avoid pregnancy. Can you tell me why you are not using a method? WANTS NO MORE/ NONE → You have said that you do not want any (more) children, but you are not using any method to avoid pregnancy. Can you tell me why you are not using a method? Any other reason? (both paths) RECORD ALL REASONS MENTIONED.	FERTILITY-RELATED REASONS NOT HAVING SEX . . . . . B INFREQUENT SEX . . . . . C MENOPAUSAL/HYSTERECTOMY . D SUBFECUND/INFECUND . . . . . E POSTPARTUM AMENORRHEIC . . . F BREASTFEEDING . . . . . G FATALISTIC/UP TO GOD . . . . . H OPPOSITION TO USE RESPONDENT OPPOSED . . . . . I HUSBAND OPPOSED . . . . . J OTHERS OPPOSED . . . . . K RELIGIOUS PROHIBITION . . . . . L LACK OF KNOWLEDGE KNOWS NO METHOD . . . . . M KNOWS NO SOURCE . . . . . N METHOD-RELATED REASONS HEALTH CONCERNS . . . . . O FEAR OF SIDE EFFECTS . . . . . P LACK OF ACCESS/TOO FAR . . . . . Q COSTS TOO MUCH . . . . . R INCONVENIENT TO USE . . . . . S INTERFERES WITH BODY'S NORMAL PROCESSES . . . . . T DON'T LIKE EXISTING METHODS . . U OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z	
709	CHECK 324: USING A CONTRACEPTIVE METHOD? NOT ASKED → ↓ NO, NOT CURRENTLY USING → ↓ YES, CURRENTLY USING →		713
710	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	 712 713
711	Which contraceptive method would you prefer to use?	FEMALE STERILIZATION . . . . . 01 MALE STERILIZATION . . . . . 02 PILL . . . . . 03 IUD/LOOP . . . . . 04 INJECTABLES . . . . . 05 IMPLANTS . . . . . 06 CONDOM . . . . . 07 FEMALE CONDOM . . . . . 08 DIAPHRAGM . . . . . 09 FOAM/JELLY . . . . . 10 RHYTHM METHOD . . . . . 11 WITHDRAWAL . . . . . 12 OTHER _____ 96 (SPECIFY) UNSURE 98	713

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
712	What is the main reason that you think you will not use a contraceptive method at any time in the future?	FERTILITY-RELATED REASONS INFREQUENT SEX/NO SEX . . . . . 11 MENOPAUSAL/HYSTERECTOMY 12 SUBFECUND/INFECUND . . . . . 13 FATALISTIC . . . . . 14 WANTS AS MANY CHILDREN AS POSSIBLE . . . . . 15 OPPOSITION TO USE RESPONDENT OPPOSED . . . . . 21 HUSBAND OPPOSED . . . . . 22 OTHERS OPPOSED . . . . . 23 RELIGIOUS PROHIBITION . . . . . 24 LACK OF KNOWLEDGE KNOWS NO METHOD . . . . . 31 KNOWS NO SOURCE . . . . . 32 METHOD-RELATED REASONS HEALTH CONCERNS . . . . . 41 FEAR OF SIDE EFFECTS . . . . . 42 LACK OF ACCESS/TOO FAR . . . . . 43 COSTS TOO MUCH . . . . . 44 INCONVENIENT TO USE . . . . . 45 INTERFERES WITH BODY'S NORMAL PROCESSES . . . . . 46 OTHER _____ 96 (SPECIFY) DON'T KNOW 98	
713	CHECK 222: 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)	→ 715 → 715
714	How many of these children would you like to be boys, how many would you like to be girls and for how many would the sex not matter?	BOYS GIRLS EITHER NUMBER ☐☐ ☐☐ ☐☐ OTHER _____ 96 (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
715	In the last few months have you heard or seen any message about family planning:	YES NO	
	a. On the radio?	RADIO 1 2	
	b. On the television?	TELEVISION 1 2	
	c. In a newspaper, magazine or brochure?	NEWSPAPER/MAG./BROCH. . . . 1 2	
	d. On a poster, hoarding board or billboard?	POSTER/HBOARD 1 2	
	e. Street dramas?	STREET DRAMAS 1 2	
716	CHECK 301: CURRENTLY MARRIED ☐ OTHER ☐ → 801		
717	CHECK 325/325A: CODE 'B' OR 'G' OR 'M' CIRCLED ☐ → 719 NO CODE CIRCLED ☐ → 719A OTHER ☐		
718	Does your husband know that you are using a method of family planning?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
719	Would you say that using contraception is mainly your decision, mainly your husband's decision, or did you both decide together?	MAINLY RESPONDENT . . . . . 1 MAINLY HUSBAND . . . . . 2 JOINT DECISION . . . . . 3 OTHER (SPECIFY)_____ 6	
719A	Now I want to ask you about your husband's views on family planning. Do you think your husband approves or disapproves of couples using a method to avoid pregnancy?	APPROVES . . . . . 1 DISAPPROVES . . . . . 2 DON'T KNOW 8	
719B	How often have you talked to your husband about family planning in the past year?	NEVER . . . . . 1 ONCE OR TWICE . . . . . 2 MORE OFTEN 3	
720	CHECK 325/325A: CODE 'A' OR CODE 'B' CIRCLED ☐ → 801 OTHER ☐		
721	Does your husband 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 301: CURRENTLY MARRIED/ ☐ ↓ NEVER MARRIED ☐ → 806 OTHER ☐ → 803		
802	How old was your husband on his last birthday?	AGE IN COMPLETED YEARS ☐☐	
803	Did your (last) husband ever attend school?	YES . . . . . 1 NO 2	→ 805
804	What was the highest grade he completed?	GRADE . . . . . ☐☐ DON'T KNOW 98	
805	CHECK 801: CURRENTLY MARRIED ☐ ↓ — What is your husband's occupation? That is, what kind of work does he mainly do? OTHER ☐ ↓ — What was your (last) husband's occupation? That is, what kind of work did he mainly do?	_____ ☐☐ _____ _____	
806	Aside from your own housework, have you done any work in the last seven days?	YES . . . . . 1 NO 2	→ 810
807	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	→ 810
808	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	→ 810
809	Have you done any work in the last 12 months?	YES . . . . . 1 NO 2	→ 817
810	What is your occupation, that is, what kind of work do you mainly do?	_____ ☐☐ _____ _____	
811	CHECK 810: WORKS IN AGRICULTURE ☐ ↓ DOES NOT WORK IN AGRICULTURE ☐ → 813		
812	Do you work mainly on your own land or on family land, or do you work on land that you rent from someone else, or do you work on someone else's land?	OWN LAND . . . . . 1 FAMILY LAND . . . . . 2 RENTED LAND . . . . . 3 SOMEONE ELSE'S LAND 4	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
813	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	
814	Do you usually work at home or away from home?	HOME . . . . . 1 AWAY 2	
815	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	
816	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	
817	CHECK 301: CURRENTLY MARRIED ☐ OTHER ☐		→ 822
818	CHECK 816: CODE 1 OR 2 CIRCLED ☐ OTHER ☐		→ 821
819	Who usually decides how the money that you earn will be used: you, your husband, or you and your husband jointly?	RESPONDENT . . . . . 1 HUSBAND . . . . . 2 RESPONDENT AND HUSBAND JOINTLY . . . . . 3 OTHER _____ 6 SPECIFY	
820	Would you say that the money that you earn is more than what your husband earns, less than what he earns, or about the same?	MORE THAN HIM . . . . . 1 LESS THAN HIM . . . . . 2 ABOUT THE SAME . . . . . 3 HUSBAND DOESN'T BRING IN ANY MONEY . . . . . 4 DON'T KNOW 8	→ 822
821	Who usually decides how your husband's earnings will be used: you, your husband, or you and your husband jointly?	RESPONDENT . . . . . 1 HUSBAND . . . . . 2 RESPONDENT AND HUSBAND JOINTLY . . . 3 HUSBAND HAS NO EARNINGS . . . . . 4 OTHER _____ 6 SPECIFY	

NO.	QUESTIONS AND FILTERS	SELF	HUS-BAND	BOTH	SOME-ONE ELSE	OTHER	SKIP
822	Who usually makes decisions about health care for yourself?	1	2	3	4	6	
823	Who usually makes decisions about making major household purchases?	1	2	3	4	6	
824	Who usually makes decisions about making purchases for daily household needs?	1	2	3	4	6	
825	Who usually makes decisions about visits to your family or relatives?	1	2	3	4	6	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES				SKIP
826	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	
827	Sometimes a husband is annoyed or angered by things that his wife does. In your opinion, is a husband justified in hitting or beating his wife in the following situations:		YES	NO	DK	
	If she goes out without telling him?	GOES OUT	1	2	8	
	If she neglects the children?	NEGL. CHILDREN . . .	1	2	8	
	If she argues with him?	ARGUES	1	2	8	
	If she refuses to have sex with him?	REFUSES SEX	1	2	8	
	If she burns the food?	BURNS FOOD	1	2	8	

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	→ 915
902	Can people reduce their chance of getting the AIDS virus by having just one uninfected sex partner who has sexual intercourse with no other partners?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
903	Can people get the AIDS virus from mosquito bites?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
904	Can people reduce their chance of getting the AIDS virus by using a condom every time they have sex?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
905	Can people get the AIDS virus by sharing food with a person who has AIDS?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
906	Can people reduce their chance of getting the AIDS virus by not having sexual intercourse at all?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
907	Can people get the AIDS virus by touching someone who has AIDS?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
908	Is it possible for a healthy-looking person to have the AIDS virus?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
908A	Have you ever been tested to see if you have the AIDS virus?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 909
908B	Did you test positive for the AIDS virus?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
909	Do you know of a place where people can go to get tested for the AIDS virus?	YES . . . . . 1 NO 2	→ 911
910	Where is that? Any other place? PROBE TO IDENTIFY EACH TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE(S). IF UNABLE TO DETERMINE IF HOSPITAL, HEALTH CENTER VCT CENTER, OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S))	GOVT. SECTOR GOVERNMENT HOSPITAL . . . . . A VCT CENTER . . . . . B OTHER GOVT. _____ C (SPECIFY) NON-GOVT. SECTOR FPAN . . . . . D AMDA . . . . . E INF . . . . . F NEPAL RED CROSS . . . . . G OTHER GOVT. _____ H (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC/ PRIVATE DOCTOR . . . . . I OTHER PRIVATE MEDICAL _____ J (SPECIFY) OTHER _____ X (SPECIFY)	
911	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	
912	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	
913	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	
914	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	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
915	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	
916	CHECK 313: HAS HAD SEXUAL INTERCOURSE → HAS NOT HAD SEXUAL INTERCOURSE →		924
917	CHECK 915: HEARD ABOUT OTHER SEXUALLY TRANSMITTED INFECTIONS? YES → NO →		919
918	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	
919	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	
920	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	
921	CHECK 918, 919, AND 920: HAS HAD AN INFECTION (ANY 'YES') → HAS NOT HAD AN INFECTION OR DOES NOT KNOW →		924
922	The last time you had (PROBLEM FROM 918/919/920), did you seek any kind of advice or treatment?	YES . . . . . 1 NO 2	 924
923	Where did you go? Any other place? PROBE TO IDENTIFY EACH TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE(S). IF UNABLE TO DETERMINE IF HOSPITAL, HEALTH CENTER VCT CENTER, OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S))	GOVT. SECTOR GOVERNMENT HOSPITAL . . . . . A PRIMARY HEALTH CARE . . . . . B HEALTH POST . . . . . C SUB-HEALTH POST . . . . . D PHC OUTREACH . E FAMILY PLANNING CLINIC . . . F MOBILE CLINIC . . . . . G FIELDWORKER . . . . . H OTHER GOVT. _____ I (SPECIFY) NON-GOVT. SECTOR FPAN . . . . . J AMDA . . . . . K INF . . . . . L NEPAL RED CROSS . . . . . M UMN . . . . . N OTHER NON-GOVT. _____ O (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC/ PRIVATE DOCTOR . . . . . P OTHER PRIVATE MEDICAL _____ Q (SPECIFY) OTHER SOURCE OTHER _____ X (SPECIFY)	
924	If a wife knows her husband has a disease that she can get during sexual intercourse, is she justified in refusing to have sex with him?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
925	Is a wife justified in refusing to have sex with her husband when she is tired or not in the mood?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
926	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 10. OTHER HEALTH ISSUES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1001	Have you ever heard of an illness called tuberculosis or TB?	YES . . . . . 1 NO 2	→ 1005A
1002	How does tuberculosis spread from one person to another? PROBE: Any other ways? RECORD ALL MENTIONED.	THROUGH THE AIR WHEN COUGHING OR SNEEZING . . . . . A THROUGH SHARING UTENSILS . . . . . B THROUGH TOUCHING A PERSON WITH TB . . . . . C THROUGH FOOD . . . . . D THROUGH SEXUAL CONTACT . . . . . E THROUGH MOSQUITO BITES . . . . . F THROUGH SPIT . . . . . G OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z	
1003	Can tuberculosis be cured?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
1004	If a member of your family got tuberculosis, would you want it to remain a secret or not?	YES, REMAIN A SECRET . . . . . 1 NO . . . . . 2 DON'T KNOW/NOT SURE/ DEPENDS 8	
1005A	Do you have a tetanus injection card (s)? IF YES: May I see it please?	YES, SEEN . . . . . 1 YES, NOT SEEN . . . . . 2 NO CARD 3	→ 1005C
1005B	(1) COPY VACCINATION DATE FOR EACH VACCINE FROM THE CARD(S). (2) WRITE '44' IN 'DAY' COLUMN IF CARD SHOWS THAT A VACCINATION WAS GIVEN, BUT NO DATE IS RECORDED.	DAY / MONTH / YEAR TT1 [ ] [ ] [ ] TT2 [ ] [ ] [ ] TT3 [ ] [ ] [ ] TT4 [ ] [ ] [ ] TT5 [ ] [ ] [ ]	→ 1005E
1005C	CHECK 414: HAS NOT RECEIVED TETANUS INJECTION OR NOT ASKED ↓	HAS RECEIVED TETANUS INJECTION [ ]	→ 1005E
1005D	Have you ever received a tetanus injection?	YES . . . . . 1 NO 2	→ 1005F
1005E	How many tetanus injections have you received in your lifetime?	NUMBER . . . . . [ ][ ] DON'T KNOW 98	
1005F	CHECK 213: ONE OR MORE BIRTHS ↓	NO BIRTHS [ ]	→ 1006
1005G	Have you ever experienced signs of uterine prolapse (Patheghar Khasne/ Ang Khasne)?	YES . . . . . 1 NO 2	
1006	Do you currently smoke cigarettes?	YES . . . . . 1 NO 2	→ 1008

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1007	In the last 24 hours, how many cigarettes did you smoke?	CIGARETTES . . . . . [ ][ ]	
1008	Do you currently smoke or use any other type of tobacco?	YES . . . . . 1 NO 2	 → 1010
1009	What (other) type of tobacco do you currently smoke or use? RECORD ALL MENTIONED.	PIPE . . . . . A CHEWING TOBACCO . . . . . B SNUFF . . . . . C OTHER _____ X (SPECIFY)	
1010	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?	PERMISSION TO GO . . . 1 2	
	Getting money needed for treatment?	GETTING MONEY 1 2	
	The distance to the health facility?	DISTANCE 1 2	
	Having to take transport?	TAKING TRANSPORT . . . 1 2	
	Not wanting to go alone?	GO ALONE 1 2	
	Concern about security?	SECURITY 1 2	
	Concern that there may not be a female health provider?	NO FEMALE PROV. . . . 1 2	
	Concern that there may not be any health provider?	NO PROVIDER . . . 1 2	
	Concern that there may be no drugs available?	NO DRUGS . . . 1 2	
1010A	In the last few months have you heard or seen the following programs on the radio and/or television:	YES / NO	
	Jana Swastha Radio Karyakram?	JANA SWASTHA 1 2	
	Sewa Nai Dharma Ho?	SEWA NAI DHARMA 1 2	
	Gyan Nai Shakti Ho?	GYAN NAI SHAKTI 1 2	
	Hamro Swastha Radio Karyakram?	HAMRO SWASTHA . . . 1 2	
	Jeevan Chakra?	JEEVAN CHAKRA 1 2	
	Teli-Swastha Karyakram?	TELI-SWASTHA 1 2	
	Ek Apaas Ka Kura?	EK APAAS KA KURA . . . 1 2	
	Sathi Sanga Manka Kura?	SATHI SANGA MANKA . 1 2	
	Desh Pardesh?	DESH PARDESH 1 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1011	Did you use soap for any purpose yesterday?	YES . . . . . 1 NO 2	→ 1101
1012	For what purpose did you use soap? Any other purpose? RECORD ALL MENTIONED.	HANDWASHING . . . . . A WASHING OWN BODY . . . . . B WASHING CHILD'S HANDS . . . . . C WASHING CHILD'S BODY . . . . . D WASHING CLOTHES . . . . . E OTHER X	
1013	CHECK 1012: CODE 'A' CIRCLED ☐ ↓ CODE 'A' NOT CIRCLED ☐ →		1101
1014	How many times did you wash your hands with soap yesterday? IF MORE THAN 7 TIMES, RECORD '7.'	TIMES . . . . . ☐ DON'T KNOW 8	

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 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
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 TO1113 NO . . . 2	YES . . . 1 GO TO 1113 NO . . . 2
1112	Did (NAME) die within two months after the end of a pregnancy or childbirth?	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2
1113	How many live born children did (NAME) give birth to during her lifetime (before this pregnancy)?	[ ][ ]	[ ][ ]	[ ][ ]	[ ][ ]	[ ][ ]	[ ][ ]

IF NO MORE BROTHERS OR SISTERS, GO TO 1114.

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 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
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 two months after the end of a pregnancy or childbirth?	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2
1113	How many live born children did (NAME) give birth to during her lifetime (before this pregnancy)?	[ ][ ]	[ ][ ]	[ ][ ]	[ ][ ]	[ ][ ]	[ ][ ]
IF NO MORE BROTHERS OR SISTERS, GO TO 1114.							
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.
ALL MONTHS SHOULD BE FILLED IN.

INFORMATION TO BE CODED FOR EACH COLUMN

BIRTHS, PREGNANCIES, CONTRACEPTIVE USE **

B	BIRTHS
P	PREGNANCIES
A	INDUCED ABORTIONS
T	STILLBIRTHS/MISCARRIAGE

0	NO METHOD
1	FEMALE STERILIZATION
2	MALE STERILIZATION
3	PILL
4	IUD
5	INJECTABLES
6	IMPLANTS
7	CONDOM
9	DIAPHRAGM
J	FOAM OR JELLY
L	RHYTHM METHOD
M	WITHDRAWAL
X	OTHER _____

(SPECIFY)

				1
	12	CHAITRA	01	
	11	FALGUN	02	
	10	MAGH	03	
	09	POUSH	04	
2	08	MANGSIR	05	
0	07	KARTIK	06	
6	06	ASHWIN	07	
3	05	BHADRA	08	
	04	SRAWAN	09	
	03	ASHAR	10	
	02	JAISTHA	11	
	01	BAISHAK	12	
	12	CHAITRA	13	
	11	FALGUN	14	
	10	MAGH	15	
	09	POUSH	16	
2	08	MANGSIR	17	
0	07	KARTIK	18	
6	06	ASHWIN	19	
2	05	BHADRA	20	
	04	SRAWAN	21	
	03	ASHAR	22	
	02	JAISTHA	23	
	01	BAISHAK	24	
	12	CHAITRA	25	
	11	FALGUN	26	
	10	MAGH	27	
	09	POUSH	28	
	08	MANGSIR	29	
2	07	KARTIK	30	
0	06	ASHWIN	31	
6	05	BHADRA	32	
1	04	SRAWAN	33	
	03	ASHAR	34	
	02	JAISTHA	35	
	01	BAISHAK	36	
	12	CHAITRA	37	
	11	FALGUN	38	
	10	MAGH	39	
	09	POUSH	40	
2	08	MANGSIR	41	
0	07	KARTIK	42	
6	06	ASHWIN	43	
0	05	BHADRA	44	
	04	SRAWAN	45	
	03	ASHAR	46	
	02	JAISTHA	47	
	01	BAISHAK	48	
	12	CHAITRA	49	
	11	FALGUN	50	
	10	MAGH	51	
	09	POUSH	52	
2	08	MANGSIR	53	
0	07	KARTIK	54	
5	06	ASHWIN	55	
9	05	BHADRA	56	
	04	SRAWAN	57	
	03	ASHAR	58	
	02	JAISTHA	59	
	01	BAISHAK	60	
	12	CHAITRA	61	
	11	FALGUN	62	
	10	MAGH	63	
	09	POUSH	64	
2	08	MANGSIR	65	
0	07	KARTIK	66	
5	06	ASHWIN	67	
8	05	BHADRA	68	
	04	SRAWAN	69	
	03	ASHAR	70	
	02	JAISTHA	71	
	01	BAISHAK	72	
	12	CHAITRA	73	
	11	FALGUN	74	
	10	MAGH	75	
	09	POUSH	76	
2	08	MANGSIR	77	
0	07	KARTIK	78	
5	06	ASHWIN	79	
7	05	BHADRA	80	
	04	SRAWAN	81	
	03	ASHAR	82	
	02	JAISTHA	83	
	01	BAISHAK	84	

10 March 2006

NEPAL DEMOGRAPHIC AND HEALTH SURVEY 2006
MAN'S QUESTIONNAIRE

IDENTIFICATION

NAME AND CODE OF DISTRICT _____

NAME AND CODE OF VILLAGE/MUNICIPALITY _____

WARD NUMBER . . . . . .

CLUSTER NUMBER . . . . . .

HOUSEHOLD NUMBER . . . . . .

CITY/TOWN/RURAL . . . . . .
(CITY=1, TOWN=2, RURAL=3)

NAME AND LINE NUMBER OF MAN _____

NAME OF HOUSEHOLD HEAD _____

INTERVIEWER VISITS

	1	2	3	FINAL VISIT
DATE				DAY
				MONTH
				YEAR 2 0 6
INTERVIEWER'S NAME				INT. NUMBER
RESULT*				RESULT
NEXT VISIT: DATE				TOTAL NUMBER OF VISITS
TIME				

*RESULT CODES:

1	COMPLETED	4	REFUSED		
2	NOT AT HOME	5	PARTLY COMPLETED	7	OTHER _____ (SPECIFY)
3	POSTPONED	6	INCAPACITATED		

LANGUAGE OF QUESTIONNAIRE ENGLISH 5

LANGUAGE OF INTERVIEW _____

NATIVE LANGUAGE OF RESPONDENT _____

TRANSLATOR USED (YES=1; NO=2) . . . . . .

LANGUAGE CODES: NEPALI=1; BHOJPURI=2; MAITHILI=3; THARU=4; OTHER=5

SUPERVISOR	FIELD EDITOR	OFFICE EDITOR	KEYED BY
NAME _____	NAME _____		
DATE _____	DATE _____		

SECTION 1. RESPONDENT'S BACKGROUND

INTRODUCTION AND CONSENT

INFORMED CONSENT

Hello. My name is _____ and I am working with the MINISTRY OF HEALTH AND POPULATION. We areconducting a national survey to ask men and women about various health issues. We would very much appreciate your participation in this survey. This information will help the government to plan health services. The survey usually takes about 30 minutes to complete. Whatever information you provide will be kept strictly confidential and will not be shown to other persons.

Participation in this survey is voluntary, and if we should come to any question you don't want to answer, just let me know and I will go on to the next question; or you can stop the interview at any time. However, we hope that you will participate in this survey since your views are important.

At this time, do you want to ask me anything about the survey?
May I begin the interview now?

Signature of interviewer: _____ Date: _____

RESPONDENT AGREES TO BE INTERVIEWED . . . . . 1 ↓ RESPONDENT DOES NOT AGREE TO BE INTERVIEWED . . . 2 → END

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
101	RECORD THE TIME.	HOUR . . . . . [ ][ ] MINUTES . . . . . [ ][ ]	
102	How long have you been living continuously in (NAME OF CURRENT PLACE OF RESIDENCE)? IF LESS THAN ONE YEAR, RECORD '00' YEARS.	YEARS . . . . . [ ][ ] ALWAYS . . . . . 95 VISITOR 96	→ 104
103	Just before you moved here, did you live in a city, in a town, or in the countryside?	CITY . . . . . 1 TOWN . . . . . 2 COUNTRYSIDE 3	
104	Have you travelled away from your home community at any time in the last 12 months?	YES . . . . . 1 NO 2	→ 107
105	How many months in total have you been away in the last 12 months? IF LESS THAN 1 MONTH RECORD '00'.	NUMBER OF MONTHS [ ][ ]	
106	Where have you travelled in the last 12 months? PROBE: Anywhere else? RECORD ALL PLACES MENTIONED.	NEPAL . . . . . A INDIA _____ B (SPECIFY CITY/STATE) OTHER _____ X (SPECIFY COUNTRY)	
107	In what month and year were you born?	MONTH . . . . . [ ][ ] DON'T KNOW MONTH . . . . . 98 YEAR . . . . . [ ][ ][ ][ ] DON'T KNOW YEAR 9998	
108	How old were you at your last birthday? COMPARE AND CORRECT 107 AND/OR 108 IF INCONSISTENT.	AGE IN COMPLETED YEARS [ ][ ]	
109	Have you ever attended school?	YES . . . . . 1 NO 2	→ 112
110	What is the highest grade you completed?	GRADE . . . . . [ ][ ]	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
111	CHECK 110: GRADE 5 OR LOWER ☐ ↓ GRADE 6 OR HIGHER ☐ → 115		
112	Now I would like you to read this sentence to me. SHOW CARD TO RESPONDENT. IF RESPONDENT CANNOT READ WHOLE SENTENCE, PROBE: Can you read any part of the sentence to me?	CANNOT READ AT ALL . . . . . 1 ABLE TO READ ONLY PARTS OF SENTENCE . . . . . 2 ABLE TO READ WHOLE SENTENCE. . 3 NO CARD WITH REQUIRED LANGUAGE _____ 4 (SPECIFY LANGUAGE) BLIND/VISUALLY IMPAIRED 5	
113	Have you ever participated in a literacy program or any other program that involves learning to read or write (not including primary school)?	YES . . . . . 1 NO 2	
114	CHECK 112: CODE '2', '3' OR '4' CIRCLED ☐ ↓ CODE '1' OR '5' CIRCLED ☐ → 116		
115	Do you read a newspaper or magazine almost every day, at least once a week, less than once a week or not at all?	ALMOST EVERY DAY . . . . . 1 AT LEAST ONCE A WEEK . . . . . 2 LESS THAN ONCE A WEEK . . . . . 3 NOT AT ALL 4	
116	Do you listen to the radio almost every day, at least once a week, less than once a week or not at all?	ALMOST EVERY DAY . . . . . 1 AT LEAST ONCE A WEEK . . . . . 2 LESS THAN ONCE A WEEK . . . . . 3 NOT AT ALL 4	
117	Do you watch television almost every day, at least once a week, less than once a week or not at all?	ALMOST EVERY DAY . . . . . 1 AT LEAST ONCE A WEEK . . . . . 2 LESS THAN ONCE A WEEK . . . . . 3 NOT AT ALL 4	
118	What is your religion?	HINDU 1 BUDDHIST . . . . . 2 MUSLIM . . . . . 3 KIRAT . . . . . 4 CHRISTIAN . . . . . 5 OTHER _____ 6 (SPECIFY)	
119	What is your caste/ethnicity? WRITE CASTE/ETHNICITY ON LINE PROVIDED. LEAVE BOX BLANK. CODE WILL BE FILLED BY FIELD EDITOR.	☐☐ _____ (CASTE/ETHNICITY)	

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 . . [ ][ ]	
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 [ ] → 301		
210	Did all of the children you have fathered have the same biological mother?	YES . . . . . 1 NO 2	→ 212
211	In all, how many women have you fathered children with?	NUMBER OF WOMEN . . . . . [ ][ ]	
212	How old were you when your (first) child was born?	AGE IN YEARS . . . . . [ ][ ]	
212A	CHECK 203 AND 205: AT LEAST ONE LIVING CHILD ↓ NO LIVING CHILDREN [ ] → 301		
213	How many years old is your (youngest) child?	AGE IN YEARS . . . . . [ ][ ]	
214	CHECK 213: (YOUNGEST) CHILD IS AGE 0-3 YEARS ↓ OTHER [ ] → 301		

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
215	What is the name of your (youngest) child? WRITE NAME OF (YOUNGEST) CHILD _____ (NAME OF (YOUNGEST) CHILD)		
216	When (NAME)'s mother was pregnant with (NAME) did she have any antenatal check-ups?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 3	→ 218
217	Were you ever present during any antenatal check-up?	PRESENT . . . . . 1 NOT PRESENT 2	
217A	Were you ever told what to do if (NAME)'s mother had any pregnancy complication?	YES . . . . . 1 NO 2	
217B	At any time during the pregnancy did any health provider or health worker speak to you about: a. The importance of delivering the baby in a hospital or health facility? b. The importance of proper nutrition for the mother during pregnancy? c. Family planning or delaying your next child?	YES NO DELIVERY ADVICE . . . . . 1 2 NUTRITION ADVICE . . . . . 1 2 FAMILY PLANNING 1 2	
218	Was (NAME) born in a hospital or health facility?	HOSPITAL/HEALTH FACILITY . . . . . 1 OTHER 2	→ 219A
219	What was the main reason why (NAME)'s mother did not deliver in a hospital or health facility?	COST TOO MUCH . . . . . 01 FACILITY CLOSED . . . . . 02 TOO FAR/NO TRANSPORTATION . . 03 DON'T TRUST FACILITY/POOR QUALITY SERVICE . . . . . 04 NO FEMALE PROVIDER . . . . . 05 NOT THE FIRST CHILD . . . . . 06 SECURITY CONCERNS 07 CHILD'S MOTHER DID NOT THINK IT WAS NECESSARY . . . . . 08 HE DID NOT THINK IT WAS NECESSARY . . . . . 09 FAMILY DID NOT THINK IT WAS NECESSARY . . . . . 10 OTHER _____ 96 (SPECIFY) DON"T KNOW 98	
219A	What kind of preparation did you make beforehand for the delivery of (NAME)? Anything else? CIRCLE ALL MENTIONED	SAVED MONE\` . . . . . A ARRANGED FOR TRANSPORT B FOUND BLOOD DONOR . . . . . C CONTACTED HLTH WORKER TO HELP WITH DELIVERY . . . . . D BOUGHT SAFE DELIVERY KIT . . . . . E OTHER _____ X (SPECIFY) NO PREPARATION . . . . . Y	
220	When a child has diarrhea, how much should he or she be given to drink: more than usual, the same amount as usual, less than usual, or should he or she not be given anything to drink at all?	MORE THAN USUAL . . . . . 1 ABOUT THE SAME . . . . . 2 LESS THAN USUAL . . . . . 3 NOTHING TO DRINK . . . . . 4 DON'T KNOW 8	

SECTION 3. CONTRACEPTION

301	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 Which ways or methods have you heard about? FOR METHODS NOT MENTIONED SPONTANEOUSLY, ASK: Have you ever heard of (METHOD)? CIRCLE CODE 1 IN 301 FOR EACH METHOD MENTIONED SPONTANEOUSLY THEN PROCEED DOWN COLUMN 301, READING THE NAME AND DESCRIPTION OF EACH METHOD NOT MENTIONED SPONTANEOUSLY. CIRCLE CODE 1 IF METHOD IS RECOGNIZED, AND CODE 2 IF NOT RECOGNIZED. THEN, FOR EACH METHOD WITH CODE 1 CIRCLED IN 301, ASK 302.		302 Have you ever used (METHOD)?
01	FEMALE STERILIZATION Women can have an operation to avoid having any more children.	YES . . . . . 1 NO 2	
02	MALE STERILIZATION Men can have an operation to avoid having any more children.	YES . . . . . 1 NO 2	Have you ever had an operation to avoid having any more children? YES . . . . . 1 NO 2
03	PILL Women can take a pill every day to avoid becoming pregnant.	YES . . . . . 1 NO 2	
04	IUD Women can have a loop or coil placed inside them by a doctor or a nurse.	YES . . . . . 1 NO 2	
05	INJECTABLES Women can have an injection by a health provider that stops them from becoming pregnant for one or more months.	YES . . . . . 1 NO 2	
06	IMPLANTS Women can have several small rods placed in their upper arm by a doctor or nurse which can prevent pregnancy for one or more years.	YES . . . . . 1 NO 2	
07	CONDOM Men can put a rubber sheath on their penis before sexual intercourse.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
08	RHYTHM METHOD Every month that a woman is sexually active she can avoid pregnancy by not having sexual intercourse on the days of the month she is most likely to get pregnant.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
09	WITHDRAWAL Men can be careful and pull out before climax.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
10	EMERGENCY CONTRACEPTION Women can take pills up to three days after sexual intercourse to avoid becoming pregnant.	YES . . . . . 1 NO 2	
11	Have you heard of any other ways or methods that women or men can use to avoid pregnancy?	YES . . . . . 1 _____ (SPECIFY) _____ (SPECIFY) NO 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
303	CHECK 302 (02) RESPONDENT IS STERILIZED YES ☐ NO ☐		→ 310
304	Now I would like to talk about when you were sterilized. In what facility did the sterilization take place? PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. IF UNABLE TO DETERMINE IF HOSPITAL, HEALTH CENTER OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	PUBLIC SECTOR GOVT. HOSPITAL . . . . . 11 PHC CENTER . . . . . 12 MOBILE CLINIC . . . . . 13 OTHER PUBLIC _____ 16 (SPECIFY) NON-GOVT (NGO) SECTOR FPAN . . . . . 21 MARIE STOPES . . . . . 22 ADRA . . . . . 23 NEPAL RED CROSS . . . . . 24 UMN . . . . . 25 OTHER NGO _____ 26 (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC NURSING HOME . . . . . 31 OTHER PRIVATE MEDICAL _____ 36 (SPECIFY) OTHER _____ 96 (SPECIFY) DON'T KNOW 98	
305	In what month and year was the sterilization performed?	MONTH . . . . . ☐☐ YEAR . . . . . ☐☐☐☐	
306	How much did you pay in total for the sterilization, including any consultation you may have had?	COST ☐☐☐☐ FREE . . . . . 9995 DON'T KNOW 9998	
307	Before your sterilization operation, were you told that you would not be able to have any (more) children because of the operation?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
308	Do you regret that you had the operation?	YES . . . . . 1 NO 2	→ 310
309	Why do you regret the operation?	RESPONDENT WANTS ANOTHER CHILD . . . . . 1 WIFE WANTS ANOTHER CHILD . . . . . 2 SIDE EFFECTS . . . . . 3 MARITAL STATUS HAS CHANGED . 4 OPERATION FAILED . . . . . 5 CHILD DIED ..... 7 OTHER _____ 6 (SPECIFY)	
310	In the last few months have you heard or seen any message about family planning: a. On the radio? b. On the television? c. In a newspaper, magazine or brochure? d. On a poster or billboard? e. Street drama?	YES NO RADIO . . . . . 1 2 TELEVISION . . . . . 1 2 NEWSPAPER OR MAGAZINE 1 2 POSTER/BILLBOARD . . . . . 1 2 STREET DRAMAS 1 2	
311	In the last few months, have you discussed the practice of family planning with a health worker or health professional?	YES . . . . . 1 NO 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
312	Now I would like to ask you about a woman's risk of pregnancy. From one menstrual period to the next, are there certain days when a woman is more likely to become pregnant if she has sexual relations?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 314
313	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	
314	Do you think that a woman who is breastfeeding her baby can become pregnant?	YES . . . . . 1 NO . . . . . 2 DEPENDS . . . . . 3 DON'T KNOW 8	
315	I will now read you some statements about contraception. Please tell me if you agree or disagree with each one. a) Contraception is women's business and a man should not have to worry about it. b) Women who use contraception may become promiscuous. c) Being sterilized for a man is the same as castration.	AGREE / DIS-AGREE / DK CONTRACEPTION WOMAN'S BUSINESS . 1 2 8 WOMAN MAY BECOME PROMISCUOUS . . . 1 2 8 CASTRATION 1 2 8	
316	CHECK 301 (07) KNOWS MALE CONDOM YES ☐ NO ☐		→ 401
317	Do you know of a place where a person can get condoms?	YES . . . . . 1 NO 2	→ 401
318	Where is that? Any other place? PROBE TO IDENTIFY EACH TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. IF UNABLE TO DETERMINE IF HOSPITAL, HEALTH CENTER OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE _____ (NAME OF PLACE(S))	PUBLIC SECTOR GOVT. HOSPITAL/CLINIC . . . . . A PHC CENTER . . . . . B HEALTH POST . . . . . C SUB-HEALTH PO . . . . . D PHC OUTREACH . . . . . E MOBILE CLINIC ..... F FCHV ..... G OTHER PUBLIC _____ H (SPECIFY) NON-GOVT. (NGO) SECTOR FPAN ..... I MARIE STOPES ..... J ADRA ..... K NEPAL RED CROSS ..... L UMN ..... M OTHER NGO. _____ N (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC NURSING HOME ..... O PHARMACY . . . . . P OTHER PRIVATE MEDICAL . . . . . Q (SPECIFY) OTHER SOURCE SHOP . . . . . R FRIENDS/RELATIVES . . . . . S OTHER _____ T (SPECIFY) OTHER _____ X (SPECIFY)	
319	If you wanted to, could you yourself get a condom?	YES . . . . . 1 NO 2	

SECTION 4. MARRIAGE AND SEXUAL LIFE

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
401	What is your current marital status?	CURRENTLY MARRIED . . . . . 1 MARRIED, GAUNA NOT PERFORMED 2 WIDOWED . . . . . 3 DIVORCED . . . . . 4 SEPARATED . . . . . 5 NEVER MARRIED 6	→ 407 → 414
402	Do you currently have one wife or more than one wife? IF ONLY ONE WIFE, RECORD '01' . IF MORE THAN ONE, ASK: How many wives do you currently have?	NUMBER OF WIVES . . . . . [ ][ ]	
403	WRITE THE LINE NUMBERS FROM THE HOUSEHOLD QUESTIONNAIRE FOR EACH WIFE. IF A WIFE IS NOT LISTED IN THE HOUSEHOLD SCHEDULE, RECORD '00' IN THE LINE NUMBER BOXES. THE NUMBER OF LINES FILLED IN MUST BE EQUAL TO THE NUMBER OF WIVES. (IF RESPONDENT HAS MORE THAN FOUR WIVES, USE ADDITIONAL QUESTIONNAIRE(S).) CHECK 402: ONLY ONE WIFE → Please tell me the name of your wife. MORE THAN ONE WIFE → Please tell me the name of each of your wives, starting with the one you married with first. WIFE NUMBER — NAME 1 _____ 2 _____ 3 _____ 4 _____	LINE NUMBER IN HOUSEHOLD SCHEDULE [ ][ ] [ ][ ] [ ][ ] [ ][ ]	
404	Are you living with your wife/wives now, or is she/are they staying elsewhere?	LIVING WITH WIFE/AT LEAST ONE WIFE . . . . . 1 NOT LIVING WITH WIFE/ANY WIVES 2	→ 406
405	For how long have you not been living with your wife/ any of your wives? IF LESS THAN 1 YEAR, RECORD MONTHS; OTHERWISE RECORD COMPLETED YEARS.	MONTHS . . . . . 1 [ ][ ] YEARS . . . . . 2 [ ][ ]	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
406	CHECK 402: ONLY ONE WIFE → Have you ever been married to any woman other than your current wife? MORE THAN ONE WIFE → Have you ever been married to any other woman in addition to those you have told me about?	YES . . . . . 1 NO 2	408
407	Have you been married once or more than once?	ONCE . . . . . 1 MORE THAN ONCE 2	409 409A
408	CHECK 402 AND 406: 402=01 AND 406='2' → OTHER →		409A
409 409A	In what month and year did you get married? Now I would like to ask about when you married your first wife. In what month and year was that?	MONTH . . . . . [ ][ ] DON'T KNOW MONTH . . . . . 98 YEAR . . . . . [ ][ ][ ][ ] DON'T KNOW YEAR 9998	411
410	How old were you when you first got married?	AGE . . . . . [ ][ ]	
411	CHECK 401: MARRIED, GAUNA NOT PERFORMED → OTHER →		414
412	CHECK 402 AND 406 AND, IF 402 AND 406 NOT ASKED, CHECK 407: MARRIED ONLY ONCE (402=01 AND 406='2') OR (407='1') → In what month and year did you start living with your wife? MARRIED MORE THAN ONCE (402>01 OR 406='1') OR (407='2') → Now I would like to ask about when you started living with your first wife. In what month and year was that?	MONTH . . . . . [ ][ ] DON'T KNOW MONTH . . . . . 98 YEAR . . . . . [ ][ ][ ][ ] DON'T KNOW YEAR 9998	415
413	How old were you when you first started living with her?	AGE . . . . . [ ][ ]	415

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
414	CHECK FOR THE PRESENCE OF OTHERS. BEFORE CONTINUING, MAKE EVERY EFFORT TO ENSURE PRIVACY. Now I need to ask you some questions about sexual life in order to gain a better understanding of some important life issues. Let me assure you again that your answers are completely confidential and will not be told to anyone. If you do not want to answer, just let me know and I will skip to the next question. Have you ever had sexual intercourse?	YES . . . . . 1 NO 2	 → 416
415	CHECK FOR THE PRESENCE OF OTHERS. BEFORE CONTINUING, MAKE EVERY EFFORT TO ENSURE PRIVACY. (Now I need to ask you some questions about sexual life in order to gain a better understanding of some important life issues. Let me assure you again that your answers are completely confidential and will not be told to anyone. If you do not want to answer, just let me know and I will skip to the next question.) 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) WIFE 95	→ 417 → 418 → 418
416	CHECK 401: NEVER MARRIED/GAUNA NOT PERFORMED [ ] → 501 OTHER [ ] → 501		
417	Do you intend to wait until you get married/after gauna to have sexual intercourse for the first time?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/UNSURE 8	→ 501
418	The first time you had sexual intercourse, was a condom used?	YES . . . . . 1 NO 2	
418A	What was this person's relationship to you? IF GIRLFRIEND: Were you living together as if married? IF YES, CIRCLE '02'. IF NO, CIRCLE '03'.	WIFE . . . . . 01 LIVE-IN PARTNER . . . . . 02 GIRLFRIEND NOT LIVING WITH RESPONDENT . . . . . 03 RELATIVE . . . . . 04 CASUAL ACQUAINTANCE . . . . . 05 SEX WORKER . . . . . 06 OTHER _____ 96 (SPECIFY)	
419	When was the last 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 [ ][ ]	→ 422 → 435

		LAST SEXUAL PARTNER	SECOND-TO-LAST SEXUAL PARTNER	THIRD-TO-LAST SEXUAL PARTNER
421	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
422	The last time you had sexual intercourse (with this second/third person), was a condom used?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 424)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 424)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 424)
423	Did you use a condom every time you had sexual intercourse with this person in the last 12 months?	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
424	What was this (second/third) person's relationship to you? IF GIRLFRIEND: Were you living together as if married? IF YES, CIRCLE '02'. IF NO, CIRCLE '03'.	WIFE . . . . . 01 (SKIP TO 428) LIVE-IN PARTNER . 02 GIRLFRIEND NOT LIVING WITH RESPONDENT . 03 RELATIVE . . . . . 04 CASUAL ACQUAINTANCE . . 05 PROSTITUTE . . . . . 06 OTHER _____ 96 (SPECIFY)	WIFE . . . . . 01 (SKIP TO 428) LIVE-IN PARTNER . 02 GIRLFRIEND NOT LIVING WITH RESPONDENT . 03 RELATIVE . . . . . 04 CASUAL ACQUAINTANCE . . 05 PROSTITUTE . . . . . 06 OTHER _____ 96 (SPECIFY)	WIFE . . . . . 01 (SKIP TO 429) LIVE-IN PARTNER . 02 GIRLFRIEND NOT LIVING WITH RESPONDENT . 03 RELATIVE . . . . . 04 CASUAL ACQUAINTANCE . . 05 PROSTITUTE . . . . . 06 OTHER _____ 96 (SPECIFY)
425	For how long (have you had/did you have) a sexual relationship with this (second/third) person? IF ONLY HAD SEXUAL RELATIONS WITH THIS PERSON ONCE, RECORD '01' DAYS.	DAYS . 1 MONTHS 2 YEARS 3	DAYS . 1 MONTHS 2 YEARS 3	DAYS . 1 MONTHS 2 YEARS 3
426	The last time you had sexual intercourse with this (second/third) person, did you or this person drink alcohol?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 428)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 428)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 429)
427	Were you or your partner drunk at that time? IF YES: Who was drunk?	RESPONDENT ONLY 1 PARTNER ONLY . . . 2 RESPONDENT AND PARTNER BOTH . 3 NEITHER 4	RESPONDENT ONLY 1 PARTNER ONLY . . . 2 RESPONDENT AND PARTNER BOTH . 3 NEITHER 4	RESPONDENT ONLY 1 PARTNER ONLY . . . 2 RESPONDENT AND PARTNER BOTH . 3 NEITHER 4
428	Apart from [this person/these two people], have you had sexual intercourse with any other person in the last 12 months?	YES . . . . . 1 (GO BACK TO 421 IN NEXT COLUMN) NO . . . . . 2 (SKIP TO 432)	YES . . . . . 1 (GO BACK TO 421 IN NEXT COLUMN) NO . . . . . 2 (SKIP TO 432)	
429	In total, with how many different people have you had sexual intercourse in the last 12 months? IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE. IF NUMBER OF PARTNERS IS GREATER THAN 95, WRITE '95.'			NUMBER OF PARTNERS LAST 12 MONTHS . . . DON'T KNOW . . . 98

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
430	CHECK 424 (ALL COLUMNS): AT LEAST ONE PARTNER IS PROSTITUTE ☐ NO PARTNERS ARE PROSTITUTES ☐		→ 432
431	CHECK 422 AND 424 (ALL COLUMNS): CONDOM USED WITH EVERY PROSTITUTE ☐ OTHER ☐		→ 434 → 435
432	In the last 12 months, did you pay anyone in exchange for having sexual intercourse?	YES . . . . . 1 NO 2	→ 435
433	The last time you paid someone in exchange for having sexual intercourse, was a condom used?	YES . . . . . 1 NO 2	→ 435
434	Was a condom used during sexual intercourse every time you paid someone in exchange for having sexual intercourse in the last 12 months?	YES . . . . . 1 NO . . . . . 2 DK 8	
435	In total, with how many different people have you had sexual intercourse in your lifetime? IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE. IF NUMBER OF PARTNERS IS GREATER THAN 95, WRITE '95.'	NUMBER OF PARTNERS IN LIFETIME . . . . . ☐☐ DON'T KNOW 98	
436	CHECK 422, MOST RECENT PARTNER (FIRST COLUMN): CONDOM USED ☐ NO CONDOM USED OR NOT ASKED ☐		→ 442
437	You told me that a condom was used the last time you had sex. May I see the package of condoms you were using at that time? RECORD NAME OF BRAND IF PACKAGE SEEN.	PACKAGE SEEN . . . . . 1 BRAND NAME _____ ☐☐ (SPECIFY) DOES NOT HAVE/NOT SEEN 2	→ 438A
438	Do you know the brand name of the condom used at that time? RECORD NAME OF BRAND.	BRAND NAME _____ ☐☐ (SPECIFY) DON'T KNOW 98	
438A	Which condom brand do you use regularly?	DHAAL . . . . . 1 PANTHER . . . . . 2 NUMBER 1 . . . . . 3 JODI . . . . . 4 OTHER _____ 6 (SPECIFY)	
439	How many condoms did you get the last time?	NUMBER OF CONDOMS . . . . . ☐☐☐ DON'T KNOW 998	
439A	How many of the condoms you got last time did you use?	NUMBER OF CONDOMS USED . . . ☐☐☐ DON'T KNOW 998	
440	The last time you obtained the condoms, how much did you pay in total, including the cost of the method and any consultation you may have had?	COST . . . . . ☐☐☐ FREE . . . . . 995 DON'T KNOW 998	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
441	From where did you obtain the condom the last time? PROBE TO IDENTIFY TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. IF UNABLE TO DETERMINE IF HOSPITAL, HEALTH CENTER OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	PUBLIC SECTOR GOVERNMENT HOSPITAL . . . . . 11 PHC CENTER . . . . . 12 HEALTH POST . . . . . 13 SUB-HEALTH POST ..... 14 PHC OUTREACH ..... 15 MOBILE CLINIC . . . . . 17 FCHV . . . . . 18 CONDOM BOX ..... 19 OTHER GOVT. _____ 16 (SPECIFY) NON-GOVT. (NGO) SECTOR FPAN ..... 21 MARIE STOPES ..... 22 ADRA ..... 23 NEPAL RED CROSS ..... 24 UMN ..... 25 OTHER NGO. _____ 26 (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC NURSING HOME ..... 31 PHARMACY . . . . . 32 OTHER PRIVATE MEDICAL _____ 36 (SPECIFY) OTHER SOURCE SHOP . . . . . 41 FRIENDS/RELATIVES . . . . . 42 OTHER _____ 46 (SPECIFY)	
442	CHECK 302 (02): RESPONDENT EVER STERILIZED NO ☐ YES ☐ → 501		
443	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
444	What method did you or your partner use? PROBE: Did you use any other method to prevent pregnancy? RECORD ALL MENTIONED.	FEMALE STERILIZATION . . . . . A PILL . . . . . B IUD . . . . . C INJECTABLES . . . . . D IMPLANTS . . . . . E FEMALE CONDOM . . . . . F DIAPHRAGM . . . . . G FOAM/JELLY . . . . . H RHYTHM METHOD . . . . . I WITHDRAWAL . . . . . J OTHER _____ X (SPECIFY)	

SECTION 5. FERTILITY PREFERENCES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
501	CHECK 401: CURRENTLY MARRIED ☐ OTHER ☐ → 506 GAUNA NOT PERFORMED ☐ → 504		
502	CHECK 302(02): EVER STERILIZED? NO ☐ YES ☐ → 506		
503	CHECK 402: HAS ONE WIFE ☐ Is your wife currently pregnant? HAS MORE THAN ONE WIFE ☐ Are any of your wives currently pregnant?	YES . . . . . 1 NO . . . . . 2 UNSURE/DON'T KNOW 8	
504	CHECK 503: NO WIFE PREGNANT OR UNSURE QUESTION NOT ASKED ☐ 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? WIFE(WIVES) PREGNANT ☐ Now I have some questions about the future. After the child(ren) you and your (wife(wives) are expecting now, would you like to have another child, or would you prefer not to have any more children?	HAVE (A/ANOTHER) CHILD . . . . . 1 NO MORE/NONE . . . . . 2 COUPLE INFECUND . . . . . 3 WIFE (WIVES) STERILIZED . . . . . 4 UNDECIDED/DON'T KNOW 5	→ 506
505	CHECK 503: NO WIFE PREGNANT OR UNSURE ☐ How long would you like to wait from now before the birth of (a/another) child? WIFE(WIVES) 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 AFTER GAUNA . . . . . 995 OTHER _____ (SPECIFY) 996 DON'T KNOW 998	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
506	CHECK 203 AND 205: 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)	→ 601 → 601
507	How many of these children would you like to be boys, how many would you like to be girls and for how many would the sex not matter?	BOYS GIRLS EITHER NUMBER [ ][ ] [ ][ ] [ ][ ] 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	→ 613
604	What is your occupation, that is, what kind of work do you mainly do?	_____ [ ][ ] _____ _____	
605	CHECK 604: WORKS IN AGRICULTURE [ ] ↓ DOES NOT WORK IN AGRICULTURE [ ] → 607		
606	Do you work mainly on your own land or on family land, or do you work on land that you rent from someone else, or do you work on someone else's land?	OWN LAND . . . . . 1 FAMILY LAND . . . . . 2 RENTED LAND . . . . . 3 SOMEONE ELSE'S LAND 4	
607	Do you do this work for a member of your family, for someone else, or are you self-employed?	FOR FAMILY MEMBER . . . . . 1 FOR SOMEONE ELSE . . . . . 2 SELF-EMPLOYED 3	
608	Do you usually work throughout the year, or do you work seasonally, or only once in a while?	THROUGHOUT THE YEAR . . . . . 1 SEASONALLY/PART OF THE YEAR . 2 ONCE IN A WHILE 3	
609	Are you paid in cash or kind for this work or are you not paid at all?	CASH ONLY . . . . . 1 CASH AND KIND . . . . . 2 IN KIND ONLY . . . . . 3 NOT PAID 4	
610	CHECK 402: ONE OR MORE WIVES [ ] ↓ QUESTION NOT ASKED [ ] → 613		
611	CHECK 609: CODE 1 OR 2 CIRCLED [ ] ↓ OTHER [ ] → 613		
612	Who decides how the money you earn will be used: mainly you, mainly your (wife/wives), or you and your (wife/wives) jointly?	RESPONDENT . . . . . 1 WIFE(WIVES) . . . . . 2 RESPONDENT AND WIFE (WIVES) JOINTLY . . . . . 3 OTHER _____ 6 SPECIFY	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES				SKIP
613	In a couple, who do you think should have the greater say in each of the following decisions: the husband, the wife or both equally:		HUSB-AND	WIFE	BOTH EQUALLY	DON'T KNOW/ DEPENDS	
	a) making large household purchases?	a)	1	2	3	8	
	b) making small daily household purchases?	b)	1	2	3	8	
	c) deciding when to visit the wife's family or relatives?	c)	1	2	3	8	
	d) deciding what to do with the money she earns for her work?	d)	1	2	3	8	
	e) deciding how many children to have?	e)	1	2	3	8	
614	I will now read you some statements about pregnancy. Please tell me if you agree or disagree with them.			AGREE	DIS-AGREE	DK	
	a) Childbearing is a woman's concern and there is no need for the father to get involved.	CHILDBEARING WOMAN'S CONCERN		1	2	8	
	b) It is crucial for the mother's and child's health that a woman have assistance from a doctor or nurse at delivery.	DOCTOR/NURSE'S ASSISTANCE CRUCIAL		1	2	8	
615	Sometimes a husband is annoyed or angered by things that his wife does. In your opinion, is a husband justified in hitting or beating his wife in the following situations:			YES	NO	DK	
	If she goes out without telling him?	GOES OUT		1	2	8	
	If she neglects the children?	NEGL. CHILDREN . . .		1	2	8	
	If she argues with him?	ARGUES		1	2	8	
	If she refuses to have sex with him?	REFUSES SEX		1	2	8	
	If she burns the food?	BURNS FOOD		1	2	8	
616	Do you think that if a woman refuses to have sex with her husband when he wants her to, he has the right to…			YES	NO	DON'T KNOW/ DEPENDS	
	a) Get angry and reprimand her?	a)		1	2	8	
	b) Refuse to give her money or other means of support?	b)		1	2	8	
	c) Use force and have sex with her even if she doesn't want to?	c)		1	2	8	
	d) Go ahead and have sex with another woman?	d)		1	2	8	

SECTION 7. HIV/AIDS

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
701	Now I would like to talk about something else. Have you ever heard of an illness called AIDS?	YES . . . . . 1 NO 2	→ 715
702	Can people reduce their chances of getting the AIDS virus by having just one uninfected sex partner who has sexual intercourse with no other partners?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
703	Can people get the AIDS virus from mosquito bites?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
704	Can people reduce their chance of getting the AIDS virus by using a condom every time they have sex?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
705	Can people get the AIDS virus by sharing food with a person who has AIDS?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
706	Can people reduce their chance of getting the AIDS virus by not having sexual intercourse at all?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
707	Can people get the AIDS virus by touching someone who has AIDS?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
708	Is it possible for a healthy-looking person to have the AIDS virus?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
709	Do you know of a place where people can go to get tested for the AIDS virus?	YES . . . . . 1 NO 2	→ 711
710	Where is that? Any other place? PROBE TO IDENTIFY EACH TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE(S). IF UNABLE TO DETERMINE IF HOSPITAL, HEALTH CENTER VCT CENTER, OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S))	GOVT. SECTOR GOVERNMENT HOSPITAL . . . . . A VCT CENTER . . . . . B OTHER GOVT. _____ C (SPECIFY) NON-GOVT. SECTOR FPAN . . . . . D AMDA . . . . . E INF . . . . . F NEPAL RED CROSS . . . . . G OTHER GOVT. _____ H (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC/ PRIVATE DOCTOR . . . . . I OTHER PRIVATE MEDICAL _____ J (SPECIFY) OTHER _____ X (SPECIFY)	
711	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
712	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	
713	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	
714	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	
715	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	
716	CHECK 414 AND 415: HAS HAD SEXUAL INTERCOURSE ☐ → HAS NOT HAD SEXUAL INTERCOURSE ☐ → 724		
717	CHECK 715: HEARD ABOUT OTHER SEXUALLY TRANSMITTED INFECTIONS? YES ☐ → NO ☐ → 719		
718	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	
719	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	
720	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	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
721	CHECK 718, 719, AND 720: HAS HAD AN INFECTION (ANY 'YES') ☐ ↓ HAS NOT HAD AN INFECTION OR DOES NOT KNOW ☐ → 724		
722	The last time you had (PROBLEM FROM 736/737/738), did you seek any kind of advice or treatment?	YES . . . . . 1 NO 2	→ 724
723	Where did you go? Any other place? PROBE TO IDENTIFY EACH TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE(S). IF UNABLE TO DETERMINE IF HOSPITAL, HEALTH CENTER VCT CENTER, OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S))	GOVT. SECTOR GOVERNMENT HOSPITAL . . . . . A PRIMARY HEALTH CARE . . . . . B HEALTH POST . . . . . C SUB-HEALTH POST . . . . . D PHC OUTREACH . . . . . E FAMILY PLANNING CLINIC . . . F MOBILE CLINIC . . . . . G FIELDWORKER . . . . . H OTHER GOVT. _____ I (SPECIFY) NON-GOVT. SECTOR FPAN . . . . . J AMDA . . . . . K INF . . . . . L NEPAL RED CROSS . . . . . M UMN . . . . . N OTHER NON-GOVT. _____ O (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC/ PRIVATE DOCTOR . . . . . P OTHER PRIVATE MEDICAL _____ Q (SPECIFY) OTHER _____ X (SPECIFY)	
724	If a wife knows her husband has a disease that she can get during sexual intercourse, is she justified in refusing to have sex with him?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
725	Is a wife justified in refusing to have sex with her husband when she is tired or not in the mood?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
726	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
801	Have you ever heard of an illness called tuberculosis or TB?	YES . . . . . 1 NO 2	→ 805
802	How does tuberculosis spread from one person to another? PROBE: Any other ways? RECORD ALL MENTIONED.	THROUGH THE AIR WHEN COUGHING OR SNEEZING . . . . . A THROUGH SHARING UTENSILS . . . . . B THROUGH TOUCHING A PERSON WITH TB . . . . . C THROUGH FOOD . . . . . D THROUGH SEXUAL CONTACT . . . . . E THROUGH MOSQUITO BITES . . . . . F THROUGH SPIT . . . . . G OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z	
803	Can tuberculosis be cured?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
804	If a member of your family got tuberculosis, would you want it to remain a secret or not?	YES, REMAIN A SECRET . . . . . 1 NO . . . . . 2 DON'T KNOW/NOT SURE/ DEPENDS 8	
805	Do you currently smoke cigarettes?	YES . . . . . 1 NO 2	→ 807
806	In the last 24 hours, how many cigarettes did you smoke?	CIGARETTES . . . . . [ ][ ]	
807	Do you currently smoke or use any other type of tobacco?	YES . . . . . 1 NO 2	→ 809
808	What (other) type of tobacco do you currently smoke or use? RECORD ALL MENTIONED.	PIPE . . . . . A CHEWING TOBACCO . . . . . B SNUFF . . . . . C OTHER _____ X (SPECIFY)	
809	In the last few months have you heard or seen the following programs on the radio and/or television:	YES / NO	
	Jana Swastha Radio Karyakram?	JANA SWASTHA 1 2	
	Sewa Nai Dharma Ho?	SEWA NAI DHARMA . . . 1 2	
	Gyan Nai Shakti Ho?	GYAN NAI SHAKTI 1 2	
	Hamro Swastha Radio Karyakram?	HAMRO SWASTHA . . . 1 2	
	Jeevan Chakra?	JEEVAN CHAKRA 1 2	
	Teli-Swastha Karyakram?	TELI-SWASTHA 1 2	
	Ek Apaas Ka Kura?	EK APAAS KA KURA . . . 1 2	
	Sathi Sanga Manka Kura?	SATHI SANGA MANKA . 1 2	
	Desh Pardesh?	DESH PARDESH 1 2	
810	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: _____

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
101	CHECK ___: CASE 1 ☐ CASE 2 ☐		→ 101
101	CHECK ___: CASE 1 ☐ CASE 2 ☐		
101	CHECK ___: CASE 1 ☐ CASE 2 ☐ CASE 3 ☐		→ 101
101		MONTHS . . . . . 1 ☐☐ YEARS . . . . . 2 ☐☐	→ 101 → 101
101	QUESTION	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 101
101	QUESTION	. . . . . 01 . . . . . 02 . . . . . 03 . . . . . 04 . . . . . 05 . . . . . 06 . . . . . 07 . . . . . 08 . . . . . 09 . . . . . 10 . . . . . 11 . . . . . 12 . . . . . 13 OTHER _____ 96 (SPECIFY) UNSURE 98	→ 101

NEPAL DEMOGRAPHIC AND HEALTH SURVEY 2005
VERBAL AUTOPSY MODULE INTO CAUSES OF UNDER-FIVE DEATHS

IDENTIFICATION

NAME AND CODE OF DISTRICT _____

NAME AND CODE OF VILLAGE/MUNICIPALITY _____

WARD NUMBER .....

CLUSTER NUMBER .....

HOUSEHOLD NUMBER .....

CITY=1/TOWN=2/COUNTRYSIDE=3 .....

NAME AND LINE NUMBER OF MAIN RESPONDENT _____

NAME OF HOUSEHOLD HEAD _____

INTERVIEWER VISITS

	1	2	3	FINAL VISIT
DATE				DAY MONTH YEAR 2 0 6
INTERVIEWER'S NAME				INT. CODE
RESULT*				RESULT
NEXT VISIT: DATE				TOTAL NO. OF VISITS
TIME				

*RESULT CODES:

1	COMPLETED	4	REFUSED		
2	NOT AT HOME	5	PARTLY COMPLETED	7	OTHER _____ (SPECIFY)
3	POSTPONED	6	INCAPACITATED		

LANGUAGE

LANGUAGE OF QUESTIONNAIRE: ENGLISH 5

LANGUAGE OF INTERVIEW ** _____

HOME LANGUAGE OF RESPONDENT** _____

WAS A TRANSLATOR USED? (YES=1, NO=2) .....

** LANGUAGE CODES: 1 NEPALI 2 BHOJPURI 3 MAITHILI 4 THARU 5 OTHER

SUPERVISOR	FIELD EDITOR	OFFICE EDITOR	KEYED BY
NAME _____	NAME _____		
DATE _____	DATE _____		

SECTION 1. RESPONDENT INFORMATION

INFORMED CONSENT

IDEALLY THE MOTHER SHOULD BE THE RESPONDENT. IF THE MOTHER IS NOT AVAILABLE, AN ADULT MEMBER WHO HAS THE BEST KNOWLEDGE ABOUT THE CIRCUMSTANCES AROUND THE CHILD'S DEATH SHOULD BE INTERVIEWED.

Hello. My name is _____ and I am working with the MINISTRY OF HEALTH AND POPULATION. We are conducting a national survey that asks women (and men) about various health issues. We would very much appreciate your participation in this survey. I would like to ask you about your (one of your) child(ren) who is no longer alive. I will ask you about the circumstances around the illness that led to the death. This information will help the government to plan health services. The survey usually takes between 20 and 45 minutes to complete. Whatever information you provide will be kept strictly confidential and will not be shown to other persons.

Participation in this survey is voluntary and if we should come to any question that is difficult for you to answer, just let me know and I will go on to the next question, or you can stop the interview at any time. However, we hope that you will participate in this survey since your views are important.

At this time, do you want to ask me anything about the survey?

May I begin the interview now?

Signature of interviewer: _____ Date: _____

RESPONDENT AGREES TO BE INTERVIEWED .....1 RESPONDENT DOES NOT AGREE TO BE INTERVIEWED.....2 ⟶END

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
101	RECORD THE TIME.	HOUR ..... [ ][ ] MINUTES ..... [ ][ ]	
102	CHECK WOMAN'S QUESTIONNAIRE: Qs.226, 226A, 227, 228 AND 229: ONE OR MORE DEATHS TO CHILDREN UNDER FIVE YEARS OR ONE OR MORE STILLBIRTHS SINCE BAISAKH 2057. USE A SEPARATE QUESTIONNAIRE TO RECORD INFORMATION FOR EACH UNDER-FIVE DEATH OR STILLBIRTH. RECORD INFORMATION ON THE LAST, NEXT-TO-LAST, ETC. UNDER-FIVE DEATH/STILLBIRTH IN THIS SEQUENCE UNTIL ALL INFORMATION IS COLLECTED. BEFORE YOU BEGIN THE INTERVIEW COLLECT ANY RELEVANT DOCUMENTS THAT MAY HAVE INFORMATION ON THE CHILD'S (CHILDREN'S) DEATH OR THE MOTHER'S HEALTH.		
103	COPY DOWN NAME AND LINE NUMBER OF CHILD FOR WHOM INFORMATION IS BEING COLLECTED FROM INDIVIDUAL QUESTIONNAIRE. IF BABY NOT NAMED OR IF STILLBIRTH WRITE 'BABY'. Now I would like to ask you some questions about (NAME).	NAME OF CHILD (Q.219)_____ LINE NUMBER FROM Q.215 [ ][ ]	
104	Are there any other persons in this household who will also be able to provide information about (NAME)?	YES .....1 NO 2	⟶201
105	Please may I speak to them as well? NOTE: IT IS OKAY TO INTERVIEW MORE THAN ONE PERSON IF THEY HAVE INTIMATE KNOWLEDGE OF THE CIRCUMSTANCES SURROUNDING THE DEATH OF THE CHILD. HOWEVER, LIMIT THE NUMBER OF RESPONDENTS TO 2-3. IF THERE ARE CONFLICTING RESPONSES, DISCUSS TO REACH A CONSENSUS.	YES .....1 NO 2	⟶201

106 FOR EACH ADDITIONAL RESPONDENT PROBE AND FILL IN THE FOLLOWING INFORMATION.

RESP. N0.	RELATIONSHIP TO CHILD*	WITH MOTHER DURING HER PREGNANCY?**		WITH MOTHER DURING HER DELIVERY? **		WITH CHILD DURING THE ILLNESS?		WITH CHILD AT TIME OF DEATH?	
		YES	NO	YES	NO	YES	NO	YES	NO
1	[ ]	1	2	1	2	1	2	1	2
2	[ ]	1	2	1	2	1	2	1	2
3	[ ]	1	2	1	2	1	2	1	2

NOTE: * RELATIONSHIP CODE ** REQUIRED FOR STILLBIRTH AND NEONATAL DEATHS ONLY.

FATHER =2 UNCLE = 6
GRANDMOTHER = 3 OTHER MALE (SPECIFY_____) = 7
GRANDFATHER = 4 OTHER FEMALE (SPECIFY_____) = 8

AUNT = 5

SECTION 2. DELIVERY CHARACTERISTICS

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
201	Where did you give birth to (NAME)? FOR DELIVERIES AT HOSPITAL OR HEALTH FACILITY, RECORD FACILITY NAME AND ADDRESS: _____ _____ _____ _____	HOME YOUR HOME .....11 OTHER HOME .....12 GOVERNMENT SECTOR GOVT. HOSPITAL.....21 PRIMARY HEALTH CARE CEN .....22 HEALTH POST.....23 SUB-HEALTH POST.....24 OTHER GOV'T_____ 26 (SPECIFY) NON-GOV'T (NGO) SECTOR UMN/RED CROSS HOSPITAL .....31 OTHER NGO _____ 36 (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL./NURSING HOME.....41 OTHER PRIVATE_____ 46 (SPECIFY) OTHER _____ 96 (SPECIFY)	
202	Who assisted with the delivery of (NAME)? Anyone else? PROBE FOR THE TYPE OF PERSON AND RECORD ALL PERSONS ASSISTING. IF NURSE/MIDWIFE IN THE COMMUNITY, RECORD HER NAME AND ADDRESS: _____ _____ _____ _____	HEALTH PROFESSIONAL DOCTOR..... A NURSE/AUX.N.MIDWIFE..... B HEALTH ASST/AUX.HEALTH WORKER. ..... C MCH WORKER..... D VILLAGE HEALTH WORKER..... E OTHER PERSON TRADITIONAL BIRTH ATTENDANT .... F RELATIVES/FRIENDS.....G OTHER _____ X (SPECIFY) NO ONE ..... Y	
203	Was the delivery: Spontaneous without any assistance? Assisted with manipulation with hands? Instrumental (vacuum or forceps)? Failed instrumental and Caesarian section? Caesarian section alone?	SPONTANEOUS .....1 ASSISTED.....2 INSTRUMENTAL.....3 FAILED INSTRUMENTAL .....4 C-SECTION ALONE.....5 DON'T KNOW 8	
204	Was the delivery: Spontaneous without medication? Induced with medicine? Augmented with medicine?	SPONTANEOUS .....1 INDUCED .....2 AUGMENTED WITH MEDICINE.....3 DON'T KNOW 8	
205	CHECK WOMAN'S QUESTIONNAIRE Q.216. IF SINGLE BIRTH CIRCLE CODE '1'. IF MULTIPLE BIRTH ASK: Was this the first, second, or later in the birth order?	SINGLE BIRTH.....1 FIRST .....2 SECOND .....3 THIRD OR MORE .....4 DON'T KNOW 8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
206	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	
207	Was (NAME) weighed at the time of delivery?	YES.....1 NO.....2 DON'T KNOW.....8	→209
208	What was (NAME'S) weight at the time of delivery? RECORD WEIGHT IN KILOGRAMS FROM HEALTH CARD IF AVAILABLE.	WEIGHT IN KG..... [ ][ ] . [ ][ ] DON'T KNOW.....98	
209	Where did (NAME) die? FOR DEATH AT HOSPITAL OR HEALTH FACILITY, RECORD FACILITY NAME AND ADDRESS: _____ _____ _____ _____	HOME YOUR HOME.....11 OTHER HOME.....12 GOVERNMENT SECTOR GOVT. HOSPITAL.....21 PRIMARY HEALTH CARE CEN.....22 HEALTH POST.....23 SUB-HEALTH POST.....24 OTHER GOV'T_____ 26 (SPECIFY) NON-GOV'T (NGO) SECTOR UMN/RED CROSS HOSPITAL.....31 OTHER NGO _____ 36 (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL./NURSING HOME.....41 OTHER PRIVATE_____ 46 (SPECIFY) OTHER _____ 96 (SPECIFY)	
210	CHECK WOMAN'S QUESTIONNAIRE: Qs.226, 226A, 227, 228 AND 229: STILLBIRTH (PREGNANCY OF 7+ MONTHS) [ ] AGE AT DEATH 0-27 DAYS (LESS THAN ONE MONTH) [ ] AGE AT DEATH 28 DAYS-59 MONTHS (1 MONTH-4 YEARS) [ ]		→601

SECTION 3: OPEN HISTORY QUESTIONS (STILLBIRTHS AND EARLY NEONATAL DEATHS)

301	CHECK WOMAN'S QUESTIONNAIRE Q.228 AND 229. IF STILLBIRTH (DURATION OF PREGNANCY IS 7 MONTHS OR MORE): Could you tell me about the time you were pregnant with (NAME), about the delivery, and what happened after the delivery of (NAME)? CHECK WOMAN'S QUESTIONNAIRE Q.226, 226A AND 227: IF AGE AT DEATH 0-27 DAYS (EARLY NEONATAL DEATH): Could you tell me about the time you were pregnant with (NAME), about (NAME'S) birth and what happened after the birth, including how he/she got the illness that led to his/her death. PROBE: Was there anything else? ALLOW THE RESPONDENT TO TELL YOU ABOUT THE PREGNANCY, DELIVERY AND THE BABY'S ILLNESS IN HER OWN WORDS. WRITE DOWN WHAT THE RESPONDENT TELLS YOU IN HER OWN WORDS. DO NOT PROMPT EXCEPT FOR ASKING WHETHER THERE WAS ANYTHING ELSE AFTER THE RESPONDENT FINISHES. KEEP PROMPTING UNTIL THE RESPONDENT SAYS THERE WAS NOTHING ELSE. WHILE RECORDING, UNDERLINE ANY UNFAMILIAR TERMS.	

302	TAKE A MOMENT TO MARK WITH AN 'X' ALL ITEMS MENTIONED SPONTANEOUSLY IN THE OPEN HISTORY QUESTION. USE THIS TO GUIDE YOU THROUGH THE REST OF THE QUESTIONNAIRE. WHEN DEVELOPING THE COUNTRY-SPECIFIC QUESTIONNAIRE, LOCAL TERMS LIKELY TO BE USED BY RESPONDENTS SHOULD BE ADDED TO THE LIST. NOTE: IN SEVERITY SCALE 1=MILD, 2=MODERATE, 3=SEVERE, 8=NOT APPLICABLE					
	PREGNANCY COMPLICATIONS	**PRESENT**	**MONTH BEGAN**	**DURA-TION**	**LOCAL TERM**	**SEVER-ITY**
01	MULTIPLE PREGNANCY		8	8		8
02	VAGINAL BLEEDING					
03	SEVERE OR PERSISTENT ABDOMINAL OR BACK PAIN					
04	HIGH BLOOD PRESSURE (DIAGNOSED BY HEALTH WORKER)					
05	HAND OR FACIAL SWELLING, OR RAPID LEG SWELLING					
06	BLURRED VISION, OR SEVERE OR PERSISTENT HEADACHE					
07	CONVULSIONS					
08	DIABETES (DIAGNOSED BY HEALTH WORKER)					
09	MALARIA (DIAGNOSED BY HEALTH WORKER					
10	SEVERE ANEMIA (DIAGNOSED BY HEALTH WORKER					
11	FELT BABY MOVING MUCH LESS THAN NORMAL					8
12	BABY STOPPED MOVING					
13	POSITIVE SYPHILIS TEST					8
13A	Was this treated?					
14	GENITAL ULCER					8
15	POSITIVE HIV TEST					
16	URINARY COMPLAINTS					8
17	OTHER (SPECIFY) _____					
	LABOR AND DELIVERY COMPLICATIONS	**PRESENT**	**MONTH BEGAN***	**DURA-TION***	**LOCAL TERM**	**SEVER-ITY**
18	MULTIPLE PREGNANCY (DIAGNOSED BY HEALTH WORKER)					8
19	VAGINAL BLEEDING (LIKE A PERIOD OR MORE)					
20	HIGH BLOOD PRESSURE (DIAGNOSED BY HEALTH WORKER)					
21	HAND OR FACIAL SWELLING					
22	BLURRED VISION, OR SEVERE OR PERSISTENT HEADACHE					
23	CONVULSIONS					
24	MALARIA (DIAGNOSED BY HEALTH WORKER)					
25	SEVERE ANEMIA (DIAGNOSED BY HEALTH WORKER)					
26	WATERS BROKE >1 DAY BEFORE LABOR BEGAN					
27	FEVER DURING LABOR					
28	BABY STOPPED MOVING					8
29	OBSTRUCTED LABOR					
30	LABOR LONGER THAN 12 HOURS					8
30A	LABOR LONGER THAN 24 HOURS					
31	UMBLICAL CORD DELIVERED BEFORE THE BABY					8
32	UMBLICAL CORD AROUND THE BABY'S NECK					
33	BREECH DELIVERY					8
34	WATERS BROWN OR YELLOW STAINED					
35	WATERS FOUL SMELLING					
NOTE:* MONTH BEGAN AND DURATION IS NOT RELEVANT FOR DELIVERY COMPLICATIONS AND PROLONGED LABOR						

36	OTHER (SPECIFY) _____					
	COMPLICATIONS OF THE NEWBORN BABY	**YES/NO**				
37	BORN EARLY					
38	VERY SMALL					
39	BRUISES OR SIGNS OF INJURY					
40	MACERATED STILLBIRTH					
41	PHYSICAL MALFORMATION					
42	OTHER (SPECIFY) _____					
	PROBLEMS OF THE BABY	**PRESENT**	**DAY ILLNESS BEGAN**	**DURA-TION**	**LOCAL TERM**	**SEVE-RITY**
43	WEAK OR NOT CRYING AT BIRTH					
44	NOT BREATHING AT BIRTH					
45	WEAK OR NOT SUCKING AT BIRTH					
46	STOPPED CRYING					
47	STOPPED SUCKLING					
48	DIARRHOEA					
49	COUGH					
50	FEVER					
51	COLD TO THE TOUCH (LOW BODY TEMPERATURE					
52	RASH					
53	INJURY					
54	LOSS OF CONSCIOUSNESS					
55	LETHARGIC/DECREASED MOVEMENT					
56	FIT/CONVULSION					
57	FEEDING PROBLEM					
58	VOMITTING					
59	TETANUS					
60	UMBLICAL INFECTION (REDNESS, PUS, DISCHARGE)					
61	SKIN PUSTULES					
62	EYE REDNESS OR DISCHARGE					
63	CYANOSIS (BODY BLUE)					
64	BLEEDING					
65	DIFFICULT BREATHING					
66	CHEST IN-DRAWING					
67	RAPID BREATHING					
68	VERY THIN					
69	PNEUMONIA					
70	MALARIA					
71	JAUNDICE					
72	OTHER (SPECIFY) _____					

SECTION 4: COMPLICATIONS DURING PREGNANCY AND DELIVERY (STILLBIRTHS AND EARLY NEONATAL DEATHS)

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
401	Was the late part of the pregnancy (that is, the last 3 months), labor or delivery complicated by any one of the following problems: a) Mother had convulsions? b) Mother had hand or facial swelling? c) Mother had blurred vision or severe or persistent HA? d) Mother had high blood pressure diagnosed by a health worker? e) Mother had severe anemia diagnosed by a health worker? f) Mother had severe or persistent abdominal or back pain before labor began? g) Mother had diabetes diagnosed by a heath worker? h) Mother felt baby moving much less than normal? i) Child delivered feet first? j) Cord delivered first? k) Cord around child's neck? l) Mother had excessive bleeding? m) Baby delivered through emergency Caesarian section? n) Mother had fever during labor? o) Other _____ (Specify)	YES NO CONVULSIONS ..... ……..1 2 SWELLING.. ……1 2 BLURRED VISION ... ……..1 2 HIGH BLOOD PRESSURE…….1 2 SEVERE ANEMIA .... ……..1 2 ABDOMINAL/BACK PAIN……..1 2 DIABETES..... ……..1 2 BABY MOVING LESS……..1 2 FEET DELIVERED FIRST……. .1 2 CORD DELIVERED FIRST.....1 2 CORD AROUND NECK……..1 2 EXCESSIVE BLEEDING.....1 2 CAESARIAN SECTION……...1 2 FEVER DURING LABOR……...1 2 OTHER……..1 2	
402	CHECK WOMAN'S QUESTIONNAIRE: Qs.226, 227, 228 AND 229: STILLBIRTH [ ] AGE AT DEATH O-27 DAYS [ ] _____		→405
403	Was the baby moving in the last few days before the birth?	YES .....1 NO .....2 DON'T KNOW 8	
404	How many hours or days before delivery did you last feel the baby move?	HOURS.....1 [ ][ ] DAYS.....2 [ ][ ] DON'T KNOW 998	
405	Did the waters break before labor, during labor, or did the waters not break at all?	BEFORE LABOR.....1 DURING LABOR .....2 DID NOT BREAK AT ALL.....3 OTHER .....6 DON'T KNOW 8	→407 →409
406	How long before labor did the waters break?	LESS THAN ONE DAY .....1 ONE DAY OR MORE .....2 DON'T KNOW 8	
407	What was the color of the liquid when the waters broke?	GREEN/BROWN .....1 CLEAR.....2 OTHER _____ 6 (SPECIFY)	
408	Was the liquid foul smelling?	YES .....1 NO .....2 DON'T KNOW 8	
409	How long did the labor and delivery take, that is, from the time when the contractions began (were about 10 minutes apart) till the time the baby was delivered?	HOURS..... [ ][ ] DON'T KNOW 98	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
410	Was anything done to help the baby breathe at birth?	YES ..... 1 NO ..... 2 DON'T KNOW 8	
411	Were there any bruises or signs of injury on the baby's body at birth?	YES ..... 1 NO ..... 2 DON'T KNOW 8	
412	Was the baby's body macerated, that is, was the skin and tissue palpy?	YES ..... 1 NO ..... 2 DON'T KNOW 8	
413	Did the baby have any gross malformations at birth?	YES ..... 1 NO ..... 2 DON'T KNOW 8	→415
414	Please describe the malformations? PROMPT: Anything else?	HEAD SIZE VERY SMALL ..... A MASS/DEFECT ON BACK OF HEAD/SPINE ..... B CLEFT LIP/PALATE ..... C OTHER X (SPECIFY) OTHER Y (SPECIFY) OTHER Z (SPECIFY)	
415	CHECK Q.414, IF CODE 'A' NOT CIRCLED ASK: Was the baby's head very small?	YES ..... 1 NO ..... 2 DON'T KNOW 8	
416	CHECK Q.414, IF CODE 'B' NOT CIRCLED ASK: Was there a mass/defect on the back of the baby's head or spine?	YES ..... 1 NO ..... 2 DON'T KNOW 8	
417	CHECK Q.414, IF CODE 'C' NOT CIRCLED ASK: Did the baby have a cleft lip or palate?	YES ..... 1 NO ..... 2 DON'T KNOW 8	
418	Did the baby have any (other) limb defects?	YES ..... 1 NO ..... 2 DON'T KNOW 8	
419	CHECK WOMAN'S QUESTIONNAIRE: Qs.226, 226A, 227, 228 AND 229: AGE AT DEATH O-27 DAYS ☐ ▼ STILLBIRTH ☐		→END

SECTION 5: CHARACTERISTICS OF EARLY NEONATAL DEATHS

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
501	Was (NAME) able to breathe immediately after birth? NOTE: THIS DOES NOT INCLUDE GASPS OR VERY BRIEF EFFORTS TO BREATHE.	YES ..... 1 NO ..... 2 DON'T KNOW 8	
502	Was (NAME) ever able to cry after birth?	YES ..... 1 NO ..... 2 DON'T KNOW 8	→506
503	How long after birth did (NAME) first cry?	WITHIN 5 MINUTES ..... 1 BETWEEN 5 AND 30 MINUTES ..... 2 MORE THAN 30 MINUTES ..... 3 DON'T KNOW 8	
504	Did (NAME) stop being able to cry?	YES ..... 1 NO ..... 2 DON'T KNOW 8	→506
505	How long before (NAME) died did he/she stop crying?	LESS THAN ONE DAY ..... 1 ONE DAY OR MORE ..... 2 DON'T KNOW 8	
506	Was (NAME) able to suckle in a normal way during the first day of life?	YES ..... 1 NO ..... 2 DON'T KNOW 8	→508
507	Was (NAME) ever able to suckle in a normal way?	YES ..... 1 NO ..... 2 DON'T KNOW 8	→511
508	Did (NAME) stop being able to suckle in a normal way?	YES ..... 1 NO ..... 2 DON'T KNOW 8	→511
509	How long before (NAME) died did he/she stop suckling?	LESS THAN ONE DAY ..... 1 ONE DAY OR MORE ..... 2 DON'T KNOW 8	
510	How many days after birth did (NAME) stop suckling? IF LESS THAN ONE DAY RECORD '00' DAYS	DAYS ..... [ ][ ] DON'T KNOW 98	
511	During the illness that led to death, did (NAME) have difficulty breathing?	YES ..... 1 NO ..... 2 DON'T KNOW 8	→514
512	How many days after birth did (NAME) have difficulty breathing? IF LESS THAN ONE DAY RECORD '00' DAYS	DAYS ..... [ ][ ] DON'T KNOW 98	
513	How many days did (NAME) have breathing difficulty? IF LESS THAN ONE DAY RECORD '00' DAYS	DAYS ..... [ ][ ] DON'T KNOW 98	
514	During the illness that led to death, did (NAME) have fast breathing?	YES ..... 1 NO ..... 2 DON'T KNOW 8	→517
515	How many days after birth did (NAME) have fast breathing? IF LESS THAN ONE DAY RECORD '00' DAYS	DAYS ..... [ ][ ] DON'T KNOW 98	
516	How many days did (NAME) have fast breathing? IF LESS THAN ONE DAY RECORD '00' DAYS	DAYS ..... [ ][ ] DON'T KNOW 98	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
517	During the illness that led to death, did (NAME) have indrawing of the chest?	YES ..... 1 NO ..... 2 DON'T KNOW 8	
518	During the illness that led to death, did (NAME) have grunting?	YES ..... 1 NO ..... 2 DON'T KNOW 8	
519	During the illness that led to death, did (NAME'S) nostrils flare when breathing?	YES ..... 1 NO ..... 2 DON'T KNOW 8	
520	During the illness that led to death, did (NAME) have pneumonia (USE LOCAL TERM)?	YES ..... 1 NO ..... 2 DON'T KNOW 8	
521	During the illness that led to death, did (NAME) have spasms or convulsions (or tremors or fits)?	YES ..... 1 NO ..... 2 DON'T KNOW 8	
521A	During the illness that led to death, did (NAME) have spasms or convulsions (or tremors or fits) when touched or exposed to sound or light?	YES ..... 1 NO ..... 2 DON'T KNOW 8	
521B	During the illness that led to death, did (NAME) become rigid or stiff as the illness progressed?	YES ..... 1 NO ..... 2 DON'T KNOW 8	
521C	During the illness that led to death, did (NAME) develop pursed lips and/or clenched fists?	YES ..... 1 NO ..... 2 DON'T KNOW 8	
522	During the illness that led to death, did (NAME) have tetanus (LOCAL TERM)?	YES ..... 1 NO ..... 2 DON'T KNOW 8	
523	During the illness that led to death, did (NAME) have fever?	YES ..... 1 NO ..... 2 DON'T KNOW 8	→526
524	How many days after birth did (NAME'S) fever start? IF LESS THAN ONE DAY RECORD '00' DAYS	DAYS ..... [ ][ ] DON'T KNOW 98	
525	How many days did (NAME'S) fever last? IF LESS THAN ONE DAY RECORD '00' DAYS	DAYS ..... [ ][ ] DON'T KNOW 98	
526	During the illness that led to death, did (NAME) become cold to the touch?	YES ..... 1 NO ..... 2 DON'T KNOW 8	→529
527	How many days after birth did (NAME'S) start feeling cold to the touch? IF LESS THAN ONE DAY RECORD '00' DAYS	DAYS ..... [ ][ ] DON'T KNOW 98	
528	How many days did (NAME'S) feel cold to the touch? IF LESS THAN ONE DAY RECORD '00' DAYS	DAYS ..... [ ][ ] DON'T KNOW 98	
529	During the illness that led to death, did (NAME) become lethargic after a period of normal activity?	YES ..... 1 NO ..... 2 DON'T KNOW 8	
530	During the illness that led to death, did (NAME) become unresponsive or unconscious?	YES ..... 1 NO ..... 2 DON'T KNOW 8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
531	During the illness that led to death, did (NAME) have a bulging fontanelle?	YES ..... 1 NO ..... 2 DON'T KNOW 8	
532	During the illness that led to death, did (NAME) have pus drainage from the umbilical cord stump?	YES ..... 1 NO ..... 2 DON'T KNOW 8	
532A	During the illness that led to death, did (NAME) have redness of the umbilical cord stump?	YES ..... 1 NO ..... 2 DON'T KNOW 8	→533
532B	Did the redness of the umbilical stump extend into the abdominal skin?	YES ..... 1 NO ..... 2 DON'T KNOW 8	
533	During the illness that led to death, did (NAME) have skin bumps containing pus or a single large area of pus or redness with swelling?	SKIN BUMPS WITH PUS ..... 1 SINGLE LARGE AREA OF PUS ..... 2 REDNESS WITH SWELLING ..... 3 NO ..... 4 DON'T KNOW 8	
534	During the illness that led to death, did (NAME) bleed from anywhere?	YES ..... 1 NO ..... 2 DON'T KNOW 8	→536
535	Where was (NAME) bleeding?	_____ (SPECIFY)	
536	During the illness that led to death, did (NAME) have more frequent loose or liquid stools than usual?	YES ..... 1 NO ..... 2 DON'T KNOW 8	
537	During the illness that led to death, did (NAME) have diarrhea (USE LOCAL TERM)?	YES ..... 1 NO ..... 2 DON'T KNOW 8	→539
538	How many times did (NAME) have diarrhea/loose or liquid stools on the day that it was most frequent?	TIMES ..... [ ][ ] DON'T KNOW 98	
539	During the illness that led to death, did (NAME) vomit?	YES ..... 1 NO ..... 2 DON'T KNOW 8	
540	During the illness that led to death, did (NAME) have jaundice (yellow skin)?	YES ..... 1 NO ..... 2 DON'T KNOW 8	→801

SECTION 6: OPEN HISTORY QUESTIONS (POST-NEONATAL DEATHS)

601	CHECK WOMAN'S QUESTIONNAIRE Q.226, 226A AND 227: IF AGE AT DEATH IS 28 DAYS – 59 MONTHS (POST-NEONATAL DEATH): Could you tell me about (NAME'S) illness that led to his/her death. PROBE: Was there anything else? ALLOW THE RESPONDENT TO TELL YOU ABOUT THE PREGNANCY, DELIVERY AND THE BABY'S ILLNESS IN HER OWN WORDS. WRITE DOWN WHAT THE RESPONDENT TELLS YOU IN HER OWN WORDS. DO NOT PROMPT EXCEPT FOR ASKING WHETHER THERE WAS ANYTHING ELSE AFTER THE RESPONDENT FINISHES. KEEP PROMPTING UNTIL THE RESPONDENT SAYS THERE WAS NOTHING ELSE. WHILE RECORDING, UNDERLINE ANY UNFAMILIAR TERMS.	
602	TAKE A MOMENT TO MARK WITH AN 'X' ALL ITEMS MENTIONED SPONTANEOUSLY IN THE OPEN HISTORY QUESTION. USE THIS TO GUIDE YOU THROUGH THE REST OF THE QUESTIONNAIRE. WHEN DEVELOPING THE COUNTRY-SPECIFIC QUESTIONNAIRE, LOCAL TERMS LIKELY TO BE USED BY	

	RESPONDENTS SHOULD BE ADDED TO THE LIST. NOTE: IN SEVERITY SCALE 1=MILD, 2=MODERATE, 3=SEVERE, 8=NOT APPLICABLE					
		PRESENT	**MONTH BEGAN**	**DURA -TION**	**LOCAL TERM**	**SEVER-ITY**
01	DIARRHEA					
02	COUGH					
03	FEVER					
04	RASH					
05	INJURY					
06	COMA/LOSS OF CONSCIOUSNESS					
07	FIT/CONVULSIONS					
08	STIFF NECK					
09	TETANUS					
10	MALFORMATION					
11	MULTIPLE BIRTH					
12	MEASLES					
13	KWASHIORKOR (USE LOCAL TERM)					
14	MARASMUS (USE LOCAL TERM)					
15	BLEEDING					
16	DIFFICULT BREATHING					
17	CHEST IN-DRAWING					
18	RAPID BREATHING					
19	VERY SMALL AT BIRTH					
20	BORN EARLY					
21	VERY THIN					
22	PNEUMONIA					
23	MALARIA					
24	JAUNDICE					
25	SEVERE ANEMIA					
26	SWELLING OF FACE/LEG/ABDOMEN/WHOLE BODY					
27	OTHER (SPECIFY) _____					

603	Did (NAME) have any of the following illnesses or symptoms?	YES	NO	DK
	a) Heart disease?	HEART DISEASE ..... …1	2	8
	b) Epilepsy?	EPILEPSY..... …1	2	8
	c) Tuberculosis?	TUBERCULOSIS ..... …1	2	8
	d) Asthma?	ASTHMA ..... …1	2	8
	e) Mental illness?	MENTAL ILLNESS..... …1	2	8
	f) Physical handicap?	PHYSICAL HANDICAP... …1	2	8
	g) Thalessemia/haemolytic anemia?	T/H ANEMIA..... …1	2	8
	h) Blood cancer?	BLOOD CANCER ..... …1	2	8
	i) Other? _____ (SPECIFY)	OTHER..... …1	2	8

SECTION 7. CAUSE OF POST-NEONATAL DEATH

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
701	Did (NAME) die from an injury (e.g., traffic accident, poisoning, bite, burn, fall, drowning or violence)?	YES ..... 1 NO ..... 2 DON'T KNOW 8	→704
702	What kind of injury or accident did (NAME) die from? ALLOW RESPONDENT TO ANSWER SPONTANEOUSLY. IF RESPONDENT HAS DIFFICULTY IDENTIFYING THE INJURY, READ THE FOLLOWING LIST SLOWLY AND CIRCLE ONLY ONE OF THE APPROPRIATE CODES. Did (NAME) die from: a) Motor vehicle accident? b) Fall? c) Drowning? d) Poisoning? e) Bite or sting by venomous animal? f) Burn? g) Violence? h) Other injury?	MOTOR VEHICLE ACCIDENT ..... 01 FALL ..... 02 DROWNING ..... 03 POISONING ..... 04 BITE/STING ..... 05 BURN ..... 06 VIOLENCE ..... 07 OTHER _____ 96 (SPECIFY)	
703	How long did (NAME) survive after the injury/accident?	DIED WITHIN 24 HOURS ..... 1 DIED ONE DAY LATER OR MORE 2	→801
704	During the illness that led to death, did (NAME) have fever?	YES ..... 1 NO ..... 2 DON'T KNOW 8	→705
704A	How many days before death did (NAME'S) fever start? IF LESS THAN ONE DAY RECORD '00' DAYS	DAYS ..... [ ][ ] DON'T KNOW 98	
704B	Did (NAME'S) fever continue till death?	YES ..... 1 NO ..... 2 DON'T KNOW 8	→704D →704D
704C	How many days before death did (NAME'S) fever stop? IF LESS THAN ONE DAY RECORD '00' DAYS	DAYS ..... [ ][ ] DON'T KNOW 98	
704D	How many days did (NAME'S) fever last? IF LESS THAN ONE DAY RECORD '00' DAYS	DAYS ..... [ ][ ] DON'T KNOW 98	
704E	How severe was (NAME'S) fever?	MILD ..... 1 MODERATE ..... 2 SEVERE ..... 3 DON'T KNOW 8	
704F	What was the condition of (NAME'S) fever?	CONTINUOUS ..... 1 ON AND OFF ..... 2 ONLY AT NIGHT ..... 3 DON'T KNOW 8	
705	During the illness that led to death, did (NAME) have more frequent loose or liquid stools than usual?	YES ..... 1 NO ..... 2 DON'T KNOW 8	
705A	During the illness that led to death, did (NAME) have diarrhea (USE LOCAL TERM)?	YES ..... 1 NO ..... 2 DON'T KNOW 8	→706
705B	How many days did (NAME) have diarrhea/loose or liquid stools? IF LESS THAN ONE DAY WRITE '00'.	DAYS ..... [ ][ ] DON'T KNOW 98	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
705C	How many days before death did the diarrhea/loose or liquid stools start? IF LESS THAN ONE DAY WRITE '00'.	DAYS ..... [ ][ ] DON'T KNOW 98	
705D	Did the frequent loose or liquid stools continue until death?	YES ..... 1 NO ..... 2 DON'T KNOW 8	→705F →705F
705E	How many days before death did the frequent loose or liquid stools stop? IF LESS THAN ONE DAY WRITE '00'.	DAYS ..... [ ][ ] DON'T KNOW 98	
705F	How many stools did (NAME) have on the day that the diarrhea/loose or liquid stools was most frequent? IF LESS THAN ONE DAY WRITE '00'.	NUMBER ..... [ ][ ] DON'T KNOW 98	
705G	Was there any blood in the stools?	YES ..... 1 NO ..... 2 DON'T KNOW 8	
705H	When (NAME) had diarrhea, was he/she drink a fluid made from a special packet, such as Jeevan Jal, Navajeevan or other types of ORS to drink?	YES ..... 1 NO ..... 2 DON'T KNOW 8	
705J	When (NAME) had diarrhea, did he/she have a dry mouth and tongue?	YES ..... 1 NO ..... 2 DON'T KNOW 8	
705K	When (NAME) had diarrhea, did he/she have sunken eyes?	YES ..... 1 NO ..... 2 DON'T KNOW 8	
705L	When (NAME) had diarrhea, did he/she have loose skin?	YES ..... 1 NO ..... 2 DON'T KNOW 8	
706	During the illness that led to death, did (NAME) have a cough?	YES ..... 1 NO ..... 2 DON'T KNOW 8	→707
706A	How many days before death did (NAME'S) cough start? IF LESS THAN ONE DAY RECORD '00' DAYS	DAYS ..... [ ][ ] DON'T KNOW 98	
706B	Did (NAME'S) cough continue till death?	YES ..... 1 NO ..... 2 DON'T KNOW 8	→706D →706D
706C	How many days before death did (NAME'S) cough stop? IF LESS THAN ONE DAY RECORD '00' DAYS	DAYS ..... [ ][ ] DON'T KNOW 98	
706D	How many days did (NAME'S) cough last? IF LESS THAN ONE DAY RECORD '00' DAYS	DAYS ..... [ ][ ] DON'T KNOW 98	
706E	Was (NAME'S) cough very severe?	YES ..... 1 NO ..... 2 DON'T KNOW 8	
707	During the illness that led to death, did (NAME) have difficulty breathing?	YES ..... 1 NO ..... 2 DON'T KNOW 8	→708

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
707A	How many days before death did (NAME) have difficulty breathing? IF LESS THAN ONE DAY RECORD '00' DAYS	DAYS ..... [ ][ ] DON'T KNOW 98	
707B	Did (NAME'S) difficult breathing continue till death?	YES ..... 1 NO ..... 2 DON'T KNOW 8	→707D →707D
707C	How many days before death did (NAME'S) difficult breathing stop? IF LESS THAN ONE DAY RECORD '00' DAYS	DAYS ..... [ ][ ] DON'T KNOW 98	
707D	How many days did (NAME) have breathing difficulty? IF LESS THAN ONE DAY RECORD '00' DAYS	DAYS ..... [ ][ ] DON'T KNOW 98	
708	During the illness that led to death, did (NAME) have fast breathing?	YES ..... 1 NO ..... 2 DON'T KNOW 8	→709
708A	How many days before death did (NAME) have fast breathing? IF LESS THAN ONE DAY RECORD '00' DAYS	DAYS ..... [ ][ ] DON'T KNOW 98	
708B	Did (NAME'S) fast breathing continue till death?	YES ..... 1 NO ..... 2 DON'T KNOW 8	→708D →708D
708C	How many days before death did (NAME'S) fast breathing stop? IF LESS THAN ONE DAY RECORD '00' DAYS	DAYS ..... [ ][ ] DON'T KNOW 98	
708D	How many days did (NAME) have fast breathing? IF LESS THAN ONE DAY RECORD '00' DAYS	DAYS ..... [ ][ ] DON'T KNOW 98	
709	During the illness that led to death, did (NAME) have indrawing of the chest?	YES ..... 1 NO ..... 2 DON'T KNOW 8	
710	During the illness that led to death, did (NAME) have noisy breathing?	YES ..... 1 NO ..... 2 DON'T KNOW 8	→712
711	Did (NAME) have: a) Stridor? b) Grunting? c) Wheezing? USE LOCAL TERMS.	YES NO DK STRIDOR ..... 1 2 8 GRUNTING ..... 1 2 8 WHEEZING 1 2 8	
712	During the illness that led to death, did (NAME'S) nostrils flare when breathing?	YES ..... 1 NO ..... 2 DON'T KNOW 8	
713	During the illness that led to death, did (NAME) have pneumonia (USE LOCAL TERM)?	YES ..... 1 NO ..... 2 DON'T KNOW 8	
714	Did (NAME) have any convulsions/fits during the illness that led to death?	YES ..... 1 NO ..... 2 DON'T KNOW 8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
714A	Has (NAME) had similar convulsions/fits before?	YES ..... 1 NO ..... 2 DON'T KNOW 8	→715
714B	When did the last such convulsion take place? IF LESS THAN ONE WEEK RECORD IN DAYS; IF LESS THAN ONE MONTH RECORD IN WEEKS AND IF LESS THAN ONE YEAR RECORD IN MONTHS.	DAYS AGO ..... 1 [ ][ ] WEEKS AGO ..... 2 [ ][ ] MONTHS AGO ..... 3 [ ][ ] YEARS AGO ..... 4 [ ][ ] DON'T KNOW 998	
714C	At what age did (NAME'S) convulsions first start? IF LESS THAN ONE MONTH RECORD '00' IF LESS THAN ONE YEAR RECORD IN MONTHS.	MONTHS ..... 1 [ ][ ] YEARS ..... 2 [ ][ ] DON'T KNOW 998	
714D	How many times has (NAME) ever had these convulsions?	TIMES ..... [ ][ ] DON'T KNOW 98	
715	Was (NAME) unconscious during the illness that led to death?	YES ..... 1 NO ..... 2 DON'T KNOW 8	→715B
715A	How many hours or days before death did (NAME) become unconscious?	HOURS ..... 1 [ ][ ] DAYS ..... 2 [ ][ ] DON'T KNOW 998	
715B	At any time during the illness that led to death, did (NAME) stop being able to grasp?	YES ..... 1 NO ..... 2 DON'T KNOW 8	→715D
715C	How long before (NAME) died, did he/she stop being able to grasp?	LESS THAN 12 HOURS ..... 1 12 HOURS OR MORE 2	
715D	At any time during the illness that led to death, did (NAME) stop being able to respond to a voice?	YES ..... 1 NO ..... 2 DON'T KNOW 8	→715F
715E	How long before (NAME) died, did he/she stop being able to respond to a voice?	LESS THAN 12 HOURS ..... 1 12 HOURS OR MORE 2	
715F	At any time during the illness that led to death, did (NAME) stop being able to follow movements with his/her eyes?	YES ..... 1 NO ..... 2 DON'T KNOW 8	→716
715G	How long before (NAME) died, did he/she stop being able to follow movements with his/her eyes?	LESS THAN 12 HOURS ..... 1 12 HOURS OR MORE 2	
716	During the illness that led to death, did (NAME) have a stiff neck?	YES ..... 1 NO ..... 2 DON'T KNOW 8	
716A	During the illness that led to death, did (NAME) have a bulging fontanelle?	YES ..... 1 NO ..... 2 DON'T KNOW 8	
717	During the month before (NAME) died, did he/she have a skin rash?	YES ..... 1 NO ..... 2 DON'T KNOW 8	→718

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
717A	Was the rash all over (NAME'S) body?	YES ..... 1 NO ..... 2 DON'T KNOW 8	
717B	Was the rash also on (NAME'S) face?	YES ..... 1 NO ..... 2 DON'T KNOW 8	
717C	How many days did (NAME'S) rash last? IF LESS THAN ONE DAY RECORD '00' DAYS	DAYS ..... [ ][ ] DON'T KNOW 98	
717D	Did the rash have blisters containing clear fluid?	YES ..... 1 NO ..... 2 DON'T KNOW 8	
717E	Did the skin crack/split or peel after the rash started?	YES ..... 1 NO ..... 2 DON'T KNOW 8	
717F	Did the (NAME) have fever during the rash?	YES ..... 1 NO ..... 2 DON'T KNOW 8	
717G	Was this illness measles (USE LOCAL TERM)?	YES ..... 1 NO ..... 2 DON'T KNOW 8	
718	During the illness that led to death, did (NAME) become very thin?	YES ..... 1 NO ..... 2 DON'T KNOW 8	
718A	During the illness that led to death, did (NAME) have swollen legs or feet?	YES ..... 1 NO ..... 2 DON'T KNOW 8	→718C
718B	How many weeks did the swelling last? IF LESS THAN ONE WEEK RECORD '00' WEEKS	WEEKS ..... [ ][ ] DON'T KNOW 98	
718C	During the illness that led to death, did (NAME'S) skin flake off in patches?	YES ..... 1 NO ..... 2 DON'T KNOW 8	
718D	During the illness that led to death, did (NAME'S) hair color change to a reddish (or yellowish) color?	YES ..... 1 NO ..... 2 DON'T KNOW 8	
718E	Did (NAME) have Kwashiorkor (USE LOCAL TERM) during the month before he/she died??	YES ..... 1 NO ..... 2 DON'T KNOW 8	
718F	Did (NAME) have Marasmus (USE LOCAL TERM) during the month before he/she died??	YES ..... 1 NO ..... 2 DON'T KNOW 8	
718G	During the illness that led to death, did (NAME) suffer from 'lack of blood' or 'pallor' (USE LOCAL TERM)?	YES ..... 1 NO ..... 2 DON'T KNOW 8	
719	During the illness that led to death, did (NAME) have paleness in the palms, soles, eyes, body? (USE LOCAL TERM FOR JAUNDICE)?	YES ..... 1 NO ..... 2 DON'T KNOW 8	→719D
719A	How many days before death did the yellowish color of (NAME'S) eye/body start? IF LESS THAN ONE DAY RECORD '00'	DAYS ..... [ ][ ] DON'T KNOW 98	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
719B	CHECK Q.719A. IF '00' SKIP. IF '01' OR HIGHER ASK: Did the yellowish color of (NAME'S) eye/body last until his death?	YES ..... 1 NO ..... 2 DON'T KNOW 8	→719D →719D
719C	How many days before death did (NAME'S) eye/body color return to normal? IF LESS THAN ONE DAY RECORD '00'	DAYS ..... [ ][ ] DON'T KNOW 98	
719D	During the illness that led to death, did (NAME) have white nails (USE LOCAL TERM)?	YES ..... 1 NO ..... 2 DON'T KNOW 8	
720	During the illness that led to death, did (NAME) have swelling in the body?	YES ..... 1 NO ..... 2 DON'T KNOW 8	→721
720A	Where was the swelling?	ANKLE ..... A ABDOMEN ..... B FACE ..... C HAND ..... D WHOLE BODY ..... E OTHER _____ X (SPECIFY) DON'T KNOW ..... Z	
720B	Where did the swelling first appear?	ANKLE ..... 1 ABDOMEN ..... 2 FACE ..... 3 HAND ..... 4 WHOLE BODY ..... 5 OTHER _____ 6 (SPECIFY) DON'T KNOW 8	
721	During the illness that led to death, did (NAME) have glandular swelling in the neck?	YES ..... 1 NO ..... 2 DON'T KNOW 8	
721A	During the illness that led to death, did (NAME) have swelling in the armpits?	YES ..... 1 NO ..... 2 DON'T KNOW 8	
721B	During the illness that led to death, did (NAME) have swelling in the groin?	YES ..... 1 NO ..... 2 DON'T KNOW 8	
721C	CHECK Qs.721, 721A, AND 721B: AT LEAST ONE 'YES' [ ] ▼ NOT A SINGLE 'YES' [ ]		→721E
721D	Was there any infection or discharge from the swelling?	YES ..... 1 NO ..... 2 DON'T KNOW 8	
721E	During the illness that led to death, did (NAME) have a whitish rash inside the mouth or on the tongue?	YES ..... 1 NO ..... 2 DON'T KNOW 8	
722	During the illness that led to death, did (NAME) have vomitting?	YES ..... 1 NO ..... 2 DON'T KNOW 8	→723

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
722A	What did the vomit look like?	WATERY ..... 1 YELLOWISH ..... 2 COFFEE COLORED ..... 3 BLOOD MIXED ..... 4 FECAL MATTERS ..... 5 OTHER _____ 6 (SPECIFY) DON'T KNOW 8	
723	During the illness that led to death, did (NAME) have abdominal pain?	YES ..... 1 NO ..... 2 DON'T KNOW 8	→724
723A	What type of abdominal pain did (NAME) have?	CONTINUOUS DULL PAIN ..... 1 CRAMPS ..... 2 OTHER _____ 6 (SPECIFY) DON'T KNOW 8	
723B	How severe was (NAME'S) abdominal pain?	MILD ..... 1 MODERATE ..... 2 SEVERE ..... 3 DON'T KNOW 8	
724	During the illness that led to death, did (NAME) have distension of the abdomen?	YES ..... 1 NO ..... 2 DON'T KNOW 8	→725
724A	How many days before death did the distension of the abdomen start? IF LESS THAN ONE DAY RECORD '00'	DAYS ..... [ ][ ] DON'T KNOW 98	
724B	CHECK Q.724A. IF '00' SKIP. IF '01' OR HIGHER ASK: Did the distension of (NAME'S) abdomen last until his death?	YES ..... 1 NO ..... 2 DON'T KNOW 8	→724D →724D
724C	How many days before death did the distension of the abdomen become normal? IF LESS THAN ONE DAY RECORD '00'	DAYS ..... [ ][ ] DON'T KNOW 98	
724D	During the distension of the abdomen did (NAME'S) defecate/pass stools?	YES ..... 1 NO ..... 2 DON'T KNOW 8	→725 →725
724E	How many days before death did (NAME) stop being able to defecate/pass stool? IF LESS THAN ONE DAY RECORD '00'	DAYS ..... [ ][ ] DON'T KNOW 98	
725	During the illness that led to death, did (NAME) have any mass in the abdomen?	YES ..... 1 NO ..... 2 DON'T KNOW 8	→726
725A	Where exactly was the mass located?	RIGHT UPPER ABDOMEN ..... 1 LEFT UPPER ABDOMEN ..... 2 LOWER ABDOMEN ..... 3 MIDDLE ABDOMEN ..... 4 OTHER _____ 6 (SPECIFY) DON'T KNOW 8	
725B	Was the mass painful?	YES ..... 1 NO ..... 2 DON'T KNOW 8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
725C	How many days before death did the abdominal mass appear? IF LESS THAN ONE DAY RECORD '00'	DAYS ..... [ ][ ] DON'T KNOW 98	
725D	CHECK Q.725C. IF '00' SKIP. IF '01' OR HIGHER ASK: Did the abdominal mass last until his death?	YES ..... 1 NO ..... 2 DON'T KNOW 8	→726 →726
725E	How many days before death did the abdominal mass disappear? IF LESS THAN ONE DAY RECORD '00'	DAYS ..... [ ][ ] DON'T KNOW 98	
726	During the illness that led to death, what color was (NAME'S) urine?	NORMAL ..... 1 DARK YELLOW ..... 2 BLOOD MIX ..... 3 DEEP BROWN ..... 4 LIKE LIME WATER ..... 5 OTHER _____ 6 (SPECIFY) DON'T KNOW 8	
726A	During the illness that led to death, was there any change in the amount of urine passed by (NAME)?	YES ..... 1 NO ..... 2 DON'T KNOW 8	→727
726B	How much urine did (NAME) pass in a day?	MORE THAN USUAL ..... 1 LESS THAN USUAL ..... 2 NONE AT ALL ..... 3 OTHER _____ 6 (SPECIFY) DON'T KNOW 8	
726C	How many days before death did you notice a change in the amount of urine passed by (NAME)? IF LESS THAN ONE DAY RECORD '00'	DAYS ..... [ ][ ] DON'T KNOW 98	
726D	CHECK Q.726C. IF '00' SKIP. IF '01' OR HIGHER ASK: Did the change in the amount of urine passed last until his death?	YES ..... 1 NO ..... 2 DON'T KNOW 8	→727 →727
726E	How many days before death did the amount of urine passed become normal? IF LESS THAN ONE DAY RECORD '00'	DAYS ..... [ ][ ] DON'T KNOW 98	
727	Did (NAME) have any operation before death?	YES ..... 1 NO ..... 2 DON'T KNOW 8	→801
727A	How many days before death did (NAME) have his/her last operation? IF LESS THAN ONE DAY RECORD '00'	DAYS ..... [ ][ ] DON'T KNOW 98	
727B	What part of the body was (NAME) operated on?	SPECIFY _____ DON'T KNOW 8	
727C	What was the reason for the operation?	SPECIFY _____ DON'T KNOW 8	

SECTION 8: CARE SEEKING AND HEALTH RECORDS

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
801	Did you seek advice or treatment outside the house when (NAME) was ill (injured)?	YES ..... 1 NO 2	→803
802	Where did you seek advice or treatment? Anywhere else? RECORD ALL MENTIONED. RECORD THE NAME AND ADDRESS OF ANY HOSPITAL, HEALTH CENTER, OR CLINIC WHERE CARE WAS SOUGHT: _____ _____ _____	GOVERNMENT SECTOR GOVT. HOSPITAL/CLINIC ..... A PRIM.HEALTH CARE CENTRE... B HEALTH POST ..... C SUB-HEALTH POST ..... D PHCC OUTREACH CLINIC ..... E FCHV ..... F OTHER GOV'T_____ G (SPECIFY) NON-GOV'T (NGO) SECTOR UMN/RED CROSS ..... H OTHER NGO_____ I (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL ..... J CLINIC/NURSING HOME ..... K PHARMACY ..... L OTHER PRIVATE_____ M (SPECIFY) OTHER SOURCE SHOP ..... N TRAD. PRACTITIONER ..... O OTHER _____ X (SPECIFY)	
803	Do you have any health records for (NAME)? IF YES: May I see the health records, please?	YES ..... 1 NO ..... 2 DON'T KNOW 8	→805
804	IF RESPONDENT ALLOWS YOU TO SEE THE HEALTH RECORDS, TRANSCRIBE ALL THE ENTRIES. RECORD THE WEIGHTS AND THE DATES OF THE TWO MOST RECENT WEIGHTS FOR (NAME), THE DATE OF THE LAST MEDICAL NOTE AND TRANSCRIBE THE NOTE.		

	(1) COPY DATES OF TWO MOST RECENT WEIGHTS. DAY MONTH YEAR	(2) COPY TWO MOST RECENT WEIGHTS. WEIGHT IN KILOGRAMS
WEIGHT 1	1	1 ..... .
WEIGHT 2	2	2 ..... .
DATE OF LAST NOTE	3	

805	Was a death certificate issued for (NAME)? IF YES: May I see the death certificate, please?	YES SEEN ..... 1 YES NOT SEEN ..... 2 NO ..... 3 DON'T KNOW 8	→807

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
806	RECORD: a) The immediate cause of death _____ b) The first underlying cause of death _____ c) The second underlying cause of death _____ d) The third underlying cause of death _____ e) The contributing causes of death _____		
807	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:

EDITOR'S OBSERVATIONS

NAME OF THE EDITOR:_____ DATE: _____

SUPERVISOR'S OBSERVATIONS

NAME OF SUPERVISOR:_____ DATE:_____