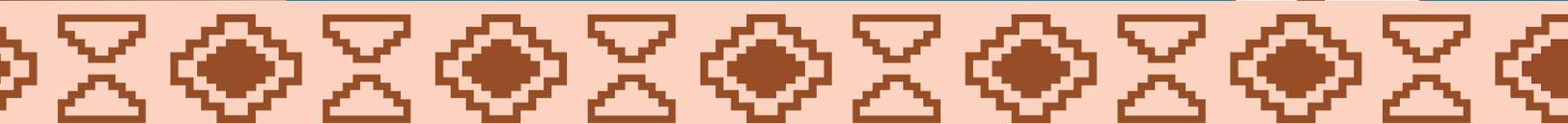


Nepal



**Demographic and
Health Survey**

2001

World Summit for Children Indicators, Nepal 2001

Childhood mortality	Infant mortality rate (per 1,000 live births)	64.4
	Under-five mortality rate (per 1,000 live births)	91.2
Childhood undernutrition	Percent stunted (children under 5 years)	50.5
	Percent wasted (children under 5 years)	9.6
	Percent underweight (children under 5 years)	48.3
Clean water supply	Percent of households within 15 minutes of safe water supply ¹	78.3
Sanitary excreta disposal	Percent of households with flush toilets, pit toilet/latrine	30.4
Basic education	Proportion of children reaching grade 5 ²	91.5
	Net primary-school attendance rate ²	73.0
	Proportion of children entering primary school ²	41.0
Family planning	Contraceptive prevalence rate (any method, currently married women)	39.3
Antenatal care	Percent of women who received antenatal care from a health professional ³	48.5
Delivery care	Percent of births in the 5 years preceding the survey attended by a health professional	12.9
Vitamin A supplements	Percent of children age 6-59 months who received a vitamin A dose in the 6 months preceding the survey	81.0
	Percent of women age 15-49 who received a vitamin A dose in the 2 months after delivery ³	10.3
Night blindness	Percent of women age 15-49 who suffered from night blindness during pregnancy ^{3,4}	19.6
Exclusive breastfeeding	Percent of children under 4 months who are exclusively breastfed	78.8
Continued breastfeeding	Percent of all children age 12-15 months still breastfeeding	98.1
	Percent of all children age 20-23 months still breastfeeding	87.3
Timely complementary feeding	Percent of children age 6-9 months receiving breast milk and complementary foods	66.2
Vaccinations	Percent of children age 12-23 months with BCG vaccination	84.5
	Percent of children age 12-23 months with at least 3 DPT vaccinations	72.1
	Percent of children age 12-23 months with at least 3 polio vaccinations	91.5
	Percent of children age 12-23 months with measles vaccination	70.6
	Percent of children whose mother received at least 2 tetanus toxoid vaccinations during pregnancy ³	45.3
Diarrhea control	Percent of children age 0-59 months with diarrhea in the 2 weeks preceding the survey who received oral rehydration salts (ORS)	32.2
Home management of diarrhea	Percent of children age 0-59 months with diarrhea in the 2 weeks preceding the interview who took more fluids than usual and continued eating somewhat less, the same, or more food	24.5
Acute respiratory infection	Percent of children age 0-59 months with acute respiratory infection (ARI) in the 2 weeks preceding the survey who were taken to a health provider	26.1
Home management of illness	Percent of children age 0-59 months with acute respiratory infection (ARI) in the 2 weeks preceding the survey who were taken to a health provider	22.6
HIV/AIDS	Percent of children age 0-59 months with diarrhea, fever, and/or ARI who were taken to a health provider	31.3
	Percent of women age 15-49 who correctly state two ways of avoiding HIV infection ⁵	41.2
	Percent of women age 15-49 who believe that AIDS can be transmitted from mother to child	

¹Piped water or protected well water

²Based on de jure children

³For the last live birth in the five years preceding the survey

⁴Includes women who report night blindness and difficulty with vision during the day

⁵Having sex with only one partner who has no other partners and using a condom every time they have sex

Nepal Demographic and Health Survey 2001

Family Health Division
Department of Health Services
Ministry of Health
His Majesty's Government
Kathmandu, Nepal

New ERA
Kathmandu, Nepal

ORC Macro
Calverton, Maryland USA

April 2002

Ministry of Health



New ERA



ORC Macro



The 2001 Nepal Demographic and Health Survey (NDHS) was implemented by New ERA under the aegis of the Family Health Division, Department of Health Services, Ministry of Health. ORC Macro provided technical assistance through its MEASURE *DHS+* program. The survey was funded by the U.S. Agency for International Development (USAID under the terms of Contract No. HRN-C-00-97-0019-00).

The 2001 Nepal Demographic and Health Survey is part of the worldwide Demographic and Health Surveys (DHS) program. Additional information about the 2001 NDHS may be obtained from the Family Health Division, Department of Health Services, Ministry of Health, P.O. Box 820, Teku, Kathmandu, Nepal (telephone: 262155; fax: 262238) and New ERA, Rudramati Marg, Kalopul, P.O. Box 722, Kathmandu, Nepal (telephone: 413603 or 423176; fax: 419562; email: info@newera.wlink.np). Information about the MEASURE *DHS+* project may be obtained from ORC Macro, 11785 Beltsville Drive, Suite 300, Calverton, MD 20705 (telephone: 301-572-0200; fax: 301-572-0999; email: reports@macroint.com; internet: www.measuredhs.com).

Suggested citation:

Ministry of Health [Nepal], New ERA, and ORC Macro. 2002. *Nepal Demographic and Health Survey 2001*. Calverton, Maryland, USA: Family Health Division, Ministry of Health; New ERA; and ORC Macro.

CONTENTS

	Page
Tables and Figures	vii
Foreword.....	xiii
Acknowledgments.....	xv
2001 NDHS Technical Advisory Committee	xvii
Contributors to the Report	xix
Summary of Findings.....	xxi
Map of Nepal	xxviii
CHAPTER 1 INTRODUCTION.....	1
1.1 Geography and Economy.....	1
1.2 Population	2
1.3 Population and Reproductive Health Policies and Programs	3
1.4 Objectives and Organization of 2001 NDHS Survey	5
CHAPTER 2 HOUSEHOLD POPULATION AND HOUSING CHARACTERISTICS.....	9
2.1 Age and Sex Composition of the Household Population.....	9
2.2 Household Composition.....	12
2.3 Education of Household Members.....	13
2.4 Housing Characteristics	19
CHAPTER 3 RESPONDENTS' CHARACTERISTICS AND STATUS	23
3.1 Background Characteristics of Respondents	23
3.2 Educational Attainment by Background Characteristics	25
3.3 Literacy	27
3.4 Exposure to Mass Media.....	30
3.5 Employment Status	33
3.6 Occupation	36
3.7 Type of Employment	39
3.8 Decision on Use of Earnings.....	41
3.9 Women's Empowerment and Status.....	44
3.10 Smoking and Alcohol Consumption.....	53

	Page
CHAPTER 4 FERTILITY	55
4.1 Current Fertility	55
4.2 Pregnancy Outcomes	59
4.3 Children Ever Born and Living.....	60
4.4 Birth Intervals	61
4.5 Age at First Birth	63
4.6 Adolescent Fertility.....	65
CHAPTER 5 FAMILY PLANNING	67
5.1 Knowledge of Contraceptive Methods	67
5.2 Ever Use of Contraception.....	68
5.3 Current Use of Contraception	69
5.4 Current Use of Contraception by Background Characteristics.....	71
5.5 Trends in Current Use of Family Planning	74
5.6 Current Use of Contraception by Women’s Status.....	76
5.7 Number of Children at First Use of Contraception.....	78
5.8 Knowledge of Fertile Period.....	78
5.9 Sterilization.....	79
5.10 Condom Use.....	82
5.11 Men’s Attitudes toward Contraception.....	82
5.12 Source of Contraception	85
5.13 Time Taken to Reach Source of Contraception.....	87
5.14 Informed Choice	88
5.15 Future Use of Contraception.....	90
5.16 Reasons for Nonuse of Contraception	91
5.17 Preferred Method of Contraception for Future Use.....	92
5.18 Exposure to Family Planning Messages	93
5.19 Exposure to Specific Radio Shows on Family Planning	95
5.20 Contact of Nonusers with Family Planning Providers.....	97
5.21 Discussion of Family Planning Between Spouses.....	99
CHAPTER 6 OTHER PROXIMATE DETERMINANTS OF FERTILITY	101
6.1 Current Marital Status.....	101
6.2 Polygyny	103
6.3 Age at First Marriage.....	105
6.4 Age at First Sexual Intercourse.....	105
6.5 Recent Sexual Activity	107
6.6 Postpartum Insusceptibility	110
6.7 Termination of Exposure to Pregnancy	113

	Page
CHAPTER 7 FERTILITY PREFERENCES	115
7.1 Desire for More Children.....	115
7.2 Desire to Limit Childbearing by Background Characteristics.....	117
7.3 Need for Family Planning Services	119
7.4 Ideal Family Size	121
7.5 Fertility Planning	123
CHAPTER 8 INFANT AND CHILD MORTALITY.....	127
8.1 Data Quality	127
8.2 Levels and Trends in Infant and Child Mortality.....	128
8.3 Socioeconomic Differentials in Mortality	130
8.4 Demographic Differentials in Mortality	132
8.5 Women’s Status and Child Mortality	134
8.6 Perinatal Mortality	134
8.7 High-Risk Fertility Behavior	136
CHAPTER 9 MATERNAL AND CHILD HEALTH	139
9.1 Antenatal Care	139
9.2 Delivery Care	147
9.3 Postnatal Care	153
9.4 Reproductive Health Care and Women’s Status.....	153
9.5 Vaccination of Children.....	155
9.6 Prevalence and Treatment of ARI and Fever.....	159
9.7 Diarrhea.....	161
9.8 Women’s Status and Use of Health Services.....	167
9.9 Women’s Perceptions of Problems in Accessing Health Care	168
9.10 Use of Smoking Tobacco	168
CHAPTER 10 INFANT FEEDING AND CHILDREN’S AND WOMEN’S NUTRITIONAL STATUS.....	171
10.1 Initiation of Breastfeeding	171
10.2 Breastfeeding Status by Age of the Child.....	173
10.3 Duration and Frequency of Breastfeeding	175
10.4 Types of Complementary Foods.....	177
10.5 Frequency of Food Supplementation	178
10.6 Micronutrient Intake	181
10.7 Nutritional Status of Children.....	185
10.8 Nutritional Status of Women	191

	Page
CHAPTER 11 KNOWLEDGE OF HIV/AIDS	195
11.1 Knowledge of HIV/AIDS	196
11.2 Knowledge of HIV/AIDS Prevention.....	196
11.3 Knowledge of HIV/AIDS-Related Issues.....	200
11.4 Spousal Communication about HIV/AIDS.....	200
11.5 Sexual Behavior	203
11.6 Knowledge and Use of Condoms	203
REFERENCES	209
APPENDIX A SAMPLE DESIGN.....	211
APPENDIX B SAMPLING ERRORS.....	221
APPENDIX C DATA QUALITY TABLES	229
APPENDIX D SURVEY STAFF	235
APPENDIX E QUESTIONNAIRES	239

TABLES AND FIGURES

	Page
CHAPTER 1 INTRODUCTION	
Table 1.1	Basic demographic indicators3
Table 1.2	Results of the household and individual interviews7
 CHAPTER 2 HOUSEHOLD POPULATION AND HOUSING CHARACTERISTICS	
Table 2.1	Household population by age, sex, and residence11
Table 2.2	Household composition12
Table 2.3.1	Educational attainment of household population: male.....14
Table 2.3.2	Educational attainment of household population: female.....15
Table 2.4	School attendance ratios17
Table 2.5	Grade repetition and dropout rates.....18
Table 2.6	Housing characteristics20
Table 2.7	Household durable goods.....21
Figure 2.1	Distribution of de facto household population by single year of age and sex10
Figure 2.2	Population pyramid, Nepal, 200112
Figure 2.3	Age-specific school attendance rates19
 CHAPTER 3 RESPONDENTS' CHARACTERISTICS AND STATUS	
Table 3.1	Background characteristics of respondents.....24
Table 3.2.1	Educational attainment of women25
Table 3.2.2	Educational attainment of men26
Table 3.3.1	Literacy of women28
Table 3.3.2	Literacy of men29
Table 3.4.1	Exposure to mass media: women.....31
Table 3.4.2	Exposure to mass media: men.....32
Table 3.5.1	Employment status: women.....34
Table 3.5.2	Employment status: men.....35
Table 3.6.1	Occupation: women37
Table 3.6.2	Occupation: men38
Table 3.7.1	Type of employment: women39
Table 3.7.2	Type of employment: men40
Table 3.8	Decision on use of earnings42
Table 3.9	Contribution of earnings to household expenditures43
Table 3.10	Women's control over earnings.....44
Table 3.11	Women's participation in decisionmaking45
Table 3.12	Women's participation in decisionmaking by background characteristics.....46
Table 3.13.1	Women's attitude toward wife beating48

	Page
Table 3.13.2	Men's attitude toward wife beating 49
Table 3.14.1	Women's attitude toward refusing sex with husband 51
Table 3.14.2	Men's attitude toward refusing sex with husband 52
Table 3.15	Smoking and alcohol consumption 54
Figure 3.1	Employment status of women age 15-49 36
Figure 3.2	Type of earnings of employed women age 15-49 40
Figure 3.3	Distribution of women by number of decisions in which they participate 47

CHAPTER 4 FERTILITY

Table 4.1	Current fertility 56
Table 4.2	Fertility by background characteristics 57
Table 4.3	Trends in fertility 58
Table 4.4	Trends in age-specific fertility rates 59
Table 4.5	Pregnancy outcome 60
Table 4.6	Children ever born and living 61
Table 4.7	Birth intervals 62
Table 4.8	Age at first birth 63
Table 4.9	Median age at first birth 64
Table 4.10	Teenage pregnancy and motherhood 65
Figure 4.1	Trends in total fertility rate 1984-2001 58

CHAPTER 5 FAMILY PLANNING

Table 5.1	Knowledge of contraceptive methods 68
Table 5.2	Ever use of contraception 69
Table 5.3	Current use of contraception 70
Table 5.4.1	Current use of contraception by background characteristics: women 72
Table 5.4.2	Current use of contraception by background characteristics: men 73
Table 5.5	Trends in current use of modern contraceptive methods 75
Table 5.6	Current use of contraception by women's status 77
Table 5.7	Number of children at first use of contraception 78
Table 5.8	Knowledge of fertile period 79
Table 5.9	Timing of female sterilization 80
Table 5.10	Sterilization regret 81
Table 5.11	Men's attitudes toward contraception and gender roles 83
Table 5.12	Men's attitudes toward injectables 84
Table 5.13	Men's attitudes toward female sterilization 85
Table 5.14	Source of contraception 86
Table 5.15	Time taken to reach source of contraception 87
Table 5.16	Informed choice 89
Table 5.17	Future use of contraception 90
Table 5.18	Reason for not intending to use contraception 91

	Page
Table 5.19	Preferred method of contraception for future use92
Table 5.20	Exposure to family planning messages.....94
Table 5.21	Exposure to specific radio shows on family planning96
Table 5.22	Contact of nonusers with family planning providers.....98
Table 5.23	Discussion of family planning with spouse99
Table 5.24	Decision on use of contraception.....100
Table 5.25	Wife’s perception of husband’s attitude toward family planning.....100
Figure 5.1	Trends in current use of modern contraceptive methods among currently married non-pregnant women age 15-49, Nepal, 1976-200176

CHAPTER 6 OTHER PROXIMATE DETERMINANTS OF FERTILITY

Table 6.1	Current marital status.....102
Table 6.2	Trends in proportion never married103
Table 6.3	Polygyny104
Table 6.4	Median age at marriage and median age at first sexual intercourse106
Table 6.5	Recent sexual activity: women108
Table 6.6	Recent sexual activity: men109
Table 6.7	Postpartum amenorrhea, abstinence and insusceptibility111
Table 6.8	Median duration of postpartum insusceptibility by background characteristics112
Table 6.9	Menopause113

CHAPTER 7 FERTILITY PREFERENCES

Table 7.1	Fertility preferences by number of living children116
Table 7.2	Desire for more children among monogamous couples117
Table 7.3	Desire to limit childbearing118
Table 7.4	Need for family planning.....120
Table 7.5	Ideal number of children.....122
Table 7.6	Mean ideal number of children by background characteristics123
Table 7.7	Fertility planning status.....124
Table 7.8	Wanted fertility rates.....125
Table 7.9	Ideal number of children and unmet need for family planning by women’s status...126

CHAPTER 8 INFANT AND CHILD MORTALITY

Table 8.1	Early childhood mortality rates.....129
Table 8.2	Trends in infant mortality129
Table 8.3	Early childhood mortality rates by socioeconomic characteristics.....131
Table 8.4	Early childhood mortality rates by demographic characteristics.....132
Table 8.5	Early childhood mortality rates by women’s status.....134
Table 8.6	Perinatal mortality.....136
Table 8.7	High-risk fertility behavior137

	Page
Figure 8.1	Trends in infant mortality, Nepal, 1969-2001130
Figure 8.2	Under-five mortality rates by place of residence131
Figure 8.3	Under-five mortality by selected demographic characteristics133

CHAPTER 9 MATERNAL AND CHILD HEALTH

Table 9.1	Antenatal care140
Table 9.2	Number of antenatal care visits and timing of first visit.....142
Table 9.3	Components of antenatal care144
Table 9.4	Tetanus toxoid injections146
Table 9.5	Place of delivery148
Table 9.6	Assistance during delivery150
Table 9.7	Use of clean home delivery kits.....151
Table 9.8	Delivery characteristics.....152
Table 9.9	Postnatal care by background characteristics154
Table 9.10	Reproductive health care by women's status.....155
Table 9.11	Vaccinations by source of information156
Table 9.12	Vaccinations by background characteristics158
Table 9.13	Prevalence and treatment of symptoms of ARI and fever160
Table 9.14	Disposal of child's stools162
Table 9.15	Prevalence of diarrhea.....163
Table 9.16	Knowledge of ORS packets164
Table 9.17	Diarrhea treatment165
Table 9.18	Feeding practices during diarrhea.....166
Table 9.19	Child health care by women's status167
Table 9.20	Problems in accessing health care.....169
Table 9.21	Use of smoking tobacco.....170
Figure 9.1	Antenatal care, tetanus toxoid (TT) vaccinations, place of delivery, and delivery assistance141
Figure 9.2	Percentage of children age 12-23 months who received specific vaccinations by 12 months of age, 1996 and 2001157

CHAPTER 10 INFANT FEEDING AND CHILDREN'S AND WOMEN'S NUTRITIONAL STATUS

Table 10.1	Initial breastfeeding172
Table 10.2	Breastfeeding status by age.....174
Table 10.3	Median duration and frequency of breastfeeding176
Table 10.4	Foods consumed by children in the day or night preceding the interview177
Table 10.5	Frequency of foods consumed by children in the day or night preceding the interview.....179
Table 10.6	Frequency of foods consumed by children in preceding seven days.....180
Table 10.7	Vitamin A intake among children.....182
Table 10.8	Vitamin A supplement.....184

	Page
Table 10.9	Micronutrient intake among mothers.....186
Table 10.10	Nutritional status of children188
Table 10.11	Trends in nutritional status of children191
Table 10.12	Nutritional status of women by background characteristics192
Figure 10.1	Number of meals consumed per day by children under 36 months living with the mother181
Figure 10.2	Nutritional status of children by age.....190

CHAPTER 11 KNOWLEDGE OF HIV/AIDS

Table 11.1	Knowledge of AIDS197
Table 11.2	Knowledge of ways to avoid HIV/AIDS198
Table 11.3	Knowledge of programmatically important ways to avoid HIV/AIDS199
Table 11.4	Knowledge of HIV/AIDS-related issues201
Table 11.5	Discussion of HIV/AIDS with spouse202
Table 11.6	Number of sexual partners204
Table 11.7	Knowledge of source of condoms, and access to condoms205
Table 11.8	Use of condoms by type of partner207

APPENDIX A SAMPLE DESIGN

Table A.1	Sample allocation.....213
Table A.2.1	Sample implementation: women.....218
Table A.2.2	Sample implementation: men219

APPENDIX B SAMPLING ERRORS

Table B.1	List of selected variables for sampling errors, Nepal 2001224
Table B.2	Sampling errors - Total sample, Nepal 2001225
Table B.3	Sampling errors - Urban sample, Nepal 2001226
Table B.4	Sampling errors - Rural sample, Nepal 2001227

APPENDIX C DATA QUALITY TABLES

Table C.1	Household age distribution229
Table C.2.1	Age distribution of eligible and interviewed women.....230
Table C.2.2	Age distribution of eligible and interviewed men.....230
Table C.3	Completeness of reporting231
Table C.4	Births by calendar years.....232
Table C.5	Reporting of age at death in days.....233
Table C.6	Reporting of age at death in months234

FOREWORD

Periodic demographic and health surveys have supplemented and complemented censuses. The Nepal Fertility Survey 1976 (a part of the World Fertility Survey) was the first nationally representative demographic and health survey conducted in Nepal. Since then, the Department of Health, Ministry of Health, has conducted several similar surveys at intervals of five years. The 2001 Nepal Demographic and Health Survey (NDHS) is the sixth such survey and the second survey conducted as part of the worldwide Demographic and Health Surveys (DHS) program. These types of surveys will continue to be the main sources of demographic estimates until the registration of all vital events are reported correctly and in a timely fashion.

The 2001 Nepal Demographic and Health Survey (NDHS) is the sixth in a series of demographic surveys. The 2001 NDHS was conducted under the aegis of the Family Health Division and was implemented by New ERA. Technical support was provided by ORC Macro, and financial support was provided by the United States Agency for International Development.

The 2001 NDHS included important areas such as maternal and child health; perinatal, neonatal, infant, and child mortality; knowledge of HIV/AIDS; family planning knowledge and use; fertility; fertility preference; marriage; abortion; amenorrhea; and status of women. This information is important in understanding the issues related to population and health and is at the same time instrumental to monitoring and evaluating population and health programs. The wealth of information obtained from the 2001 NDHS will also help in formulating short- and long-term plans. The government of Nepal is in the process of formulating the Tenth (five-year) Development Plan, and it should be of immense satisfaction to all that the information obtained from this survey is being used in the formulation of the plan.

It is immensely satisfying to acknowledge that the 2001 NDHS has been successfully completed on time despite the heightened security concerns when the survey was in the field. It is not only important to complete such surveys on time, but it is also important to ensure that the data is of good quality. It is assuring to note that every effort was made to obtain correct data and ensure its quality. I believe that the information obtained from this survey will help in the formulation of programs for family planning, safe motherhood, HIV/AIDS, and child health and survival for the Tenth Development Plan.

I deeply appreciate the United States Agency for International Development for providing the financial support for the 2001 NDHS and ORC Macro for providing valuable technical assistance. I express my gratitude to Dr. B. D. Chataut, my predecessor, for chairing the Technical Advisory Committee for the 2001 NDHS. I appreciate New ERA and its staff for supervising the fieldwork and data entry. My sincere thanks go to Mr. Ajit Pradhan, Senior Demographer and Member Secretary to the 2001 NDHS Technical Advisory Committee, and Mr. Bharat Ban, Executive Director, New ERA, for their dedication in the successful completion of the 2001 NDHS. Last but not least, I highly appreciate the technical input provided by the members of the 2001 NDHS Technical Advisory Committee.

Dr. Laxmi Raj Pathak
Director General
Department of Health Services
Ministry of Health
His Majesty's Government
Teku, Kathmandu, Nepal

ACKNOWLEDGMENTS

This study is the outcome of the dedicated efforts of many institutions and individuals. The 2001 Nepal Demographic and Health Survey (NDHS) was conducted under the aegis of the Family Health Division, Department of Health Services, Ministry of Health of His Majesty's Government of Nepal. The 2001 NDHS was funded by the United States Agency for International Development (USAID) through its mission in Nepal and was implemented by New ERA, a local research firm. ORC Macro provided technical support for the survey.

We would like to thank Ms. Anjushree Pradhan, Deputy Project Director; Dr. Gokarna Regmi, Technical Advisor; Mr. Matrika Chapagain, Research Officer; Mr. Muneshor Shrestha and Mr. Pushpa Basnet, research assistants; Ms. Sarita Vaidya and Mr. Rajendra Lal Singh, data processing staff; Mr. Sanu Raja Shakya, word processing staff; and other field and data entry staff of New ERA who made significant contributions to the successful completion of this study.

A number of persons from various institutions contributed to the preparation of this report. Their contribution is highly acknowledged.

Our sincere gratitude goes to all the members of the Technical Advisory Committee for the 2001 NDHS, for their time, support, and valuable feedback.

Our deep appreciation also goes to the USAID mission in Nepal. We would like to express our sincere gratitude to Ms. Rebecca Rohrer, Chief, Office of Health and Family Planning, and Mr. Terence Murphy, Reproductive Health Advisor, for their keen interest and active support throughout this survey. We also acknowledge the valuable inputs of Mr. Lyndon Brown, Technical Advisor for Child Health and Nutrition; Ms. Anne Peniston, Technical Advisor for Health and Family Planning; Ms. Cathy Thompson, Technical Advisor for HIV/AIDS; and Mrs. Pancha Kumari Manandhar, Family Planning Program Specialist.

The technical support provided by ORC Macro is highly acknowledged. Our special thanks go to Dr. Pav Govindasamy, the country manager for Nepal, for her effort and contribution throughout the survey. We also wish to thank Ms. Anne Cross, regional coordinator; Dr. Alfredo Aliaga, sampling expert; Mr. Guillermo Rojas, data processing specialist; and Ms. Livia Montana, geographic information specialist.

We greatly appreciate the support from various institutions in implementing the survey. We would especially like to thank the support provided by officials of the District Health Offices, District Administrative Offices, District Police Offices, Health Posts, Sub-health Posts, Village Development Committees, non-governmental organizations, and other individuals.

The survey was conducted in an extremely difficult field environment and our gratitude goes to the supervisors, field editors, interviewers, and members of the quality control teams whose dedicated efforts made completing the survey possible. We would also like to thank all the respondents for their time and patience during the interview. We believe that this study has truly captured the facts related to the demographic and health situation in Nepal. We also hope that this information will help in improving the quality of life of the Nepalese people.

Bharat Ban
Executive Director
New ERA

Ajit Pradhan
Senior Demographer
Family Health Division

2001 NDHS TECHNICAL ADVISORY COMMITTEE

Dr. Laxmi Raj Pathak, Director General, Department of Health Services, Ministry of Health
Dr. B. D. Chataut, former Director General, Department of Health Services, Ministry of Health
Mr. Ram Krishna Tiwari, Joint Secretary, National Planning Commission Secretariat
Dr. Bimala Ojha, former Director, National Center for AIDS and STD Control
Mr. Laxmi Raman Ban, former Director, National Health Education Information and
Communication Center
Dr. Ram Hari Aryal, Joint Secretary, Parliament Secretariat
Mr. Badri Niroula, Deputy Director, Central Bureau of Statistics
Representative, National Health Research Council
Dr. Ram Sharan Pathak, Associate Professor, Central Department of Population Studies, Tribhuvan
University
Mr. Terence Murphy, Reproductive Health Advisor, USAID/Nepal
Dr. Shyam Thapa, Senior Scientist, Family Health International
Mr. Tek Bahadur Dangi, Senior Public Health Administrator, Management Division, Ministry of
Health
Mr. Munishwor Mool, Senior Public Health Administrator, Management Division, Ministry of
Health
Dr. Son Lal Thapa, CDD/ARI Chief, Child Health Division, Ministry of Health
Mr. Upendra Adhikary, Under Secretary, Ministry of Population and Environment
Mr. Ajit Pradhan, Senior Demographer, Family Health Division, Ministry of Health
Mr. Bharat Ban, Executive Director, New ERA
Dr. Pav Govindasamy, Country Manager, ORC Macro

CONTRIBUTORS TO THE REPORT

The following persons contributed to the preparation of this report:

Mr. Munishwor Mool, Management Division, Ministry of Health

Mr. Ajit Pradhan, Family Health Division, Ministry of Health

Dr. Ram Sharan Pathak, Central Department of Population Studies, Tribhuvan University

Mr. Upendra Adhikary, Ministry of Population and Environment

Mr. Bharat Ban, New ERA

Dr. Gokarna Regmi, New ERA

Ms. Anjushree Pradhan, New ERA

Dr. Pav Govindasamy, ORC Macro

Dr. Alfredo Aliaga, ORC Macro

SUMMARY OF FINDINGS

The 2001 Nepal Demographic and Health Survey (NDHS) is a nationally representative survey of 8,726 women age 15-49 and 2,261 men age 15-59. This survey is the sixth in a series of national-level population and health surveys and the second comprehensive survey conducted as part of the global Demographic and Health Surveys (DHS) program, the first being the 1996 Nepal Family Health Survey (NFHS). The primary purpose of the NDHS is to generate recent and reliable information on fertility, family planning, infant and child mortality, maternal and child health, and nutrition. In addition, the survey collected information on knowledge of HIV/AIDS.

FERTILITY

Comparison of data from the 2001 NDHS with earlier surveys conducted in Nepal indicates that fertility has declined steadily from 5.1 births per woman in 1984-1986 to 4.1 births per woman in 1998-2000. Further evidence of recent fertility decline is obtained from the pregnancy history information collected in the 2001 NDHS. There has been an 18 percent decline in fertility among women below age 30, from 3.6 births per woman during the period 15-19 years before the survey to 2.9 births per woman during the period 0-4 years before the survey, with the largest decline in fertility (14 percent) occurring between 5-9 and 0-4 years before the survey. Differences by place of residence are marked, with rural women having more than twice as many children (4.4) as urban women (2.1). Fertility is highest in the mountains (4.8 births per woman), with little difference in fertility between the hills (4.0 births per woman) and the *terai* (4.1 births per woman). Education is strongly related to fertility, with uneducated women having more than twice as many children (4.8) as women with at least some secondary education (2.3).

Data from the national censuses and the 2001 NDHS indicate that the proportion never married among women and men below age 25 has increased gradually over time. Only one in four

women age 15-19 was not married in 1961, compared with three in five women in 2001. Similarly in 1961, 5 percent of women age 20-24 had never married, compared with more than three times as many in the same age group five decades later. A similar pattern of decline in nuptiality is observed among men as well, with a proportionately larger change again observed among the youngest age group.

These trends result in a small but noticeable increase in age at marriage. The median age at marriage has risen slowly over the last two decades, from 16.1 years for women age 45-49 to 16.8 years among women age 20-24. Data also show a small change in the median age at marriage among males, with men marrying about three years later than women.

Overall, the median age at first sexual intercourse among Nepalese women in the reproductive age group is nearly identical to their median age at first marriage, implying that women's first sexual experience usually occurs within the context of marriage. However, there is little difference in the median age at first sexual intercourse among women by age, implying that there has been little change in the median age at first sexual intercourse over the years. Women generally have their first sexual experience two years earlier than men. However, men tend to initiate sex about one year before marriage.

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 last two decades. At least 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 2 percent among women age 15 to 41 percent among women age 19.

The interval between births is long in Nepal. Half of all births in Nepal occur within just under three years (32 months) of a previous birth. The median birth interval did not change over the last five years. The long period of breastfeeding in Nepal (32 months) and the corresponding relatively long period of postpartum amenorrhea (11 months) are factors contributing to the long birth interval.

The mean ideal number of children among ever-married women declined only slightly from 2.9 in 1996 to 2.6 in 2001. Nevertheless, women in Nepal continue to revise downward the number of children they would like to have. Sixty-six percent of currently married women either want no more children or have been sterilized according to the 2001 NDHS, compared with 59 percent found in the 1996 NFHS. If all unwanted births were prevented, the total fertility rate would fall to 2.5 births per woman.

As in the 1996 NFHS, the 2001 NDHS gathered complete pregnancy histories from women and hence provides information on pregnancy outcomes. Eight percent of all pregnancies that occurred in the ten years preceding the survey did not end in a live birth, with pregnancy losses highest among women age 40-44 (13 percent) and slightly higher among urban women (9 percent) than among rural women (8 percent).

FAMILY PLANNING

Findings from the 2001 NDHS show that knowledge of family planning is nearly universal among Nepalese women and men. Knowledge of modern methods is generally much higher than knowledge of traditional methods, with women and men being most familiar with female and male sterilization. The mass media are important sources of information on family planning. Three in five women and seven in ten men have heard or seen messages about family planning on the radio, on television, or in print media. The majority of couples approve of family planning. Discussion of family planning between spouses continues to be relatively uncommon, with only two in five women and one in two men who know of a contraceptive

method having discussed family planning with their spouse in the year before the survey.

The contraceptive prevalence rate among currently married Nepalese women is 39 percent. There has been an impressive increase in the use of contraception in Nepal over the last 25 years, with the increase in current use highest in the most recent five-year period— a 35 percent increase between 1996 and 2001. During this period, the use of modern methods increased from 26 percent to 35 percent among currently married women, with the increase largely attributed to the increase in the use of injectables and female sterilization. There has been a twofold increase in the share of temporary methods over all modern methods in the last decade and a decline in the share of permanent methods overall. Nevertheless, there continues to be a marked discrepancy between ever use of contraception and current use. One in two currently married women has ever used a modern method of family planning, compared with only one in three who is currently using. Similarly, three-fifths of currently married men have ever used a modern method compared with slightly more than two-fifths who are current users.

The most widely used modern method is female sterilization (15 percent among currently married women), followed by injectables (8 percent) and male sterilization (6 percent). Currently married men report a higher use of contraceptives with the largest male/female discrepancy in the use of condoms, with twice as many currently married men as currently married women reporting using condoms (6 percent versus 3 percent). Men also report a much higher use of female sterilization (17 percent) and injectables (10 percent).

The government sector supplies four in five female current users, with more than one in four users obtaining their method from government hospitals and clinics and another one in four from mobile camps (serving sterilization users alone). Fourteen percent of female users obtain their method from sub-health posts. The most important nongovernment supplier of contraceptives is the Family Planning Association of Nepal (FPAN), which serves 5 percent of users, while the private medical sector supplies contraceptives to 7 percent of users, most of whom (6

percent) obtain their supplies from pharmacies. Among the three main sectors serving users, the private medical sector is the most sensitive to client needs. Two-thirds of women who obtained their method for the first time from the private medical sector were informed about side effects or problems of the method used, 56 percent were informed about what to do if they experienced side effects, and one in two were informed of other methods that could be used. The government sector is the least responsive to client needs, with only about one in three women being adequately informed.

The two most important reasons for not intending to use contraception in the future among currently married women are subfecundity/infecundity and fear of side effects, with more than one in four women and one in five women, respectively, citing these reasons. One in ten women also cites religious opposition as an important reason for nonuse in the future. More than one in two currently married men do not intend to use a method in the future because of their wife's menopause or hysterectomy, one in ten cites religious opposition, and 6 percent cite 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-eight percent of currently married women in Nepal have an unmet need for family planning services, of whom 11 percent have a need for spacing and 16 percent have a need for limiting. At the same time, among women currently using a method, 36 percent are using for limiting and 4 percent are using for spacing. Taken together, two in three Nepalese women have a demand for family planning. However, only three-fifths 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 39 percent to 67 percent.

CHILD HEALTH

One in every 11 children born in Nepal dies before reaching age five. Slightly more than two in three under-five deaths occur in the first year of

life— infant mortality is 64 deaths per 1,000 live births, and child mortality is 29 deaths per 1,000 live births. During infancy, the risk of neonatal deaths (39 per 1,000) is one and a half times as high as the risk of postneonatal death (26 per 1,000). According to data collected in the 2001 NDHS, mortality levels have declined rapidly since the early 1980s. Under-five mortality in the five years before the survey is 58 percent of what it was 10-14 years before the survey. Comparable data for child mortality (50 percent) and infant mortality (60 percent) indicate that the pace of decline is somewhat faster for child mortality than for infant mortality. The corresponding figures for neonatal and postneonatal mortality are 61 percent and 58 percent, respectively. This decline in childhood mortality levels is confirmed by data from other sources.

Sixty percent of children are fully vaccinated by 12 months of age, 83 percent have received the BCG vaccination, and 64 percent have been vaccinated against measles. Coverage for the first dose of DPT is 83 percent, but this drops to 77 percent for the second dose and further to 71 percent for the third dose. Polio coverage is much higher at 97 percent for the first dose, 96 percent for the second dose, and 90 percent for the third dose. The percentage of children age 12-23 months fully immunized by age one has increased in the last five years by 67 percent. The corresponding increases in the third dose of DPT and polio are 39 percent and 87 percent, respectively, while BCG coverage increased by 13 percent and measles vaccination increased by 41 percent. The much higher increase in polio coverage was primarily due to the success of the intensive national immunization day campaigns and other polio eradication activities.

The prevalence of symptoms of acute respiratory infection (ARI) among children under five years of age in the two weeks before the survey was 23 percent, while 32 percent of children below age five had a fever in the preceding two weeks. Use of a health facility for the treatment of symptoms of ARI and/or fever is low, with less than one in four children taken to a health facility.

One in five children suffered from diarrhea at some time in the two weeks before the survey. Among these children, only one in five was taken to a health facility for treatment. Nearly one in two children received oral rehydration therapy, with 32 percent treated with oral rehydration salts and 27 percent receiving increased fluids. Nevertheless, more than one-third of children with diarrhea were not given any treatment at all.

MATERNAL HEALTH

One in two pregnant women receives antenatal care in Nepal, with 28 percent receiving care from a doctor or nurse, midwife, or auxiliary nurse midwife. In addition, 11 percent of women receive antenatal care from a health assistant or auxiliary health worker, 3 percent receive care from a maternal and child health worker, and 6 percent receive care from a village health worker. Most Nepalese women who receive antenatal care get it at a relatively late stage in their pregnancy and do not make the minimum recommended number of antenatal visits. Only one in seven women (14 percent) makes four or more visits during their entire pregnancy, while 16 percent of women report that their first visit occurred at less than four months of pregnancy. About half of mothers who receive antenatal care report that they were informed about the signs of pregnancy complications, while three in five women report that their blood pressure was measured as part of their routine antenatal care checkup. Forty-five percent of women receive two or more doses of tetanus toxoid injections during their most recent pregnancy.

Institutional deliveries are not common in Nepal. Less than one in ten births in the five years preceding the survey took place in a health facility. Thirteen percent of births were attended at delivery by a medical professional, with only 8 percent of births attended by a doctor and 3 percent attended by a nurse, midwife, or auxiliary nurse midwife. Nearly one in four births was attended by a traditional birth attendant. Safe delivery kits were used in 9 percent of births delivered at home.

Postnatal care, an important component of maternity care, is crucial for monitoring and treating complications within the first two days after delivery. Only 17 percent of mothers receive postnatal care within the first two days after delivery. Even more troubling is that nearly four in five mothers did not receive postnatal care at all.

BREASTFEEDING AND NUTRITION

Breastfeeding is nearly universal in Nepal, and the median duration of breastfeeding is long (34 months). Nearly one in three children is breastfed within one hour of birth, while two out of three babies are breastfed within one day of birth. This is an improvement over the last five years. However, contrary to the World Health Organization's recommendation, only two-thirds of children less than six months of age are exclusively breastfed. The use of a bottle with a nipple is relatively rare in Nepal, with only 4 percent of children under six months of age and 2 percent of children 6-9 months of age given something to drink from a bottle.

Micronutrient deficiency is an important cause of childhood morbidity and mortality. Information gathered in the 2001 NDHS shows that four in five children age 6-59 months received vitamin A supplementation in the most recent distribution. However, slightly more than one in three children under three years of age consumed fruits and vegetables rich in vitamin A at least once in the seven days preceding the survey.

Undernutrition is significant in Nepal, with one in two Nepalese children under five years of age stunted (short for their age), 10 percent wasted (thin for their age), and 48 percent underweight. A comparison of the 2001 NDHS data with other data on the nutritional status of children collected in previous years shows that there has been little improvement in the nutritional status of children over the last decade.

The 2001 NDHS also collected information on mother's nutritional status. Survey results show that the level of chronic energy deficiency in Nepal is relatively high. One in four women

(27 percent) falls below the 18.5 cutoff for the body mass index (BMI), which utilizes both height and weight to measure thinness. One in seven women is shorter than 145 centimeters and can be considered to be at nutritional risk. Overall, 10 percent of recent mothers received vitamin A postpartum, while 8 percent of women reported night blindness during their last pregnancy. Three in four women who gave birth in the five years preceding the survey reported not having taken iron/folic acid tablets during their pregnancy, and another 14 percent reported taking these tablets for less than 60 days during their pregnancy.

HIV/AIDS

Only one in two women (50 percent), compared with nearly three in four men (72 percent), has heard of AIDS. At the same time, 38 percent of women and 67 percent of men believe there is a way to avoid HIV/AIDS. The depth of women's knowledge of HIV/AIDS is also much lower than that of men. One in three women and one in two men know of two or more programmatically important ways to avoid HIV/AIDS. About one in three women mentioned use of condoms and limiting the number of sexual partners as specific ways to avoid HIV/AIDS, compared with 63 percent and 54 percent of men, respectively. In addition, about two-fifths of women and three-fifths of men say a healthy-looking person can have AIDS and that HIV/AIDS can be transmitted from a mother to her child. Fourteen percent of women and 23 percent of men have discussed HIV/AIDS with their spouse.

An important component of AIDS prevention programs is the promotion of safe sex. The NDHS sought to determine the proportion of men who had sexual relationship with women other than their wife. The data show that the overwhelming majority of married Nepalese men (98 percent) did not have sex with anyone else other than their wife in the 12 months preceding the survey. Knowledge of condoms is important information from the program's perspective. Although 70 percent of currently married women know where to obtain condoms, only half of them could get condoms by them-

selves. Eighty-four percent of currently married men know of a source of condoms. Condom use is much less common with a spouse than with a noncohabiting partner. Only 6 percent of men have used a condom with a spouse, compared with 45 percent of men who have used a condom with a noncohabiting partner.

WOMEN'S STATUS

The 2001 NDHS also sheds some light on the status of women in Nepal. Only 4 percent of currently married women are in a polygynous union, with older women more likely to have cowives than younger women. However, polygyny appears to have been on the decline over the last five years, falling from 6 percent in 1996.

Women in Nepal are generally less educated than men, with a median of less than 1 year of schooling, compared with 1.4 years among males. This gap in gender has not narrowed in recent years. The net attendance ratio, which indicates participation in primary schooling among those age 6-10 years and secondary schooling among those age 11-15 years, shows a 13 percentage point difference at the primary-school level and an 8 percentage point difference at the secondary-school level.

Female employment is high in Nepal, with more than four-fifths of women employed at the time of the survey. The more educated a woman, the less likely she is to be currently employed. Most working women (91 percent), however, are in the agricultural sector. Only 15 percent of working women earn cash for their work, while the majority of working women (71 percent) are not paid. One-third of working women are self-employed. Four-fifths of women (79 percent) enjoy a degree of autonomy in spending their cash earnings, while more than one-fifth of working women have no say in how their earnings should be used. Fifty-four percent of women contribute to half or more of the household expenditures.

With the exception of what food to cook, husbands in Nepal have a greater say in decision-making than wives. One in two currently mar-

ried women stated that their husband alone has a final say in their health care, two in five women stated that their husband makes the sole decision on the purchase of large household items, while one in three stated that they needed their husband's permission to visit family or relatives and to make daily household purchases. Twenty-nine percent of ever-married women believe that a husband is justified in beating his wife for at least one reason. One in four agrees that wife beating is justified if a woman neglects her children, and 12 percent

agree that a husband is justified in beating his wife if she goes out without telling him. Nevertheless, less than 10 percent of women feel that a husband is justified in beating his wife if she refuses to have sex with him, burns the food, or argues with him. An overwhelming majority of Nepalese women (90 percent) agree that a woman can refuse sex with her husband if she knows that he has a sexually transmitted disease, if he has sex with other women, if she has recently given birth, or if she is not in the mood.

NEPAL



INTRODUCTION

1.1 GEOGRAPHY AND ECONOMY

GEOGRAPHY

Nepal is a landlocked country nestled in the foothills of the Himalayas. It occupies an area from 26°22' to 30°27' north latitude and 80°4' to 88°12' east longitude (Central Bureau of Statistics, 2001b). It shares its northern border with the Tibetan Autonomous Region of the People's Republic of China and its eastern, southern, and western borders with India.

Nepal is rectangular in shape and averages 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 and its population, according to the 2001 Census preliminary report, is approximately 23.2 million. Nepal is predominantly rural with only about 14 percent of the population living in urban areas (Central Bureau of Statistics, 2001a).

Topographically, Nepal is divided into three distinct ecological zones. These are the mountains, hills, and *terai* (or plains). The mountain zone 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 limited and only about 7 percent of the total population lives there. 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 of Nepal lives in the hill zone, which covers an area of 61,345 square kilometers. This zone also includes a number of fertile valleys such as the Kathmandu and Pokhara valleys. Although the terrain is also rugged in this zone, because of the higher concentration of people, transportation and communication facilities are much more developed there than in the mountains. Unlike the mountain and hill zones, the *terai* zone in the southern part of the country can be regarded as an extension of the relatively flat Gangetic plains. This area, which covers 34,019 square kilometers, is the most fertile part of the country. Although it constitutes only about 23 percent of the total land area in Nepal, 49 percent of the population lives there. 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.

In Nepal, climatic conditions vary substantially by altitude. In the *terai*, temperatures can go up to 44°Celsius in the summer and fall to 5°Celsius in the winter. The corresponding temperatures for the hill and mountain areas are 41°Celsius and 30°Celsius, respectively, in the summer, and 3°Celsius and far below 0°Celsius, respectively, in the winter. The annual mean rainfall in the kingdom is about 1,500 millimeters (Central Bureau of Statistics, 1996).

For administrative purposes, Nepal has been divided into five development regions, 14 zones, and 75 districts. Districts are further divided into village development committees (VDCs) and sometimes into urban municipalities. A VDC consists of nine wards, while the number of wards in an urban municipality depends on the size of the population as well as on political decisions made by the municipality itself. At present, there are 3,914 VDCs and 58 municipalities in Nepal.

Nepal is a multiethnic and multilingual society. The 1991 Census identified 60 caste or ethnic groups and subgroups of the population. Some of the major groups consist of the following percentages of the population: Chetri and Thakuri (18 percent), Brahmins (14 percent), Magar (7 percent), Tharu and Rajbanshi (7 percent), Newar (6 percent), Tamang (6 percent), Kami—a major occupational group that originated in the hills (5 percent), Yadav and Ahirs (4 percent), Muslims (4 percent), Rai and Kiranti (3 percent), and Gurung (2 percent) (Central Bureau of Statistics, 1995).¹

The 1991 Census of Nepal lists 20 different languages or dialects prevalent in the country (Central Bureau of Statistics, 1995). These languages originated from two major groups: the Indo-Aryans, who constitute about 80 percent of the population, and the Tibetan-Burmese, who constitute about 17 percent of the population. Nepali is the official language of the country and is the mother tongue of more than 50 percent of the population. However, it is used and understood by most of the population and is the national language of Nepal. The other two major languages are Maithili and Bhojpuri, spoken by about 8 percent and 5 percent of the population, respectively.

Nepal is a Hindu kingdom with more than 86 percent of its population following the Hindu religion. The second largest religious group is Buddhists (8 percent), and Muslims constitute about 4 percent of the total population (Central Bureau of Statistics, 1995).

ECONOMY

The estimated per capita gross domestic product (GDP) for the year 1999/2000 is US \$244 (Central Bureau of Statistics, 2001b). About 80 percent of the Nepalese population continues to rely on agriculture for their livelihood. The recent Human Development Indicators (HDI) report from the United Nations Development Program (UNDP) shows marginal growth in agricultural productivity in the country. This is predominantly due to fragmentation of land, poor access to technology, and poor rural accessibility (UNDP, 2001). On the other hand, growth in the nonagricultural sector, which is largely driven by growth in the urban service sector, is notable. Therefore, Nepal's overall economic growth is mainly due to growth in the nonagricultural sector, which now contributes about 60 percent of the GDP, compared with 40 percent 15-20 years ago (UNDP, 2001). Because of variations in the climatic and rainfall conditions, agricultural production varies by ecological zones. In the *terai*, rice is the main crop, followed by wheat and corn. In the hills, the major crops are corn and rice, followed by wheat, and in the mountains, corn, rice, and wheat are grown (Central Bureau of Statistics, 1995). Forty-eight percent of the GDP comes from the service sector, and the agricultural sector accounts for 42 percent of the GDP. The manufacturing sector accounts for 10 percent of the economy (Ministry of Finance, 1996).

1.2 POPULATION

Table 1.1 provides a summary of the basic demographic indicators for Nepal from census data for 1971, 1981, 1991, and 2001. The population has doubled in 30 years. The population growth rate increased from 2.1 in 1971 to 2.6 in 1981, then declined to 2.1 in 1991 (Central Bureau of Statistics, 1995) and increased to 2.3 in 2001 (Central Bureau of Statistics, 2001a). The population

¹ More recent information from the 2001 Population Census is not available at the time of publication of this report. The distribution of the population by ethnicity and religion is not expected to differ much from the findings in the 1991 Population Census.

density has doubled over three decades from 79 persons per square kilometer in 1971 to 158 persons per square kilometer in 2001. Nepal is predominantly rural; nevertheless, the urban proportion has increased steadily over the last 30 years, from 4 percent in 1971 to 14 percent in 2001. The life expectancy in Nepal is improving, increasing by about 13 years for males and females between 1971 and 1991. Male life expectancy is slightly higher than female life expectancy.

Table 1.1 Basic demographic indicators				
Selected demographic indicators for Nepal, 1971-2001				
Indicator	1971 Census ^a	1981 Census ^a	1991 Census ^a	2001 Census ^b
Population (millions)	11.6	15.0	18.5	23.2
Intercensal growth rate (percent)	2.1	2.6	2.1	2.3
Density (pop./km ²)	79	102	126	158
Percent urban	4.0	6.4	9.2	14.2
Life expectancy				
Male	42.0	50.9	55.0	u
Female	40.0	48.1	53.5	u

u = Unknown (not available)
^a Central Bureau of Statistics, 1995
^b Central Bureau of Statistics, 2001a

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 Five-Year Development Plan (1965-1970). This is when the Nepal Family Planning and Maternal and Child Health Project (FP/MCH) under the Ministry of Health was launched in the government sector. Until then, family planning activities were undertaken by the Family Planning Association of Nepal (FPAN), which was established in 1959 to create awareness among the people about the need and importance of family planning. Very little was done to directly regulate population growth until 1965 when a family planning project was established under the maternal and child health section of the Ministry of Health. Limited family planning services were offered through the existing maternal and child health clinics.

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 Five-Year Development Plan (1975-1980) onward, 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. In 1978, this board was upgraded to become the National Commission on Population (NCP). It was further reorganized under the chairmanship of the prime minister and maintained its own secretariat to plan, monitor, and coordinate population activities both at the government and private-sector levels.

Subsequent development plans dealt with the population issue from both a policy and programmatic point of view. From the Fifth Plan until the end of the Seventh Plan (1985-1990), population policies and programs not only emphasized family planning issues in the short term 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 is viewed as the reflection of a strong government commitment to population programs. The ministry is primarily responsible for formulating and implementing population policies, plans, and programs and for monitoring and evaluating those programs. This ministry, along with the Ministry of Health, is also responsible for implementing programs of action recommended by the International Conference on Population and Development (ICPD). The implementation of health-related population programs in reproductive health such as family planning, safe motherhood, adolescent reproductive health, sexually transmitted diseases (STDs), and infertility nevertheless falls under the purview of the Ministry of Health. In 1996, the government established a National Population Committee composed 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 (1992-1997) continued with the integrated development approach taken in earlier development plans. The Eighth Plan emphasized the family planning and maternal and child health program, the main objectives of which were to control the growth of the population in a planned way and to improve the standard of living of people by minimizing the possible adverse effects of population growth on the economic and social development of the country (Ministry of Population and Environment, 1998).

The Ninth Development Plan (1997-2002) was developed with a vision for a 20-year, long-term plan. Poverty alleviation is the main thrust of the Ninth Plan. Major strategies adopted by the plan include 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 immediate objectives of the Ninth Plan are to attract couples to adopt a two-child family norm, to implement various programs to lower the fertility rate to replacement level, and to make high-quality family planning and maternal and child health services easily available and accessible. In agreement with the goals stated in Cairo by the ICPD and in Beijing by the Women's Conference, the Ninth Plan has adopted a policy of improving the quality of services. The current plan is geared toward creating demand for FP/MCH services, safer motherhood, postnatal and antenatal care, client satisfaction, and increased male responsibility for reproductive health. It is also focused on the involvement of nongovernmental organizations and community-based organizations in the promotion of high-quality and effective services (Ministry of Population and Environment, 1998).

FAMILY PLANNING PROGRAMS

Family planning services in Nepal were started by the FPAN in 1959. Initially, its services were limited to the Kathmandu valley. The pioneering work of the FPAN led to the establishment of the semiautonomous Nepal Family Planning and Maternal and Child Health Project (NFP & MCH 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 family planning methods (condoms, the pill, and injectables) are provided on a regular basis through national, regional, zonal, and district hospitals, primary health care centers or health centers, health posts, sub-health posts and peripheral health workers, and volunteers. Services such as Norplant implants and IUD insertions are only available at a limited number of hospitals, health centers, and selected health posts where trained manpower is available. Depending on the district, sterilization services are provided at static sites (21 districts) through scheduled “seasonal” or mobile outreach services.

At the central level, the Family Health Division in the Department of Health Services is responsible for planning, supervising, and implementing family planning activities. The National Health Training and Regional Training Centers are responsible for training fieldworkers for reproductive health services. Information, education, and communication (IEC) activities on reproductive health are carried out by the National Health Education, Information, and Communication Center in the Department of Health Services and by the IEC section of MOPE.

Besides government programs, a number of nongovernmental organizations (NGOs) are also involved in the delivery of family planning services at the grass-roots level. These include FPAN, the Contraceptive Retail Sales (CRS) Company, the Nepal Red Cross Society, Save the Children Fund (UK and USA), the Adventist Development Relief Agency (ADRA), Marie Stopes International (MSI), the United Mission to Nepal (UMN), the Nepal Fertility Care Center (NFCC), the Center for Development and Population Activities (CEDPA), the Asia Foundation (TAF), and CARE.

Among these NGOs, FPAN, NFCC, MSI, UMN, and ADRA deliver the most sterilization services, while CEDPA, TAF, CRS, Save the Children, and CARE deliver a significant number of services for temporary methods and referrals for sterilization. These NGOs are located throughout the country, serving the most densely populated districts as well as some of the most remote areas of Nepal.

In addition to service delivery, NGOs like World Education, Inc., are involved in behavior change communication programs including IEC and adult literacy classes with a focus on family planning. Although the number of users of family planning who receive services from NGOs are modest compared with those served by the public sector, they complement the Ministry of Health’s ongoing efforts to expand the availability of family planning methods.

1.4 OBJECTIVES AND ORGANIZATION OF 2001 NDHS SURVEY

The main objective of the 2001 Nepal Demographic and Health Survey (NDHS) is to generate reliable information on fertility; child mortality; knowledge of, use of, and demand for contraception; utilization of maternal and child health services; nutrition; and knowledge of HIV/AIDS. This information is useful for policy formulation, planning, monitoring, and evaluation of programs both

at the national and regional levels. The 2001 NDHS is the sixth in a series of national-level population and health surveys. It is the second nationally representative, comprehensive survey conducted as part of the global Demographic and Health Survey (DHS) program, the first being the 1996 Nepal Family Health Survey (NFHS). The 2001 NDHS data are comparable to data collected in DHS surveys in other developing countries. The survey collected demographic and health information from a nationally representative sample of ever-married women and men in the reproductive age groups of 15-49 and 15-59, respectively, and provides updated information at the national, regional, and subregional levels, as well as for urban and rural areas separately. The 2001 NDHS is the first in the history of demographic and health surveys conducted in Nepal that included a male sample.

The 2001 NDHS was carried out under the aegis of the Family Health Division of the Department of Health Services, Ministry of Health, and was implemented by New ERA, a local research organization, which also conducted the 1996 NFHS. ORC Macro provided technical support through its MEASURE *DHS+* Project. The survey was funded by the U.S. Agency for International Development (USAID) through its mission in Nepal.

A total of 257 enumeration areas (EAs)∞ 215 in the rural areas and 42 in the urban areas∞ were selected using probability proportional to size. Of the total rural clusters sampled, six could not be covered due to security concerns, reducing the total number of EAs to 251. A complete household listing operation of the sampled clusters was conducted before the main survey from which individual households were selected.

Three types of questionnaires were used to gather demographic and health data: the Household Questionnaire, the Women's Questionnaire, and the Men's Questionnaire. The content and design of the questionnaires were based on the MEASURE *DHS+* Model B Questionnaire. The English questionnaires were circulated among the various organizations for feedback and later translated into the three main local languages∞ Nepali (the national language), Maithali, and Bhojpuri. They were finalized after pretesting. A four-week training course was organized for field supervisors, interviewers, field data editors, quality control teams, and data processing staff on various aspects of the survey such as questionnaire content, interviewing techniques, field procedures, and monitoring of data quality. Data were collected by 11 teams, each team comprising a field supervisor, three female interviewers, a male interviewer, and a data editor. Data quality was monitored through constant field supervision and from the results of field check tables that were produced periodically from data entered onto computers.

The fieldwork was conducted from the fourth week of January to the end of June 2001. Of the total 8,864 households selected, 8,634 were found to be valid, occupied households and 8,602 households were successfully interviewed, giving a response rate of nearly 100 percent (Table 1.2). From these households, 8,885 eligible women (ever-married women age 15-49) were identified and 8,726 were successfully interviewed yielding a response rate of 98 percent. Every third household was selected for the male survey, and from these households, 2,353 eligible men (ever-married men age 15-59) were identified. Of these, 2,261 men were successfully interviewed, yielding a response rate of 96 percent. Survey operational procedures and sample design are discussed in greater detail in Appendix A.

Table 1.2 Results of the household and individual interviews			
Number of households, number of interviews, and response rates, according to residence, Nepal 2001			
Result	Residence		Total
	Urban	Rural	
Household interviews			
Households selected	1,271	7,593	8,864
Households occupied	1,223	7,411	8,634
Households interviewed	1,218	7,384	8,602
Household response rate	99.6	99.6	99.6
Interviews with women			
Number of eligible women	1,191	7,694	8,885
Number of eligible women interviewed	1,154	7,572	8,726
Eligible woman response rate	96.9	98.4	98.2
Interviews with men			
Number of eligible men	329	2,024	2,353
Number of eligible men interviewed	304	1,957	2,261
Eligible man response rate	92.4	96.7	96.1

This chapter provides a summary of the demographic and socioeconomic characteristics of the household population in the 2001 Nepal Demographic Health Survey (NDHS). It provides valuable input for social and economic development planning and is also useful in understanding and identifying the major factors that determine or influence the basic demographic indicators of the population. In this chapter, the 2001 NDHS data have, in some instances, been compared with data from the 1991 and 2001 Censuses and the 1996 Nepal Family Health Survey (NFHS).

The 2001 NDHS collected information about all usual residents of a selected household (the *de jure* population) and persons who had slept in the selected household the night before the interview (the *de facto* population). The difference between these two populations is very small, and since past surveys have looked at the *de facto* population, for comparison purposes, all tables in this report refer to the *de facto* population, unless otherwise specified. A household is defined as a person or group of persons who live and eat together.

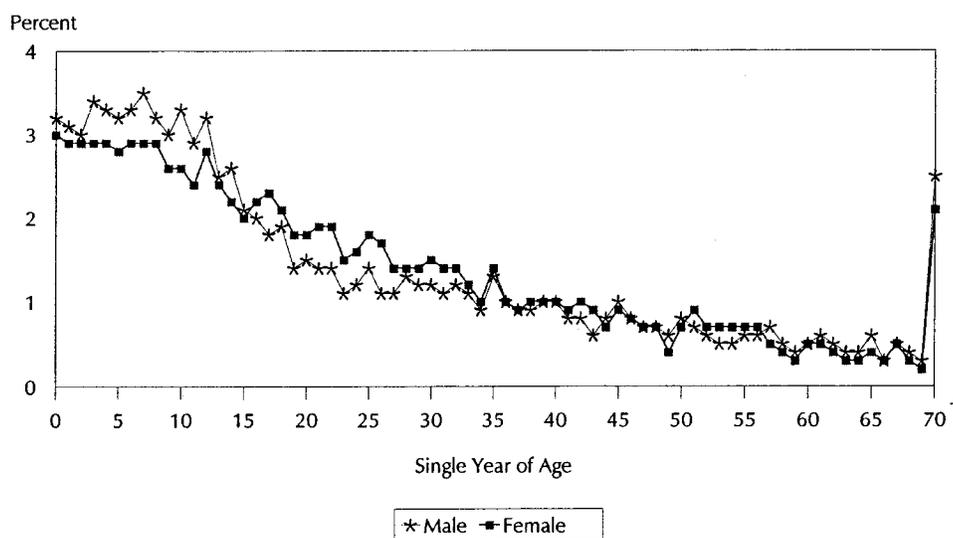
2.1 AGE AND SEX COMPOSITION OF THE HOUSEHOLD POPULATION

Age and sex are important demographic variables and are the primary basis of demographic classification in vital statistics, censuses, and surveys. They are also important variables in the study of mortality, fertility, and nuptiality. In general, a cross-classification with sex is useful for the effective analysis of all forms of data obtained in surveys.

In most developing countries, age is of little significance to the majority of the population and especially to those living in rural areas. Because it is well documented that in Nepal ages are poorly reported, considerable emphasis was placed during interviewer training on obtaining accurate age information. There are also several built-in checks in the questionnaire that allowed interviewers to verify the accuracy of the information recorded on age. An examination of the quality of the data in relation to age reporting indicates that there is some preference for ages ending in 0 and 5, and as expected, this “age heaping” is more severe at older ages (Table C.1 and Figure 2.1). The typical pattern of heaping on age 12 is also evident. Nevertheless, age reporting in the 2001 NDHS is better than age data from most other sources and shows no serious biases in reporting. Information on the age and sex of each household member was obtained from the household head or some other responsible adult member of the household. Age reporting appears to be better among women and men in the reproductive age groups of 15-49 and 15-59, respectively, presumably because most of these women reported their own age in the individual questionnaires, as opposed to only one-third of the men who live in households selected for the men’s survey. Another measure of the quality of the age data is the very small number of persons whose ages were recorded as not known or missing—two males and two females (Table C.1).

Sometimes eligible women and men, that is ever-married women age 15-49 and ever-married men age 15-59, may be shifted out of the eligible age range or recorded as not married by interviewers to reduce their workload. Analysis shows that in the 2001 NDHS, there is little bias in age reporting as indicated by the virtual absence of any differences between the age distribution of women and men recorded in the household schedule and those interviewed with the individual questionnaires (Tables C.2.1 and C.2.2).¹ Moreover, the expected pattern of declining percentages as age increases indicates that interviewers have not attempted to shift eligible women and men out of the eligible age range.

Figure 2.1 Distribution of De Facto Household Population by Single Year of Age and Sex



Nepal 2001

Table 2.1 shows the distribution of the population by five-year age groups, according to urban-rural residence and sex. The 2001 NDHS enumerated a total of 44,086 persons of whom 53 percent were females. Because of relatively high fertility in the past, a large proportion of Nepal's population (44 percent) is under 15 years of age.

As seen in Table 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 in rural areas and that the transition to lower fertility began with the urban population. A similar finding was also observed in the 1996 NFHS (Pradhan et al., 1997).

¹ In Tables C.2.1 and C.2.2, the number of ever-married women and men interviewed is calculated using household weights to compare with the number of ever-married women age 15-49 and men age 15-59 in the household. This number is slightly different from the total number of women and men interviewed based on individual weights.

The overall sex ratio, the number of males per 100 females, is 90, which is lower than that obtained in the 2001 Census (100) and the 1996 NFHS (93).² The sex ratio differs by residence (Table 2.1). Urban areas have a higher sex ratio (97) than rural areas (89). The sex ratio is markedly lower among the working-age population, which was also the case in the 1996 NFHS. A low sex ratio among the working-age population, particularly in rural areas, may be attributed to the high rate of out-migration of males to the urban areas of Nepal, as well as to other countries, including India, in search of short- and long-term employment.

The age structure of the household population observed in the survey is typical of a youthful population (see population pyramid in Figure 2.2). Nepal has a pyramidal age structure due to the high fertility levels prevailing in the past. Children under 15 years of age account for more than two-fifths of the population, a feature of populations with high fertility levels (Table 2.1). Fifty-two percent of the population is in the age group 15-64 and 4 percent are over 65. The distribution of the population by age group is similar to that in the 1996 NFHS.

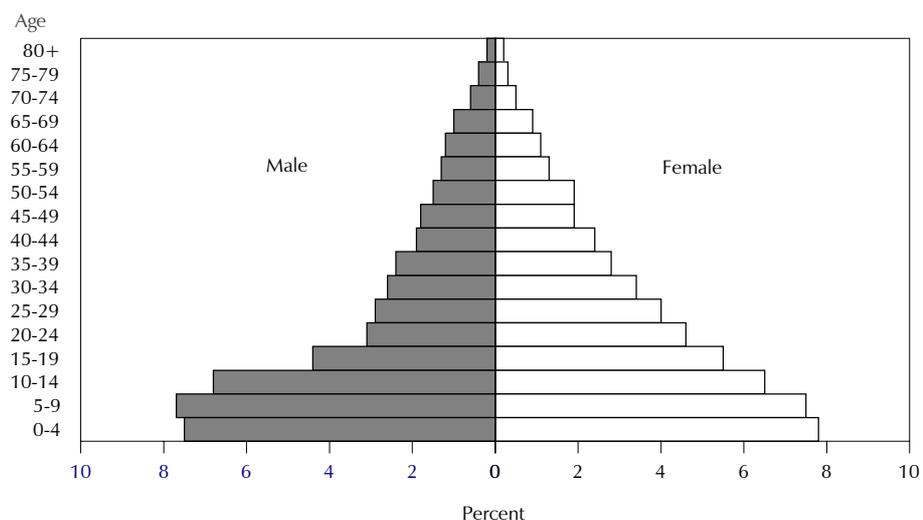
Table 2.1 Household population by age, sex, and residence

Percent distribution of the de facto household population by five-year age groups, according to sex and residence, Nepal 2001

Age	Urban				Rural				Total			
	Male	Female	Total	Sex ratio	Male	Female	Total	Sex ratio	Male	Female	Total	Sex ratio
<5	10.7	9.9	10.2	104.9	16.6	15.3	15.9	96.4	15.9	14.7	15.3	97.0
5-9	13.3	11.6	12.4	111.6	16.6	14.4	15.4	102.1	16.2	14.1	15.1	102.8
10-14	13.2	13.4	13.3	95.5	14.6	12.2	13.3	106.8	14.5	12.3	13.3	105.6
15-19	10.5	11.6	11.1	87.7	9.1	10.3	9.8	78.9	9.3	10.4	9.9	79.8
20-24	10.2	11.7	10.9	84.3	6.2	8.4	7.3	65.4	6.6	8.7	7.7	67.9
25-29	9.0	8.4	8.7	103.8	5.7	7.5	6.7	67.7	6.1	7.6	6.9	71.5
30-34	7.3	7.0	7.2	101.9	5.3	6.5	5.9	73.2	5.5	6.5	6.1	76.1
35-39	5.6	5.8	5.7	93.0	4.9	5.2	5.1	83.8	5.0	5.3	5.1	84.8
40-44	4.4	4.9	4.7	86.8	4.0	4.4	4.2	80.8	4.1	4.5	4.3	81.4
45-49	4.3	3.9	4.1	107.2	3.7	3.6	3.7	91.8	3.8	3.6	3.7	93.4
50-54	2.7	3.0	2.8	88.7	3.2	3.7	3.5	74.8	3.1	3.7	3.4	75.9
55-59	2.7	2.7	2.7	95.0	2.8	2.5	2.6	98.7	2.8	2.5	2.7	98.3
60-64	2.5	2.0	2.3	121.7	2.5	2.2	2.4	102.5	2.5	2.2	2.3	104.2
65-69	1.5	1.9	1.7	77.4	2.1	1.7	1.9	112.0	2.0	1.7	1.8	108.2
70-74	0.9	0.9	0.9	107.6	1.3	1.0	1.1	109.7	1.2	1.0	1.1	109.5
75-79	0.6	0.5	0.5	106.5	0.8	0.6	0.7	109.2	0.8	0.6	0.7	109.0
80 +	0.5	0.8	0.6	69.0	0.5	0.4	0.5	102.7	0.5	0.5	0.5	97.5
Total	100.0	100.0	100.0	97.0	100.0	100.0	100.0	89.0	100.0	100.0	100.0	90.0
Number	2,172	2,240	4,412	4,412	18,661	21,013	39,674	39,674	20,833	23,253	44,086	44,086

² The marked difference in the sex ratio between the 2001 Census and the 2001 NDHS could be because the sex ratio from the census is based on the de jure population, whereas the sex ratio obtained from the 2001 NDHS is based on the de facto household population.

Figure 2.2 Population Pyramid, Nepal, 2001



Nepal 2001

2.2 HOUSEHOLD COMPOSITION

Table 2.2 presents the distribution of households by selected background characteristics. This information is useful for several reasons. For example, female-headed households are often found to be poorer than male-headed households and the size and composition of a household influences the allocation of limited resources and affects the living conditions of individuals in the household.

Table 2.2 Household composition			
Percent distribution of households by sex of head of household and by household size, according to residence, Nepal 2001			
Characteristic	Residence		Total
	Urban	Rural	
Sex of head of household			
Male	83.3	83.9	83.9
Female	16.7	16.1	16.1
Total	100.0	100.0	100.0
Number of usual members			
1	5.1	3.8	4.0
2	8.7	8.1	8.2
3	12.9	11.3	11.5
4	17.8	16.7	16.8
5	19.1	18.5	18.5
6	14.3	14.8	14.7
7	9.2	10.7	10.6
8	4.7	6.3	6.1
9+	8.1	9.7	9.6
Total	100.0	100.0	100.0
Number of households	900	7,702	8,602
Mean size	5.0	5.3	5.3

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

Households in Nepal are predominantly headed by males regardless of the type of residence (84 percent).

The average household size is 5.3 persons, which is slightly lower than in the 1996 NFHS (5.5). The average household size is slightly larger in rural areas (5.3) than in urban areas (5.0).

2.3 EDUCATION OF HOUSEHOLD MEMBERS

EDUCATIONAL ATTAINMENT OF THE HOUSEHOLD POPULATION

The level of education attained by the population is an important indicator of social development. In addition, education has been found to influence reproductive behavior, the use of contraceptives, the health of mothers and children, and hygienic habits. Tables 2.3.1 and 2.3.2 show the distribution of the male and female household population age six years and above by the level of education attended or completed according to age, residence, ecological zone, development region, and subregion. In this report those who have never been to school are categorized as having no education.

About one-third of males (32 percent) and three out of five females (60 percent) have no education. Overall, 35 percent of males and 23 percent of females have some primary education only, while 7 percent of males and 4 percent of females have completed primary education and gone no further. Likewise, 18 percent of males and 9 percent of females have only some secondary education, while three times as many males (9 percent) as females (3 percent) have completed secondary education. The median number of years of schooling is 1.4 for males and less than 1 year for females (the median for females is not shown because more than 50 percent of the female household population in most of the categories have no education). An examination of the level of education by age group reveals that there has been an improvement over time in the educational attainment for both sexes. The proportion of males who have never been to school declines from 88 percent among the oldest age group (65 years or more) to 10 percent among those age 10-14 years. The comparable proportion among females is 99 percent and 28 percent, respectively. Nevertheless, the gender gap remains large. For example, 21 percent of males in the age group 6-9 have not been to school, compared with 34 percent among females in the same age group.

Data also indicate that there is a wide gap between urban and rural areas in educational attainment. Thirty-four percent of males and 63 percent of females in rural areas have never attended school, compared with 14 percent of males and 36 percent of females in urban areas. For both sexes, this difference is more pronounced at higher levels of education, presumably because of insufficient numbers of higher educational facilities, inaccessibility, and less affordability in rural areas.

Among both women and men, the percentage with no education is lowest in the hill ecological zone and almost the same in the *terai* and mountain zones. More than one-third of males residing in the Central region (36 percent) reported having no education. Among females, the highest percentage reporting no education is in the Far-western region (67 percent), followed closely by the Central region (65 percent) and the Mid-western region (64 percent).

Table 2.3.1 Educational attainment of household population: male

Percent distribution of the de facto male household population age six and over by highest level of education attended or completed, according to background characteristics, Nepal 2001

Background characteristic	No education	Some primary	Completed primary ¹	Some secondary	Completed secondary ²	More than secondary	Don't know/missing	Total	Number of men	Median number of years
Age										
6-9	20.8	78.7	0.1	0.0	0.0	0.0	0.3	100.0	2,706	0.0
10-14	10.4	64.2	12.1	13.2	0.1	0.0	0.0	100.0	3,018	2.4
15-19	13.3	18.8	10.7	47.8	7.4	2.0	0.1	100.0	1,935	5.6
20-24	16.2	17.2	9.3	32.7	13.4	11.2	0.0	100.0	1,371	6.3
25-29	24.4	16.6	7.5	27.9	10.9	12.4	0.3	100.0	1,266	5.4
30-34	33.6	17.3	6.1	23.4	9.6	9.9	0.1	100.0	1,155	3.8
35-39	37.0	21.3	7.4	18.9	7.3	7.8	0.2	100.0	1,041	2.5
40-44	47.6	19.0	7.5	13.7	4.8	7.2	0.1	100.0	846	0.4
45-49	48.1	20.0	6.7	14.5	5.0	5.5	0.1	100.0	792	0.0
50-54	60.2	17.6	5.8	9.2	3.3	3.5	0.4	100.0	648	0.0
55-59	75.5	9.3	4.5	4.9	3.2	2.1	0.5	100.0	580	0.0
60-64	80.5	11.6	1.6	3.5	1.4	1.2	0.2	100.0	528	0.0
65+	88.3	6.2	1.3	2.6	0.6	0.7	0.3	100.0	947	0.0
Residence										
Urban	14.1	28.8	6.5	23.8	10.6	15.7	0.4	100.0	1,880	5.1
Rural	33.7	35.9	6.9	16.8	3.9	2.7	0.1	100.0	14,954	1.0
Ecological zone										
Mountain	33.4	40.2	6.2	14.9	3.6	1.8	0.0	100.0	1,193	0.7
Hill	26.1	38.6	7.6	18.4	4.6	4.7	0.1	100.0	6,925	2.0
Terai	35.6	31.6	6.3	17.3	4.9	4.0	0.3	100.0	8,716	1.1
Development region										
Eastern	29.0	35.7	6.6	19.1	5.4	4.0	0.2	100.0	4,348	1.8
Central	36.1	32.5	6.1	14.5	5.0	5.5	0.3	100.0	5,325	0.7
Western	27.8	35.5	7.8	20.5	4.5	3.8	0.1	100.0	3,357	2.1
Mid-western	32.9	36.4	6.3	17.9	3.4	3.0	0.1	100.0	2,261	1.1
Far-western	29.1	39.5	8.6	17.1	3.6	2.0	0.1	100.0	1,543	1.3
Subregion										
Eastern Mountain	27.0	37.7	7.1	18.4	5.9	3.8	0.0	100.0	310	1.9
Central Mountain	35.0	43.6	5.6	12.4	2.9	0.5	0.0	100.0	400	0.1
Western Mountain	36.2	38.9	6.0	14.6	2.7	1.6	0.0	100.0	483	0.4
Eastern Hill	27.4	41.8	6.4	18.2	3.7	2.3	0.2	100.0	1,252	1.4
Central Hill	25.5	35.7	6.4	16.7	6.1	9.5	0.1	100.0	1,978	2.3
Western Hill	23.7	36.6	9.0	21.3	5.1	4.3	0.1	100.0	1,928	2.6
Mid-western Hill	28.3	43.0	7.8	16.6	2.8	1.5	0.1	100.0	1,151	1.3
Far-western Hill	28.9	39.4	9.2	18.1	2.9	1.3	0.2	100.0	616	1.1
Eastern Terai	30.0	32.7	6.6	19.5	6.1	4.8	0.2	100.0	2,786	2.0
Central Terai	43.3	28.9	6.0	13.2	4.6	3.5	0.5	100.0	2,947	0.0
Western Terai	33.5	34.1	6.2	19.4	3.6	3.2	0.1	100.0	1,429	1.4
Mid-western Terai	35.1	29.7	4.9	20.5	4.1	5.5	0.1	100.0	902	1.1
Far-western Terai	30.3	36.6	8.7	16.9	4.9	2.4	0.1	100.0	652	1.6
Total	31.6	35.1	6.8	17.6	4.7	4.1	0.2	100.0	16,834	1.4

Note: Total includes 2 men with missing information on age who are not shown separately.

¹Completed grade 5 at the primary level

²Completed grade 10 at the secondary level

Table 2.3.2 Educational attainment of household population: female

Percent distribution of the de facto female household population age six and over by highest level of education attended or completed, according to background characteristics, Nepal 2001

Background characteristic	No education	Some primary	Completed primary ¹	Some secondary	Completed secondary ²	More than secondary	Don't know/missing	Total	Number of women
Age									
6-9	33.7	66.0	0.1	0.0	0.0	0.0	0.1	100.0	2,629
10-14	28.2	52.4	9.4	10.1	0.0	0.0	0.0	100.0	2,858
15-19	37.6	17.2	8.0	30.3	5.7	1.0	0.1	100.0	2,423
20-24	55.6	10.5	5.1	17.5	6.4	4.7	0.1	100.0	2,019
25-29	67.6	10.2	4.7	10.3	4.6	2.6	0.0	100.0	1,771
30-34	75.4	9.6	3.2	7.7	3.0	1.1	0.0	100.0	1,517
35-39	86.2	5.8	2.0	4.3	1.0	0.8	0.0	100.0	1,228
40-44	87.5	6.3	2.2	2.5	0.8	0.7	0.0	100.0	1,039
45-49	92.7	2.8	0.8	2.4	0.7	0.5	0.2	100.0	849
50-54	94.3	2.3	1.3	1.6	0.4	0.2	0.0	100.0	854
55-59	97.2	1.5	0.5	0.4	0.3	0.0	0.0	100.0	589
60-64	97.8	0.8	0.0	1.0	0.3	0.0	0.1	100.0	506
65+	98.9	0.8	0.0	0.0	0.0	0.0	0.2	100.0	883
Residence									
Urban	36.1	24.4	4.7	21.7	7.6	5.6	0.0	100.0	1,974
Rural	63.1	22.7	3.9	8.0	1.6	0.6	0.1	100.0	17,192
Ecological zone									
Mountain	66.1	24.3	2.5	5.9	1.1	0.2	0.0	100.0	1,361
Hill	53.7	27.3	4.8	10.2	2.5	1.4	0.0	100.0	8,296
Terai	65.3	18.9	3.5	9.1	2.2	1.0	0.1	100.0	9,509
Development region									
Eastern	55.5	24.0	4.9	12.1	2.4	1.1	0.0	100.0	4,840
Central	65.1	19.9	3.0	7.7	2.8	1.5	0.1	100.0	5,877
Western	53.8	25.8	5.3	11.7	2.3	1.1	0.1	100.0	4,019
Mid-western	64.4	22.6	3.4	7.3	1.5	0.7	0.0	100.0	2,573
Far-western	66.5	23.8	3.0	5.6	0.9	0.2	0.1	100.0	1,856
Subregion									
Eastern Mountain	48.6	30.9	4.3	13.4	2.2	0.6	0.0	100.0	343
Central Mountain	65.5	27.4	1.9	4.4	0.7	0.1	0.0	100.0	458
Western Mountain	77.4	17.7	1.9	2.4	0.6	0.0	0.0	100.0	560
Eastern Hill	52.4	30.6	5.8	9.5	1.1	0.6	0.0	100.0	1,455
Central Hill	50.3	26.2	4.1	11.4	4.6	3.3	0.0	100.0	2,234
Western Hill	45.9	29.8	6.3	14.0	2.8	1.2	0.1	100.0	2,449
Mid-western Hill	63.9	24.9	3.7	6.1	1.4	0.0	0.0	100.0	1,385
Far-western Hill	72.6	20.7	2.6	3.7	0.3	0.0	0.2	100.0	774
Eastern Terai	57.7	20.0	4.5	13.2	3.1	1.4	0.0	100.0	3,043
Central Terai	75.5	14.3	2.3	5.5	1.8	0.4	0.1	100.0	3,185
Western Terai	66.2	19.6	3.7	8.1	1.4	0.9	0.1	100.0	1,571
Mid-western Terai	60.2	21.6	3.6	10.4	2.2	1.9	0.1	100.0	962
Far-western Terai	57.7	28.2	3.5	8.7	1.5	0.4	0.1	100.0	748
Total	60.4	22.9	4.0	9.4	2.2	1.1	0.1	100.0	19,166

Note: Total includes 2 women with missing information on age who are not shown separately.

¹Completed grade 5 at the primary level

²Completed grade 10 at the secondary level

The table shows the persistence of the gender gap in the level of education even among the subregions. Although among males, the percentage that have never been to school is less than 45 percent in all subregions, among females, the percentage who have never been to school exceeds 50 percent in most of the subregions and exceeds 75 percent in two of the thirteen subregions (Western mountain and Central *terai*).

SCHOOL ATTENDANCE RATIOS

The net attendance ratio (NAR) indicates participation in primary schooling for the population age 6-10 and secondary schooling for the population age 11-15. The gross attendance ratio (GAR) measures participation at each level of schooling among those of any age from 5 to 24. The GAR is nearly always higher than the NAR for the same level because the GAR includes participation by those who may be older or younger than the official age range for that level.³ An NAR of 100 percent would indicate that all those in the official age range of the level are attending at that level. The GAR can exceed 100 percent if there is significant overage or underage participation at a given level of schooling.

Table 2.4 presents the NAR and GAR for the de jure household population by level of schooling of the male and female population age 5-24 years according to residence. The NAR is 73 percent at the primary level and 31 percent at the secondary level, while the GAR at the primary level is more than two times as high as at the secondary level. Male attendance ratios are much higher than female attendance ratios at both the primary and secondary levels. Attendance ratios are also much higher in urban areas than in rural areas. Attendance ratios at the primary and secondary levels are highest in the hill ecological region and the Western development region. At the primary level, they are lowest in the *terai* ecological zone and Central region, while at the secondary level, they are lowest in the mountain zone.

³ 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 2.4 School attendance ratios

Net attendance ratios (NAR) and gross attendance ratios (GAR) for the de jure household population by level of schooling and sex, according to background characteristics, Nepal 2001

Background characteristic	Net attendance ratio ¹			Gross attendance ratio ²			Gender Parity Index ³
	Male	Female	Total	Male	Female	Total	
PRIMARY SCHOOL							
Residence							
Urban	90.8	86.4	88.7	142.7	128.7	135.8	0.9
Rural	78.2	64.7	71.6	126.1	103.7	115.2	0.8
Ecological zone							
Mountain	83.9	64.3	73.9	140.9	100.7	120.3	0.7
Hill	87.2	79.1	83.2	140.9	127.9	134.5	0.9
Terai	72.2	56.2	64.5	114.8	87.9	101.8	0.8
Development region							
Eastern	82.6	66.3	74.9	133.3	113.0	123.6	0.8
Central	71.7	60.4	66.1	111.7	87.5	99.7	0.8
Western	83.8	77.6	80.7	135.6	123.9	129.8	0.9
Mid-western	78.7	62.6	71.1	129.3	103.9	117.3	0.8
Far-western	86.4	69.3	78.0	143.9	113.4	128.8	0.8
Subregion							
Eastern Mountain	84.5	79.7	82.1	164.1	143.4	153.7	0.9
Central Mountain	88.7	69.7	79.4	130.2	105.3	118.0	0.8
Western Mountain	79.5	53.5	65.6	137.5	77.7	105.6	0.6
Eastern Hill	84.4	77.2	80.9	143.8	141.5	142.7	1.0
Central Hill	84.9	81.7	83.2	132.4	116.4	124.1	0.9
Western Hill	94.0	91.3	92.6	152.4	149.9	151.2	1.0
Mid-western Hill	83.3	64.4	74.8	132.4	106.8	120.9	0.8
Far-western Hill	87.1	64.7	76.3	143.2	107.6	126.1	0.8
Eastern Terai	81.5	58.9	70.9	124.9	94.1	110.5	0.8
Central Terai	62.0	45.2	53.9	97.7	66.1	82.5	0.7
Western Terai	70.4	58.7	64.6	113.5	88.1	101.0	0.8
Mid-western Terai	75.3	67.6	71.6	125.5	111.9	119.0	0.9
Far-western Terai	83.8	76.1	79.9	144.5	132.1	138.3	0.9
Total	79.3	66.5	73.0	127.5	105.9	116.9	0.8
SECONDARY SCHOOL							
Residence							
Urban	48.8	51.5	50.2	72.6	75.0	73.9	1.0
Rural	33.5	23.6	28.7	56.5	39.2	48.0	0.7
Ecological zone							
Mountain	31.6	20.7	26.5	56.2	30.8	44.3	0.5
Hill	38.7	30.6	34.6	62.0	49.5	55.7	0.8
Terai	32.3	23.7	28.1	54.9	38.8	47.1	0.7
Development region							
Eastern	34.4	29.4	31.9	59.5	51.5	55.5	0.9
Central	32.8	24.4	28.8	50.9	38.9	45.1	0.8
Western	41.4	33.7	37.6	65.4	50.9	58.3	0.8
Mid-western	30.6	22.7	26.6	57.2	34.1	45.5	0.6
Far-western	35.4	16.4	26.0	60.6	30.0	45.6	0.5
Subregion							
Eastern Mountain	28.0	30.1	29.0	52.8	51.5	52.2	1.0
Central Mountain	31.9	21.3	26.9	52.9	31.5	42.7	0.6
Western Mountain	33.8	14.3	24.7	60.6	17.1	40.3	0.3
Eastern Hill	31.6	24.9	28.2	56.8	47.3	51.9	0.8
Central Hill	40.1	36.8	38.4	62.6	59.3	60.9	0.9
Western Hill	48.6	41.3	45.0	70.7	61.7	66.3	0.9
Mid-western Hill	31.4	21.6	26.5	52.7	33.8	43.2	0.6
Far-western Hill	31.9	10.0	20.9	61.0	22.3	41.6	0.4
Eastern Terai	36.7	31.7	34.2	61.8	53.7	57.8	0.9
Central Terai	28.5	15.1	22.5	43.3	23.9	34.6	0.6
Western Terai	30.3	22.2	26.3	57.1	34.6	46.0	0.6
Mid-western Terai	30.8	28.8	29.8	66.2	40.9	53.3	0.6
Far-western Terai	36.4	19.4	27.9	57.2	38.1	47.6	0.7
Total	35.0	26.5	30.8	58.0	43.0	50.6	0.7

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

²The GAR for primary school is the total number of primary school students, expressed as a percentage of the official primary-school-age population. The GAR for secondary school is the total number of secondary school students, expressed as a percentage of the official secondary-school-age population. If there are significant numbers of overage and underage students at a given level of schooling, the GAR can exceed 100 percent.

³The Gender Parity Index for primary school is the ratio of the primary school GAR for females to the GAR for males. The Gender Parity Index for secondary school is the ratio of the secondary school GAR for females to the GAR for males.

The repetition rate is the percentage of students in a given grade the previous school year who are 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. By asking about the grade that children were attending during the previous school year, it is possible to calculate dropout rates and repetition rates. Table 2.5 indicates that the repetition rate is high in grade one (about one-third), which may be related to the teachers' decision to ensure a more uniform preparedness before promoting children to grade two. The repetition rate declines significantly after grade one. Table 2.5 also shows that as the school grade rises, the dropout rate generally increases. Only 1 percent of children drop out of school after attending grade one, compared with a dropout rate of 3 percent at grades four and five.

Table 2.5 Grade repetition and dropout rates										
Repetition and dropout rates for the de jure household population age 5-24 years by school grade, according to background characteristics, Nepal 2001										
Background characteristic	Repetition rate ¹					Dropout rate ²				
	School grade					School grade				
	1	2	3	4	5	1	2	3	4	5
Sex										
Male	31.6	10.1	7.1	6.0	6.4	1.2	1.5	2.1	3.2	3.0
Female	34.0	9.2	8.1	6.8	5.8	1.7	1.0	1.7	2.3	2.0
Residence										
Urban	15.4	4.8	2.1	3.9	3.4	0.6	2.0	2.5	4.3	1.8
Rural	34.0	10.3	8.2	6.7	6.5	1.5	1.2	1.9	2.6	2.7
Ecological zone										
Mountain	36.0	16.6	9.1	14.6	12.7	0.7	1.1	3.9	2.3	4.1
Hill	36.9	12.1	7.0	6.3	6.1	1.9	1.8	2.0	3.1	3.0
Terai	26.6	6.3	8.0	5.2	5.2	1.0	0.9	1.5	2.6	1.9
Development region										
Eastern	30.1	13.1	11.9	6.1	8.2	1.7	0.5	1.4	2.7	2.8
Central	39.8	10.7	8.0	8.2	4.4	1.4	1.9	3.6	4.2	5.4
Western	28.3	6.2	5.7	4.4	5.2	0.5	1.2	0.5	0.6	1.4
Mid-western	36.1	6.8	3.9	3.0	8.7	2.4	1.9	2.5	4.0	0.0
Far-western	20.9	10.0	6.0	11.5	4.1	1.4	1.5	1.9	2.9	0.7
Subregion										
Eastern Mountain	34.6	15.1	3.4	3.8	19.1	1.6	1.4	1.7	1.9	4.3
Central Mountain	44.2	20.0	10.5	23.8	12.9	0.8	0.0	3.5	2.4	9.7
Western Mountain	29.9	14.6	12.0	15.0	7.5	0.0	2.1	6.0	2.5	0.0
Eastern Hill	42.6	18.5	9.9	6.6	8.3	1.6	0.0	0.0	4.0	2.8
Central Hill	38.9	16.1	9.7	8.6	6.4	3.1	3.2	5.2	7.0	6.1
Western Hill	32.0	7.1	6.2	5.1	3.7	0.5	1.3	0.7	0.9	2.0
Mid-western Hill	43.0	10.0	4.3	2.6	8.9	3.4	3.3	2.8	2.6	0.0
Far-western Hill	16.9	9.5	1.5	10.4	4.7	0.0	0.0	0.0	0.0	2.3
Eastern Terai	16.5	10.1	14.8	6.2	6.8	1.8	0.6	2.4	2.1	2.7
Central Terai	39.7	3.8	4.8	4.2	0.0	0.0	0.9	1.6	1.6	3.6
Western Terai	21.1	4.2	4.3	2.0	8.8	0.7	1.0	0.0	0.0	0.0
Mid-western Terai	21.9	1.2	1.6	2.9	7.9	0.9	0.0	1.1	6.2	0.0
Far-western Terai	20.8	8.8	7.1	9.8	2.7	3.7	2.0	1.8	4.5	0.0
Total	32.7	9.7	7.5	6.4	6.2	1.4	1.3	2.0	2.8	2.6

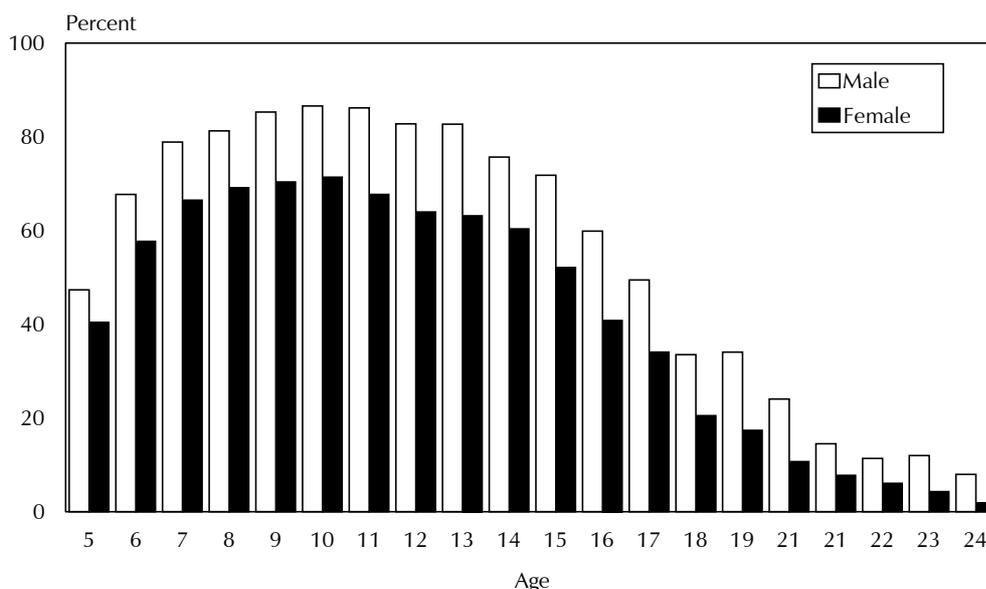
¹ The repetition rate is the percentage of students in a given grade in the previous school year who are repeating that grade in the current school year.

² The dropout rate is the percentage of students in a given grade in the previous school year who are not attending school.

Repetition among rural children is higher than among urban children at all grade levels. However, after grade one, rural children are less likely to drop out than urban children. With the exception of grade one, children from the mountain ecological zone are more likely repeat a grade at every level. Differentials in the dropout rate by ecological zone are small.

Figure 2.3 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. Only 40 percent of girls and 47 percent of boys are attending school at age five, indicating that a majority of children in Nepal at that age have not entered the school system. The minimum official age for school attendance is six years. A higher proportion of males than females attend school at every age, but this difference is significantly higher after age ten. School attendance drops substantially after age 15 for females and after age 17 for males. This sudden drop may be partly due to lack of financial resources to continue schooling and partly due to the need to work to support the family.

Figure 2.3 Age-Specific School Attendance Rates



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

Nepal 2001

2.4 HOUSING CHARACTERISTICS

The physical characteristics of households are important in assessing the general socioeconomic condition of the population. In the 2001 NDHS, respondents were asked about access to electricity, sources of drinking water and time taken to the nearest source, type of toilet facility, main material of the floor, and type of cooking fuel.

Table 2.6 provides information on selected housing characteristics by residence. Overall, 25 percent of households have electricity. This is a 37 percent increase over the last five years according to data obtained in the 1996 NFHS. There is a considerable difference between urban and rural households in the availability of electricity. Eighty-six percent of urban households have electricity, compared with only 17 percent of rural households.

Table 2.6 Housing characteristics			
Percent distribution of households by background characteristics, according to residence, Nepal 2001			
Background characteristic	Residence		Total
	Urban	Rural	
Electricity			
Yes	85.7	17.4	24.6
No	14.3	82.6	75.4
Total	100.0	100.0	100.0
Source of drinking water			
Piped water	55.2	33.0	35.4
Dug well	10.9	3.8	4.6
Tubewell/borehole	30.8	38.1	37.4
Surface water	3.1	24.9	22.7
Total	100.0	100.0	100.0
Time to water source			
Percentage <15 minutes	93.0	74.1	76.1
Median time to source	0.0	4.8	4.6
Sanitation facility			
Flush toilet	58.3	6.1	11.5
Traditional pit toilet	14.6	17.1	16.8
Ventilated/improved pit latrine	7.0	1.5	2.1
No facility/bush/field	20.1	75.3	69.5
Other	0.1	0.1	0.1
Total	100.0	100.0	100.0
Type of cooking fuel			
Firewood, charcoal, dung	39.1	94.1	88.3
Biogas	3.5	1.5	1.7
LPG gas	20.5	0.6	2.7
Electricity	0.3	0.0	0.1
Kerosene	35.8	2.3	5.8
Other	0.8	1.5	1.4
Total	100.0	100.0	100.0
Flooring material			
Earth, mud, dung	34.4	91.7	85.7
Wood planks	4.9	2.7	2.9
Linoleum, carpet	16.3	0.6	2.3
Ceramic tiles, marble chips	1.1	0.0	0.1
Cement	42.2	4.6	8.5
Other	1.1	0.3	0.4
Total	100.0	100.0	100.0
Number of households	900	7,702	8,602
Note: Total includes households for which information on flooring material is missing.			

Information on the source of drinking water and accessibility to the source was also collected in the 2001 NDHS. Safe drinking water is important for health and sanitation. Table 2.6 shows that only 35 percent of households (55 percent in urban areas and 33 percent in rural areas) have access to piped drinking water, a small increase from the 1996 level. Tubewells and boreholes are the major source of drinking water used by 37 percent of households; this source is important for both urban and rural households (31 percent and 38 percent, respectively). One-fourth of households in rural areas reported surface water as their main source of drinking water. Households with no access to drinking water within their own premises were also asked about the time required to fetch water. Overall, 76 percent of households have access to water within 15 minutes. As expected, there is better access to water in urban areas than in rural areas.

The majority of households (70 percent) do not have sanitation facilities. Lack of sanitation facilities is more common in rural areas (75 percent) than in urban areas (20 percent). Nineteen percent of households have a traditional pit toilet or ventilated/improved pit latrine (22 percent in urban areas and 19 percent in rural areas). Twelve percent of households have flush toilets, which are predominantly located in urban households (58 percent).

Traditional fuels such as firewood, charcoal, and dung are the most commonly used (88 percent) type of cooking fuel in Nepal (39 percent in urban areas and 94 percent in rural areas). Use of kerosene and gas for cooking is only common in urban households (36 percent and 21 percent, respectively). Smoke inhalation from burning firewood, charcoal, or dung during the process of cooking is one of the common causes of respiratory illnesses among women. The 2001 NDHS collected information on the number of households that have improved smokeless chulos, that is, households with a fireplace that has an outlet for the smoke to escape. Only 1 percent of households using firewood, charcoal, or dung have improved smokeless chulos (data not shown).

Most households (86 percent) have earth, mud, or dung floors. Such traditional floors are almost universal in rural households (92 percent), while one in three urban households has this type of flooring. Nine percent of all households have a cement floor, which is more common in urban households (42 percent) than in rural households (5 percent).

Information on the possession of various durable goods was also collected at the household level. Table 2.7 shows that overall, 44 percent of households have radios, one-fourth have bicycles, 13 percent have televisions, and 3 percent have telephones. There is a vast difference between urban and rural households, with urban households much more likely to own these consumer durable items than rural households. The urban-rural difference is especially pronounced for ownership of televisions and telephones. Overall, the possession of these items has increased over the last five years; this is reflected in the decrease in the percentage that possesses none of these items from 53 percent in 1996 to 42 percent in 2001.

Durable consumer goods	Residence		
	Urban	Rural	Total
Radio	61.0	41.4	43.5
Television	58.9	7.7	13.1
Telephone	18.0	0.6	2.5
Bicycle	44.0	24.0	26.1
None of the above	17.0	44.9	42.0
Number of households	900	7,702	8,602

The purpose of this chapter is to provide a descriptive summary of the demographic and socioeconomic characteristics of the individual respondents in the 2001 Nepal Demographic and Health Survey (NDHS). Information on the basic characteristics of women and men interviewed in the survey is essential for the interpretation of the findings and serves as an approximate indicator of the representativeness of the survey. It also provides valuable input for social and economic development planning.

3.1 BACKGROUND CHARACTERISTICS OF RESPONDENTS

Table 3.1 shows the distribution of respondents by selected background characteristics including age, marital status, residence, region, education, religion, and caste. Respondents are ever-married women age 15-49 and ever-married men age 15-59 who slept in a selected household the night before the interview.

Relatively high proportions of respondents are in the younger age groups, with almost half of them under age 30. The proportion of eligible women declines after age 25-29. This is true of eligible men as well, with the proportion of eligible men declining after age 30-34. Respondents are mostly concentrated in the age group 20-39. The age distribution of ever-married women in the 2001 NDHS is consistent with the age distribution in the 1996 NFHS (Pradhan et al., 1997).

The majority of women and men are currently married with a very small minority divorced, separated, or widowed. Most respondents (90 percent) live in rural areas. One in two respondents lives in the *terai*, two in five in the hills, and 7 percent in the mountains.

The distribution of respondents by development region shows that one-third are from the Central region, one-quarter are from the Eastern region, one-fifth are from the Western region, and about one in ten each is from the Mid-western and Far-western regions. The subregional distribution shows the highest concentration of eligible women and men in the Central *terai* subregion (19 percent and 18 percent, respectively), followed by the Eastern *terai* (16 percent and 17 percent, respectively) and the Central and Western hill subregions (about 10 to 12 percent each). In each of the remaining subregions, the proportion of women and men is less than 10 percent.

Men are much more educated than women. Nearly three in four women and two in five men have never attended school. Fifteen percent of women and 30 percent of men have some primary education only, while 9 percent of women and 20 percent of men have some secondary education, and 4 percent of women and 13 percent of men have completed their School Leaving Certificate (SLC).

Most respondents are Hindu (about 85 percent), 7 percent of women and 9 percent of men are Buddhist, and 5 percent of respondents are Muslim. One in five respondents belongs to the occupational caste group, which is designated on the basis of the type of work done (with blacksmiths, tailor, cobbler, sweeper, laundry man, etc. being the most prominent in the rural settings). The Chettris make up about 17 percent of the population and the Brahmins comprise 13 percent.

Table 3.1 Background characteristics of respondents

Percent distribution of women and men by selected background characteristics, Nepal 2001

Background characteristic	Number of women			Number of men		
	Weighted percent	Weighted	Unweighted	Weighted percent	Weighted	Unweighted
Age						
15-19	10.8	941	916	3.1	70	70
20-24	19.0	1,658	1,651	13.0	295	291
25-29	19.1	1,666	1,646	15.0	340	334
30-34	16.4	1,427	1,458	15.2	344	343
35-39	13.4	1,168	1,184	14.2	322	329
40-44	11.8	1,030	1,021	11.5	261	267
45-49	9.6	837	850	10.7	243	239
50-54	na	na	na	9.6	216	219
55-59	na	na	na	7.6	171	169
Marital status						
Married	95.6	8,342	8,324	97.2	2,198	2,193
Divorced/separated	1.5	132	142	0.8	17	19
Widowed	2.9	252	260	2.0	46	49
Residence						
Urban	9.6	841	1,154	10.0	227	304
Rural	90.4	7,885	7,572	90.0	2,034	1,957
Ecological zone						
Mountain	6.9	602	1,188	6.7	151	307
Hill	41.4	3,615	3,243	39.6	896	793
Terai	51.7	4,509	4,295	53.7	1,214	1,161
Development region						
Eastern	24.0	2,098	2,068	25.8	583	570
Central	32.1	2,804	2,392	33.2	750	633
Western	20.3	1,771	1,556	19.3	436	390
Mid-western	13.7	1,197	1,142	13.0	295	293
Far-western	9.8	855	1,568	8.7	197	375
Subregion						
Eastern Mountain	1.4	126	330	1.5	33	86
Central Mountain	2.4	209	395	2.6	59	117
Western Mountain	3.1	267	463	2.6	59	104
Eastern Hill	6.6	580	528	7.1	161	147
Central Hill	10.8	945	873	12.3	278	238
Western Hill	12.3	1,075	851	10.4	235	182
Mid-western Hill	7.4	648	395	6.3	143	91
Far-western Hill	4.2	368	596	3.5	80	135
Eastern Terai	16.0	1,393	1,210	17.2	389	337
Central Terai	18.9	1,651	1,124	18.3	413	278
Western Terai	8.0	696	705	8.9	201	208
Mid-western Terai	5.0	438	554	5.6	126	155
Far-western Terai	3.8	331	702	3.7	85	183
Education						
No education	72.0	6,279	6,269	37.7	852	846
Primary	14.8	1,294	1,274	29.7	670	674
Some secondary	9.3	814	832	20.0	452	455
SLC and above	3.9	339	351	12.7	287	286
Religion						
Hindu	85.5	7,462	7,485	84.1	1,902	1,918
Buddhist	7.1	621	660	8.5	193	196
Muslim	4.7	407	355	4.6	104	87
Christian	0.7	60	54	0.7	15	14
Other	2.0	177	172	2.0	46	46
Caste/ethnic group						
Brahmin	12.8	1,117	1,122	13.0	295	292
Chhetri/Thakuri/Rajput	17.8	1,553	1,831	17.0	384	440
Newar	4.8	421	424	5.2	117	116
Gurung	1.3	116	110	1.1	25	24
Magar	6.9	600	524	5.9	133	121
Tamang/Sherpa	6.2	542	564	7.2	164	160
Rai/Limbu	4.7	408	456	4.8	107	120
Muslim/Churaute	4.6	405	354	4.6	104	87
Tharu/Rajbanshi	6.9	598	708	8.1	184	218
Yadav/Ahir	3.2	279	220	4.0	90	72
Occupational	21.1	1,840	1,722	20.0	452	441
Other hill origin	2.6	223	198	2.7	61	51
Other terai origin	7.1	623	493	6.4	145	119
Total	100.0	8,726	8,726	100.0	2,261	2,261

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

SLC = School Leaving Certificate

3.2 EDUCATIONAL ATTAINMENT BY BACKGROUND CHARACTERISTICS

Tables 3.2.1 and 3.2.2 show the educational level of female and male respondents by selected background characteristics. The median years of schooling for men is 2.5 years, and it is close to 0 for women (the median for women is not shown because more than 50 percent of women in most of the categories have no education and, therefore, a median of less than 1 year of schooling).

Background characteristic	Highest level of schooling attended or completed						Total	Number of women
	No education	Some primary	Completed primary ¹	Some secondary	Completed secondary ²	More than secondary		
Age								
15-19	52.2	20.2	5.9	18.5	2.8	0.4	100.0	941
20-24	59.2	13.6	4.6	15.6	4.7	2.3	100.0	1,658
25-29	67.8	12.8	3.5	9.8	4.5	1.7	100.0	1,666
30-34	74.2	11.2	2.8	8.5	2.1	1.2	100.0	1,427
35-39	83.9	8.2	1.6	4.5	1.1	0.7	100.0	1,168
40-44	86.8	7.7	1.8	2.7	0.6	0.4	100.0	1,030
45-49	88.9	6.6	1.2	2.1	0.7	0.6	100.0	837
Residence								
Urban	42.9	14.7	4.5	23.9	8.3	5.6	100.0	841
Rural	75.1	11.4	3.0	7.8	2.1	0.7	100.0	7,885
Ecological zone								
Mountain	81.1	10.5	1.7	4.7	1.6	0.4	100.0	602
Hill	67.0	14.4	3.8	10.4	3.0	1.4	100.0	3,615
Terai	74.7	9.6	2.8	9.1	2.5	1.2	100.0	4,509
Development region								
Eastern	67.0	12.7	3.8	12.0	3.0	1.5	100.0	2,098
Central	74.6	11.3	2.6	7.2	3.0	1.4	100.0	2,804
Western	62.0	15.4	4.5	13.3	3.3	1.5	100.0	1,771
Mid-western	80.1	8.6	2.2	6.9	1.7	0.6	100.0	1,197
Far-western	84.8	6.9	2.0	5.1	1.1	0.1	100.0	855
Subregion								
Eastern Mountain	57.9	19.1	3.9	13.3	4.8	0.9	100.0	126
Central Mountain	80.3	14.2	1.5	2.5	1.0	0.5	100.0	209
Western Mountain	92.7	3.7	0.9	2.4	0.4	0.0	100.0	267
Eastern Hill	67.2	16.9	5.4	8.4	1.1	1.0	100.0	580
Central Hill	63.8	14.9	2.7	10.7	5.1	2.8	100.0	945
Western Hill	53.1	18.7	5.7	16.8	4.0	1.6	100.0	1,075
Mid-western Hill	81.6	9.8	2.1	4.9	1.6	0.0	100.0	648
Far-western Hill	89.6	4.6	1.7	3.8	0.5	0.0	100.0	368
Eastern Terai	67.7	10.4	3.1	13.4	3.6	1.8	100.0	1,393
Central Terai	80.1	8.9	2.6	5.7	2.0	0.7	100.0	1,651
Western Terai	75.6	10.2	2.7	7.8	2.2	1.4	100.0	696
Mid-western Terai	73.7	8.6	2.7	11.1	2.1	1.7	100.0	438
Far-western Terai	76.9	10.4	2.8	7.7	1.9	0.3	100.0	331
Total	72.0	11.7	3.1	9.3	2.7	1.2	100.0	8,726

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

Table 3.2.2 Educational attainment of men

Percent distribution of men by highest level of schooling attended or completed, and median number of years of schooling, according to background characteristics, Nepal 2001

Background characteristic	Highest level of schooling attended or completed						Total	Number of men	Median years of schooling
	No education	Some primary	Completed primary ¹	Some secondary	Completed secondary ²	More than secondary			
Age									
15-19	14.0	24.3	23.5	33.6	4.7	0.0	100.0	70	4.5
20-24	13.9	23.3	13.8	35.0	9.8	4.3	100.0	295	4.9
25-29	23.2	24.1	6.7	28.8	9.1	8.2	100.0	340	4.4
30-34	34.4	20.4	7.1	20.2	10.6	7.2	100.0	344	3.3
35-39	37.3	23.1	8.5	17.8	6.8	6.5	100.0	322	2.0
40-44	44.4	23.9	6.5	13.7	5.5	6.0	100.0	261	1.1
45-49	45.1	20.8	9.0	15.1	5.1	5.1	100.0	243	1.0
50-54	58.9	17.3	5.8	9.8	3.9	4.3	100.0	216	0.0
55-59	77.0	10.6	4.1	4.2	2.0	2.1	100.0	171	0.0
Residence									
Urban	20.7	14.8	7.0	25.5	14.4	17.6	100.0	227	6.8
Rural	39.6	22.0	8.5	19.4	6.3	4.3	100.0	2,034	2.1
Ecological zone									
Mountain	44.6	27.2	5.9	14.1	6.0	2.3	100.0	151	0.4
Hill	30.7	25.6	8.4	21.7	7.4	6.2	100.0	896	3.2
Terai	41.9	17.3	8.7	19.5	7.0	5.6	100.0	1,214	2.1
Development region									
Eastern	37.9	20.0	7.0	21.7	8.2	5.2	100.0	583	2.3
Central	40.9	20.3	9.2	14.9	6.9	7.9	100.0	750	2.1
Western	29.9	24.0	9.8	22.9	8.1	5.3	100.0	436	3.4
Mid-western	41.0	20.2	4.6	25.3	5.5	3.4	100.0	295	2.0
Far-western	37.0	24.2	12.2	19.9	4.6	2.0	100.0	197	2.4
Subregion									
Eastern Mountain	33.7	19.8	10.5	20.9	9.3	5.8	100.0	33	3.0
Central Mountain	44.4	32.5	3.4	13.7	4.3	1.7	100.0	59	0.1
Western Mountain	51.0	26.0	5.8	10.6	5.8	1.0	100.0	59	0.0
Eastern Hill	34.9	28.7	6.2	21.2	6.2	3.0	100.0	161	1.9
Central Hill	30.4	24.8	8.1	16.8	7.9	12.0	100.0	278	3.3
Western Hill	28.0	23.7	11.1	21.4	9.4	6.4	100.0	235	3.8
Mid-western Hill	29.1	28.5	3.4	31.8	5.6	1.6	100.0	143	3.1
Far-western Hill	33.9	23.0	14.7	22.5	5.3	0.5	100.0	80	2.6
Eastern Terai	39.5	16.4	7.0	22.0	8.9	6.1	100.0	389	2.4
Central Terai	47.4	15.6	10.7	13.7	6.5	6.0	100.0	413	1.2
Western Terai	32.0	24.5	8.2	24.6	6.6	4.1	100.0	201	2.8
Mid-western Terai	49.7	12.3	6.0	21.0	4.7	6.3	100.0	126	0.0
Far-western Terai	38.7	20.4	11.8	21.0	4.4	3.6	100.0	85	2.8
Total	37.7	21.3	8.4	20.0	7.1	5.6	100.0	2,261	2.5

¹ Completed grade 5 at the primary level

² Completed grade 10 at the secondary level

As expected, level of education decreases with increasing age, reflecting an improvement in educational attainment over time. The urban-rural difference in education is marked and is relatively wider among men than among women. Two-fifths (43 percent) of women in urban areas have no education, compared with three-fourths of rural women. Twice as many rural men as urban men have no education. The urban advantage is especially obvious at higher levels of education for women but not for men. For example, although the urban-rural difference among women who have only some secondary education is 16 percentage points, it is 6 percentage points among men.

Women and men residing in the mountain ecological zone are least educated, while those residing in the hill zone are most educated. One-third of women and two-thirds of men residing in the hills have some education. Women residing in the Western region are more likely to have some education than women residing in the other regions, while those residing in the Far-western region are the least educated. Similarly, men residing in the Western region are most likely to be educated, while men residing in the Central and Mid-western regions are the least educated. Educational differences by subregions are marked. The proportion of women who have never attended school ranges from a low of 53 percent in the Western hill subregion to a high of 93 percent in the Western mountain subregion. The proportion of men having no education ranges from 28 percent in the Western hill subregion to 51 percent in the Western mountain subregion, indicating similar patterns for both men and women. In the Central hill subregion, 8 percent of women and 20 percent of men completed at least secondary education, which is highest among all subregions.

3.3 LITERACY

In the 2001 NDHS, literacy was determined by a respondent's ability to read part or all of a sentence in any language that the respondent knew. The questions assessing literacy were asked only of respondents who had not attended school or who attended primary school only. Literacy is widely acknowledged as benefiting both the individual and society and is associated with a number of positive outcomes for health, nutrition, and status of both men and women.

Tables 3.3.1 and 3.3.2 show that men are twice as likely to be literate as women (70 percent and 35 percent, respectively). As expected, literacy is much lower among rural women and men than among those living in the urban areas. A higher proportion of women (43 percent) and men (79 percent) living in the hill ecological zone are literate, compared with those in the mountain and *terai* zones. Women living in the Western development region and men living in the Western and Mid-western regions are more likely to be literate than those living in the other development regions. The percentage of literate women is highest in the Western hill subregion (62 percent), while literacy is highest among men residing in the Mid-western hill subregion (87 percent).

Nepal has an active literacy program. Consequently, the 2001 NDHS added a question to ascertain the proportion of women and men who have attended a literacy program. Tables 3.3.1 and 3.3.2 show that women are much more likely to have participated in a literacy program than men, with 19 percent of women and 5 percent of men having done so.

Table 3.3.1 Literacy of women

Percent distribution of women by level of schooling attended and by level of literacy, percent literate, and percentage who have participated in a literacy program, according to background characteristics, Nepal 2001

Background characteristic	Primary school or no schooling					Total	Number of women	Percent literate ¹	Percent who have participated in a literacy program
	Secondary school or higher	Can read a whole sentence	Can read part of a sentence	Cannot read at all	No card with required language				
Age									
15-19	21.7	21.6	9.0	47.2	0.5	100.0	941	52.3	19.4
20-24	22.6	18.7	7.1	51.4	0.2	100.0	1,658	48.4	20.2
25-29	15.9	16.8	7.0	60.2	0.1	100.0	1,666	39.7	19.5
30-34	11.8	16.3	7.4	64.1	0.3	100.0	1,427	35.5	21.8
35-39	6.3	11.8	4.5	77.1	0.2	100.0	1,168	22.7	18.7
40-44	3.7	11.3	5.6	79.1	0.2	100.0	1,030	20.7	16.3
45-49	3.3	7.8	5.6	83.3	0.0	100.0	837	16.7	16.3
Residence									
Urban	37.9	18.7	7.4	35.8	0.2	100.0	841	64.0	13.8
Rural	10.6	15.1	6.6	67.5	0.2	100.0	7,885	32.2	19.8
Ecological zone									
Mountain	6.6	10.9	6.5	76.0	0.0	100.0	602	24.0	22.1
Hill	14.8	20.4	8.1	56.7	0.0	100.0	3,615	43.2	25.2
Terai	12.8	12.0	5.6	69.2	0.4	100.0	4,509	30.5	14.0
Development region									
Eastern	16.5	15.4	6.3	61.4	0.5	100.0	2,098	38.1	14.7
Central	11.5	10.5	5.9	72.1	0.0	100.0	2,804	27.9	14.5
Western	18.1	26.9	5.9	48.8	0.3	100.0	1,771	50.9	26.9
Mid-western	9.2	12.9	10.4	67.4	0.1	100.0	1,197	32.4	25.7
Far-western	6.3	11.5	6.6	75.6	0.0	100.0	855	24.4	21.0
Subregion									
Eastern Mountain	19.1	20.9	9.7	50.3	0.0	100.0	126	49.7	17.0
Central Mountain	4.1	13.4	8.4	74.2	0.0	100.0	209	25.8	35.9
Western Mountain	2.8	4.3	3.5	89.4	0.0	100.0	267	10.6	13.6
Eastern Hill	10.5	21.2	7.2	61.1	0.0	100.0	580	38.9	21.0
Central Hill	18.6	16.9	8.2	56.1	0.1	100.0	945	43.7	23.0
Western Hill	22.4	31.7	7.5	38.4	0.0	100.0	1,075	61.6	30.5
Mid-western Hill	6.6	11.8	10.7	70.9	0.0	100.0	648	29.1	26.8
Far-western Hill	4.2	10.1	5.8	79.9	0.0	100.0	368	20.1	19.4
Eastern Terai	18.8	12.4	5.6	62.5	0.7	100.0	1,393	36.7	11.8
Central Terai	8.4	6.4	4.3	80.9	0.0	100.0	1,651	19.1	6.9
Western Terai	11.5	19.6	3.4	64.9	0.7	100.0	696	34.4	21.3
Mid-western Terai	15.0	16.4	11.5	56.7	0.4	100.0	438	42.9	26.2
Far-western Terai	9.9	16.6	9.3	64.2	0.0	100.0	331	35.8	27.3
Total	13.2	15.4	6.7	64.5	0.2	100.0	8,726	35.3	19.2

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

Table 3.3.2 Literacy of men

Percent distribution of men by level of schooling attended and by level of literacy, percent literate, and percentage who have participated in a literacy program, according to background characteristics, Nepal 2001

Background characteristic	Primary school or no schooling					Total	Number of men	Percent literate ¹	Percent who have participated in a literacy program
	Secondary school or higher	Can read a whole sentence	Can read part of a sentence	Cannot read at all	No card with required language				
Age									
15-19	38.3	37.2	7.9	16.6	0.0	100.0	70	83.4	2.2
20-24	49.0	28.9	6.6	15.5	0.0	100.0	295	84.5	3.0
25-29	46.1	22.6	7.6	23.7	0.0	100.0	340	76.3	3.6
30-34	38.0	22.8	9.2	29.7	0.2	100.0	344	70.1	4.2
35-39	31.1	27.5	6.4	34.5	0.4	100.0	322	65.1	5.6
40-44	25.1	31.3	12.4	31.1	0.0	100.0	261	68.9	5.9
45-49	25.2	31.0	5.7	38.1	0.0	100.0	243	61.9	5.5
50-54	18.1	32.4	12.8	36.1	0.6	100.0	216	63.3	9.1
55-59	8.3	31.0	13.5	47.1	0.0	100.0	171	52.9	8.7
Residence									
Urban	57.5	19.6	8.5	14.4	0.0	100.0	227	85.6	3.4
Rural	29.9	29.0	8.9	32.0	0.2	100.0	2,034	67.8	5.4
Ecological zone									
Mountain	22.3	30.9	11.1	35.7	0.0	100.0	151	64.3	6.9
Hill	35.3	36.0	7.9	20.5	0.3	100.0	896	79.2	4.9
Terai	32.0	21.9	9.3	36.7	0.1	100.0	1,214	63.2	5.3
Development region									
Eastern	35.1	23.1	9.3	32.5	0.0	100.0	583	67.5	3.6
Central	29.6	29.1	6.6	34.7	0.0	100.0	750	65.3	6.1
Western	36.3	32.1	7.6	23.4	0.6	100.0	436	76.0	5.6
Mid-western	34.2	28.2	13.5	23.8	0.3	100.0	295	75.9	7.1
Far-western	26.6	30.1	12.0	31.4	0.0	100.0	197	68.6	2.9
Subregion									
Eastern Mountain	36.0	31.4	8.1	24.4	0.0	100.0	33	75.6	4.7
Central Mountain	19.7	40.2	9.4	30.8	0.0	100.0	59	69.2	11.1
Western Mountain	17.3	21.2	14.4	47.1	0.0	100.0	59	52.9	3.8
Eastern Hill	30.3	30.8	10.3	28.7	0.0	100.0	161	71.3	2.7
Central Hill	36.7	37.2	7.0	19.1	0.0	100.0	278	80.9	5.3
Western Hill	37.2	36.7	6.6	18.4	1.1	100.0	235	80.5	5.8
Mid-western Hill	39.0	39.7	7.8	13.5	0.0	100.0	143	86.5	6.7
Far-western Hill	28.4	33.7	10.9	27.1	0.0	100.0	80	72.9	1.3
Eastern Terai	37.1	19.2	9.1	34.7	0.0	100.0	389	65.3	3.9
Central Terai	26.3	22.1	5.9	45.7	0.0	100.0	413	54.3	5.9
Western Terai	35.3	26.8	8.7	29.2	0.0	100.0	201	70.8	5.4
Mid-western Terai	32.0	19.2	19.7	28.4	0.7	100.0	126	70.9	7.6
Far-western Terai	29.1	26.1	12.2	32.7	0.0	100.0	85	67.3	4.8
Total	32.7	28.1	8.9	30.2	0.2	100.0	2,261	69.6	5.2

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

3.4 EXPOSURE TO MASS MEDIA

The 2001 NDHS collected information on the exposure of respondents to both the broadcast and print media. Women were asked whether they usually read a newspaper or magazine at least once a week, listen to the radio daily, and watch television at least once a week. This information is important because it provides some indication of the extent to which Nepalese women are exposed to family planning and health messages in the mass media. As shown in Table 3.4.1, only 7 percent of women read a newspaper or magazine at least once a week, 23 percent watch television at least once a week, and 39 percent listen to the radio daily. Only 4 percent of women are exposed to all three media, and 51 percent have no access to any of the three media. Data from the 1996 NFHS show that there has been considerable improvement in women's exposure to the media over the last five years. For example, exposure to television nearly doubled between 1996 and 2001, from 12 percent to 23 percent. During the same period, the percentage of women not exposed to any of the three media declined from 59 percent in 1996 to 51 percent in 2001. Generally, men have more exposure to the mass media than women (Table 3.4.2). Thirteen percent of men are exposed to all three media, and only 32 percent of men have no access to any of the three media. The radio is the most common media source for both women and men.

Exposure to the media does not vary much by women's age. In the case of men, exposure to mass media is highest among those age 20-24.

Urban women and men have greater exposure to all types of media than rural women and men. In urban areas, 50 percent of women listen to the radio daily, 77 percent watch television at least once a week, and 28 percent read a newspaper or magazine at least once a week, while the corresponding data for rural women are 37 percent, 18 percent, and 5 percent, respectively. A similar pattern is observed for men. Irrespective of the region, the level of exposure of respondents to radio broadcasts is greater than to all other media sources, except in the Central *terai* subregion for women and the Eastern *terai* and Central *terai* subregions for men, where weekly television exposure is greater than daily radio exposure. Access to media sources is lowest in the mountain ecological zone, the Far-western development region and the Western mountain subregion for both women and men.

Not surprisingly, media exposure is highly related to the educational level of respondents. Three-fifths of women and half of men with no education have no exposure to the mass media in contrast to 5 percent of women and 4 percent of men who have completed their School Leaving Certificate (SLC). Educated women and men also have greater access to all three media sources. Whereas 36 percent of women and 49 percent of men who have completed their SLC are exposed to all three media sources, women and men with no education have almost no exposure. Less educated women and men are more likely to be exposed to the radio than to other media, but even then, only one in three women and two in five men with no education listen to the radio daily. The lower level of exposure to the media among uneducated women and men, who are also more likely to be poor, may be because they cannot afford radios, televisions, and newspapers.

Table 3.4.1 Exposure to mass media: women

Percentage of women who usually read a newspaper at least once a week, watch television at least once a week, and listen to the radio every day, by background characteristics, Nepal 2001

Background characteristic	Reads a newspaper at least once a week	Watches television at least once a week	Listens to the radio every day	All three media	No media	Number of women
Age						
15-19	10.3	21.9	41.8	3.8	48.2	941
20-24	9.6	25.2	40.3	4.7	48.8	1,658
25-29	7.9	23.4	36.6	4.4	52.4	1,666
30-34	8.0	23.8	40.9	5.0	49.0	1,427
35-39	4.7	21.9	36.1	2.5	53.6	1,168
40-44	3.9	22.1	35.8	2.3	53.9	1,030
45-49	3.9	22.0	38.6	3.0	52.5	837
Residence						
Urban	28.0	76.5	50.3	17.2	14.3	841
Rural	5.0	17.5	37.4	2.4	55.0	7,885
Ecological zone						
Mountain	2.4	4.4	33.6	1.2	64.8	602
Hill	8.8	17.2	48.3	4.3	46.1	3,615
Terai	6.5	30.5	31.5	3.8	53.2	4,509
Development region						
Eastern	9.2	35.7	48.3	5.5	38.6	2,098
Central	8.0	26.1	28.5	4.7	57.7	2,804
Western	7.7	20.2	46.1	3.3	45.1	1,771
Mid-western	4.9	8.9	41.0	2.3	55.6	1,197
Far-western	2.0	8.9	29.2	0.6	65.6	855
Subregion						
Eastern Mountain	8.2	12.4	52.7	4.5	44.5	126
Central Mountain	1.8	5.1	33.2	0.8	64.3	209
Western Mountain	0.2	0.2	24.8	0.0	74.7	267
Eastern Hill	7.4	16.9	52.3	2.3	42.5	580
Central Hill	17.8	35.8	49.5	10.9	37.9	945
Western Hill	8.5	15.9	58.8	3.3	36.7	1,075
Mid-western Hill	2.4	1.5	38.5	0.6	61.4	648
Far-western Hill	0.7	1.0	25.9	0.0	73.0	368
Eastern Terai	10.1	45.7	46.2	6.9	36.4	1,393
Central Terai	3.2	23.2	15.9	1.6	68.2	1,651
Western Terai	6.5	26.9	26.5	3.2	58.2	696
Mid-western Terai	9.8	22.0	49.8	5.2	40.9	438
Far-western Terai	4.1	21.7	33.7	1.5	54.6	331
Education						
No education	0.7	14.5	30.9	0.2	61.7	6,279
Primary	9.4	33.2	50.3	4.7	34.5	1,294
Some secondary	32.1	55.0	64.9	17.0	14.0	814
SLC and above	60.5	68.7	73.8	35.8	5.2	339
Total	7.2	23.2	38.6	3.9	51.0	8,726

SLC = School Leaving Certificate

Table 3.4.2 Exposure to mass media: men

Percentage of men who usually read a newspaper at least once a week, watch television at least once a week, and listen to the radio every day, by background characteristics, Nepal 2001

Background characteristic	Reads a newspaper at least once a week	Watches television at least once a week	Listens to the radio every day	All three media	No media	Number of men
Age						
15-19	22.1	34.7	50.7	10.3	31.5	70
20-24	31.9	45.7	63.3	17.8	20.8	295
25-29	32.9	38.9	56.1	12.9	25.7	340
30-34	27.0	36.4	52.3	16.0	33.8	344
35-39	28.7	32.7	54.7	13.3	34.0	322
40-44	24.6	28.9	51.5	12.9	36.9	261
45-49	21.5	33.8	54.8	14.3	33.2	243
50-54	17.8	24.9	49.5	8.4	41.5	216
55-59	12.2	19.4	55.2	7.5	38.2	171
Residence						
Urban	62.3	78.6	62.3	40.6	7.9	227
Rural	21.7	28.9	53.9	10.3	34.9	2,034
Ecological zone						
Mountain	14.4	7.0	48.6	4.2	48.2	151
Hill	26.5	24.5	64.2	13.5	29.0	896
Terai	26.6	44.1	48.4	14.3	32.6	1,214
Development region						
Eastern	28.3	44.1	54.3	15.3	29.2	583
Central	25.3	45.4	53.5	15.4	28.1	750
Western	30.3	25.7	56.1	14.6	34.0	436
Mid-western	20.6	9.9	57.6	6.5	39.7	295
Far-western	17.5	13.5	53.4	6.8	41.9	197
Subregion						
Eastern Mountain	19.8	10.5	45.3	7.0	51.2	33
Central Mountain	16.2	12.0	63.2	6.8	32.5	59
Western Mountain	9.6	0.0	35.6	0.0	62.5	59
Eastern Hill	22.1	22.8	64.2	10.9	32.1	161
Central Hill	34.1	45.8	69.3	22.0	17.3	278
Western Hill	33.3	20.1	63.2	14.8	29.7	235
Mid-western Hill	13.9	3.8	59.6	3.8	40.4	143
Far-western Hill	11.9	4.3	58.2	3.0	40.5	80
Eastern Terai	31.6	55.8	50.9	17.8	26.1	389
Central Terai	20.7	50.0	41.5	12.2	34.7	413
Western Terai	26.8	32.2	47.8	14.3	38.9	201
Mid-western Terai	28.9	19.0	60.6	11.0	33.8	126
Far-western Terai	28.1	27.3	54.5	13.0	35.9	85
Education						
No education	3.2	19.1	39.4	1.1	50.9	852
Primary	16.4	30.1	54.4	7.1	32.1	670
Some secondary	47.8	44.2	67.9	23.1	15.4	452
SLC and above	79.6	70.2	80.1	48.8	3.7	287
Total	25.8	33.9	54.7	13.3	32.2	2,261

SLC = School Leaving Certificate

3.5 EMPLOYMENT STATUS

In the 2001 NDHS, respondents were asked a number of questions about employment, including whether they were currently working, and, if not, whether they had worked during the 12 months before the survey. Those who were currently working were then asked a number of questions about the kind of work they were doing and whether they were paid in cash. Women who earned cash for their work were asked who made the decision about how their earnings were used.

Table 3.5.1 and Figure 3.1 show current employment status by background characteristics of women. Eighty-three percent of women were working at the time of the survey, 1 percent were not currently employed but had worked in the 12 months prior to the survey, and 16 percent had not worked in the 12 months prior to the survey.

The percentage currently employed rises with age from 71 percent among women age 15-19 to 89 percent among women age 40-49. Currently married women are less likely to be currently employed than women who are divorced, separated, or widowed. The proportion of women currently employed increases with the number of living children they have. Current employment is much higher among rural women than among urban women (86 percent and 55 percent, respectively). The proportion of women who are currently working is higher in the mountain ecological zone than in the *terai* and hill zones. The proportion of women currently employed is much higher in the Far-western development region than in the other regions. A similar pattern was observed in the 1996 NFHS.

In a relatively less industrialized country like Nepal, education is no guarantee for employment. As observed in the 1996 NFHS, the 2001 NDHS also shows that the percentage of women currently employed decreases with the level of education. For example, 87 percent of women with no education are currently employed, compared with 56 percent of women with an SLC. This is perhaps because employment opportunities are limited in the service sector, where most educated persons seek employment, or because more educated women are wealthier and do not have to work.

Table 3.5.2 shows employment information for men. Ninety-seven percent of men were working at the time of the survey, 1 percent worked in the 12 months prior to the survey, and 2 percent had not worked in the 12 months preceding the survey.

Current employment is lowest among men age 15-19 because a relatively high percentage of men in this age group are still studying (11 percent). There is no difference in the employment status of men in the urban and rural areas. Similarly, there is hardly any difference in the employment status of men by ecological zone, development region, and subregion, with the exception the Western hills, where 8 percent of the men were not employed at the time of the survey. Unlike women, ever-married men are equally likely to be employed, regardless of their educational attainment.

Table 3.5.1 Employment status: women

Percent distribution of women by employment status, according to background characteristics, Nepal 2001

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	Not currently employed			
Age					
15-19	71.0	0.8	28.1	100.0	941
20-24	74.2	1.8	24.0	100.0	1,658
25-29	83.1	1.5	15.5	100.0	1,666
30-34	88.3	1.0	10.7	100.0	1,427
35-39	88.0	1.2	10.8	100.0	1,168
40-44	89.1	0.7	10.1	100.0	1,030
45-49	88.7	1.0	10.3	100.0	837
Marital status					
Married	82.5	1.2	16.3	100.0	8,342
Divorced/separated/widowed	91.5	1.5	7.1	100.0	384
Number of living children					
0	73.9	1.3	24.8	100.0	1,051
1-2	78.5	1.5	20.0	100.0	3,101
3-4	86.3	0.9	12.8	100.0	3,016
5+	91.0	1.1	7.9	100.0	1,557
Residence					
Urban	55.4	2.4	42.2	100.0	841
Rural	85.8	1.1	13.1	100.0	7,885
Ecological zone					
Mountain	97.1	0.7	2.2	100.0	602
Hill	92.0	1.1	7.0	100.0	3,615
Terai	73.7	1.4	25.0	100.0	4,509
Development region					
Eastern	78.6	1.6	19.8	100.0	2,098
Central	74.8	1.3	23.9	100.0	2,804
Western	88.1	1.5	10.4	100.0	1,771
Mid-western	90.6	0.6	8.8	100.0	1,197
Far-western	98.0	0.2	1.8	100.0	855
Subregion					
Eastern Mountain	94.2	0.6	5.2	100.0	126
Central Mountain	96.2	0.5	3.3	100.0	209
Western Mountain	99.1	0.9	0.0	100.0	267
Eastern Hill	96.6	0.2	3.2	100.0	580
Central Hill	83.7	1.7	14.6	100.0	945
Western Hill	89.9	1.8	8.2	100.0	1,075
Mid-western Hill	98.7	0.3	1.0	100.0	648
Far-western Hill	99.8	0.2	0.0	100.0	368
Eastern Terai	69.7	2.3	28.0	100.0	1,393
Central Terai	67.1	1.1	31.8	100.0	1,651
Western Terai	85.3	0.9	13.8	100.0	696
Mid-western Terai	76.6	0.8	22.6	100.0	438
Far-western Terai	95.0	0.3	4.7	100.0	331
Education					
No education	86.6	1.1	12.4	100.0	6,279
Primary	79.9	1.1	19.0	100.0	1,294
Some secondary	70.3	1.8	27.9	100.0	814
SLC and above	55.9	2.7	41.4	100.0	339
Total	82.9	1.2	15.9	100.0	8,726

SLC = School Leaving Certificate

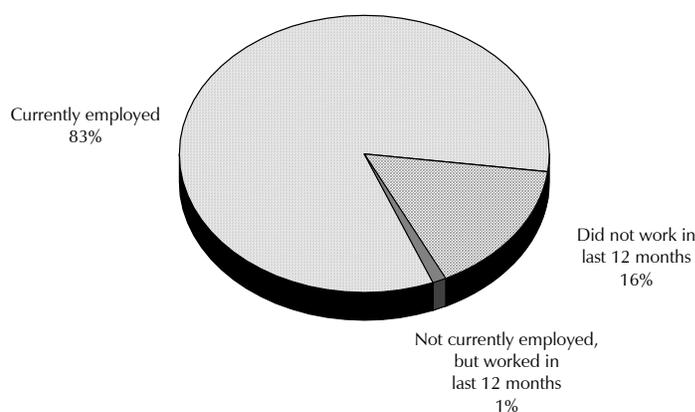
Table 3.5.2 Employment status : men

Percent distribution of men by employment status, and if not employed, their main activity during the 12 months preceding the survey, according to background characteristics, Nepal 2001

Background characteristic	Employed in the 12 months preceding the survey		Not employed in the 12 months preceding the survey					Total	Number of men
	Currently employed	Not currently employed	Going to school/ studying	Looking for work	Inactive	Could not work/ handicapped	Other		
Age									
15-19	89.1	0.0	10.9	0.0	0.0	0.0	0.0	100.0	70
20-24	95.7	1.3	2.9	0.0	0.0	0.0	0.1	100.0	295
25-29	97.7	1.1	0.0	0.8	0.4	0.0	0.0	100.0	340
30-34	97.9	0.8	0.0	0.0	0.4	0.6	0.4	100.0	344
35-39	97.9	1.9	0.0	0.0	0.2	0.0	0.0	100.0	322
40-44	98.7	0.4	0.0	0.0	0.0	0.9	0.0	100.0	261
45-49	95.8	1.4	0.0	0.6	0.4	1.9	0.0	100.0	243
50-54	95.2	2.4	0.0	0.0	0.4	2.0	0.0	100.0	216
55-59	93.4	1.0	0.0	0.0	2.0	3.6	0.0	100.0	171
Residence									
Urban	96.6	1.5	0.3	0.0	1.1	0.4	0.1	100.0	227
Rural	96.6	1.2	0.8	0.2	0.3	0.9	0.1	100.0	2,034
Ecological zone									
Mountain	97.2	0.5	1.0	0.0	0.3	1.0	0.0	100.0	151
Hill	96.2	1.7	0.7	0.3	0.3	0.8	0.0	100.0	896
Terai	96.8	1.0	0.7	0.1	0.4	0.9	0.1	100.0	1,214
Development region									
Eastern	96.5	1.6	0.2	0.2	0.8	0.5	0.2	100.0	583
Central	97.4	0.3	0.7	0.2	0.1	1.3	0.0	100.0	750
Western	94.9	3.3	0.5	0.3	0.3	0.8	0.0	100.0	436
Mid-western	97.1	0.3	1.6	0.0	0.3	0.7	0.0	100.0	295
Far-western	96.8	0.5	1.4	0.0	0.3	0.8	0.2	100.0	197
Subregion									
Eastern Mountain	95.3	2.3	0.0	0.0	1.2	1.2	0.0	100.0	33
Central Mountain	97.4	0.0	1.7	0.0	0.0	0.9	0.0	100.0	59
Western Mountain	98.1	0.0	1.0	0.0	0.0	1.0	0.0	100.0	59
Eastern Hill	98.6	0.7	0.7	0.0	0.0	0.0	0.0	100.0	161
Central Hill	98.4	0.3	0.0	0.5	0.3	0.5	0.0	100.0	278
Western Hill	91.7	5.6	0.0	0.6	0.6	1.5	0.0	100.0	235
Mid-western Hill	96.2	0.0	2.7	0.0	0.0	1.1	0.0	100.0	143
Far-western Hill	97.0	0.0	1.5	0.0	0.8	0.8	0.0	100.0	80
Eastern Terai	95.7	1.9	0.0	0.3	1.1	0.6	0.3	100.0	389
Central Terai	96.7	0.4	1.1	0.0	0.0	1.9	0.0	100.0	413
Western Terai	98.5	0.5	1.0	0.0	0.0	0.0	0.0	100.0	201
Mid-western Terai	98.0	0.7	0.7	0.0	0.7	0.0	0.0	100.0	126
Far-western Terai	96.0	1.2	1.2	0.0	0.0	1.2	0.4	100.0	85
Education									
No education	96.7	1.2	0.0	0.0	0.4	1.7	0.0	100.0	852
Primary	98.1	0.9	0.1	0.2	0.0	0.8	0.0	100.0	670
Some secondary	94.7	2.2	2.2	0.0	0.9	0.0	0.1	100.0	452
SLC and above	95.5	0.8	2.1	0.9	0.3	0.0	0.4	100.0	287
Total	96.6	1.2	0.7	0.2	0.4	0.9	0.1	100.0	2,261

SLC = School Leaving Certificate

Figure 3.1 Employment Status of Women Age 15-49



Nepal 2001

3.6 OCCUPATION

Tables 3.6.1 and 3.6.2 show data on employed women and men by their current occupation according to background characteristics. Agriculture is the dominant sector of the economy of Nepal. More women than men are involved in this sector (91 percent and 64 percent, respectively). The proportion of women in agricultural occupations reported in the 2001 NDHS is exactly the same as that found in the 1991 Census (Central Bureau of Statistics, 1991) and the 1996 NFHS. Four percent of employed women are in sales or service occupations. Men have more opportunities in the nonagricultural sector, thus reducing their involvement in the agricultural sector. Eleven percent of working men are involved in professional, technical, managerial, or clerical occupations. Nine percent of men are involved in the sales and service sector, while another 9 percent work at skilled manual jobs.

As expected, rural women are more likely than urban women to be employed in the agricultural sector: 94 percent of rural women compared with 48 percent of urban women. The pattern is similar for men, with 70 percent of rural working men employed in the agricultural sector, compared with only 18 percent of urban men. About one-fifth of urban working women are in sales and services and 15 percent are in skilled manual occupations. Some 33 percent of working men in the urban areas are involved in the sales and service sector, compared with only 6 percent in the rural areas. Respondents living in the mountain ecological zone are slightly more likely to be working in the agricultural sector than those in the hill and *terai* zones. The highest proportion of women (one in four) engaged in the nonagricultural sector is in the Central hill subregion. This is not surprising since Kathmandu, the capital and largest urban center, is located there. There has been a slight increase in the proportion of women involved in the nonagricultural sector when compared with data from the 1996 NFHS.

Table 3.6.1 Occupation: women

Percent distribution of women employed in the 12 months preceding the survey by occupation, according to background characteristics, Nepal 2001

Background characteristic	Professional/ technical/ managerial	Clerical	Sales and services	Skilled manual	Unskilled manual	Agriculture	Total	Number of women
Age								
15-19	1.2	0.2	1.9	2.1	0.4	94.1	100.0	676
20-24	1.8	0.6	4.5	2.5	0.3	90.3	100.0	1,260
25-29	2.0	0.1	4.5	3.0	0.4	89.9	100.0	1,408
30-34	2.5	0.6	5.4	2.4	0.8	88.3	100.0	1,274
35-39	1.1	0.7	3.7	2.2	0.5	91.7	100.0	1,041
40-44	1.7	0.3	4.9	1.6	0.8	90.8	100.0	926
45-49	0.7	0.4	4.7	1.1	0.0	92.9	100.0	750
Marital status								
Married	1.7	0.4	4.2	2.2	0.4	91.1	100.0	6,979
Divorced/separated/ widowed	2.6	1.2	6.7	2.6	1.8	85.2	100.0	357
Number of living children								
0	2.1	0.3	3.3	3.1	0.2	90.9	100.0	790
1-2	2.7	0.4	5.0	3.1	0.5	88.2	100.0	2,481
3-4	1.4	0.4	4.7	1.8	0.4	91.2	100.0	2,631
5+	0.4	0.3	3.2	1.0	0.7	94.4	100.0	1,434
Residence								
Urban	8.7	3.8	21.4	14.8	3.2	47.7	100.0	486
Rural	1.2	0.2	3.2	1.3	0.3	93.8	100.0	6,850
Ecological zone								
Mountain	0.4	0.2	3.0	0.5	0.0	96.0	100.0	589
Hill	1.7	0.4	4.2	3.1	0.4	90.1	100.0	3,364
Terai	2.0	0.4	4.7	1.7	0.6	90.5	100.0	3,383
Development region								
Eastern	1.8	0.5	6.0	2.4	0.9	88.4	100.0	1,683
Central	1.9	0.8	5.5	4.2	0.4	87.2	100.0	2,135
Western	1.9	0.2	4.2	1.1	0.6	92.0	100.0	1,587
Mid-western	1.8	0.1	2.7	1.0	0.2	94.2	100.0	1,092
Far-western	0.4	0.1	0.9	0.8	0.1	97.6	100.0	840
Subregion								
Eastern Mountain	0.6	0.3	10.9	0.3	0.0	87.9	100.0	119
Central Mountain	0.5	0.3	1.8	0.0	0.0	97.4	100.0	202
Western Mountain	0.2	0.0	0.4	0.9	0.0	98.5	100.0	267
Eastern Hill	0.4	0.0	1.6	2.8	0.0	95.3	100.0	561
Central Hill	3.6	1.7	8.1	8.8	1.0	76.8	100.0	807
Western Hill	2.3	0.1	5.3	1.5	0.6	90.1	100.0	987
Mid-western Hill	0.4	0.0	1.8	0.3	0.0	97.6	100.0	641
Far-western Hill	0.1	0.0	1.0	0.1	0.2	98.6	100.0	368
Eastern Terai	2.8	0.7	7.8	2.4	1.5	84.6	100.0	1,003
Central Terai	0.9	0.3	4.3	1.6	0.0	92.9	100.0	1,126
Western Terai	1.2	0.3	2.3	0.4	0.5	95.2	100.0	600
Mid-western Terai	5.2	0.2	4.8	2.6	0.5	86.4	100.0	339
Far-western Terai	0.9	0.2	1.2	1.3	0.2	96.3	100.0	315
Education								
No education	0.4	0.3	2.9	1.3	0.6	94.5	100.0	5,502
Primary	1.0	0.4	5.6	3.9	0.3	88.8	100.0	1,047
Some secondary	4.6	1.1	13.4	6.5	0.1	74.2	100.0	587
SLC and above	33.2	2.0	11.7	5.2	0.0	47.5	100.0	199
Total	1.7	0.4	4.4	2.2	0.5	90.8	100.0	7,336

SLC = School Leaving Certificate

Table 3.6.2 Occupation: men

Percent distribution of men employed in the 12 months preceding the survey by occupation, according to background characteristics, Nepal 2001

Background characteristic	Professional/ technical/ managerial	Clerical	Sales and services	Skilled manual	Unskilled manual	Agriculture	Don't know/ missing	Total	Number of men
Age									
15-19	0.0	0.0	9.3	23.0	13.2	53.6	0.9	100.0	62
20-24	3.2	5.3	8.3	12.7	11.6	58.9	0.0	100.0	286
25-29	4.9	6.3	9.3	10.6	9.5	59.3	0.0	100.0	336
30-34	7.1	5.1	12.2	7.8	6.8	61.1	0.0	100.0	340
35-39	7.3	6.8	9.3	8.3	6.6	61.7	0.0	100.0	321
40-44	7.1	6.8	7.9	7.9	6.1	64.2	0.0	100.0	258
45-49	7.8	1.5	8.1	8.1	6.6	67.9	0.0	100.0	236
50-54	4.5	4.5	6.5	4.8	3.8	75.9	0.0	100.0	211
55-59	4.1	0.6	6.4	7.1	1.3	80.6	0.0	100.0	161
Marital status									
Married	5.9	4.9	8.8	9.0	7.1	64.2	0.0	100.0	2,151
Divorced/separated/ widowed	0.0	2.5	9.7	9.4	8.9	69.5	0.0	100.0	60
Number of living children									
0	2.2	4.6	8.0	11.1	7.2	66.8	0.2	100.0	372
1-2	6.2	5.3	9.8	11.7	8.6	58.4	0.0	100.0	784
3-4	7.3	5.1	8.9	6.7	6.3	65.7	0.0	100.0	727
5+	4.8	3.3	7.4	5.8	5.9	72.8	0.0	100.0	330
Residence									
Urban	14.8	14.3	33.0	12.8	7.4	17.7	0.0	100.0	223
Rural	4.7	3.8	6.2	8.6	7.2	69.6	0.0	100.0	1,989
Ecological zone									
Mountain	4.2	2.0	6.6	10.5	3.1	73.2	0.4	100.0	147
Hill	6.7	5.6	7.6	10.5	5.1	64.4	0.0	100.0	877
Terai	5.1	4.6	10.0	7.8	9.2	63.2	0.0	100.0	1,187
Development region									
Eastern	6.7	4.6	9.7	9.1	9.9	59.9	0.0	100.0	572
Central	5.1	5.4	11.6	11.3	4.9	61.7	0.0	100.0	733
Western	5.6	5.8	8.0	8.5	10.1	62.0	0.0	100.0	428
Mid-western	6.2	1.9	4.8	4.9	5.3	76.8	0.2	100.0	287
Far-western	4.3	5.5	3.7	7.6	4.4	74.4	0.0	100.0	192
Sub-region									
Eastern Mountain	4.8	6.0	15.5	6.0	6.0	61.9	0.0	100.0	32
Central Mountain	5.3	0.9	5.3	17.5	3.5	67.5	0.0	100.0	58
Western Mountain	2.9	1.0	2.9	5.9	1.0	85.3	1.0	100.0	57
Eastern Hill	5.3	2.1	3.4	7.6	2.8	78.9	0.0	100.0	160
Central Hill	9.0	10.0	13.6	11.5	2.8	53.1	0.0	100.0	274
Western Hill	8.3	6.9	7.7	13.5	10.8	52.7	0.0	100.0	229
Mid-western Hill	3.5	0.0	3.5	7.5	4.7	80.9	0.0	100.0	137
Far-western Hill	2.9	3.1	2.3	9.9	2.6	79.1	0.0	100.0	78
Eastern Terai	7.5	5.6	11.9	10.0	13.2	51.8	0.0	100.0	380
Central Terai	2.4	2.9	11.2	10.3	6.5	66.7	0.0	100.0	401
Western Terai	2.5	4.5	8.3	2.8	9.3	72.6	0.0	100.0	199
Mid-western Terai	9.5	4.3	6.8	2.7	6.6	70.1	0.0	100.0	124
Far-western Terai	6.6	9.3	4.9	4.9	7.8	66.4	0.0	100.0	82
Education									
No education	0.5	3.8	4.4	8.7	8.0	74.6	0.0	100.0	834
Primary	0.8	4.1	7.8	11.7	9.7	65.9	0.0	100.0	663
Some secondary	2.7	8.2	13.4	7.4	5.1	63.1	0.1	100.0	438
SLC and above	37.7	4.5	17.7	6.4	2.0	31.7	0.0	100.0	276
Total	5.7	4.8	8.9	9.1	7.2	64.4	0.0	100.0	2,211

SLC = School Leaving Certificate

It is clear that education influences the type of occupation. As one becomes more educated, employment opportunities in the nonagricultural sector increase. Among employed women who have passed their SLC, 35 percent are involved in professional or clerical occupations, and 12 percent are engaged in sales and services. Similarly, among men who have passed at least their SLC, 42 percent are involved in professional or clerical occupations and 18 percent are engaged in sales and services.

3.7 TYPE OF EMPLOYMENT

Although employment is assumed to go hand in hand with payment, not all women and men who work get paid. Tables 3.7.1 and 3.7.2 show the type of employment for women and men. Among employed women, 71 percent are not paid (Figure 3.2). This is more common among women who work in the agricultural sector (77 percent). Only 15 percent of employed women receive cash earnings (including women who are paid in cash and in-kind). Among employed men, 43 percent are not paid; this is mostly true in the agricultural sector (64 percent). Forty-two percent of men receive cash for their work.

<u>Table 3.7.1 Type of employment: women</u>			
Percent distribution of women 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 2001			
Employment characteristic	Agricultural work	Nonagricultural work	Total
Type of earnings			
Cash only	2.3	80.4	9.5
Cash and in-kind	5.0	4.5	5.0
In-kind only	15.7	1.8	14.4
Not paid	77.0	13.3	71.1
Total	100.0	100.0	100.0
Type of employer			
Employed by family member	53.5	15.8	50.1
Employed by nonfamily member	15.1	37.5	17.2
Self-employed	31.4	46.7	32.8
Total	100.0	100.0	100.0
Continuity of employment			
All year	77.0	84.9	77.7
Seasonal	20.9	6.2	19.6
Occasional	2.0	8.9	2.7
Total	100.0	100.0	100.0
Number of women	6,658	674	7,336
Note: Total includes 3 women with missing information on type of employment who are not shown separately.			

There has been some change in the type of employment women are involved in over the last five years. A comparison of data collected in the 1996 NFHS and 2001 NDHS shows that more women are self-employed now than five years ago (33 percent in 2001 compared with only 7 percent in 1996). Similarly, the proportion of women working for a nonfamily member has increased to 17 percent compared with only 9 percent in 1996. The proportion of women working for a family member has dropped from 84 percent in 1996 to 50 percent in 2001. This probably indicates that women have more options to go beyond family work in more recent years.

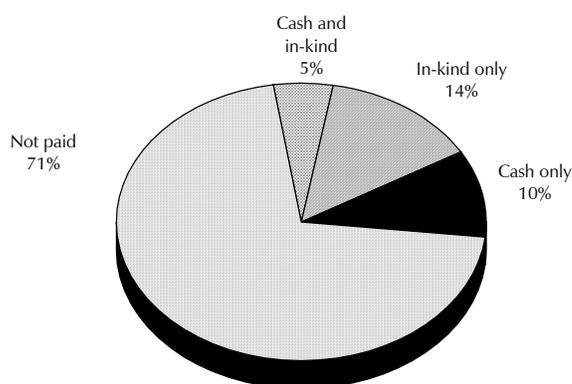
More than three-quarters of employed women work all year, while 20 percent work seasonally. As expected, agricultural work is more likely to be seasonal than nonagricultural work.

Table 3.7.2 Type of employment: men
 Percent distribution of men employed in the 12 months preceding the survey by type of earnings, according to type of employment (agricultural or nonagricultural), Nepal 2001

Type of earnings	Agricultural work	Nonagricultural work	Total
Cash only	4.5	85.4	33.3
Cash and in-kind	8.1	9.8	8.7
In-kind only	23.1	1.1	15.2
Not paid	64.3	3.7	42.7
Total	100.0	100.0	100.0
Number of men	1,423	788	2,211

Note: Total includes 1 man with missing information on type of employment who is not shown separately.

Figure 3.2 Type of Earnings of Employed Women Age 15-49



Nepal 2001

3.8 DECISION ON USE OF EARNINGS

Access to income alone does not say much about the autonomy of women. They should be able to have control over their income. Employed women who earn cash for their work were asked about who primarily makes decisions on the use of their earnings. Table 3.8 shows that 43 percent of women who earn cash are solely responsible for decisions on the use of their earnings, while 36 percent of women report that they along with their husband or someone else jointly decide how the money should be spent. One in five women stated that they have no say in how their earnings are spent. The majority of women in this category are young women age 15-19. Being the sole decisionmaker rises with age. Married women are equally likely to decide on their own or jointly with their husband or someone else as to how their earnings are spent. On the other hand, women who are not currently married are the most likely to make their own decisions about spending their earnings.

Urban women have more control over their income than rural women. For example, 58 percent of urban women make their own decisions, compared with only 39 percent of rural women. Women living in the hill ecological zone and those residing in the Central region have more autonomy over their earnings than women residing in the other regions.

There are only slight differences in decisionmaking by educational level of women.

Information on the contribution of the respondent's income to the household expenditure was also gathered in the 2001 NDHS. It is expected that employment and earnings are more likely to empower women if their earnings are important for meeting the needs of their household. However, the income of women is often so small that it can barely meet household needs. Table 3.9 shows that the earnings of very young women (age 15-19) are less likely to contribute to a major share of household expenditures than those of older women (20-39 and 45-49). Not surprisingly, women who are divorced, separated, or widowed tend to contribute a major portion of household expenditure. As women's level of education increases, their contribution to the household expenditure also increases. In general, men's contribution to household expenditure is higher than that of women presumably because men are more likely to be employed for cash and usually earn more than women.

Table 3.8 Decision on use of earnings

Percent distribution of women who received cash earnings for work in the 12 months preceding the survey by person who decides how earnings are to be used, according to background characteristics, Nepal 2001

Background characteristic	Person who decides how earnings are used			Total	Number of women
	Self only	Jointly ¹	Someone else only ²		
Age					
15-19	25.4	18.3	56.3	100.0	57
20-24	36.7	35.4	27.8	100.0	173
25-29	40.7	35.8	23.5	100.0	213
30-34	40.6	40.7	18.8	100.0	221
35-39	47.8	36.6	15.7	100.0	139
40-44	54.6	31.5	13.9	100.0	160
45-49	50.6	38.3	11.1	100.0	98
Marital status					
Married	38.8	38.4	22.8	100.0	968
Divorced/separated/widowed	88.2	5.6	6.2	100.0	93
Number of living children					
0	39.2	28.4	32.4	100.0	104
1-2	42.9	32.5	24.6	100.0	414
3-4	45.6	39.6	14.9	100.0	382
5+	40.4	38.3	21.3	100.0	161
Residence					
Urban	57.8	29.1	13.1	100.0	251
Rural	38.6	37.5	23.9	100.0	810
Ecological zone					
Mountain	30.0	54.9	15.1	100.0	33
Hill	46.0	31.3	22.7	100.0	452
Terai	41.6	37.7	20.7	100.0	577
Development region					
Eastern	44.0	38.1	17.9	100.0	367
Central	53.0	28.7	18.4	100.0	303
Western	40.0	33.1	26.9	100.0	246
Mid-western	22.3	47.2	30.5	100.0	113
Far-western	37.6	47.4	15.1	100.0	32
Education					
No education	41.7	34.6	23.8	100.0	664
Primary	43.3	34.5	22.2	100.0	162
Some secondary	46.8	37.8	15.4	100.0	137
SLC and above	47.5	40.4	12.1	100.0	98
Total	43.1	35.5	21.4	100.0	1,061
SLC = School Leaving Certificate					
¹ With husband or someone else					
² Includes husband					

Table 3.9 Contribution of earnings to household expenditures

Percent distribution of women and men who received cash earnings for work in the 12 months preceding the survey by proportion of household expenditures met by earnings, according to background characteristics, Nepal 2001

Background characteristic	Women						Men						
	Almost none/ none	Less than half	Half or more	All	Missing	Total	Number of women	Almost none/ none	Less than half	Half or more	All	Total	Number of men
Age													
15-19	29.7	30.0	25.4	15.0	0.0	100.0	57	(0.0)	(14.5)	(36.1)	(49.4)	100.0	29
20-24	11.9	33.7	35.1	18.9	0.5	100.0	173	0.7	10.2	45.6	43.5	100.0	126
25-29	8.9	40.1	30.4	20.6	0.0	100.0	213	0.2	11.1	42.1	46.6	100.0	162
30-34	10.9	33.2	38.8	17.1	0.0	100.0	221	0.2	7.3	46.3	46.2	100.0	160
35-39	10.6	25.2	41.3	22.5	0.4	100.0	139	1.5	11.2	44.3	43.0	100.0	143
40-44	3.9	45.7	31.1	19.3	0.0	100.0	160	1.2	10.3	53.6	34.9	100.0	114
45-49	8.1	41.4	29.4	21.1	0.0	100.0	98	1.2	10.5	46.2	42.2	100.0	90
50-54	na	na	na	na	na	na	na	2.1	15.9	54.2	27.9	100.0	62
55-59	na	na	na	na	na	na	na	(0.0)	(13.6)	(43.7)	(42.6)	100.0	42
Marital status													
Married	10.7	36.8	34.4	18.1	0.1	100.0	968	0.8	10.6	46.8	41.8	100.0	908
Divorced/separated/ widowed	6.7	29.0	30.9	32.9	0.6	100.0	93	*	*	*	*	100.0	22
Number of living children													
0	20.9	32.0	27.6	19.5	0.0	100.0	104	0.9	17.9	44.3	36.8	100.0	142
1-2	11.6	33.0	34.8	20.3	0.2	100.0	414	0.4	9.4	39.8	50.5	100.0	376
3-4	7.7	36.0	36.5	19.7	0.1	100.0	382	1.2	9.1	52.0	37.7	100.0	303
5+	6.4	46.9	30.6	16.1	0.0	100.0	161	1.2	10.2	54.3	34.3	100.0	109
Residence													
Urban	11.1	28.1	38.1	22.4	0.3	100.0	251	1.4	9.4	34.7	54.6	100.0	180
Rural	10.1	38.6	32.8	18.5	0.1	100.0	810	0.7	11.0	48.9	39.4	100.0	750
Ecological zone													
Mountain	4.4	22.1	28.3	45.3	0.0	100.0	33	2.8	9.5	51.9	35.8	100.0	41
Hill	8.6	33.4	38.5	19.3	0.2	100.0	452	1.3	13.2	46.5	39.0	100.0	340
Terai	12.0	39.0	30.9	18.0	0.1	100.0	577	0.3	9.3	45.5	44.8	100.0	549
Development region													
Eastern	11.4	37.7	32.5	18.4	0.0	100.0	367	0.8	14.0	52.0	33.2	100.0	291
Central	12.8	31.0	36.0	20.0	0.3	100.0	303	0.5	8.7	35.7	55.1	100.0	344
Western	8.1	46.0	32.7	13.3	0.0	100.0	246	1.8	11.1	54.7	32.4	100.0	181
Mid-western	4.9	20.7	39.4	34.9	0.0	100.0	113	0.0	8.5	50.4	41.0	100.0	66
Far-western	12.0	44.3	25.2	16.8	1.6	100.0	32	0.0	6.4	47.8	45.8	100.0	48
Education													
No education	9.9	42.7	32.1	15.3	0.1	100.0	664	0.9	9.9	51.8	37.4	100.0	303
Primary	7.9	29.0	38.1	24.9	0.0	100.0	162	1.0	9.5	50.5	39.0	100.0	260
Some secondary	14.3	22.1	35.8	27.2	0.6	100.0	137	0.8	13.3	41.4	44.5	100.0	169
SLC and above	11.7	22.6	38.4	27.3	0.0	100.0	98	0.5	11.3	35.9	52.3	100.0	198
Total	10.3	36.1	34.1	19.4	0.1	100.0	1,061	0.8	10.7	46.2	42.3	100.0	930

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

SLC = School Leaving Certificate

Table 3.10 shows the percent distribution of currently married women who receive cash earnings by the person who decides how their earnings are used, according to their contribution to household expenditures. The table shows that a woman's autonomy over her earnings increases as their contribution to the household expenditures declines. For example, more than one in two women who contribute almost nothing toward household expenditure have sole autonomy over their earnings. On the other hand, women whose earnings constitute a larger proportion of household expenditures are also more likely to have their husband involved in the decisionmaking. For example, 46 percent of women whose earnings constitute all of the household expenditures make joint decisions with their husband.

Contribution to household expenditures	Person who decides how earnings are used					Total	Number of women
	Self only	Jointly with husband	Jointly with someone else		Husband only		
			Jointly with someone else	Someone else only			
Almost none/ none	54.1	17.0	2.1	15.1	11.8	100.0	103
Less than half	43.3	32.1	2.6	14.4	7.6	100.0	356
Half or more	33.9	42.4	1.4	16.8	5.5	100.0	333
All	30.1	46.0	1.2	17.6	5.1	100.0	175
Total	38.8	36.5	1.9	15.9	6.9	100.0	968

Note: Total includes 1 woman with missing information on contribution to household expenditures who is not shown separately

3.9 WOMEN'S EMPOWERMENT AND STATUS

Women's status has a direct effect on the health and nutritional status of women and children. Therefore, it is important to review information on the status of women in Nepal. Besides other indicators like educational attainment, type of employment, and control over income, the 2001 NDHS also reviewed indicators like decisionmaking within the household, women's attitudes toward wife beating, and their attitudes about the ability of married women to refuse sex with their husband. Women who have a greater say in household decisionmaking, women who do not believe that a man is justified in beating his wife for any reason, and women who feel women should be able to refuse sex with their husband for any reason are relatively more empowered.

HOUSEHOLD DECISIONMAKING

To assess women's weight in household decisionmaking, respondents were asked who in their family usually has the final say on five different types of decisions, namely, their own health care, large household purchases, daily household purchases, visits to family or relatives, and what food to cook each day. The percent distribution of women according to the person who usually has the final say in different decisions is shown in Table 3.11. The data are presented separately for women who are currently married and women who are divorced, separated, or widowed.

With the exception of what food to cook, husbands in Nepal have a greater say in decisionmaking than wives. For example, one in two married women states that their husband alone has final say in making decisions about the wife's health care. In general women have a much greater say in what food to cook each day since cooking is often perceived as women's work, with little male involvement. The data also show that two in five married women state that their husband makes the sole decision on the purchase of large household items, while one in three states that they need their husband's permission to visit family or relatives and to make daily household purchases. The table also shows that currently married women are much less likely to have a final say in any of the five types of decisions than women who are divorced, separated, or widowed. Even so, about one in four previously married women has someone else making decisions for them. Similar questions were posed to men in the 2001 NDHS. Men's responses closely reflected the situation indicated by women's responses (data not shown).

Decision	Currently married							Divorced/Separated/Widowed						
	Self only	Jointly with husband	Jointly with someone else	Husband only	Someone else only	Decision not made/not applicable	Number of women	Self only	Jointly with someone else	Someone else only	Decision not made/not applicable	Total	Number of women	
Own health care	13.4	12.1	1.8	51.0	21.1	0.5	100.0	8,342	65.6	5.9	27.7	0.8	100.0	384
Large household purchases	13.0	17.3	1.7	41.1	26.6	0.3	100.0	8,342	65.4	5.8	28.1	0.7	100.0	384
Daily household purchases	26.8	14.6	1.9	30.3	26.3	0.1	100.0	8,342	70.8	2.4	26.8	0.0	100.0	384
Visits to family or relatives	15.0	21.2	2.6	33.7	27.4	0.1	100.0	8,342	69.7	5.9	24.2	0.2	100.0	384
What food to cook each day	71.0	1.5	8.5	1.3	17.6	0.0	100.0	8,342	72.1	9.4	18.5	0.0	100.0	384

Table 3.12 shows how women's participation in household decisions varies by background characteristics. Note that women are considered as participating in a decision if they make decisions alone or jointly with their husband or someone else. Only one in five women has a say in all five decisions, while 15 percent have no say in any of the five decisions (Figure 3.3).

Table 3.12 Women's participation in decisionmaking by background characteristics

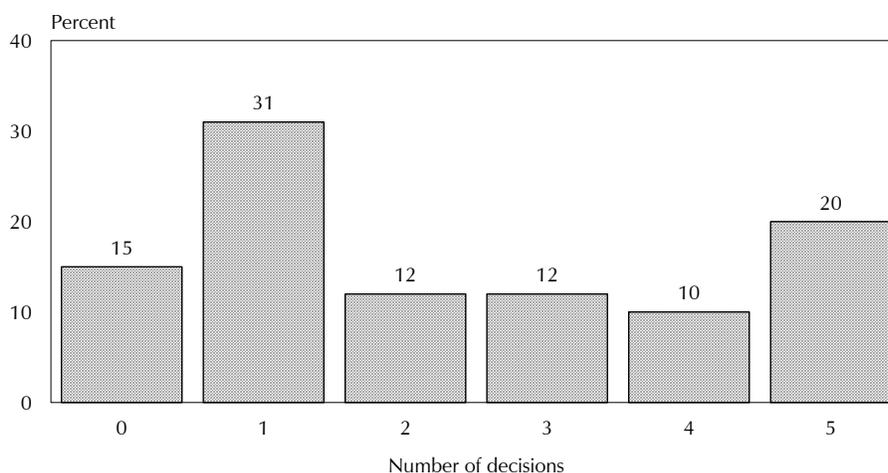
Percentage of women who say that they alone or jointly have the final say in specific decisions, by background characteristics, Nepal 2001

Background characteristic	Alone or jointly have final say in:							Number of women
	Own health care	Making large purchases	Making daily purchases	Visits to family or relatives	What food to cook daily	All specified decisions	None of the specified decisions	
Age								
15-19	7.4	7.9	10.6	10.4	50.7	2.8	46.1	941
20-24	20.3	20.0	28.1	26.0	70.1	11.3	25.7	1,658
25-29	30.2	32.8	45.5	40.0	83.8	19.4	12.7	1,666
30-34	31.9	40.1	54.1	46.4	88.7	22.4	8.5	1,427
35-39	38.0	46.3	59.4	53.3	94.1	28.6	3.5	1,168
40-44	38.9	47.7	60.1	55.3	92.0	29.4	4.3	1,030
45-49	41.1	46.9	58.4	56.8	87.2	27.8	5.8	837
Marital status								
Married	27.3	32.1	43.3	38.8	81.1	17.8	15.4	8,342
Divorced/separated/widowed	71.5	71.2	73.2	75.6	81.5	61.8	11.1	384
Number of living children								
0	11.8	13.7	17.1	16.0	55.0	5.9	40.6	1,051
1-2	27.8	29.8	39.0	35.5	75.8	17.9	20.1	3,101
3-4	34.9	42.4	56.4	50.1	89.8	24.9	6.7	3,016
5+	33.1	38.6	52.0	47.9	92.5	23.0	4.7	1,557
Residence								
Urban	39.8	46.2	60.7	52.0	86.1	26.1	8.2	841
Rural	28.2	32.5	42.9	39.2	80.6	19.1	15.9	7,885
Ecological zone								
Mountain	22.5	22.2	30.8	31.6	83.0	14.2	15.1	602
Hill	33.2	35.5	47.0	44.4	81.2	22.4	14.7	3,615
Terai	27.1	33.9	44.7	38.4	80.8	18.4	15.6	4,509
Development region								
Eastern	27.6	38.1	50.4	39.3	84.8	19.3	11.4	2,098
Central	30.3	32.2	41.8	41.6	82.0	20.1	14.7	2,804
Western	33.3	38.1	46.8	42.0	75.7	21.4	18.9	1,771
Mid-western	29.3	29.8	45.4	43.9	81.6	21.2	16.2	1,197
Far-western	21.7	25.2	34.3	31.2	79.7	14.5	17.1	855
Subregion								
Eastern Mountain	31.5	39.4	50.9	42.1	88.2	22.7	10.3	126
Central Mountain	28.4	19.7	26.6	34.4	82.8	13.4	14.7	209
Western Mountain	13.6	16.0	24.6	24.4	80.8	10.8	17.7	267
Eastern Hill	26.0	35.6	44.2	35.2	84.2	18.4	12.4	580
Central Hill	38.8	35.3	44.8	46.1	82.5	22.9	12.0	945
Western Hill	37.0	42.4	53.2	46.9	76.1	25.0	18.1	1,075
Mid-western Hill	30.7	30.0	48.2	51.5	86.3	23.8	12.7	648
Far-western Hill	23.1	25.4	36.3	34.6	78.9	17.6	18.5	368
Eastern Terai	28.0	38.9	53.0	40.7	84.7	19.4	11.1	1,393
Central Terai	25.7	32.0	42.1	40.0	81.5	19.3	16.3	1,651
Western Terai	27.4	31.3	36.8	34.3	75.1	15.9	20.2	696
Mid-western Terai	30.8	33.0	44.1	35.2	74.4	20.1	21.3	438
Far-western Terai	24.3	29.2	39.9	33.7	80.6	12.6	14.6	331
Education								
No education	29.0	33.4	44.3	40.9	83.3	19.8	13.3	6,279
Primary	28.8	32.5	43.3	38.8	75.1	19.7	20.7	1,294
Some secondary	28.1	33.8	45.3	37.0	73.6	17.9	22.0	814
SLC and above	39.6	46.4	54.9	46.0	81.0	23.7	12.5	339
Employment								
Not employed	23.1	29.6	38.6	31.9	77.1	15.2	20.3	1,496
Employed for cash	45.5	54.2	67.7	56.4	88.8	32.7	5.7	1,009
Employed not for cash	28.2	31.5	42.4	39.9	80.8	18.8	15.5	6,220
Total	29.3	33.8	44.7	40.4	81.1	19.8	15.2	8,726

Note: Total includes 2 women with missing information on employment who are not shown separately.

SLC = School Leaving Certificate

Figure 3.3 Distribution of Women by Number of Decisions in Which They Participate



Nepal 2001

Women’s participation in household decisionmaking increases with age. As observed earlier, divorced, separated, and widowed women have a greater say in decisionmaking than currently married women. A woman’s involvement in decisionmaking also increases with the number of children she has, presumably because in Nepal having children confers a higher status on women. Urban women have a greater say in household decisionmaking than rural women. Twenty-six percent of women in urban areas participate in all of the specified decisions, compared with 19 percent of rural women. Women residing in the hill ecological zone also seem to have more say in household decisionmaking than women residing in the *terai* or mountain zones. Women residing in the Far-western development region are less likely than women residing in other regions to have decisionmaking input.

Women’s education has a slight relationship to household decisionmaking. Women’s employment status is related to level of participation in household decisions. Women who are employed and earn cash have more say in household decisionmaking than women who do not work and women who work but do not earn cash income.

ATTITUDE TOWARD WIFE BEATING

The 2001 NDHS gathered information on women’s and men’s attitudes toward wife beating, another proxy for women’s status. Women and men were asked whether a husband would be justified in beating his wife in each of five scenarios: if she burns food, if she argues with him, if she goes out without telling him, if she neglects the children, and if she refuses sex with him. The first five columns in Tables 3.13.1 and 3.13.2 show how the acceptance of wife beating varies for each reason. The sixth column gives the percentages of women and men who feel a husband is justified in beating his wife for at least one of the given reasons. Note that “empowerment” decreases as the value of this indicator increases. This means, the more reasons agreed with, the lower the level of women’s empowerment according to this indicator.

Table 3.13.1 Women's attitude toward wife beating

Percentage of women who agree that a husband is justified in hitting or beating his wife for specific reasons, by background characteristics, Nepal 2001

Background characteristic	Husband is justified in hitting or beating his wife if she:					Percentage who agree with at least one specified reason	Number of women
	Burns the food	Argues with him	Goes out without telling him	Neglects the children	Refuses to have sex with him		
Age							
15-19	6.3	11.2	12.5	28.0	3.2	32.1	941
20-24	5.6	9.1	13.6	26.2	2.7	29.8	1,658
25-29	4.5	8.7	12.4	27.6	2.7	31.0	1,666
30-34	3.6	7.4	10.7	25.0	3.3	28.5	1,427
35-39	5.1	7.9	11.4	23.2	2.9	26.6	1,168
40-44	4.6	8.0	12.3	23.2	3.8	26.2	1,030
45-49	6.0	9.6	12.7	20.5	3.4	25.2	837
Marital status							
Married	5.0	8.6	12.1	25.1	3.0	28.7	8,342
Divorced/separated/widowed	6.3	10.5	14.7	25.8	4.3	30.0	384
Number of living children							
0	6.9	11.1	13.4	26.9	3.5	31.0	1,051
1-2	4.5	8.2	12.1	26.3	2.6	29.7	3,101
3-4	4.8	8.5	12.4	25.0	3.3	28.6	3,016
5+	5.2	8.7	11.4	22.1	3.3	25.8	1,557
Residence							
Urban	3.9	8.0	13.2	29.0	2.7	33.2	841
Rural	5.1	8.8	12.1	24.8	3.1	28.3	7,885
Ecological zone							
Mountain	2.9	5.2	13.4	26.8	1.9	29.3	602
Hill	1.9	4.6	8.8	22.1	1.6	25.0	3,615
Terai	7.8	12.5	14.8	27.5	4.4	31.7	4,509
Development region							
Eastern	4.1	7.2	12.7	25.9	2.0	29.8	2,098
Central	9.3	13.3	13.3	22.8	4.7	26.5	2,804
Western	3.8	5.9	8.4	20.3	2.9	23.6	1,771
Mid-western	1.2	5.8	11.8	36.5	3.0	38.7	1,197
Far-western	1.2	7.5	15.8	25.4	0.9	30.4	855
Subregion							
Eastern Mountain	2.1	5.2	12.1	24.8	0.9	27.3	126
Central Mountain	2.5	3.5	7.8	17.5	1.3	20.3	209
Western Mountain	3.5	6.5	18.4	35.0	2.8	37.4	267
Eastern Hill	1.1	2.3	6.3	15.4	0.6	18.1	580
Central Hill	3.7	5.3	10.6	22.2	2.6	25.0	945
Western Hill	1.9	4.3	5.1	16.5	1.4	19.1	1,075
Mid-western Hill	0.6	5.3	11.0	35.7	2.2	38.0	648
Far-western Hill	0.7	6.2	15.0	24.3	0.3	30.0	368
Eastern Terai	5.5	9.5	15.5	30.3	2.7	34.9	1,393
Central Terai	13.3	19.1	15.6	23.8	6.4	28.3	1,651
Western Terai	6.7	8.4	13.5	26.1	5.2	30.4	696
Mid-western Terai	0.6	5.5	11.9	35.1	3.4	37.4	438
Far-western Terai	1.7	10.6	14.8	26.0	1.8	30.9	331
Education							
No education	5.9	9.4	12.9	24.8	3.8	28.4	6,279
Primary	4.0	8.6	12.5	26.2	2.0	30.6	1,294
Some secondary	1.6	5.8	8.6	26.6	0.9	29.6	814
SLC and above	0.8	3.2	7.7	24.5	0.0	26.2	339
Employment							
Not employed	7.6	12.9	15.0	28.2	3.9	32.2	1,496
Employed for cash	4.7	8.4	13.7	27.6	3.0	31.6	1,009
Employed not for cash	4.4	7.8	11.4	24.0	2.9	27.5	6,220
Number of decisions in which woman has final say¹							
0	5.8	10.2	12.9	25.9	3.2	29.8	1,327
1-2	4.3	8.2	12.2	24.7	3.1	28.4	3,761
3-4	6.9	10.4	13.2	28.1	3.5	31.9	1,914
5	3.8	6.9	10.6	22.4	2.6	25.4	1,725
Total	5.0	8.7	12.2	25.2	3.1	28.8	8,726

Note: Total includes 2 women with missing information on employment who are not shown separately.

SLC = School Leaving Certificate

¹ Either by herself or jointly with others

Table 3.13.2 Men's attitude toward wife beating

Percentage of men who agree that a husband is justified in hitting or beating his wife for specific reasons, by background characteristics, Nepal 2001

Background characteristic	Husband is justified in hitting or beating his wife if she:					Percentage who agree with at least one specified reason	Number of men
	Burns the food	Argues with him	Goes out without telling him	Neglects the children	Refuses to have sex with him		
Age							
15-19	3.4	21.8	21.7	39.2	7.2	46.3	70
20-24	3.4	19.8	19.4	33.3	11.2	40.7	295
25-29	3.3	17.0	17.0	29.6	9.7	37.9	340
30-34	3.1	18.7	15.5	27.3	6.1	34.5	344
35-39	5.2	14.4	15.3	24.8	8.8	30.1	322
40-44	3.4	15.0	15.8	26.0	8.6	31.2	261
45-49	3.1	17.5	18.2	22.8	9.2	30.3	243
50-54	3.1	17.2	13.7	25.8	7.5	31.6	216
55-59	1.6	18.2	12.3	23.1	5.7	29.6	171
Marital status							
Married	3.4	17.3	16.3	27.3	8.5	34.1	2,198
Divorced/separated/widowed	3.1	18.1	16.0	27.9	6.1	33.7	63
Number of living children							
0	3.1	17.6	16.7	28.9	9.3	36.6	392
1-2	4.2	17.6	15.8	27.3	7.5	34.0	793
3-4	3.5	17.5	17.5	28.0	9.2	34.6	740
5+	1.9	16.1	14.8	24.4	8.1	30.2	336
Residence							
Urban	0.6	11.1	10.2	20.0	5.1	25.5	227
Rural	3.7	18.0	17.0	28.2	8.8	35.0	2,034
Ecological zone							
Mountain	5.0	22.6	20.5	31.5	14.5	38.7	151
Hill	2.6	15.5	13.9	27.1	6.1	33.6	896
Terai	3.8	18.0	17.6	27.0	9.5	33.9	1,214
Development region							
Eastern	2.3	22.1	18.8	26.1	9.0	35.0	583
Central	2.3	11.2	9.8	17.3	4.1	21.1	750
Western	4.7	14.7	17.0	29.6	8.3	35.7	436
Mid-western	5.5	23.0	22.6	40.4	12.1	49.4	295
Far-western	4.9	24.2	23.2	44.7	18.1	54.2	197
Subregion							
Eastern Mountain	1.2	14.0	16.3	24.4	7.0	30.2	33
Central Mountain	1.7	4.3	6.0	6.8	2.6	9.4	59
Western Mountain	10.6	46.2	37.5	60.6	30.8	73.1	59
Eastern Hill	2.1	24.6	17.1	32.8	8.9	42.4	161
Central Hill	0.8	7.3	7.0	17.2	1.8	20.4	278
Western Hill	2.8	13.9	12.2	22.7	7.9	28.9	235
Mid-western Hill	5.6	26.2	28.0	38.1	7.8	49.8	143
Far-western Hill	3.8	11.6	11.4	43.3	6.8	46.3	80
Eastern Terai	2.6	21.7	19.7	23.5	9.3	32.4	389
Central Terai	3.3	14.8	12.2	18.9	5.9	23.3	413
Western Terai	6.9	15.6	22.5	37.6	8.9	43.5	201
Mid-western Terai	5.1	16.6	15.4	39.8	12.8	45.9	126
Far-western Terai	2.4	24.6	25.9	38.5	24.4	51.5	85
Education							
No education	4.8	22.8	20.8	32.6	10.5	40.1	852
Primary	3.7	19.9	18.7	30.1	9.6	37.9	670
Some secondary	2.2	11.9	12.1	23.5	6.5	30.6	452
SLC and above	0.2	3.8	4.2	11.5	2.8	12.8	287
Employment							
Not employed	0.0	14.1	11.8	17.6	12.4	24.0	77
Employed for cash	3.2	15.7	14.5	24.5	6.8	30.6	915
Employed not for cash	3.7	18.8	17.9	30.0	9.4	37.2	1,268
Number of decisions in which man has final say¹							
0	1.4	19.5	14.9	30.1	6.9	35.1	101
1-2	3.7	15.6	13.9	26.4	9.1	33.2	401
3-4	3.0	17.4	16.1	26.5	8.5	33.4	1,588
5	8.1	19.8	24.9	35.5	7.8	41.5	171
Total	3.4	17.3	16.3	27.4	8.5	34.1	2,261

SLC = School Leaving Certificate

¹ Either by himself or jointly with others

Twenty-nine percent of women age 15-49 in Nepal agree that a husband is justified in beating his wife for at least one reason (Table 3.13.1). One in four women agrees that wife beating is justified if a woman neglects her children, while 12 percent agree that a husband is justified in beating his wife if she goes out without telling him. Nevertheless, less than 10 percent of women feel that a husband is justified in beating his wife if she refuses to have sex with him, burns the food, or argues with him. Age has some influence on a wife's empowerment as measured by this indicator; the older a woman, the less likely she is to believe that a husband is justified in beating his wife for a specified reason. Surprisingly, rural women are slightly less likely to agree that wife beating is justified for any reason at all than urban women, and education and employment play a small role in women's attitudes toward wife beating. Women residing in the hill zone, in the Western region, and in the Eastern hill subregion are somewhat less likely than other women to agree that wife beating is justified for any reason.

Participation in decisionmaking is related to women's attitudes toward wife beating. Women who have a greater say in household decisionmaking are less likely to agree that wife beating is justified for any reason.

To understand the environment in which women live, men were also asked their opinions about wife beating (Table 3.13.2). Men are more likely than women to feel that husbands are justified in beating their wives for at least one reason (34 percent and 29 percent, respectively). While the pattern for specific reasons is somewhat similar, men are twice as likely as women to say that a man is justified in beating his wife if she argues with him and three times more likely if she refuses to have sex with him. The pattern by age, marital status, number of living children, ecological region, and say in decisionmaking is similar to that seen for women. However, rural men are more likely than urban men to agree that wife beating is justified for at least one reason. More than one in two men living in the Far-western region agree with wife beating for at least one reason. Men living in the Central mountain region are much less likely than men living in any other subregion to condone wife beating. Men's education is much more strongly related to attitude toward wife beating than women's education.

ATTITUDE TOWARD REFUSING SEX WITH HUSBAND

Another proxy indicator to assess the status of women used in the 2001 NDHS was the respondents' attitude toward women's right and control over their own sexuality as measured by their opinion on a woman's right to refuse sex with her husband. The opinion of both men and women was sought to derive a holistic picture. To measure the respondent's attitude on a woman's right to refuse sex with her husband, the 2001 NDHS asked respondents whether a wife is justified in refusing to have sex with her husband under four circumstances: she knows that her husband has a sexually transmitted disease, she knows that her husband has sex with other women, she has recently given birth, and she is not in the mood. These four circumstances were chosen because they combine women's rights and women's health issues. Table 3.14.1 shows the percentage of women who say that women are justified in refusing sex with their husband for specific reasons by background characteristics. Note that unlike the previous indicator of empowerment, this indicator is positively related to empowerment: the more reasons women agree with, the higher their "empowerment" in terms of their belief in women's sexual rights.

Table 3.14.1 Women's attitude toward refusing sex with husband

Percentage of women who believe that a wife is justified in refusing to have sex with her husband for specific reasons, by background characteristics, Nepal 2001

Background characteristic	Wife is justified in refusing sex with husband if she:				Percentage who agree with all of the specified reasons	Percentage who agree with none of the specified reasons	Number of women
	Knows husband has a sexually transmitted disease	Knows husband has sex with other women	Has recently given birth	Is tired or not in the mood			
Age							
15-19	95.8	94.1	97.2	96.4	90.6	1.1	941
20-24	95.8	94.0	97.7	97.2	90.9	1.0	1,658
25-29	95.3	93.5	97.3	96.4	89.1	1.0	1,666
30-34	95.9	93.8	97.4	96.7	90.3	1.2	1,427
35-39	94.3	94.0	96.8	96.1	89.7	1.5	1,168
40-44	94.8	94.2	97.6	96.3	89.4	1.1	1,030
45-49	94.2	93.5	97.3	96.8	90.0	1.3	837
Marital status							
Married	95.3	93.9	97.4	96.7	90.1	1.1	8,342
Divorced/separated/widowed	94.8	93.8	95.8	94.3	88.4	2.2	384
Number of living children							
0	95.6	93.6	96.9	96.2	89.9	1.3	1,051
1-2	95.9	93.6	97.8	96.8	90.7	1.0	3,101
3-4	95.3	94.3	97.3	97.1	89.9	0.9	3,016
5+	93.8	93.7	96.8	95.4	89.0	1.9	1,557
Residence							
Urban	95.1	92.1	97.2	94.6	88.5	1.6	841
Rural	95.3	94.0	97.4	96.8	90.2	1.1	7,885
Ecological zone							
Mountain	96.6	94.3	98.9	98.4	92.8	1.0	602
Hill	96.3	95.0	98.2	97.5	92.2	1.0	3,615
Terai	94.2	92.9	96.5	95.6	87.9	1.3	4,509
Development region							
Eastern	97.0	93.9	96.6	96.3	91.3	1.6	2,098
Central	95.4	94.8	96.5	96.0	91.0	1.5	2,804
Western	97.6	95.6	98.5	96.7	92.1	0.4	1,771
Mid-western	87.4	89.2	99.1	97.7	80.8	0.6	1,197
Far-western	96.8	93.7	97.4	97.3	91.8	1.3	855
Subregion							
Eastern Mountain	99.4	98.5	100.0	99.7	97.6	0.0	126
Central Mountain	96.5	96.5	97.7	97.7	95.4	2.3	209
Western Mountain	95.5	90.7	99.4	98.3	88.6	0.4	267
Eastern Hill	98.7	94.9	98.7	98.5	93.5	0.8	580
Central Hill	94.7	93.6	97.0	95.4	90.1	1.9	945
Western Hill	99.0	98.2	98.8	98.1	96.4	0.6	1,075
Mid-western Hill	92.0	92.5	99.2	98.2	87.1	0.5	648
Far-western Hill	96.8	93.5	97.4	97.9	91.8	1.0	368
Eastern Terai	96.1	93.1	95.5	95.1	89.9	2.1	1,393
Central Terai	95.6	95.3	96.0	96.0	91.0	1.3	1,651
Western Terai	95.5	91.5	98.0	94.6	85.5	0.0	696
Mid-western Terai	79.4	84.8	98.8	97.2	71.4	0.8	438
Far-western Terai	96.2	93.9	96.4	95.7	91.0	2.0	331
Education							
No education	94.4	93.8	96.9	96.3	89.3	1.3	6,279
Primary	96.9	93.9	98.2	97.3	91.4	1.0	1,294
Some secondary	98.3	94.6	98.9	97.8	92.9	0.6	814
SLC and above	97.4	93.7	98.4	95.4	90.8	1.3	339
Employment							
Not employed	94.6	92.2	96.3	95.7	88.5	1.7	1,496
Employed for cash	94.7	93.3	98.0	94.9	88.3	1.1	1,009
Employed not for cash	95.5	94.4	97.5	97.0	90.7	1.1	6,220
Number of decisions in which woman has final say¹							
0	95.1	93.0	97.7	97.4	90.0	1.1	1,327
1-2	94.8	93.2	97.6	96.4	89.3	1.2	3,761
3-4	95.8	95.5	97.4	96.8	91.1	1.0	1,914
5	95.6	94.2	96.6	96.0	90.2	1.4	1,725
Number of reasons wife beating is justified							
0	96.1	95.0	97.6	97.1	91.9	1.2	6,216
1-2	93.7	90.8	96.8	95.4	85.5	1.2	1,940
3-4	91.8	91.3	96.6	94.4	83.9	1.0	457
5	91.2	95.5	98.9	97.1	85.7	0.0	113
Total	95.3	93.9	97.4	96.6	90.0	1.2	8,726

Note: Total includes 2 women with missing information on employment who are not shown separately.

SLC = School Leaving Certificate

¹ Either by herself or jointly with others

Table 3.14.2 Men's attitude toward refusing sex with husband

Percentage of men who believe that a wife is justified in refusing to have sex with her husband for specific reasons, by background characteristics, Nepal 2001

Background characteristic	Wife is justified in refusing sex with husband if she:				Percentage who agree with all of the specified reasons	Percentage who agree with none of the specified reasons	Number of men
	Knows husband has a sexually transmitted disease	Knows husband has sex with other women	Has recently given birth	Is tired or not in the mood			
Age							
15-19	92.4	84.2	89.3	90.1	76.0	1.4	70
20-24	94.7	80.4	93.8	90.6	74.0	2.1	295
25-29	92.7	84.0	94.0	94.4	80.3	3.3	340
30-34	90.2	82.7	91.0	88.8	76.7	5.3	344
35-39	92.4	82.5	91.6	88.4	77.0	4.3	322
40-44	92.1	84.6	93.7	93.6	81.4	4.6	261
45-49	89.1	82.9	89.7	88.1	80.0	8.0	243
50-54	87.1	81.7	89.2	89.7	77.5	7.6	216
55-59	82.6	76.9	86.4	87.1	71.9	9.8	171
Marital status							
Married	91.2	82.8	91.7	90.4	78.0	5.0	2,198
Divorced/separated/widowed	76.8	66.2	84.9	86.8	59.2	7.3	63
Number of living children							
0	88.9	80.5	88.5	88.5	73.6	6.1	392
1-2	91.1	81.8	92.0	90.1	76.7	4.7	793
3-4	91.7	83.5	92.6	90.7	79.4	5.1	740
5+	90.3	83.0	91.5	91.9	79.6	4.8	336
Residence							
Urban	92.1	81.4	91.6	90.5	76.7	3.8	227
Rural	90.6	82.4	91.5	90.3	77.6	5.2	2,034
Ecological zone							
Mountain	89.9	85.2	96.3	94.8	82.4	2.3	151
Hill	92.8	78.3	91.6	90.6	74.1	4.8	896
Terai	89.4	84.9	90.9	89.5	79.4	5.6	1,214
Development region							
Eastern	95.2	91.3	96.7	93.4	87.1	2.4	583
Central	94.1	87.8	94.1	93.7	83.4	2.7	750
Western	88.3	71.9	86.9	90.2	66.0	5.2	436
Mid-western	76.6	63.2	82.1	76.1	56.7	14.8	295
Far-western	91.9	86.9	90.4	89.5	83.6	6.8	197
Subregion							
Eastern Mountain	96.5	93.0	97.7	94.2	88.4	1.2	33
Central Mountain	90.6	88.0	95.7	96.6	86.3	3.4	59
Western Mountain	85.6	77.9	96.2	93.3	75.0	1.9	59
Eastern Hill	96.6	94.1	97.9	93.8	90.0	1.4	161
Central Hill	96.1	82.4	92.7	93.0	76.2	1.0	278
Western Hill	95.7	70.7	93.4	93.2	66.2	1.7	235
Mid-western Hill	83.2	66.4	85.4	84.3	65.2	14.6	143
Far-western Hill	82.5	76.5	80.3	78.7	74.2	16.7	80
Eastern Terai	94.5	90.0	96.2	93.2	85.7	3.0	389
Central Terai	93.2	91.4	94.8	93.7	87.8	3.8	413
Western Terai	79.8	73.2	79.3	86.7	65.8	9.4	201
Mid-western Terai	70.9	62.2	76.3	64.9	49.4	17.2	126
Far-western Terai	97.6	91.8	96.4	95.8	86.4	0.0	85
Education							
No education	84.5	78.9	87.9	87.3	74.1	8.6	852
Primary	94.9	85.1	93.8	92.4	80.7	2.5	670
Some secondary	93.1	83.3	92.6	92.3	79.6	4.1	452
SLC and above	96.1	84.5	95.1	91.3	76.9	2.1	287
Employment							
Not employed	90.8	81.2	89.4	87.1	71.3	3.5	77
Employed for cash	92.0	81.7	92.6	91.3	76.6	3.7	915
Employed not for cash	89.9	82.9	90.9	89.8	78.5	6.1	1,268
Number of decisions in which man has final say¹							
0	91.1	79.0	85.5	83.2	68.4	5.1	101
1-2	93.0	83.3	91.5	90.3	75.6	2.5	401
3-4	91.6	84.0	92.9	91.4	80.7	5.2	1,588
5	77.9	66.7	81.9	83.8	57.6	9.7	171
Number of reasons wife beating is justified							
0	92.5	84.4	92.6	92.2	80.9	4.7	1,490
1-2	88.4	78.7	88.9	87.2	72.1	6.2	508
3-4	84.7	77.3	90.4	84.5	67.6	4.7	230
5	90.4	80.2	92.1	92.1	78.5	7.9	32
Total	90.8	82.3	91.5	90.3	77.5	5.1	2,261

SLC = School Leaving Certificate

¹ Either by himself or jointly with others

It is encouraging to note that most women (90 percent) in Nepal feel that women are justified in refusing sex with their husband for all four reasons given, with little variation by specific reason, background characteristics, or other women's status indicators.

It is important to assess men's perceptions of women's rights over their sexuality because it has implications for women's reproductive health. In general, men are less likely than women to agree that a wife is justified in refusing sex with her husband for all reasons, with the biggest discrepancy for the reason "knows husband has sex with other women" (Table 3.14.2). Nevertheless, more than three-fourths of men (compared with nine-tenths of women) agree that a wife is justified in refusing sex with her husband for all four reasons.

Men age 55-59; divorced, separated, or widowed men; men with no children; men living in the hill ecological zone, the Mid-western development region, and the Mid-western *terai* subregion; men with no education; men not currently employed; men who have a final say in the five household decisions; and men who believe that wife beating is justified for three to four reasons are less likely than their counterparts to agree that a wife is justified in refusing sex with her husband for all four reasons.

3.10 SMOKING AND ALCOHOL CONSUMPTION

Smoking is associated with increased risk of lung and heart diseases and is also closely related to other behaviors risky to health, such as alcohol and drug use. Table 3.15 presents information on men's smoking and alcohol consumption status.

Nearly three-fourths of men smoke cigarettes, bidis, or other tobacco, two-thirds have ever consumed alcohol, and more than one in two both smoke and have consumed alcohol. Smoking and alcohol consumption is much less common among men in the youngest age group (15-19). Smoking and alcohol consumption is also less common among divorced, separated, or widowed men and men living in the *terai* ecological zone, Western development region, and Central *terai* subregion than among their counterparts.

Table 3.15 Smoking and alcohol consumption

Percentage of men who smoke cigarettes/bidis/tobacco and percentage of men who have ever consumed alcohol, by background characteristics, Nepal 2001

Background characteristic	Smokes cigarettes/bidis/tobacco	Has consumed alcohol	Smokes and has consumed alcohol	Number of men
Age				
15-19	36.7	47.4	24.6	70
20-24	59.2	64.4	39.9	295
25-29	68.5	73.3	54.7	340
30-34	72.7	69.9	54.5	344
35-39	73.4	67.7	51.3	322
40-44	80.1	71.7	60.2	261
45-49	80.0	71.0	58.3	243
50-54	87.4	61.7	53.6	216
55-59	82.2	60.4	52.1	171
Marital status				
Married	72.9	67.6	52.2	2,198
Divorced/separated/widowed	77.5	64.7	45.7	63
Residence				
Urban	65.4	75.0	50.7	227
Rural	73.9	66.7	52.2	2,034
Ecological zone				
Mountain	76.5	72.7	58.0	151
Hill	69.2	77.0	55.8	896
Terai	75.5	59.9	48.5	1,214
Development region				
Eastern	70.4	67.8	50.7	583
Central	75.5	63.8	50.0	750
Western	66.4	67.7	46.9	436
Mid-western	76.4	70.0	57.4	295
Far-western	81.3	76.7	67.2	197
Subregion				
Eastern Mountain	60.5	81.4	52.3	33
Central Mountain	82.1	84.6	70.9	59
Western Mountain	79.8	55.8	48.1	59
Eastern Hill	70.6	87.0	63.1	161
Central Hill	65.9	84.8	56.5	278
Western Hill	63.7	68.4	45.9	235
Mid-western Hill	77.1	68.2	58.7	143
Far-western Hill	80.0	71.1	62.8	80
Eastern Terai	71.1	58.7	45.5	389
Central Terai	81.0	46.8	42.6	413
Western Terai	69.6	66.8	48.1	201
Mid-western Terai	73.8	73.4	56.8	126
Far-western Terai	84.8	92.4	80.4	85
Total	73.1	67.5	52.1	2,261

A major objective of the 2001 NDHS is to examine fertility levels, trends, and differentials in Nepal. This is important in view of the government's policy to reduce the total fertility rate to 4.2 by the end of the Ninth Plan in the year 2002 and bring a balance between population growth and economic development. To meet this objective, ever-married women age 15-49 were asked about their pregnancy histories. Each woman was asked the number of sons and daughters living with her, the number of sons and daughters living elsewhere, the number of sons and daughters who died, and the number of pregnancies that did not result in a live birth. The woman was then asked to provide a complete pregnancy history including information such as the month and year of all live and nonlive births, sex of live births, and survival status. The structure of these questions is designed to improve the completeness and accuracy of the information.

This chapter examines current fertility, differentials and trends in fertility, and cumulative fertility in Nepal. It also examines the length of birth intervals, age at first birth, and childbearing among adolescents. As is standard practice, the analyses of fertility presented here are based only on live births. The 2001 NDHS obtained reproductive histories only from ever-married women. It is assumed that births outside marriage are negligible in Nepal and that the pregnancies experienced by ever-married women represent all pregnancies.

4.1 CURRENT FERTILITY

The level of current fertility is one of the most important indicators for health and family planning policymakers and professionals in Nepal because of its direct relevance to the population policy and programs. Table 4.1 presents age-specific fertility rates (ASFR),¹ the total fertility rate (TFR) for women age 15-49, the general fertility rate (GFR) for women age 15-44, and the crude birth rate (CBR), by residence. All these rates pertain to the three-year period preceding the survey. A three-year rate is chosen because it provides current information, without unduly increasing sampling error. The TFR is the sum of the ASFRs and can be interpreted as the number of children a woman would have by the end of her childbearing age if she experienced the prevailing ASFRs. The GFR is defined as the total annual number of births per 1,000 women age 15-44, and the CBR is defined as the total number of live births in a year per 1,000 persons.

¹ Numerators of the ASFRs are calculated as the total number of live births that occurred in the period 1-36 months preceding the survey (determined by the date of interview and the date of birth of the child), and classified by the age (in five-year age groups) of the mother at the time of the birth (determined by the mother's date of birth). The denominators of the rates are the number of woman-years lived in each of the five-year age groups during the 1-36 months preceding the survey. Rates are expressed per 1,000 women. Since only ever-married women were interviewed in the 2001 NDHS, the number of women in the denominators of the rates was inflated by factors calculated from information in the Household Questionnaire on proportions ever-married in order to produce a count of all women. An implicit assumption in this calculation is that never-married women have not given birth.

The TFR for Nepalese women age 15-49 is 4.1 births per woman. There is a large difference in fertility by urban-rural residence; the TFR among urban women (2.1) is 2.3 children less than that among rural women (4.4). The age pattern of fertility indicates that Nepalese women have high fertility in the early part of the childbearing period. At the current ASFRs, a woman in Nepal will have given birth to about three children by age 30. The ASFRs in both urban and rural areas peak at age 20-24. In urban areas, fertility rates decline rapidly after age 24, whereas in rural areas the fertility decline by age is more gradual. The ASFRs are consistently lower in urban areas than in rural areas, and women in urban areas of Nepal seem to almost stop having children after age 40. The GFRs for urban areas, rural areas, and for all of Nepal are 81, 156, and 148 per 1,000 women age 15-44, respectively. The CBR for the three-year period before the survey is 34 per 1,000 population. Both these summary rates also indicate higher fertility in rural than in urban areas.

Table 4.1 Current fertility			
Age-specific and cumulative fertility rates, the general fertility rate, and the crude birth rate for the three years preceding the survey, by urban-rural residence, Nepal 2001			
Age group	Residence		Total
	Urban	Rural	
15-19	72	114	110
20-24	153	261	248
25-29	102	217	205
30-34	60	146	136
35-39	28	87	81
40-44	2	38	34
45-49	0	8	7
TFR	2.1	4.4	4.1
GFR	81	156	148
CBR	20.6	34.9	33.5

TFR: Total fertility rate for ages 15-49, expressed per woman
 GFR: General fertility rate (births divided by the number of women age 15-44), expressed per 1,000 women
 CBR: Crude birth rate, expressed per 1,000 population
 Note: Rates for age group 45-49 may be slightly biased due to truncation.

FERTILITY DIFFERENTIALS AND TRENDS

Table 4.2 summarizes the current level of fertility by area of residence, ecological zone, development region, and education. The TFR in the mountains (4.8) is highest among the three ecological zones, while the TFR in the hills (4.0) is about the same as in the *terai* ecological zone (4.1). By to development region, women in the Western and Eastern regions have on average one child fewer than women in the Mid-western and Far-western regions and half a child fewer than women in the Central region. There is a strong association between fertility and education, with the TFR declining as the level of education increases. The TFR of women with no education (4.8) is more than double that of women with at least an SLC level of education (2.1).

The percentage of women who reported themselves as currently pregnant is also given in Table 4.2. Since women in the early stages of pregnancy may not be aware that they are pregnant and because some women may not want to reveal that they are pregnant, this percentage may be underestimated. Seven percent of women reported that they were pregnant at the time of the survey. The proportion pregnant is nearly twice as high in rural areas as in urban areas. The percentage of women who are pregnant is generally consistent with current fertility levels for each major population subgroup in that groups with higher fertility also tend to have higher percentages of women currently pregnant.

Table 4.2 also shows the mean number of children ever born to women age 40-49, which is a measure of the average lifetime fertility experience of women age 40-49 (completed fertility). Although this measure is susceptible to omission, comparison of completed fertility among women age 40-49 with the current TFR indicates fertility decline for all major subgroups of the population. Overall, the results in Table 4.2 suggest that there has been a 24 percent decline in fertility levels during the past 20-25 years. Both the current and lifetime fertility indicate that fertility is lower in urban areas and among the more educated.

Table 4.2 Fertility by background characteristics			
Total fertility rate for the three years preceding the survey, percentage of all women age 15-49 currently pregnant, and mean number of children ever born to women age 40-49 years, by background characteristics, Nepal 2001			
Background characteristic	Total fertility rate ¹	Percentage currently pregnant ¹	Mean number of children ever born to women age 40-49
Residence			
Urban	2.1	4.3	4.5
Rural	4.4	7.4	5.5
Ecological zone			
Mountain	4.8	7.2	6.1
Hill	4.0	7.3	5.4
Terai	4.1	6.9	5.3
Development region			
Eastern	3.8	6.6	4.9
Central	4.3	7.3	5.4
Western	3.5	6.3	5.3
Mid-western	4.7	7.4	6.4
Far-western	4.7	8.7	6.0
Education			
No education	4.8	7.5	5.6
Primary	3.2	6.7	4.5
Some secondary	2.3	6.1	3.7
SLC and above	2.1	5.7	2.6
Total	4.1	7.1	5.4

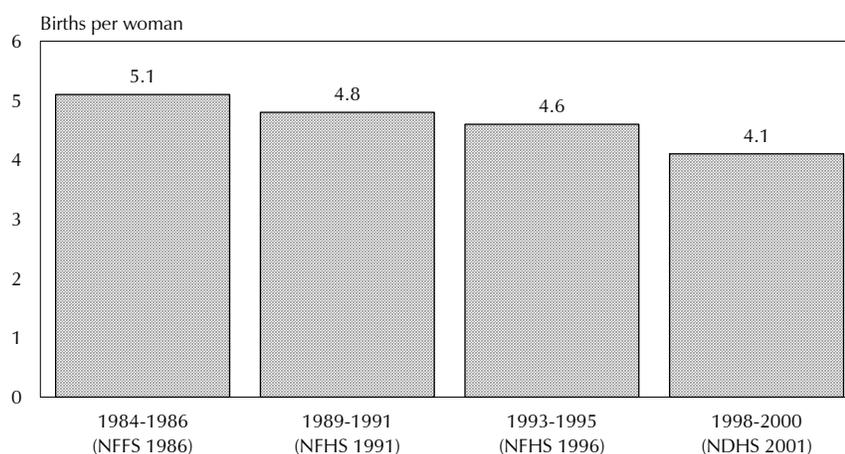
SLC = School Leaving Certificate
¹ Women age 15-49 years

Comparing the TFR obtained from three earlier surveys with the TFR obtained from the 2001 NDHS indicates a steady decline in fertility (Table 4.3 and Figure 4.1). Direct estimates of fertility for the three years preceding the survey have been used in this comparison because a three-year rate is more robust than rates based on a shorter or longer period. There was a 6 percent decline in TFR between 1984-1986 and 1989-1991, compared with a 3 percent decline between 1989-1991 and 1993-1995. Between 1994-1996 and 1998-2000, the percentage decline in fertility was 12 percent. Fertility trends have to be interpreted within the context of data quality and sample size. A discussion of these issues in relation to earlier surveys is beyond the scope of this report. As such, the fertility trend shown in Table 4.3 and Figure 4.1 has to be interpreted with caution.

Age group	NFFS 1986 ^a (1984-1986)	NFHS 1991 ^a (1989-1991)	NFHS 1996 ^b (1993-1995)	NDHS 2001 (1998-2000)
15-19	99	101	127	110
20-24	261	263	266	248
25-29	230	230	229	205
30-34	200	169	160	136
35-39	114	117	94	81
40-44	68	55	37	34
45-49	49	26	15	7
TFR	5.11	4.79	4.64	4.10

Note: Rates are for the three years preceding the survey.
^aPradhan, 1995:32
^bPradhan et al., 1997:37

Figure 4.1 Trends in Total Fertility Rate 1984-2001



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

Information from birth histories in the 2001 NDHS allows the calculation of ASFRs for specified periods before the survey, which in turn provide further evidence of recent fertility decline. However, in situations in which the placement of births in time may not be reported correctly, trends in fertility could be distorted. Furthermore, ASFRs are progressively truncated as one moves into the past. Nevertheless, the results presented in Table 4.4 indicate an 18 percent decline in fertility among women age 15-29 from 3.6 births per woman during the period 15-19 years before the survey to 2.9 births per woman during the period 0-4 years before the survey. The largest decline in fertility (14 percent) took place between 5-9 and 0-4 years before the survey, versus only a 6 percent decline in fertility between 10-14 and 5-9 years before the survey and no change between 15-19 and 10-14 years before the survey.

Table 4.4 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 2001

Mother's age at birth	Number of years preceding survey			
	0-4	5-9	10-14	15-19
15-19	116	148	144	136
20-24	260	289	307	303
25-29	213	247	274	283
30-34	144	180	212	[231]
35-39	84	125	[143]	
40-44	36	[56]		
45-49	[8]			

Note: Age-specific fertility rates are per 1,000 women. Estimates in brackets are truncated.

4.2 PREGNANCY OUTCOMES

The 2001 NDHS collected complete pregnancy histories from women and therefore provides information on pregnancy outcomes. It is important to note that collecting pregnancy histories is comparatively more difficult than collecting birth histories retrospectively, especially for information on pregnancies that were miscarried within the first few months after conception. Therefore, the total number of pregnancies and abortions are likely to be underestimated and caution should be exercised while interpreting these data. Stillbirths are probably more completely reported than abortions.

Table 4.5 presents the pregnancy outcomes among ever-married women 0-9 years before the survey by age of the mother and urban-rural residence. Overall, 92 percent of pregnancies result in a live birth and 8 percent of pregnancies end as nonlive births— 2 percent as stillbirths, 5 percent as spontaneous abortions, and 1 percent as induced abortions. There is little variation in pregnancy outcomes across age groups, although older women (age 35 and above) are slightly more likely to have pregnancies resulting in nonlive births. Similar patterns are observed by urban-rural residence, with 91 percent of pregnancies in the urban areas and 93 percent of pregnancies in the rural areas resulting in live births. Abortions are more common in urban areas than in rural areas, especially induced abortions.

Table 4.5 Pregnancy outcome						
Percent distribution of all pregnancies among ever-married women in the ten years preceding the survey by pregnancy outcome, according to age at end of pregnancy and residence, Nepal 2001						
Age at end of pregnancy	Pregnancy outcome				Total	Number of pregnancies
	Spontaneous abortion	Induced abortion	Still birth	Live birth		
URBAN						
<20	5.5	0.6	2.0	91.9	100.0	257
20-24	5.9	1.8	1.5	90.7	100.0	406
25-29	2.8	3.3	1.1	92.8	100.0	251
30-34	5.0	4.0	2.7	88.3	100.0	120
35-39	7.0	4.0	1.5	87.6	100.0	61
Total	5.2	2.3	1.6	90.9	100.0	1,103
RURAL						
<20	5.2	0.3	2.1	92.5	100.0	2,657
20-24	4.2	0.4	2.1	93.3	100.0	4,684
25-29	3.7	0.7	2.4	93.3	100.0	3,301
30-34	5.6	0.8	1.8	91.8	100.0	1,999
35-39	6.8	1.2	2.7	89.3	100.0	1,126
40-44	8.5	1.9	2.6	87.0	100.0	317
Total	4.8	0.6	2.2	92.5	100.0	14,106
TOTAL						
<20	5.2	0.3	2.1	92.4	100.0	2,915
20-24	4.3	0.5	2.1	93.1	100.0	5,090
25-29	3.6	0.9	2.3	93.2	100.0	3,551
30-34	5.6	1.0	1.8	91.6	100.0	2,119
35-39	6.8	1.3	2.7	89.2	100.0	1,187
40-44	8.7	2.1	2.6	86.6	100.0	326
Total	4.8	0.7	2.1	92.3	100.0	15,210

Note: Pregnancy outcomes for age groups 40-44 (in urban only) and 45-49 are not shown because they are based on fewer than 25 pregnancies

4.3 CHILDREN EVER BORN AND LIVING

Table 4.6 presents the distribution of all women and currently married women by age and number of children ever born (CEB) and the mean number of living children by age. Lifetime fertility reflects the accumulation of births over the past 30 years and, therefore, its relevance to the current situation is limited; nevertheless, information on the mean number of children ever born is useful in examining the variation among different age groups.

The mean number of children ever born for all wo-men is 2.7, which means that on average, Nepalese women age 15-49 have had fewer than 3 births, while currently married women have 3.3 births on average. Allowing for child mortality, Nepalese women have on average 2.3 living children, while currently married women have an average of 2.8 living children. In contrast, currently married women age 45-49 have given birth to an average of 5.9 children, of whom 4.6 survived. Therefore, currently married women at the end of their reproductive careers (age 45-49) lost 23 percent of their children due to mortality. The comparative figure estimated in the 1996 NFHS was 26 percent, implying a slight shift toward lower mortality among children of currently married women during their reproductive span in more recent years.

Table 4.6 Children ever born and living

Percent distribution of all women and currently married women by number of children ever born, and mean number of children ever born and mean number of living children, according to age group, Nepal 2001

Age	Number of children ever born											Total	Number of women	Mean number of children ever born	Mean number of living children
	0	1	2	3	4	5	6	7	8	9	10+				
ALL WOMEN															
15-19	83.8	14.3	1.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	2,335	0.18	0.16
20-24	29.5	27.0	28.8	11.9	2.2	0.6	0.0	0.0	0.0	0.0	0.0	100.0	2,001	1.32	1.20
25-29	8.3	9.1	26.7	27.2	19.1	7.4	2.0	0.2	0.0	0.0	0.0	100.0	1,744	2.71	2.43
30-34	4.5	4.6	15.3	22.0	22.6	15.7	9.2	4.1	1.5	0.4	0.1	100.0	1,464	3.71	3.24
35-39	4.2	3.3	6.2	18.6	21.4	17.0	14.0	6.5	5.9	1.6	1.4	100.0	1,191	4.48	3.74
40-44	2.9	2.7	6.4	11.6	19.0	15.5	13.6	10.9	8.2	5.1	4.0	100.0	1,042	5.16	4.26
45-49	3.1	2.7	4.3	9.5	13.3	17.2	14.6	11.5	6.9	7.4	9.6	100.0	849	5.71	4.37
Total	27.0	11.2	14.0	13.7	12.0	8.3	5.7	3.3	2.2	1.3	1.3	100.0	10,626	2.71	2.29
CURRENTLY MARRIED WOMEN															
15-19	59.6	35.4	4.7	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	930	0.46	0.41
20-24	14.6	32.6	35.0	14.4	2.7	0.7	0.0	0.0	0.0	0.0	0.0	100.0	1,643	1.60	1.45
25-29	3.4	9.4	28.0	28.8	20.2	8.0	2.2	0.1	0.0	0.0	0.0	100.0	1,625	2.86	2.57
30-34	1.9	4.0	15.5	23.0	23.2	16.4	9.7	4.2	1.6	0.4	0.1	100.0	1,377	3.84	3.36
35-39	2.0	2.7	5.9	18.6	22.2	17.7	14.4	6.9	6.2	1.7	1.5	100.0	1,099	4.64	3.89
40-44	1.3	2.2	5.8	11.5	19.1	16.3	13.8	11.2	8.9	5.5	4.3	100.0	936	5.34	4.43
45-49	1.8	2.0	3.5	8.7	13.4	17.4	14.9	12.3	7.5	8.1	10.2	100.0	732	5.94	4.56
Total	11.1	13.6	17.2	16.8	14.5	10.1	6.8	4.0	2.7	1.6	1.6	100.0	8,342	3.29	2.79

The distribution of children ever born by age shows that early childbearing is still common in Nepal; 16 percent of all women age 15-19 have already had at least one birth.

Voluntary childlessness is rare in Nepal, and currently married women with no live births are likely to be those who are unable to bear children. The level of childlessness among married women at the end of their reproductive careers can therefore be used as an indicator of the level of primary sterility. In Nepal, primary sterility among older currently married women is less than 2 percent.

4.4 BIRTH INTERVALS

Short birth intervals are associated with an increased risk of death for mother and child. This is particularly true for babies born less than 24 months after a previous birth. Table 4.7 presents the percent distribution of births in the five years preceding the survey by the number of months since the previous birth according to background characteristics. Twenty-three percent of births occurred within 24 months of a previous birth, and the median birth interval is 32 months. The long period of breastfeeding in Nepal, which is an average of 29 months (see Chapter 10), and the corresponding long period of postpartum amenorrhea, which is an average of 11 months (see Chapter 6), are likely to contribute to the relatively high percentage of births occurring after an interval of 24 months or more.

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, according to background characteristics, Nepal 2001

Background characteristic	Months since preceding birth					Total	Median number of months since preceding birth	Number of non-first births
	7-17	18-23	24-35	36-47	48+			
Age								
15-19	30.9	29.1	36.7	2.1	1.2	100.0	21.9	47
20-29	9.2	16.9	41.1	20.2	12.5	100.0	29.9	2,991
30-39	6.6	12.1	34.0	21.8	25.6	100.0	35.0	1,883
40-49	5.6	7.1	24.9	21.9	40.5	100.0	41.5	383
Birth order								
2-3	8.4	15.5	37.2	20.3	18.6	100.0	31.4	2,781
4-6	7.9	13.9	37.5	21.1	19.6	100.0	32.3	1,928
7+	7.9	12.8	37.9	21.7	19.7	100.0	32.2	596
Sex of preceding birth								
Male	8.0	14.4	37.1	20.7	19.8	100.0	32.1	2,582
Female	8.4	14.8	37.7	20.7	18.4	100.0	31.6	2,723
Survival of preceding birth								
Living	6.3	14.1	38.3	21.6	19.7	100.0	32.6	4,667
Dead	22.1	18.2	30.8	14.1	14.8	100.0	26.5	639
Residence								
Urban	10.0	17.3	30.9	21.5	20.2	100.0	32.3	284
Rural	8.1	14.5	37.7	20.7	19.0	100.0	31.8	5,021
Ecological zone								
Mountain	9.0	13.5	37.4	22.0	18.0	100.0	31.9	423
Hill	8.3	14.4	37.0	21.0	19.3	100.0	32.0	2,173
Terai	8.0	15.0	37.6	20.3	19.1	100.0	31.6	2,710
Development region								
Eastern	9.4	15.9	35.0	19.5	20.3	100.0	31.0	1,226
Central	9.0	14.8	37.3	20.4	18.5	100.0	31.3	1,738
Western	7.4	13.5	35.1	22.9	21.0	100.0	33.8	931
Mid-western	6.8	13.9	44.4	19.2	15.8	100.0	31.2	823
Far-western	6.4	14.1	36.3	23.1	20.0	100.0	33.4	588
Subregion								
Eastern Mountain	12.7	18.2	32.7	17.3	19.1	100.0	29.7	84
Central Mountain	10.3	9.9	43.1	19.8	17.0	100.0	30.9	134
Western Mountain	6.7	14.0	35.7	25.3	18.3	100.0	33.0	206
Eastern Hill	10.2	14.0	36.9	20.6	18.3	100.0	31.1	433
Central Hill	9.8	15.0	34.4	19.4	21.4	100.0	31.2	492
Western Hill	7.8	14.5	32.3	23.6	21.8	100.0	34.3	479
Mid-western Hill	7.3	15.1	45.3	18.3	14.1	100.0	30.7	510
Far-western Hill	5.0	12.6	34.7	25.3	22.5	100.0	35.2	258
Eastern Terai	8.5	16.8	34.0	19.1	21.6	100.0	31.0	710
Central Terai	8.5	15.3	37.9	20.9	17.4	100.0	31.3	1,112
Western Terai	6.9	12.5	38.2	22.2	20.2	100.0	33.2	451
Mid-western Terai	6.9	11.4	44.8	18.5	18.4	100.0	31.8	236
Far-western Terai	6.6	16.1	39.4	19.6	18.3	100.0	31.7	201
Education								
No education	7.9	14.2	37.5	21.1	19.4	100.0	32.1	4,234
Primary	8.2	16.4	37.9	19.7	17.9	100.0	30.7	649
Some secondary	10.0	17.0	36.8	19.2	17.0	100.0	30.8	317
SLC and above	15.7	14.8	30.9	19.2	19.5	100.0	28.7	105
Total	8.2	14.6	37.4	20.7	19.1	100.0	31.8	5,305

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

The median birth interval increases with the age of the mother from 22 months among births to mothers age 15-19 to 42 months among births to mothers age 40-49. The relatively high prevalence of short birth intervals among births to younger women indicates that women generally want to complete their desired family size quickly

The survival status of the previous birth is strongly associated with the length of the preceding birth interval. The median birth interval is more than six months shorter for children whose previous sibling died compared with children whose previous sibling survived. Twenty-two percent of children whose preceding sibling died were born after an interval of less than 18 months, compared with only 6 percent among children whose preceding sibling survived. More than 40 percent of children whose preceding sibling died were born within 24 months of the previous birth, compared with 20 percent of those whose preceding sibling survived.

The median birth interval is slightly longer for births in the Western region and in the Far-western hill subregion.

The median birth interval decreases with increase in level of education. Births to women with no education have a median preceding birth interval of 32 months, while it is 29 months for women with SLC and higher education.

4.5 AGE AT FIRST BIRTH

Age at the onset of childbearing is an important demographic indicator, since early childbearing adversely affects the health of mother and child. The proportion of women who become mothers before age 20 is a measure of the magnitude of adolescent fertility, which is a major health and social concern in many countries. Furthermore, in many countries, postponement of first births, reflecting an increase in age at marriage, has made a large contribution to overall fertility decline.

Table 4.8 presents the distribution of women by age at first birth. The median age at first birth is not shown for women age 15-19 because fewer than 50 percent have had a birth by the time of the survey. The median age at first birth is about 20 years across all age cohorts, indicating virtually no change in the age at first birth. About 1 percent of women give birth by age 15, and

Current age	Age at first birth					Percentage who have never given birth	Number of women	Median age at first birth
	15	18	20	22	25			
15-19	0.2	na	na	na	na	83.8	2,335	a
20-24	0.8	26.0	51.3	na	na	29.5	2,001	19.9
25-29	1.3	24.0	54.1	75.2	88.5	8.3	1,744	19.7
30-34	0.9	23.8	51.5	74.0	87.9	4.5	1,464	19.9
35-39	1.3	24.1	50.2	70.6	87.4	4.2	1,191	20.0
40-44	1.0	23.7	50.1	70.6	86.9	2.9	1,042	20.0
45-49	1.2	23.7	47.5	69.8	87.4	3.1	849	20.2

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

about one-quarter have had a birth by age 18. Half of women have given birth by age 20, and at least 70 percent of women in all age cohorts had their first birth by age 22. Almost 90 percent of Nepalese women had their first birth by age 25.

Table 4.9 summarizes the median age at first birth for different age groups and compares the age at entry into motherhood for selected subgroups of the population. Women residing in the *terai* have a lower median age at first birth than women residing in the mountains and hills. The median age at first birth is lower among women in the Far-western development region. Within the subregion, women residing in the Far-western *terai* have the lowest median age at first birth. Women with no education or only primary education give birth to their first child at least three years earlier than women who have at least an SLC level of education.

Table 4.9 Median age at first birth						
Median age at first birth among women age 25-49 years, by current age and background characteristics, Nepal 2001						
Background characteristic	Current age					25-49
	25-29	30-34	35-39	40-44	45-49	
Residence						
Urban	21.3	19.9	19.8	19.9	20.4	20.2
Rural	19.7	19.9	20.0	20.0	20.2	19.9
Ecological zone						
Mountain	20.0	20.2	21.1	21.3	21.3	20.6
Hill	20.2	20.4	20.8	20.6	20.6	20.5
Terai	19.4	19.4	19.5	19.5	19.6	19.4
Development region						
Eastern	20.8	20.8	21.1	20.9	20.9	20.9
Central	19.9	19.9	20.0	19.6	20.3	19.9
Western	20.4	20.7	20.8	20.2	20.2	20.5
Mid-western	20.1	19.5	19.6	20.2	19.8	19.9
Far-western	19.7	19.2	19.2	19.7	20.5	19.5
Subregion						
Eastern Mountain	22.8	22.3	22.6	22.9	23.0	22.7
Central Mountain	20.0	20.4	20.7	21.6	21.6	20.8
Western Mountain	20.0	19.7	20.8	20.5	20.3	20.2
Eastern Hill	21.1	21.4	23.5	22.5	22.2	21.9
Central Hill	21.1	20.6	21.2	20.3	21.0	20.8
Western Hill	20.9	20.9	21.6	20.3	20.2	20.9
Mid-western Hill	20.2	19.7	19.2	21.2	20.4	20.1
Far-western Hill	19.9	19.9	18.9	20.2	20.9	19.7
Eastern Terai	20.6	20.4	20.1	20.4	19.8	20.3
Central Terai	19.4	19.2	19.6	19.2	19.8	19.4
Western Terai	19.6	19.9	19.2	20.0	20.2	19.7
Mid-western Terai	20.0	19.2	19.9	18.9	18.8	19.5
Far-western Terai	18.9	18.5	18.9	19.2	19.7	18.9
Education						
No education	19.4	19.7	19.9	20.0	20.2	19.8
Primary	19.6	19.9	20.5	19.6	20.0	19.8
Some secondary	20.4	20.2	20.9	19.8	20.5	20.3
SLC and above	22.8	23.5	21.5	23.4	21.8	22.9
Total	19.7	19.9	20.0	20.0	20.2	19.9
SLC = School Leaving Certificate						

4.6 ADOLESCENT FERTILITY

Adolescent fertility is a major social and health concern. Teenage mothers are more likely to suffer from severe complications during pregnancy and childbirth, which can be detrimental to the health and survival of both mother and child. Table 4.10 presents the percentage of women age 15-19 who are mothers or who are pregnant with their first child by selected background characteristics. Overall, 21 percent of adolescent women age 15-19 are already mothers or are pregnant with their first child. The proportion of teenage women who have started childbearing increases with age from 2 percent among women age 15 to 41 percent among women age 19.

In Nepal, 23 percent of rural adolescents have begun childbearing, compared with only 13 percent of urban adolescents. Only 17 percent of adolescents living in the hills have begun childbearing, compared with 20 percent in the mountains and 26 percent in the *terai* areas. Regionally, the highest level of adolescent childbearing is observed in the Central development region (24 percent), while the lowest is found in the Western development region (16 percent). The proportion of adolescents who have begun childbearing declines with increasing education, from 32 percent among those with no education to 8 percent among those with SLC and higher levels of education.

Background characteristic	Percentage who are:		Percentage who have begun childbearing	Number of women
	Mothers	Pregnant with first child		
Age				
15	0.5	1.0	1.5	361
16	3.9	5.4	9.3	451
17	12.6	4.9	17.5	571
18	25.3	8.8	34.0	510
19	35.9	4.6	40.5	442
Residence				
Urban	10.1	2.5	12.6	249
Rural	17.0	5.5	22.5	2,087
Ecological zone				
Mountain	15.8	3.9	19.7	157
Hill	12.1	4.9	17.0	1,041
Terai	20.0	5.6	25.5	1,144
Development region				
Eastern	16.5	6.1	22.6	579
Central	19.5	4.3	23.8	677
Western	11.9	4.2	16.1	501
Mid-western	16.2	5.8	22.0	354
Far-western	15.5	7.0	22.5	220
Education				
No education	24.9	6.6	31.5	842
Primary	14.3	5.3	19.6	662
Some secondary	9.7	3.6	13.2	706
SLC and above	4.3	4.0	8.3	138
Total	16.2	5.2	21.4	2,335

SLC = School Leaving Certificate

This chapter begins with an appraisal of the knowledge of different contraceptive methods before moving on to a consideration of past and current prevalence. For users of periodic abstinence, knowledge of the ovulatory cycle is examined, while for those relying on sterilization, the timing of adoption of the method is reviewed. Special attention is focused on source of contraception, informed choice, nonuse, and intention to use in the future. The chapter also contains information on exposure to media coverage on family planning and ends with an analysis of interspousal discussions on family planning. All these topics are of practical use to policy and program administrators in the formulation of effective family planning strategies. Although the main focus is on women, results from the male survey will also be presented since men play an important role in the realization of reproductive goals. Wherever possible, comparisons are also made with findings from previous surveys in order to evaluate family planning in Nepal over time.

5.1 KNOWLEDGE OF CONTRACEPTIVE METHODS

Acquiring knowledge of contraceptive methods is an important precondition toward gaining access to and then using a suitable contraceptive method in a timely and effective manner. The ability to name or recognize a family planning method is a nominal test of the respondents' knowledge and not a measure of how much they might know about the method. However, knowledge of specific methods is a precursor to use.

Information on knowledge of contraception was collected by first asking the 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 then described the method and asked whether the respondent recognized it. Eight modern family planning methods—female and male sterilization, the pill, the IUD, injectables, implants, condoms, and vaginal methods (foam/jelly)—were described, as well as two methods categorized as traditional—periodic abstinence and withdrawal. Folk methods could be mentioned spontaneously by respondents and include such methods as plants and herbs.

In Table 5.1, knowledge of contraceptive methods is presented for ever-married and currently married women and men by specific methods. Findings from the 2001 NDHS show that knowledge of at least one modern method of family planning is nearly universal in Nepal, with little difference between women and men. The most widely known modern contraceptive methods among both ever-married and currently married women are female sterilization (99 percent), male sterilization (98 percent), injectables (97 percent), the pill (93 percent), and condoms (91 percent). Four in five women know of implants, a little more than one in two women have heard of the IUD, while two in five women have heard of vaginal methods. This pattern is similar for ever-married and currently married men except that men are relatively more likely than women to have heard of condoms, vaginal methods, and the IUD and are less likely to have heard of injectables and pills. A greater proportion of women and men reported knowing a modern method than a traditional method. This is more pronounced in the case of women, only 55 percent of them know of any traditional method. Reported knowledge of traditional methods is much higher among men (more than 80 percent). One of the reasons for the low reporting of knowledge of a traditional method may be that these methods are not included in the government family planning program and women may be reluctant to mention them since they are not widely accepted.

There is little difference in the percentage 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.

Method	Ever-married women	Currently married women	Ever-married men	Currently married men
Any method	99.5	99.5	99.4	99.6
Any modern method	99.5	99.5	99.4	99.6
Female sterilization	99.1	99.1	98.4	98.6
Male sterilization	98.2	98.2	98.2	98.4
Pill	93.2	93.4	89.8	90.3
IUD	54.4	54.7	58.6	59.3
Injectables	97.3	97.3	93.7	94.2
Implants	79.6	79.8	71.4	72.1
Condom	90.8	91.0	96.8	97.1
Foam/jelly	39.9	40.2	53.7	54.5
Any traditional method	54.9	55.4	80.3	81.0
Periodic abstinence	34.9	35.1	62.3	62.8
Withdrawal	40.5	41.1	69.7	70.7
Folk method	6.4	6.4	3.0	3.1
Mean number of methods known	7.3	7.4	8.0	8.0
Number of women	8,726	8,342	2,261	2,198

5.2 EVER USE OF CONTRACEPTION

Data on ever use has special significance since 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 2001 NDHS, respondents who had heard of a method of family planning were asked whether they had ever used it.

Table 5.2 shows the percent distribution of ever-married and currently married women who have ever used family planning by specific method and age. Information on ever-use by method is also presented for ever-married and currently married men. Fifty-four percent of currently married women and 69 percent of currently married men had used a method in the past, and 50 percent of currently married women and 63 percent of currently married men have used a modern method. Among currently married women, the most commonly used modern methods were injectables (21 percent), female sterilization (15 percent), pills and condoms (12 percent each), and male sterilization (7 percent). Among currently married men, use of condoms (35 percent) was highest, followed by injectables (22 percent), female sterilization (17 percent), and pills (14 percent). The large difference between men and women in ever use of modern contraception is almost entirely due to the greater reported use of condoms among men.

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. The level of ever-use of any method among currently married women rises to a high of 68 percent among the 30-39 age group and then declines to 54 percent among women age 45-49. Ever use of any modern method by age among women follows a similar pattern.

Table 5.2 Ever use of contraception

Percentage of ever-married and currently married women who have ever used any contraceptive method, by specific method and age, and percentage of ever-married and currently married men who have ever used any contraceptive method, by specific method, Nepal 2001

Age	Modern method										Traditional method				Number of women/men
	Any modern method	Female sterilization	Male sterilization	Pill	IUD	Injectables	Implants	Condom	Foam/jelly	Any traditional method	Periodic abstinence	Withdrawal	Folk method		
EVER-MARRIED WOMEN (MEN)															
15-19	21.7	17.6	0.0	0.0	3.7	0.1	6.3	0.0	10.4	0.2	7.6	1.6	6.9	0.1	941
20-24	42.4	37.7	4.0	1.7	8.4	0.9	19.1	1.0	16.0	0.9	12.7	4.6	10.0	0.2	1,658
25-29	56.9	52.4	14.2	4.9	13.5	1.7	25.8	1.7	14.3	0.7	14.8	5.6	11.5	0.6	1,666
30-34	66.6	62.8	19.0	9.4	16.3	1.7	29.9	2.2	12.8	1.2	15.2	6.7	10.8	0.9	1,427
35-39	65.5	61.8	24.5	9.1	15.8	1.6	24.5	1.1	10.7	1.6	12.3	5.5	8.3	0.7	1,168
40-44	62.0	58.2	25.8	10.2	13.9	0.5	18.4	1.3	6.5	0.6	9.9	5.4	5.8	1.2	1,030
45-49	50.9	46.8	20.5	11.8	10.6	0.3	10.9	0.3	3.9	0.4	7.4	3.4	3.5	1.8	837
Total: women	53.1	49.0	14.9	6.4	12.0	1.1	20.6	1.2	11.6	0.8	12.1	4.9	8.7	0.7	8,726
Total: men	67.8	61.3	16.8	6.7	13.2	1.0	21.8	1.4	34.3	2.2	28.5	17.2	18.4	0.9	2,261
CURRENTLY MARRIED WOMEN (MEN)															
15-19	21.9	17.7	0.0	0.0	3.8	0.1	6.4	0.0	10.4	0.2	7.6	1.6	7.0	0.1	930
20-24	42.5	37.8	4.1	1.8	8.5	0.9	19.1	1.1	16.1	0.9	12.8	4.6	10.1	0.2	1,643
25-29	57.8	53.2	14.4	5.0	13.6	1.7	26.1	1.8	14.6	0.7	15.1	5.8	11.8	0.6	1,625
30-34	68.0	64.1	19.3	9.7	16.6	1.8	30.6	2.3	13.1	1.2	15.7	7.0	11.1	1.0	1,377
35-39	68.0	64.1	25.5	9.4	16.4	1.7	25.8	1.2	11.2	1.7	12.9	5.8	8.6	0.7	1,099
40-44	65.2	61.3	26.7	10.9	14.7	0.5	19.5	1.4	7.0	0.7	10.8	5.9	6.2	1.2	936
45-49	54.1	49.5	21.1	12.8	11.3	0.4	12.0	0.4	4.3	0.5	8.0	3.8	3.8	1.9	732
Total: women	54.3	50.0	15.0	6.5	12.3	1.1	21.3	1.3	12.0	0.9	12.5	5.1	9.1	0.7	8,342
Total: men	69.0	62.5	17.2	6.8	13.5	1.0	22.3	1.4	34.9	2.2	29.0	17.5	18.7	0.9	2,198

5.3 CURRENT USE OF CONTRACEPTION

Current use of contraception is defined as the proportion of women and men who reported they were using a family planning method at the time of interview. The level of current use is the most widely used and valuable measure of the success of family planning programs. Table 5.3 shows the percent distribution of currently married women who are currently using specific family planning methods by age. Information on current use by method is also shown for men.

Table 5.3 Current use of contraception

Percent distribution of currently married women by contraceptive method currently used, according to age, and percent distribution of currently married men by contraceptive method currently used, Nepal 2001

Age	Modern method										Traditional method					Total	Number of women/men
	Any method	Any modern method	Female sterilization	Male sterilization	Pill	IUD	Injectables	Implants	Condom	Foam/jelly	Any traditional method	Periodic abstinence	Withdrawal	Folk method	Not currently using		
15-19	12.0	9.3	0.0	0.0	1.0	0.1	3.7	0.0	4.4	0.0	2.7	0.2	2.5	0.0	88.0	100.0	930
20-24	23.4	20.7	4.1	1.8	1.7	0.4	8.0	0.7	4.0	0.1	2.7	1.0	1.6	0.1	76.6	100.0	1,643
25-29	40.1	35.5	14.4	4.8	1.6	0.7	9.4	1.1	3.5	0.0	4.6	1.1	3.4	0.1	59.9	100.0	1,625
30-34	53.5	48.0	19.3	9.6	2.7	0.7	12.3	0.7	2.7	0.1	5.4	1.5	3.5	0.4	46.5	100.0	1,377
35-39	56.2	51.8	25.5	9.2	2.2	0.4	11.6	0.7	2.2	0.1	4.4	1.5	2.4	0.4	43.8	100.0	1,099
40-44	51.9	47.8	26.7	10.7	1.1	0.1	7.3	0.6	1.3	0.0	4.1	1.6	2.0	0.5	48.1	100.0	936
45-49	40.0	36.9	21.1	12.1	0.1	0.1	2.9	0.2	0.4	0.0	3.1	0.7	1.9	0.5	60.0	100.0	732
Total: women	39.3	35.4	15.0	6.3	1.6	0.4	8.4	0.6	2.9	0.0	3.9	1.1	2.6	0.3	60.7	100.0	8,342
Total: men	48.7	43.6	17.1	6.8	1.9	0.4	10.2	0.7	6.3	0.1	5.1	2.0	2.8	0.3	51.3	100.0	2,198

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

The 2001 NDHS indicates that 39 percent of currently married women are using a method of family planning. The 35 percent who are using modern contraceptives represents a dramatic increase in the use of modern methods from 26 percent in the 1996 NFHS (Pradhan et al., 1997).

The increase in the use of modern contraceptive methods is mainly due to a significant rise in use of injectables and female sterilization. The use of injectables has increased in the last five years from 5 percent in 1996 to 8 percent in 2001, while the percentage of currently married women who have been sterilized grew from 12 percent to 15 percent. Use of other modern methods has changed little in the last five years. Six percent of currently married women are using male sterilization, 3 percent are using condoms, 2 percent are using the pill, and less than 1 percent each are using the IUD, implants, and foam or jelly. Contraceptive use varies by age. Typically, an inverted U-shaped pattern of prevalence by age is observed. 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 9 percent for married women age 15-19, rises to 52 percent among women age 35-39, and then drops sharply to 37 percent at age 45-49. Most of the women who are sterilized are over age 35, while injectables are popular among women age 25-39.

Overall, the data show that married men are consistently more likely than married women to report that they are currently using a family planning method. Among currently married men, 49 percent report use of a method, with 44 percent using a modern method. The largest difference in current use by gender is in the reported use of condoms. Men are twice as likely to report use of condoms as women (6 percent compared with 3 percent, respectively). Such a large discrepancy may be due to several reasons: the higher reported use of condoms by married men may be due to use with women other than their wife, men may be overreporting due to insufficient knowledge of female methods like injectables or because they are embarrassed to admit that they are not practicing family planning, women may be underreporting because they are too shy to report use or for fear of reprisal from other family members. Although there is no clear basis to suspect the information given either by women or men as unreliable, since the majority of methods are female methods, women's reports may be closer to actual use.

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. Tables 5.4.1 and 5.4.2 present the percent distribution of currently married women and men by their current use of family planning methods, according to background characteristics. These tables allow the comparison of levels of current contraceptive use among major groups of the population. They also permit an examination of differences in the method mix among current users within the various subgroups.

There are substantial differences in the use of contraceptive methods among sub-groups of currently married women and men. Women in urban areas are more likely to use a family planning method than their rural counterparts, reflecting wider availability and easier access to methods in urban areas than in rural areas, as well as the fact that urban women are more likely to be educated than rural women. The contraceptive prevalence rate for any method is 62 percent in urban areas, compared with 37 percent in rural areas. The difference is largely due to more women in the urban areas using modern contraception (56 percent) than in the rural areas (33 percent). Urban-rural differentials in use among married men are less pronounced than among married women.

Table 5.4.1 Current use of contraception by background characteristics: women

Percent distribution of currently married women by contraceptive method currently used, according to background characteristics, Nepal 2001

Background characteristic	Any method	Any modern method	Modern method								Traditional method				Total	Number of women	
			Female sterilization	Male sterilization	Pill	IUD	Injectables	Implants	Condom	Foam/jelly	Any traditional method	Periodic abstinence	Withdrawal	Folk method			Not currently using
Residence																	
Urban	62.2	56.3	21.8	7.6	3.5	1.6	13.8	2.8	5.1	0.1	5.9	2.4	3.3	0.2	37.8	100.0	792
Rural	36.9	33.2	14.3	6.2	1.4	0.3	7.9	0.4	2.7	0.0	3.7	1.0	2.5	0.3	63.1	100.0	7,550
Ecological zone																	
Mountain	31.8	27.3	2.3	8.8	2.1	0.5	11.3	0.4	1.7	0.1	4.5	1.5	2.9	0.1	68.2	100.0	573
Hill	36.6	32.7	7.1	9.1	2.0	0.5	9.8	1.1	3.0	0.0	3.9	0.7	3.0	0.2	63.4	100.0	3,444
Terai	42.5	38.6	23.0	3.8	1.2	0.3	7.0	0.3	2.9	0.0	3.9	1.4	2.2	0.3	57.5	100.0	4,325
Development region																	
Eastern	45.8	37.9	17.1	4.2	2.8	0.2	9.8	0.6	3.1	0.0	7.9	3.1	4.6	0.2	54.2	100.0	2,002
Central	40.2	36.9	15.9	6.2	1.5	0.7	8.6	1.3	2.5	0.1	3.3	0.6	2.2	0.5	59.8	100.0	2,684
Western	36.9	34.3	12.3	9.5	1.2	0.4	7.8	0.2	2.9	0.1	2.7	0.8	1.8	0.0	63.1	100.0	1,693
Mid-western	35.7	33.8	14.4	7.3	0.8	0.1	8.3	0.1	2.9	0.0	1.9	0.1	1.7	0.1	64.3	100.0	1,150
Far-western	30.7	28.8	13.3	4.1	1.3	0.2	6.3	0.0	3.6	0.0	1.9	0.2	1.5	0.1	69.3	100.0	813
Subregion																	
Eastern Mountain	45.2	38.7	2.3	13.9	1.9	0.3	14.5	0.3	4.8	0.6	6.5	3.2	3.2	0.0	54.8	100.0	118
Central Mountain	41.8	35.9	3.8	10.7	3.2	1.1	14.2	1.1	1.9	0.0	5.9	1.9	4.0	0.0	58.2	100.0	197
Western Mountain	17.9	15.5	1.1	4.9	1.3	0.2	7.6	0.0	0.2	0.0	2.5	0.4	1.8	0.2	82.1	100.0	258
Eastern Hill	36.2	27.5	5.3	4.9	4.0	0.8	8.2	1.0	3.4	0.0	8.7	1.4	7.3	0.0	63.8	100.0	552
Central Hill	50.9	46.9	6.7	10.5	3.0	1.2	18.1	3.4	4.0	0.1	3.9	1.2	2.2	0.6	49.1	100.0	899
Western Hill	34.1	31.0	8.9	11.5	1.7	0.3	6.0	0.2	2.4	0.0	3.1	0.6	2.5	0.0	65.9	100.0	1,017
Mid-western Hill	28.7	26.9	7.7	8.6	0.3	0.0	7.8	0.0	2.5	0.0	1.9	0.0	1.9	0.0	71.3	100.0	627
Far-western Hill	21.8	20.1	4.9	6.4	0.5	0.0	5.6	0.0	2.7	0.0	1.6	0.0	1.4	0.2	78.2	100.0	349
Eastern Terai	49.8	42.1	23.3	3.1	2.3	0.0	10.0	0.5	2.9	0.0	7.7	3.8	3.6	0.3	50.2	100.0	1,332
Central Terai	33.9	31.3	22.7	3.2	0.5	0.4	2.6	0.2	1.7	0.1	2.6	0.1	1.9	0.6	66.1	100.0	1,588
Western Terai	41.2	39.3	17.3	6.4	0.4	0.6	10.5	0.3	3.6	0.1	1.9	1.1	0.8	0.0	58.8	100.0	676
Mid-western Terai	51.3	48.9	28.1	4.8	1.5	0.3	9.6	0.3	4.2	0.0	2.3	0.2	1.9	0.3	48.7	100.0	417
Far-western Terai	46.2	45.0	28.2	2.5	2.0	0.4	5.6	0.0	6.2	0.0	1.2	0.2	1.0	0.0	53.8	100.0	313
Education																	
No education	36.6	33.5	16.3	5.8	1.3	0.2	7.8	0.5	1.5	0.0	3.1	0.9	1.9	0.3	63.4	100.0	5,970
Primary	41.8	37.7	12.3	8.7	2.3	0.4	9.6	1.0	3.5	0.0	4.1	1.2	2.7	0.2	58.2	100.0	1,247
Some secondary	48.5	41.1	12.0	7.2	2.5	0.6	10.5	0.8	7.4	0.1	7.4	1.4	6.0	0.1	51.5	100.0	793
SLC and above	57.2	46.4	8.7	4.3	3.1	3.7	11.0	1.0	14.3	0.3	10.7	4.3	6.4	0.0	42.8	100.0	332
Number of living children																	
0	6.9	5.2	0.0	0.6	0.7	0.0	0.4	0.0	3.6	0.0	1.7	0.2	1.5	0.0	93.1	100.0	1,006
1-2	32.5	28.2	7.5	4.2	2.0	0.7	9.1	0.8	3.9	0.0	4.4	1.1	3.1	0.1	67.5	100.0	2,963
3-4	55.1	51.0	26.5	10.3	1.7	0.3	8.9	0.8	2.4	0.1	4.1	1.4	2.5	0.2	44.9	100.0	2,878
5+	44.1	39.9	17.9	6.7	1.4	0.3	11.7	0.4	1.5	0.0	4.2	1.2	2.3	0.7	55.9	100.0	1,495
Total	39.3	35.4	15.0	6.3	1.6	0.4	8.4	0.6	2.9	0.0	3.9	1.1	2.6	0.3	60.7	100.0	8,342

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

SLC = School Leaving Certificate

Table 5.4.2 Current use of contraception by background characteristics: men

Percent distribution of currently married men by contraceptive method currently used, according to background characteristics, Nepal 2001

Background characteristic	Modern method										Traditional method					Total	Number of men
	Any method	Any modern method	Female sterilization	Male sterilization	Pill	IUD	Injectables	Implants	Condom	Foam/jelly	Any traditional method	Periodic abstinence	Withdrawal	Folk method	Not currently using		
Residence																	
Urban	66.0	59.0	19.3	6.8	3.0	1.9	15.9	2.8	9.0	0.4	7.1	2.7	3.6	0.7	34.0	100.0	223
Rural	46.8	41.8	16.8	6.8	1.8	0.2	9.5	0.5	6.1	0.1	4.9	2.0	2.7	0.3	53.2	100.0	1,975
Ecological zone																	
Mountain	34.0	28.9	2.0	10.9	2.0	0.6	9.1	1.1	3.0	0.3	5.1	2.0	2.7	0.4	66.0	100.0	144
Hill	45.0	39.7	7.5	8.7	2.6	0.5	11.6	1.3	7.2	0.3	5.4	1.6	3.8	0.0	55.0	100.0	869
Terai	53.2	48.3	25.9	4.9	1.4	0.3	9.3	0.3	6.2	0.0	5.0	2.4	2.1	0.5	46.8	100.0	1,185
DEVELOPMENT REGION																	
Eastern	54.8	45.8	18.9	5.4	2.4	0.3	11.6	0.8	6.4	0.1	8.9	4.2	4.4	0.3	45.2	100.0	569
Central	47.9	43.5	18.0	7.5	1.1	0.8	9.9	1.2	5.0	0.1	4.4	1.4	2.4	0.6	52.1	100.0	732
Western	46.8	41.8	12.5	8.1	2.3	0.0	11.5	0.2	6.8	0.3	5.0	1.6	3.5	0.0	53.2	100.0	421
Mid-western	44.1	43.0	18.6	6.8	2.1	0.0	8.4	0.6	6.6	0.0	1.1	0.6	0.5	0.0	55.9	100.0	285
Far-western	44.8	42.0	15.9	5.3	2.6	0.7	7.2	0.3	9.9	0.0	2.8	1.2	1.2	0.3	55.2	100.0	190
Subregion																	
Eastern Mountain	48.8	43.9	2.4	18.3	2.4	1.2	14.6	0.0	3.7	1.2	4.9	2.4	2.4	0.0	51.2	100.0	31
Central Mountain	37.5	32.1	2.7	11.6	2.7	0.9	8.9	2.7	2.7	0.0	5.4	1.8	3.6	0.0	62.5	100.0	57
Western Mountain	22.2	17.2	1.0	6.1	1.0	0.0	6.1	0.0	3.0	0.0	5.1	2.0	2.0	1.0	77.8	100.0	56
Eastern Hill	47.0	35.3	8.8	8.4	2.8	0.7	8.4	1.4	4.9	0.0	11.6	3.5	8.1	0.0	53.0	100.0	158
Central Hill	52.4	47.8	5.7	10.0	1.8	1.2	18.6	2.7	7.5	0.3	4.7	1.7	3.0	0.0	47.6	100.0	270
Western Hill	46.1	40.3	10.1	7.8	3.9	0.0	9.5	0.4	8.0	0.6	5.8	1.2	4.7	0.0	53.9	100.0	227
Mid-western Hill	31.4	31.4	6.9	9.2	2.3	0.0	6.2	0.0	6.9	0.0	0.0	0.0	0.0	0.0	68.6	100.0	140
Far-western Hill	36.2	33.0	4.9	6.5	2.2	0.0	9.7	0.8	8.9	0.0	3.2	1.6	1.6	0.0	63.8	100.0	75
Eastern Terai	58.5	50.3	24.4	3.2	2.3	0.0	12.6	0.5	7.3	0.0	8.2	4.7	3.1	0.4	41.5	100.0	380
Central Terai	46.4	42.3	28.3	5.3	0.4	0.5	4.2	0.0	3.6	0.0	4.2	1.1	1.9	1.1	53.6	100.0	406
Western Terai	47.6	43.5	15.3	8.5	0.5	0.0	13.8	0.0	5.4	0.0	4.1	2.0	2.0	0.0	52.4	100.0	194
Mid-western Terai	64.6	62.0	35.9	3.5	1.9	0.0	12.1	1.4	7.2	0.0	2.6	1.4	1.2	0.0	35.4	100.0	121
Far-western Terai	59.0	59.0	31.0	4.9	4.1	1.6	4.3	0.0	13.2	0.0	0.0	0.0	0.0	0.0	41.0	100.0	84
Education																	
No education	41.1	36.8	19.0	6.0	1.6	0.0	7.2	0.6	2.4	0.0	4.3	1.8	2.5	0.0	58.9	100.0	808
Primary	46.4	42.1	15.5	6.6	1.7	0.5	11.1	1.0	5.6	0.0	4.3	1.5	2.0	0.8	53.6	100.0	660
Some secondary	53.7	48.9	16.9	6.9	2.3	0.5	12.6	1.0	8.5	0.3	4.8	1.9	2.9	0.0	46.3	100.0	445
SLC and above	68.0	57.9	15.3	9.3	3.0	1.0	12.8	0.2	16.1	0.3	10.1	4.2	5.3	0.6	32.0	100.0	284
Number of living children																	
0	19.5	16.3	3.4	1.6	0.8	0.4	2.6	0.0	7.5	0.0	3.3	0.9	2.4	0.0	80.5	100.0	370
1-2	49.0	43.2	13.4	4.4	2.1	0.6	13.1	0.4	9.1	0.1	5.7	3.2	2.5	0.1	51.0	100.0	775
3-4	61.7	56.7	26.6	12.1	2.1	0.2	10.6	1.3	3.5	0.2	4.9	1.5	3.0	0.4	38.3	100.0	719
5+	52.7	46.4	20.1	6.6	2.6	0.3	11.0	0.9	4.9	0.0	6.2	1.8	3.5	0.9	47.3	100.0	334
Total	48.7	43.6	17.1	6.8	1.9	0.4	10.2	0.7	6.3	0.1	5.1	2.0	2.8	0.3	51.3	100.0	2,198

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

SLC = School Leaving Certificate

Contraceptive use varies by place of residence 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* (39 percent), followed by the hills (33 percent) and mountains (27 percent). Female sterilization is extremely popular in the *terai* where 23 percent of women are using it. On the other hand, male sterilization is more popular in both the mountains and hills where 9 percent of women each reported use than in the *terai* (4 percent). Injectables are most popular among currently married women living in the mountains (11 percent). By development region, use of modern methods among women is highest in the Eastern region (38 percent), closely followed by the Central region (37 percent), and lowest in the Far-western region (29 percent). Female sterilization, injectables, and male sterilization are the most popular methods in all the development regions. The use of traditional methods is most popular in the Eastern development region. By subregion, modern contraceptive use is highest in the Mid-western *terai* (49 percent) and lowest in the Western mountain region (16 percent). Female sterilization is especially popular in the Mid-western and Far-western *terai* (28 percent each). Injectables are most commonly used in the Central hill subregion (18 percent). Male sterilization is most popular in the Eastern mountains (14 percent) and least in the Far-western, Eastern, and Central *terai* subregions (3 percent each).

Higher educational attainment is positively correlated with current use of family planning. Use of modern methods increases from 34 percent among currently married women with no education to 46 percent among women with SLC and above. The most popular method among women who have completed SLC and above is condoms (14 percent), whereas the most popular method among women who have no education is female sterilization (16 percent). In fact, female sterilization is the most popular method 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. A similar pattern between education and use is observed for men.

There is a direct association between use of modern family planning and the number of children women have. Only 5 percent of women with no living children use modern contraception; the percentage increases to 51 percent among women with three to four children and falls to 40 percent among women with five or more children. For men, this relationship is similar but less pronounced. As expected, permanent methods are popular among high-parity women. Use of sterilization increases with the number of living children a woman has. Nevertheless, sterilization use is lower among women with five more children than among women with three to four children. Injectables are also 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 depots; they work for a relatively longer duration; they are convenient to use; their use can be kept private; and they are relatively less complicated to adopt.

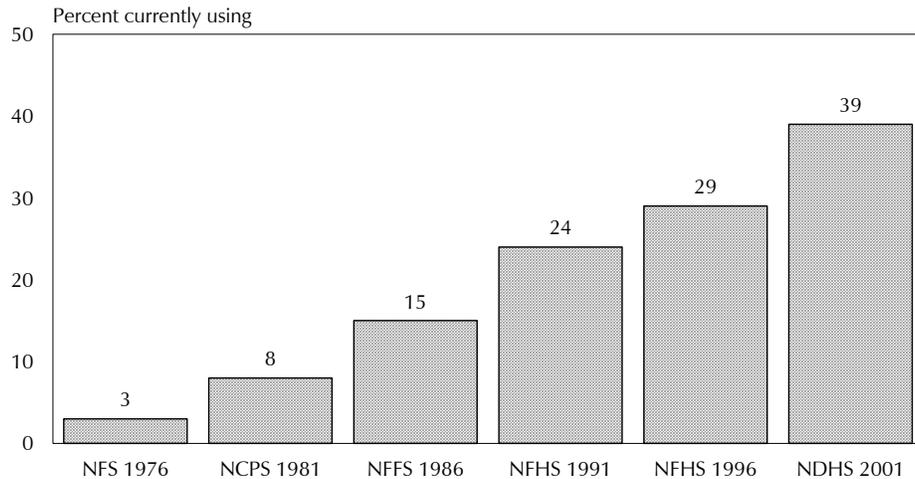
5.5 TRENDS IN CURRENT USE OF FAMILY PLANNING

The study of trends in current use of family planning is important to assessing the achievement of family planning programs over a period of time. Table 5.5 and Figure 5.1 show the trend in the use of modern contraceptives among currently married nonpregnant women over the last two and a half decades. Pregnant women are excluded from the denominator to ensure comparability with earlier surveys; therefore, the contraceptive rates for 2001 shown here differ from Tables 5.3 and 5.4.

Table 5.5 shows that there has been an impressive increase in the use of contraception in Nepal over the last 25 years, with the increase in current use of modern contraception among currently married, nonpregnant women highest between 1996 and 2001 and lowest between 1991 and 1996. There was a fivefold increase between 1976 and 1986 and a twofold increase between 1986 and 1996. Over the last five years, modern contraceptive use increased by 35 percent, from 29 percent in 1996 to 39 percent in 2001. 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. While the share of female sterilization decreased from 50 percent of modern methods in 1991 to 42 percent in 2001, male sterilization declined from 31 percent to 18 percent over the same period. On the other hand, the share of temporary methods has risen from 19 percent to 40 percent over the same period. This is an indication that more women are now using contraception to space rather than limit births. The increase in the use of injectables is fourfold between 1991 and 2001. Even though condom use is low, it increased considerably during this period. The only method that has not increased since 1991 is male sterilization. The reasons for the plateau in male sterilization include low acceptability, lack of proper counseling, low priority by policymakers and managers, inadequate resource allocation, insufficient promotional activities, misinformation and myths, low levels of participation of males in family planning, and lack of attention to quality assurance (Pathak, 1999).

Table 5.5 Trends in current use of modern contraceptive methods						
Percentage of currently married nonpregnant women who are currently using modern contraceptive methods, Nepal 1976-2001						
Method	1976 ¹	1981 ²	1986 ³	1991 ⁴	1996 ⁵	2001
Any modern method	2.9	7.6	15.1	24.1	28.8 ^a	38.9 ^a
Modern method						
Female sterilization	0.1	2.6	6.8	12.1	13.3	16.5
Male sterilization	1.9	3.2	6.2	7.5	6.0	7.0
Pill	0.5	1.2	0.9	1.1	1.5	1.8
Injectables	0.0	0.1	0.5	2.3	5.0	9.3
Male condom	0.3	0.4	0.6	0.6	2.1	3.2
Implants	na	na	na	0.3	0.5	0.7
IUD	0.1	0.1	0.1	0.2	0.3	0.4
Number	4,325	5,277	3,654	22,096	7,190	7,591
Note: This table excludes pregnant women from the denominator in order to ensure comparability with earlier surveys, and as such contraceptive use rates for 2001 differ from Table 5.3. In contrast, contraceptive use rates in DHS surveys are calculated based on all married women and assume that currently pregnant women are not currently using a method.						
na = Not applicable						
¹ Ministry of Health, 1977; ² Risal and Shrestha, 1989; ³ Ministry of Health, 1987; ⁴ Ministry of Health, 1993; ⁵ Pradhan et al., 1997						
^a Includes users of vaginal methods						

Figure 5.1 Trends in Current Use of Modern Contraceptive Methods Among Currently Married Nonpregnant Women Age 15-49, Nepal, 1976-2001



Note: Data for 1976 to 1996 surveys are from Pradhan et al., 1997: Figure 4.2, p. 56.

Nepal 2001

5.6 CURRENT USE OF CONTRACEPTION BY WOMEN'S STATUS

A woman's desire and ability to manage her fertility and her choice of contraceptive methods are in part affected by her status, self-image, and sense of empowerment. A woman who feels that she does not have much control over basic aspects of 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 that do not depend on her husband's cooperation (see Chapter 3 for a discussion of the indicators).

Table 5.6 shows the distribution of currently married women by contraceptive use, according to the three women's status indicators. Use of modern methods increases as women's participation in decisionmaking increases. For example, 16 percent of women who have no say in any of the five specific household decisions are using a modern method, compared with 34 percent of women who participate in one to two decisions, 46 percent of women with a say in three to four decisions, and 42 percent of women who participate in all five decisions. However, there are no significant differences in the percentages of women using modern methods relative to their attitudes toward a wife's ability to refuse sex with her husband. Use varies negatively with attitude toward wife beating. Use decreases as the number of reasons to justify wife beating increases. For example, 36 percent of women who believe that a man is not justified in beating his wife for any reason at all are using a modern method of contraception, compared with 26 percent of women who believe that a man is justified in beating his wife for all five reasons asked about.

Table 5.6 Current use of contraception by women's status

Percent distribution of currently married women by contraceptive method currently used, according to selected indicators of women's status, Nepal 2001

Women's status indicators	Modern method									Traditional method				Not currently using	Total	Number of women	
	Any method	Any modern method	Female sterilization	Male sterilization	Pill	IUD	Injectables	Implants	Condom	Foam/jelly	Any traditional method	Periodic abstinence	Withdrawal				Folk method
Number of decisions in which woman has final say																	
0	19.1	16.4	6.4	1.8	0.7	0.3	3.8	0.2	3.1	0.0	2.7	0.6	2.1	0.0	80.9	100.0	1,284
1-2	37.5	34.0	13.6	6.1	1.5	0.3	9.2	0.6	2.7	0.0	3.4	1.2	2.1	0.2	62.5	100.0	3,701
3-4	51.8	46.2	20.6	8.5	2.2	0.9	9.3	1.0	3.7	0.1	5.6	1.8	3.5	0.4	48.2	100.0	1,869
5	45.8	41.6	19.0	8.2	1.9	0.2	9.4	0.7	2.2	0.1	4.2	0.6	3.0	0.5	54.2	100.0	1,488
Number of reasons to refuse sex with husband																	
0	37.7	33.7	13.5	2.3	2.2	0.0	10.6	0.0	5.0	0.0	4.0	1.3	1.3	1.3	62.3	100.0	93
1-2	37.2	35.1	19.0	1.8	0.3	0.3	9.3	1.1	3.3	0.0	2.1	1.2	0.7	0.2	62.8	100.0	251
3-4	39.4	35.4	14.9	6.5	1.7	0.4	8.4	0.6	2.9	0.1	4.0	1.1	2.6	0.2	60.6	100.0	7,998
Number of reasons wife beating is justified																	
0	40.0	35.9	15.4	6.7	1.6	0.4	8.2	0.6	2.9	0.1	4.1	1.2	2.6	0.3	60.0	100.0	5,947
1-2	38.9	35.2	12.9	6.1	1.6	0.5	10.2	0.8	3.0	0.1	3.8	1.1	2.6	0.1	61.1	100.0	1,855
3-4	35.1	31.2	18.8	3.2	1.3	0.0	4.9	0.4	2.6	0.0	4.0	0.9	2.8	0.3	64.9	100.0	433
5	26.1	26.1	14.3	3.7	2.0	0.0	6.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	73.9	100.0	106
Total	39.3	35.4	15.0	6.3	1.6	0.4	8.4	0.6	2.9	0.0	3.9	1.1	2.6	0.3	60.7	100.0	8,342

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

5.7 NUMBER OF CHILDREN AT FIRST USE OF CONTRACEPTION

To examine the timing of initial family planning use during the family building process, the 2001 NDHS included a question for ever-married women who had ever used contraception that asked about the number of living children they had at first use. Table 5.7 shows this information by age group. An important part of this table is to examine cohort changes in parity at first use of contraception.

Looking at first use by age, younger women report first use of contraception at lower parities than older women. Fifty-eight percent of women age 15-19 who have ever used family planning initiate use before having any children. This is much higher than the 2 percent among women in their thirties, suggesting a shift toward the early use of contraception and the desire to delay childbearing among Nepalese women. This may be because young women are more likely to use contraceptives to space births, whereas older women use them to limit births.

Current age	Number of living children at time of first use of contraception					Total	Number of women
	0	1	2	3	4+		
15-19	58.4	36.3	5.3	0.0	0.0	100.0	204
20-24	18.2	52.7	21.9	6.7	0.5	100.0	703
25-29	5.4	30.2	29.6	24.1	10.7	100.0	948
30-34	2.1	20.0	24.7	25.1	28.2	100.0	951
35-39	1.9	11.3	17.0	26.4	43.4	100.0	765
40-44	0.7	7.8	14.2	20.8	56.5	100.0	639
45-49	0.6	7.1	10.5	21.8	60.1	100.0	426
Total	7.3	23.5	20.4	20.3	28.5	100.0	4,634

Note: Total includes 2 women with missing information on number of living children at first use of contraception who are not shown separately.

5.8 KNOWLEDGE OF FERTILE PERIOD

An elementary knowledge of reproductive physiology provides a useful background for the successful practice of coitus-associated methods such as periodic abstinence, withdrawal, condoms, and vaginal methods. Knowledge is particularly critical for periodic abstinence (safe period or rhythm period). As shown in Tables 5.1, 5.2, and 5.3, respectively, 35 percent of currently married women have heard of periodic abstinence as a method of contraception, 5 percent have used it in the past, and 1 percent is currently using the method. To effectively use periodic abstinence as a method of contraception, knowledge of the woman's fertile period is a prerequisite. All women interviewed in the 2001 NDHS were asked about their knowledge of their fertile period. Table 5.8 shows respondents' knowledge about the time during the menstrual cycle when a woman is most likely to get pregnant.

Table 5.8 Knowledge of fertile period

Percent distribution of ever-married women, by knowledge of the fertile period during the ovulatory cycle, according to current use/nonuse of periodic abstinence, Nepal 2001

Perceived fertile period	Users of periodic abstinence	Nonusers of periodic abstinence	All ever-married women
Just before period begins	2.2	2.1	2.1
During period	1.2	1.7	1.6
Right after period has ended	60.7	40.0	40.2
Halfway between two periods	33.3	17.9	18.1
Other	0.0	0.1	0.1
No specific time	2.6	5.9	5.9
Don't know	0.0	32.4	32.0
Total	100.0	100.0	100.0
Number of women	94	8,632	8,726

Overall, only 18 percent of women correctly reported the most fertile period as being halfway between two menstrual periods. Among users of periodic abstinence, one-third were able to correctly identify when during a woman's cycle she is most likely to get pregnant. It should be noted that one-third of nonusers did not know about the fertile period, and two in five women stated that a woman is most susceptible to pregnancy just after her period ends, indicating that there is still much scope for educating women about their physiology.

5.9 STERILIZATION

TIMING OF FEMALE STERILIZATION

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

As mentioned earlier, 15 percent of currently married women age 15-49 reported that they had been sterilized. Table 5.9 shows the distribution of sterilized women by the age at sterilization, according to the number of years since the operation. The results indicate that most women (68 percent) were sterilized before age 30, with one-fourth sterilized before age 25. This shows that female sterilization in Nepal occurs early in women's reproductive lives. The median age at sterilization (for women sterilized before age 40) is 28 years, which has remained roughly constant over the last ten years.

Table 5.9 Timing of female sterilization

Percent distribution of sterilized women by age at the time of sterilization, and median age at sterilization, according to the number of years since the operation, Nepal 2001

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	26.3	44.6	18.4	9.8	0.9	100.0	194	27.7
2-3	26.6	40.9	22.7	6.9	2.9	100.0	186	27.4
4-5	31.7	33.7	20.2	12.7	1.7	100.0	163	27.7
6-7	24.4	35.7	25.5	12.6	1.8	100.0	155	28.1
8-9	23.4	45.2	21.7	8.5	1.1	100.0	113	28.2
10+	20.9	48.2	26.2	4.7	0.0	100.0	440	a
Total	24.6	42.9	23.2	8.2	1.1	100.0	1,252	27.8

¹Median ages are calculated only for women sterilized at less than 40 years of age to avoid problems of censoring.
^a Not calculated due to 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 2001 NDHS, women who had been sterilized or who said their husband had been sterilized were asked whether they regretted having had the operation and, if so, why. Table 5.10 shows sterilization regret for women. Although similar information was obtained for men, due to the small numbers who regretted the operation, the results are not statistically meaningful to warrant a separate analysis.

Overall, 8 percent of women who were sterilized or whose husband was sterilized reported that they regretted the operation. About one-half of these women (4 percent) stated that they regretted sterilization because of side effects, 2 percent of women stated that they wanted another child, and 1 percent of women regretted sterilization because of the death of a child.

There is little variation in sterilization regret by urban-rural residence. However, women residing in the hills and *terai* were much more likely to regret sterilization than women residing in the mountains. Similarly, sterilization regret is higher among women residing in the Western development region and the Western hill subregion. Sterilization regret is also higher among women with one to two children.

Table 5.10 Sterilization regret

Percentage of currently married women who are sterilized or whose husbands are sterilized who regret the operation, by reason for regret and background characteristics, Nepal 2001

Background characteristic	Percentage who regret sterilization	Reason for regret							Number of women
		Respondent wants another child	Husband wants another child	Side effects	Marital status has changed	Operation failed	Child died	Other	
Residence									
Urban	7.7	1.9	0.0	2.5	0.6	0.4	1.7	0.2	232
Rural	7.9	1.9	0.1	4.5	0.1	0.3	0.9	0.1	1,548
Ecological zone									
Mountain	2.9	1.4	0.0	0.0	1.4	0.0	0.0	0.0	63
Hill	8.2	2.7	0.2	4.0	0.0	0.2	1.1	0.0	559
Terai	8.0	1.5	0.0	4.7	0.1	0.4	1.0	0.2	1,158
Development region									
Eastern	7.4	1.2	0.0	4.2	0.3	0.0	1.4	0.3	428
Central	6.9	1.5	0.0	4.2	0.1	0.3	0.9	0.0	594
Western	11.7	3.1	0.4	6.7	0.2	0.2	1.1	0.0	368
Mid-western	5.8	2.0	0.0	2.3	0.0	0.3	0.7	0.2	249
Far-western	7.3	2.0	0.0	2.2	0.0	1.8	0.5	0.7	142
Subregion									
Eastern Mountain	4.0	2.0	0.0	0.0	2.0	0.0	0.0	0.0	19
Central Mountain	3.7	1.9	0.0	0.0	1.9	0.0	0.0	0.0	29
Western Mountain	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16
Eastern Hill	2.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	56
Central Hill	3.5	1.6	0.0	1.4	0.0	0.0	0.5	0.0	154
Western Hill	15.3	4.2	0.6	8.4	0.0	0.4	1.7	0.0	207
Mid-western Hill	4.9	1.6	0.0	1.6	0.0	0.0	1.6	0.0	102
Far-western Hill	6.9	5.8	0.0	0.0	0.0	0.0	1.1	0.0	40
Eastern Terai	8.4	1.4	0.0	4.8	0.2	0.0	1.6	0.4	353
Central Terai	8.5	1.5	0.0	5.5	0.0	0.4	1.1	0.0	411
Western Terai	6.9	1.7	0.0	4.4	0.4	0.0	0.4	0.0	160
Mid-western Terai	6.9	2.4	0.0	3.0	0.0	0.6	0.0	0.4	137
Far-western Terai	7.9	0.5	0.0	3.2	0.0	2.7	0.4	1.1	96
Education									
No education	7.9	1.8	0.1	4.6	0.1	0.2	1.0	0.1	1,323
Primary	7.9	1.8	0.0	3.0	0.3	1.0	1.1	0.7	261
Some secondary	5.5	1.7	0.0	2.6	0.3	0.0	0.5	0.0	152
SLC and above	(14.7)	(5.0)	(0.0)	(7.8)	(0.0)	(0.0)	(1.9)	(0.0)	43
Number of living children									
0	*	*	*	*	*	*	*	*	6
1-2	12.6	5.8	0.0	2.8	0.2	0.0	3.7	0.0	346
3-4	5.8	0.9	0.0	4.1	0.1	0.2	0.3	0.1	1,060
5+	8.8	0.3	0.4	6.3	0.0	0.9	0.4	0.5	368
Total	7.9	1.9	0.1	4.3	0.1	0.3	1.0	0.2	1,780

Note: Total includes 2 women with missing information on reason for regret who are 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.

SLC = School Leaving Certificate

5.10 CONDOM USE

In the 2001 NDHS, detailed information on use of condoms was collected from men who had ever used condoms and men who were currently using condoms. Among men who have ever used condoms, only 2 percent first used condoms before age 16 and 8 percent first used condoms at age 16-17. This proportion continues to increase with age to 14 percent using condoms for the first time at age 18-21, 19 percent using at age 22-24, and 21 percent using at age 25-29. First use of condoms among ever-users is lower at older ages (above 29 years) than at younger ages (25-29). Only 3 percent of ever-users have first used condoms at age 40 and above (data not shown). Most men (94 percent) used condoms for the first time to avoid pregnancy. Six percent of men used condoms for the first time to avoid getting sexually transmitted diseases, 5 percent used them to avoid getting HIV/AIDS, and 4 percent used condoms because their partner insisted. Most men who use condoms currently report use of condoms only sometimes during their partner's fertile days.

5.11 MEN'S ATTITUDES TOWARD CONTRACEPTION

The 2001 NDHS included several questions in the male survey to elicit information on men's attitudes toward contraception in general and toward specific methods used commonly in Nepal. This information is useful in formulating family planning programs and policies since men play a key role in women's reproductive health. Men's attitudes toward family planning and specific methods are also important in formulating educational activities geared toward addressing some of their misconceptions and fears.

To get a sense of their attitudes toward contraception in general, men were asked for their opinion on a number of questions pertaining to contraception and its use. The results are shown in Table 5.11. It is encouraging to note that most ever-married Nepali men disagree that contraception is a woman's business alone (92 percent) or that a woman should be the one to get sterilized since she is the one who gets pregnant (87 percent). More than 70 percent of men also disagree that a woman has no right to tell a man to use a condom or that women who are sterilized may become promiscuous. When asked specific questions about condom use, most men are knowledgeable about their use. Seventy-four percent disagree that a condom can be reused, and 81 percent believe that a condom protects against disease. At the same time, 69 percent of men agree that being sterilized for a man is the same as being castrated, which could be indicative of why male sterilization is not a more popular method of contraception in Nepal. Two in five men also believe that condoms reduce a man's pleasure and that a condom is very inconvenient to use.

Table 5.11 Men's attitudes toward contraception and gender roles

Percent distribution of men by whether they agree or disagree with various statements about contraception and gender roles, Nepal 2001

Statement	Agree	Disagree	Don't know/ missing	Total
Condoms reduce man's pleasure	43.6	18.7	37.6	100.0
A condom is very inconvenient to use	39.6	31.4	29.0	100.0
A condom can be re-used	3.5	73.8	22.7	100.0
A condom protects against disease	80.8	4.2	15.0	100.0
A woman has no right to tell a man to use a condom	9.7	74.7	15.6	100.0
Contraception is women's business and a man should not have to worry about it	6.4	91.7	1.9	100.0
Women who are sterilized may become promiscuous	22.6	71.5	5.9	100.0
Being sterilized for a man is the same as castration	68.6	26.8	4.5	100.0
A woman is the one who gets pregnant, so she should be the one to get sterilized	8.9	87.4	3.8	100.0

Men were also asked detailed questions on specific methods popular in Nepal. Table 5.12 shows the percentage of men who have heard of injectables who believe that injectables are or are not a good method of family planning and the reasons for their belief, by whether they have used or not used the method. Two in three men who have heard of injectables believe that it is a good method of family planning. Three-fifths of men who have used injectables believe that they are a good method of family planning compared with two-thirds of men who have not used injectables. The major reasons cited in favor of the method are that it is a temporary method, that it can be stopped when children are desired, that it is effective, and that it lasts for several months. Other reasons are that it is simple to use and it has no/few side effects. Among the 27 percent of men who do not think injectables are a good method, more than three-quarters believe that they may harm women's health, while one-quarter believe that they stop the menstrual flow. The pattern of response among users and nonusers is somewhat similar.

Table 5.12 Men's attitudes toward injectables			
Percentage of men who know of injectables who believe that injectables are or are not a good method of family planning, by whether they have used or not used the method and the reasons for this belief, Nepal 2001			
Reason	Has used injectables	Has not used injectables	Total
Percentage who believe injectables are a good family planning method	60.1	66.8	65.3
Percentage who believe injectables are not a good family planning method	39.5	23.2	27.0
Don't know/Missing	0.4	9.9	7.7
Total	100.0	100.0	100.0
Number of men	493	1,626	2,119
Reasons men believe that injectables are a good family planning method			
Simple to use	26.2	14.1	16.7
Effective	53.2	47.8	48.9
Affordable	7.9	11.3	10.6
No/few side effects	20.6	13.1	14.7
Can stop when children desired	65.8	59.8	61.1
Lasts for several months	35.8	31.8	32.6
Other	0.5	0.4	0.4
Don't know	0.7	0.2	0.3
Number of men	296	1,087	1,383
Reasons men believe that injectables are not a good family planning method			
Too expensive	0.0	0.3	0.2
Against religion	0.0	2.0	1.3
May harm women's health	82.0	76.8	78.5
Increases promiscuity	0.7	2.5	1.9
Can cause sterility	0.3	6.1	4.2
Method can fail	8.7	6.4	7.2
No menstruation	38.7	21.6	27.4
Involves doctor/medical personnel	4.2	6.6	5.7
Other	16.3	8.8	11.3
Don't know	0.0	0.6	0.4
Number of men	178	348	526

Table 5.13 shows the percentage of men who have heard of female sterilization who believe that female sterilization is or is not a good method of family planning, by reasons for this belief and whether or not they have used the method. More than three-quarters of men who have heard of female sterilization believe that it is a good method of family planning. Most men (87 percent) who have heard of female sterilization believe that it is a good method specifically because there is no risk of getting pregnant again. One in two men also believe that it is a good method because it is generally effective, while one-fifth of men believe that it is a good method because it has no/few side effects, with users slightly more likely than nonusers to cite these two advantages of the method. Most men believe that female sterilization is not a good method of family planning because it is harmful to women's health (70 percent). Two-fifths of men also believe that it is not a good method because it can lead to medical complications (with users somewhat more likely to cite this disadvantage than nonusers), while one-fifth of men do not like the method because it is irreversible. Users are also twice as likely as nonusers to say that female sterilization is not a good method of family planning because it involves a doctor and medical personnel (8 percent and 4 percent, respectively).

Table 5.13 Men's attitudes toward female sterilization

Percentage of men who know of female sterilization who believe that female sterilization is or is not a good method of family planning, by whether they have used or not used the method and reasons for this belief, Nepal 2001

Reason	Has used female sterilization	Has not used female sterilization	Total
Percent who believe sterilization is a good family planning method	71.7	79.1	77.5
Percent who believe sterilization is not a good family planning method	26.8	19.1	20.8
Don't know/Missing	1.5	1.8	1.7
Total	100.0	100.0	100.0
Number of men	491	1,734	2,225
Reasons men believe female sterilization is a good family planning method			
Effective	57.5	47.6	49.6
Affordable	5.8	3.2	3.8
No/few side effects	24.2	18.8	19.9
No risk of getting pregnant	84.5	87.9	87.2
Other	1.3	0.7	0.8
Don't know	0.7	0.2	0.3
Number of men	352	1,372	1,724
Reasons men believe female sterilization is not a good family planning method			
Too expensive	0.0	1.0	0.8
Against religion	5.1	9.0	8.0
May harm women's health	64.8	72.1	70.2
Increases promiscuity	1.5	6.0	4.8
Cannot have children again	19.0	18.5	18.6
Method can fail	9.2	6.5	7.2
Involves doctor/medical personnel	8.0	3.9	4.9
Can lead to medical complications	47.5	39.7	41.8
Other	9.0	2.3	4.1
Don't know	0.0	0.3	0.2
Number of men	115	319	434

5.12 SOURCE OF CONTRACEPTION

Table 5.14 on source of contraception is intended simply to document the main sources of contraception for users of different contraceptive methods. Such information on where women obtain their contraceptive method is important for family planning program managers and implementers. All current users of modern contraceptive methods were asked the most recent source of their methods. The public sector remains the major source of contraceptive methods in Nepal, providing methods to four in five current users. The share of the public sector has remained constant over the last five years. Eight percent of users get their methods from the nongovernment sector, mostly from the Family Planning Association of Nepal (FPAN), and 7 percent get their methods from the private medical sector, mostly from pharmacies.

Table 5.14 Source of contraception

Percent distribution of current users of modern contraceptive methods by most recent source of method, according to specific method, Nepal 2001

Source	Female sterilization	Male sterilization	Pill	IUD	Injectables	Implants	Condom	Total
Government sector	85.8	81.0	55.3	(64.3)	86.0	51.5	46.0	79.4
Government hospital, clinic	41.9	27.6	9.6	(45.6)	7.8	37.7	4.7	26.6
PHC/Health center	3.0	2.4	3.4	(14.7)	9.2	8.0	2.9	4.6
Health post	0.0	0.0	7.3	(0.0)	15.6	1.6	8.0	4.7
Sub-health post	0.0	0.0	23.2	(0.0)	48.6	2.0	21.3	14.4
PHC outreach clinic	0.0	0.0	0.0	(0.0)	2.6	2.3	0.0	0.7
FCHV	0.0	0.0	11.7	(0.0)	1.9	0.0	9.2	1.7
Mobile camp	40.8	50.7	0.0	(0.0)	0.0	0.0	0.0	26.4
Other	0.2	0.3	0.0	(4.0)	0.3	0.0	0.0	0.2
Non-gov't (NGO) sector	6.8	11.2	7.6	(11.0)	5.1	42.3	4.2	7.7
FPAN	4.8	7.2	4.8	(8.5)	4.2	8.6	1.8	4.9
Marie Stopes	0.7	0.3	0.0	(2.5)	0.2	3.4	0.0	0.5
ADRA	0.2	0.6	0.0	(0.0)	0.4	27.2	0.0	0.8
Nepal Red Cross	0.0	0.0	1.6	(0.0)	0.0	0.0	1.1	0.2
Other	1.1	3.0	1.1	(0.0)	0.4	3.1	1.3	1.3
Private medical sector	1.1	0.6	30.1	(18.5)	7.7	6.2	38.1	7.3
Private hospital/clinic/ nursing home	1.1	0.6	3.1	(18.5)	2.6	4.6	0.3	1.6
Pharmacy	0.0	0.0	27.0	(0.0)	5.1	1.5	37.8	5.7
Other source	0.0	0.0	2.6	(0.0)	0.4	0.0	8.3	0.9
Shop	0.0	0.0	1.6	(0.0)	0.0	0.0	4.9	0.5
Friend, relative	0.0	0.0	1.0	(0.0)	0.4	0.0	3.4	0.4
Other	6.2	2.9	4.5	(4.5)	0.8	0.0	3.4	3.9
Don't know	0.0	4.4	0.0	(0.0)	0.0	0.0	0.0	0.8
Missing	0.0	0.0	0.0	(1.6)	0.0	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	1,252	528	135	34	705	54	241	2,952

Note: Total includes 3 users of foam/jelly who are not shown separately. Figures in parentheses are based on 25-49 unweighted cases.

PHC = Primary health center

FCHV = Female community health volunteer

FPAN = Family Planning Association of Nepal

ADRA = Adventist Development Relief Agency

In the public sector, 27 percent of the users obtained their contraceptive methods from government hospitals or clinics, 14 percent from government sub-health posts, and 26 percent from mobile camps. In the private medical sector, the pharmacy is the most commonly used source, providing contraceptive methods to 6 percent of all users of modern methods. Most contraceptives sold in pharmacies are provided through the Nepal Contraceptive Retail Sales Company.

Female and male sterilizations were conducted mostly in government hospitals (42 and 28 percent, respectively) and mobile camps (41 and 51 percent, respectively). One in two users of injectables obtained their supply from government sub-health posts and 16 percent got them from government health posts. Pills are obtained primarily from pharmacies (27 percent), government sub-health posts (23 percent), female community health volunteers (FCHVs) (12 percent), and government hospitals or clinics (10 percent). Condoms are obtained primarily from pharmacies (38 percent), government sub-health posts (21 percent), and FCHVs (9 percent). These findings point to the huge reliance on government facilities for the supply of contraceptives.

5.13 TIME TAKEN TO REACH SOURCE OF CONTRACEPTION

One of the important indicators of accessibility of contraceptives is the travel time to get to the source of contraceptives. Studies have shown that improvement in accessibility can have a positive effect on contraceptive prevalence.

In the 2001 NDHS, women who were currently using a method were asked to estimate the time taken to reach the place they last obtained contraceptives. Table 5.15 shows the time taken to reach the source by users of the pill, injectables, and condoms by place of residence, ecological zone, and region.

Background characteristic	Method			Total
	Pill	Injectables	Condom	
Residence				
Urban	(15.6)	15.9	15.7	15.8
Rural	30.1	30.5	30.3	30.4
Ecological zone				
Mountain	*	30.6	*	30.6
Hill	20.9	30.4	30.5	30.4
Terai	20.3	30.1	20.5	30.0
Development region				
Eastern	20.4	30.3	30.0	30.1
Central	(30.0)	20.6	15.9	20.6
Western	*	30.4	(30.1)	30.4
Mid-western	*	60.3	(60.1)	60.2
Far-western	*	30.2	20.7	30.1
Total	21.0	30.3	30.1	30.2

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

In general, it takes half an hour for users of these three methods to access a source. Pill users are closest to their source with a median of 21 minutes, compared with injectable and condom users, who generally take 30 minutes to reach their source. This is an indication that some of the most popular modern methods (pills, injectables, condoms) are found locally, which could be attributed to the expansion of health institutions (primary health centers, health posts, and sub-health posts) throughout the kingdom, as well as the increased prevalence of FCHVs who are depot holders for pills and condoms in many communities.

As expected, urban users are generally closer to their source of contraceptives than rural users, with rural users taking twice as long as urban users to reach a source for any of the three methods (30 minutes and 15 minutes, respectively). There is little difference in time to a source by ecological zone. Time to a contraceptive source is shortest in the Central development region (21 minutes), with condoms just 16 minutes away.

5.14 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 method; potential users must also be informed of other methods that could be used. Family planning providers should also inform all method users of potential side effects and what they should do if they encounter signs of a problem. This information assists users in coping with side effects and decreases unnecessary discontinuation of temporary methods. Users of temporary methods should also be informed of the choices they have with respect to other methods.

Table 5.16 presents information on informed choice by type of method, type of provider, place of residence, and level of education. The data show that less than two-fifths (38 percent) of current users were informed about possible side effects or problems of the method used, only one in three were informed what to do if they experienced side effects, and less than three in ten women were informed of other methods that could be used. However, three-fourths of female sterilization users were informed that sterilization is permanent.

Among the three main sectors providing methods (government, nongovernment, and private medical sectors), the private medical sector (private hospital, clinic, or pharmacy) appears to be the most sensitive to client needs. Two-thirds of women who obtained their method for the first time from the private medical sector were informed about side effects or problems of the method used, 56 percent were informed about what to do if they experienced side effects, and one in two were informed of other methods that could be used. The government sector, on the other hand, is the least responsive to client needs, with only about one in three users being adequately informed.

Surprisingly, there is little urban-rural difference or difference by development region in informed choice, indicating that there is much scope for improving the quality of family planning services throughout the country. Informed choice is lowest in the *terai* and highest in the mountains. Informed choice is also lowest in the Central *terai* subregion. As expected, women with at least an SLC are better informed than women with little or no education.

Table 5.16 Informed choice

Among current users of modern contraceptive methods who adopted their current method in the five years preceding the survey, percentage who were informed about the side effects of the method, percentage who were informed what to do if side effects were experienced, and percentage who were informed of other methods that could be used for contraception, and percentage of women who were sterilized in the five years preceding the survey who were informed that they would not be able to have any more children, by specific method, initial source of method, and background characteristics, Nepal 2001

Method/source/ background characteristic	Informed about side effects or problems of method used	Informed what to do if experienced side effects	Informed by a health worker or family planning or other methods that could be used ¹	Informed that sterilization is permanent ²
Method				
Female sterilization	19.1	17.2	12.3	74.8
Pill	50.8	48.4	52.6	na
IUD	67.7	64.4	61.2	na
Injectables	62.6	55.8	48.3	na
Implants	85.0	82.7	68.9	na
Initial source of method³				
Government sector	37.7	34.0	28.3	74.7
Government hospital, clinic	27.7	23.5	23.3	76.1
PHC center/Health center	53.1	47.1	47.7	83.8
Health post	69.4	59.3	55.1	na
Sub-health post	64.3	59.8	47.9	na
PHC outreach clinic	53.1	45.7	56.8	na
FCHV	66.4	54.9	50.1	na
Mobile camp	20.0	19.8	9.2	72.5
Other public	69.9	69.9	48.7	100.0
Non-gov't (NGO) sector	44.8	44.6	39.7	74.1
FPAN	40.5	36.9	37.0	76.2
Marie Stopes	62.4	79.5	30.3	64.4
ADRA	88.6	88.6	75.0	100.0
Nepal Red Cross	27.4	27.4	27.4	na
Other NGO	22.6	28.3	30.1	65.4
Private medical sector	65.8	55.8	49.6	82.0
Private hospital, clinic	65.2	59.4	54.1	82.0
Pharmacy	67.0	54.1	46.1	na
Other	18.8	17.9	13.1	76.5
Residence				
Urban	40.1	38.2	33.5	77.7
Rural	37.0	33.2	27.6	74.4
Ecological zone				
Mountain	59.2	51.7	40.1	78.6
Hill	47.8	44.6	39.1	80.1
Terai	30.7	27.3	22.3	73.5
Development region				
Eastern	37.6	32.3	27.4	76.5
Central	36.2	33.0	28.8	76.8
Western	41.6	37.3	33.6	76.5
Mid-western	36.0	39.3	24.9	67.4
Far-western	36.5	28.6	25.9	69.5
Subregion				
Eastern Mountain	50.0	38.3	14.5	57.1
Central Mountain	66.7	64.4	56.3	85.7
Western Mountain	54.3	41.3	34.8	80.0
Eastern Hill	56.1	52.9	42.6	86.1
Central Hill	51.1	48.3	45.8	87.5
Western Hill	41.5	35.2	34.2	80.3
Mid-western Hill	44.6	47.0	28.4	72.2
Far-western Hill	36.1	29.5	27.9	65.9
Eastern Terai	32.9	27.4	24.7	75.8
Central Terai	22.4	19.0	14.0	74.9
Western Terai	41.8	39.2	33.1	73.6
Mid-western Terai	29.6	33.6	22.5	65.5
Far-western Terai	34.3	27.6	23.6	69.9
Education				
No education	34.0	30.8	25.1	74.2
Primary	43.0	37.1	36.2	80.2
Some secondary	47.0	45.0	38.3	71.1
SLC and above	55.2	52.6	37.9	80.7
Total	37.5	34.0	28.5	74.8

PHC = Primary Health Care; FCHV = Female community health volunteer; FPAN = Family Planning Association of Nepal; ADRA = Adventist Development Relief Agency

na = Not applicable

SLC = School Leaving Certificate

¹ Includes users of foam/jelly who are not shown separately

² Sterilized women who were told that they would not be able to have any more children

³ Source at start of current episode of use

5.15 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 and men 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 Tables 5.17. Among currently married women who are not using contraception, 73 percent reported that they intend to adopt a family planning method in the future, 24 percent said that they did not intend to use a method, and 3 percent were unsure of their intention. Among currently married men who are not using contraceptives, two-thirds reported that they intend to adopt a family planning method in the future and nearly one-third said they did not intend to use a method. There are differences in the percentage of women and men who intend to use family planning according to the number of living children.¹ The proportion of women intending to use family planning peaks at 85 percent among nonusers with one child, declines to 73 percent among women with three children, and further declines sharply to 53 percent among women who have four or more children. Intention to use by number of living children among currently married men follows a similar pattern. However, a sharp decline in intention to use is more obvious among men with three or more children.

Table 5.17 Future use of contraception						
Percent distribution of currently married women and men who are not using a contraceptive method by intention to use in the future, according to number of living children, Nepal 2001						
Intention	Number of living children ¹					Total
	0	1	2	3	4+	
WOMEN						
Intends to use	83.8	85.0	82.4	72.8	53.4	73.2
Unsure	4.2	2.1	2.5	3.1	2.3	2.7
Does not intend to use	12.0	12.9	15.0	24.1	44.3	24.1
Missing	0.0	0.0	0.1	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	715	1,058	1,011	807	1,470	5,061
MEN						
Intends to use	72.6	79.3	74.6	58.2	47.1	65.9
Does not intend to use	21.5	18.7	23.7	40.3	50.1	31.0
Missing	6.0	2.0	1.6	1.5	2.8	3.1
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of men	298	201	194	159	275	1,127

¹Includes current pregnancy

¹ Some of this difference may be muted because for women, the number of living children includes current pregnancy, but for men, it does not, since the survey did not collect information on the pregnancy status of each wife.

5.16 REASONS FOR NONUSE OF CONTRACEPTION

An understanding of the reasons that people do not like to use family planning methods is critical in designing programs that could improve the quality of services. Table 5.18 shows the percent distribution of currently married women and men 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. Questions on reasons for nonuse were asked of currently married women only but were extended to all ever-married men in the male survey. To compare female and male responses, the information for men is restricted to currently married men only. Only the total is shown for men, however, since the male sample size is insufficient to allow a breakdown by the two age groups, as done for women.

Reason	Age of women		Percentage of women	Percentage of men
	15-29	30-49		
Fertility-related reasons	20.6	52.8	48.3	71.3
Infrequent sex/no sex	4.2	9.2	8.5	6.3
Menopausal/had hysterectomy ¹	0.0	6.8	5.8	53.0
Subfecund/infecund ²	4.2	32.4	28.4	6.5
Wants as many children as possible	12.1	4.4	5.5	5.5
Opposition to use	43.5	11.4	15.9	11.8
Respondent opposed	0.5	0.8	0.8	1.6
Husband/partner/wife(s) opposed ³	5.1	3.1	3.3	0.1
Others opposed	1.8	0.5	0.6	0.0
Religious prohibition	36.1	7.0	11.1	10.1
Lack of knowledge	5.0	1.7	2.2	0.6
Knows no method	1.4	0.6	0.7	0.4
Knows no source	3.6	1.1	1.4	0.3
Method-related reasons	30.0	28.5	28.7	11.0
Health concerns	2.4	7.3	6.6	4.7
Fear of side effects	25.4	20.4	21.1	5.9
Lack of access/too far	0.0	0.3	0.3	0.4
Costs too much	0.9	0.3	0.3	0.0
Inconvenient to use	0.6	0.0	0.1	0.0
Interferes with body's normal processes	0.7	0.2	0.3	0.0
Other	0.0	5.4	4.6	4.2
Don't know	0.9	0.1	0.2	0.6
Missing	0.0	0.0	0.0	0.5
Total	100.0	100.0	100.0	100.0
Number	172	1,048	1,220	349

¹ For men this refers to wife(s) menopausal/had hysterectomy
² For men this refers to couple subfecund/infecund
³ For men this refers to wife(s) opposed

Nearly one in two women does not intend to use contraception in the future because of fertility-related reasons. Most of these women (28 percent) report themselves to be subfecund or infecund. Sixteen 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. Twenty-nine percent of women cited method-related reasons for nonuse, the most important of these being fear of side effects (21 percent). Women age 15-29 are most likely to cite opposition to use (44 percent), with religious opposition being the primary reason (36 percent). Thirty percent of young women also mentioned method-related reasons, primarily fear of side effects (25 percent), as a major reason for nonuse in the future. On the other hand, more than one in two women age 30-49 cited fertility-related reasons for nonuse in the future, with one-third of them reporting themselves as subfecund or infecund. Twenty-nine percent of women in this age group also cited method-related reasons, primarily fear of side effects (20 percent), as another major reason for nonuse in the future.

Seventy-one percent of men do not intend to use a method of contraception because of fertility-related reasons, foremost among them the wife being menopausal or having had a hysterectomy. Religious opposition is also an important reason for nonuse in the future among men (10 percent). Method-related reasons for nonuse in the future are cited by 11 percent of men.

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

5.17 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 5.19 provides some indication of women's and men'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

Table 5.19 Preferred method of contraception for future use

Percent distribution of currently married women and men who are not using a contraceptive method but who intend to use in the future by preferred method, according to age, Nepal 2001

Method	Women			Men		
	15-29	30-49	Total	15-29	30-49	Total
Female sterilization	34.6	23.0	31.7	26.6	29.1	27.7
Male sterilization	8.6	7.8	8.4	25.8	26.1	25.9
Pill	7.3	12.0	8.5	6.3	9.2	7.6
IUD	0.9	0.7	0.8	0.7	0.8	0.8
Injectables	25.6	34.6	27.8	16.6	13.6	15.3
Implants	3.3	3.6	3.4	4.6	3.1	3.9
Condom	1.5	2.3	1.7	12.5	10.6	11.7
Foam/jelly	0.1	0.2	0.1	0.4	1.0	0.6
Periodic abstinence	0.2	0.5	0.3	0.6	1.6	1.0
Withdrawal	0.3	1.3	0.5	0.1	1.0	0.5
Other	0.1	0.3	0.2	0.0	0.0	0.0
Unsure	17.5	13.7	16.5	5.8	3.8	5.0
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	2,795	908	3,703	413	329	742

use and method preferred if intention is followed. Currently married women who reported that they intend to adopt family planning methods were asked about the contraceptive methods they intend to use in the future. The results in Table 5.19 indicate that most women and men prefer to use female sterilization (32 percent and 28 percent, respectively). Twice as many women as men cited injectables as a preferred method for future use (28 percent and 15 percent, respectively). Men are three times more likely than women to prefer male sterilization as a future method (26 percent and 8 percent, respectively). About 8 percent of women and men mentioned the pill as a future method of preference. There has been little change in method preference over the last five years. Data from the 1996 NFHS show that 27 percent of currently married women intend to use female sterilization in the future and 28 percent intend to use injectables.

5.18 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 s for information, education, and communication (IEC) campaigns. In Nepal, the most common media source is radio. Television is mostly found in urban areas, while print media is mostly accessed by the educated. To assess the extent to which media serves as a source of family planning messages, respondents were asked whether they had heard or seen a message about family planning on the radio or television or in print media in the few months preceding the survey. The results are shown in Table 5.20.

The majority of women (55 percent) and men (66 percent) have heard a family planning message recently on the radio. Only 22 percent and 32 percent of women and men, respectively, heard family planning messages on television. Ten percent of women and 25 percent of men read about family planning in the print media (newspaper/magazine). Two-fifths of women and more than one-fourth of men had not been exposed to family planning messages in any media source.

There is little difference in women's exposure to media messages on family planning by age; nevertheless, older women (age 45-49) are least likely to have been exposed to family planning messages in any media. On the other hand, exposure to media messages varies by age among men. Younger men (below age 40) are more likely to have been exposed to media messages on family planning than older men.

Urban women and men 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 *terai*. A higher proportion of women living in the Mid-western development region have been exposed to family planning messages in at least one of the media, compared with women in the other development regions. On the other hand, men living in the Western region have the greatest exposure to family planning messages in the media. Women living in the Mid-western hill subregion and men living in the Western hill subregion have the greatest exposure to family planning messages in the media, compared with all other residents.

Education impacts media exposure positively. For example, one in two uneducated women had no exposure to family planning information in any media compared with just 5 percent of women with an SLC and above. A similar pattern is observed for men.

Table 5.20 Exposure to family planning messages

Percentage of ever-married women and men who heard or saw a family planning message on the radio or television, or in a newspaper/magazine in the past few months, according to background characteristics, Nepal 2001

Background characteristic	Women					Men				
	Radio	Television	Newspaper/magazine	None of these three media sources	Number of women	Radio	Television	Newspaper/magazine	None of these three media sources	Number of men
Age										
15-19	55.1	20.9	10.8	40.1	941	64.5	33.8	17.9	28.6	70
20-24	57.2	24.2	12.1	37.7	1,658	72.0	45.1	32.9	19.2	295
25-29	53.8	23.4	10.0	40.8	1,666	67.6	36.6	32.1	25.1	340
30-34	57.0	23.5	9.9	37.8	1,427	65.6	31.6	23.0	29.7	344
35-39	53.3	21.7	7.5	43.0	1,168	69.5	32.7	25.4	23.3	322
40-44	53.1	22.1	7.5	42.9	1,030	61.6	29.1	23.2	33.7	261
45-49	50.2	18.5	6.5	46.8	837	62.7	28.6	22.5	32.3	243
50-54	na	na	na	na	na	57.5	23.5	19.9	38.9	216
55-59	na	na	na	na	na	63.5	17.5	12.5	33.7	171
Residence										
Urban	66.6	72.2	29.7	15.0	841	69.6	69.8	53.8	14.4	227
Rural	53.3	17.1	7.4	43.5	7,885	65.1	27.6	21.5	30.2	2,034
Ecological zone										
Mountain	65.9	5.5	3.4	33.8	602	67.1	10.3	14.5	32.3	151
Hill	69.5	18.1	11.2	28.0	3,615	75.9	25.8	28.6	21.6	896
Terai	41.2	28.2	8.9	51.9	4,509	57.7	39.0	23.2	33.4	1,214
Development region										
Eastern	59.2	35.3	12.3	36.9	2,098	65.5	36.4	27.6	28.4	583
Central	38.4	22.9	8.3	53.8	2,804	59.8	45.3	26.9	29.2	750
Western	60.1	22.1	14.1	35.2	1,771	73.3	26.7	30.0	24.3	436
Mid-western	75.0	9.6	5.5	24.7	1,197	64.2	10.0	12.6	35.4	295
Far-western	56.6	8.1	2.9	41.6	855	72.4	11.7	14.3	26.1	197
Subregion										
Eastern Mountain	66.7	12.7	8.8	32.7	126	69.8	11.6	22.1	29.1	33
Central Mountain	76.7	6.8	3.8	22.8	209	69.2	17.9	17.1	29.9	59
Western Mountain	57.0	1.1	0.6	43.0	267	63.5	1.9	7.7	36.5	59
Eastern Hill	64.5	18.6	7.9	34.0	580	81.8	26.2	26.9	17.8	161
Central Hill	67.2	33.9	17.8	27.3	945	72.3	45.1	39.0	20.1	278
Western Hill	72.7	19.2	15.9	24.5	1,075	83.1	23.7	35.5	16.9	235
Mid-western Hill	79.1	2.4	2.4	20.9	648	67.5	3.8	10.5	32.5	143
Far-western Hill	57.0	0.9	1.3	42.8	368	70.9	3.5	8.1	28.6	80
Eastern Terai	56.3	44.3	14.5	38.5	1,393	58.4	42.7	28.4	32.8	389
Central Terai	17.1	18.6	3.4	72.8	1,651	50.0	49.3	20.2	35.3	413
Western Terai	40.7	26.5	11.2	51.6	696	61.9	30.2	23.5	33.0	201
Mid-western Terai	74.6	22.7	11.3	24.6	438	66.4	19.2	15.9	32.7	126
Far-western Terai	54.5	19.3	5.8	41.1	331	68.7	22.6	23.0	28.3	85
Education										
No education	46.9	13.1	2.4	50.0	6,279	48.8	15.7	3.9	46.3	852
Primary	68.2	33.6	13.1	24.3	1,294	67.1	30.1	18.2	26.4	670
Some secondary	79.8	57.4	36.6	10.6	814	81.7	43.5	43.0	12.9	452
SLC and above	84.7	68.2	61.6	5.1	339	86.1	65.7	73.1	6.2	287
Total	54.6	22.4	9.5	40.8	8,726	65.5	31.9	24.7	28.6	2,261

na = Not applicable

SLC = School Leaving Certificate

5.19 EXPOSURE TO SPECIFIC RADIO SHOWS ON FAMILY PLANNING

As part of a strong effort to inform women and men about family planning, the National Health Education Information and Communication Center (NHEIC) has been launching radio programs with technical assistance from the Johns Hopkins University/ Center for Communication Programs (JHU/CCP) in Nepal. The 2001 NDHS asked women and men whether they had heard specific radio programs through which family planning messages are broadcast. These radio broadcasts are *Jana swastha karyakram*, the drama *Ghanti heri haad nilaun*, the song *Ghanti heri haad nilaun*, and the drama *Shriman shrimatile parewarbare kurakani gareko chhoto radio natak*.

Table 5.21 shows that one in three women has listened to each of these four specific radio broadcasts in the last few months. The percentage of women exposed to family planning messages through these four programs has increased in the last five years from about one in four in 1996. Younger women, urban women, women living in the hills, those living in the Mid-western development region, married women, and women who have some secondary education have had the greatest exposure to these radio shows. The pattern of exposure to these radio shows among men is similar to that for women, although men are somewhat more likely to have been exposed to each of these four shows than women. Exposure is higher among men living in the hills, married men, and men who have completed their SLC than among their counterparts.

Table 5.21 Exposure to specific radio shows on family planning

Percentage of ever-married women and men who have heard specific radio shows on family planning in the few months preceding the survey, by background characteristics, Nepal 2001

Background characteristic	Women					Men				
	<i>Jana swastha karyakram</i>	<i>Ghanti heri haad nilaun</i> (drama)	<i>Ghanti heri nilaun</i> (song)	<i>Shriman shrimatile</i> ¹	Number of women	<i>Jana swastha karyakram</i>	<i>Ghanti heri haad nilaun</i> (drama)	<i>Ghanti heri nilaun</i> (song)	<i>Shriman shrimatile</i> ¹	Number of men
Age										
15-19	37.3	36.3	34.0	35.5	941	45.3	32.2	24.7	31.6	70
20-24	37.2	36.6	33.2	34.0	1,658	56.1	53.1	39.8	42.8	295
25-29	33.7	32.5	29.2	31.5	1,666	50.7	44.9	32.4	39.8	340
30-34	36.5	35.6	32.3	34.8	1,427	46.5	42.1	29.2	33.7	344
35-39	32.0	30.2	28.2	30.0	1,168	52.5	48.0	36.3	39.9	322
40-44	32.1	31.6	29.3	30.3	1,030	50.3	43.6	32.9	34.6	261
45-49	29.9	30.7	28.0	29.7	837	50.6	44.9	33.4	35.0	243
50-54	na	na	na	na	na	46.3	43.5	31.2	38.5	216
55-59	na	na	na	na	na	51.1	48.2	31.6	33.8	171
Residence										
Urban	43.0	40.3	33.8	39.2	841	53.1	46.5	31.0	37.0	227
Rural	33.5	32.9	30.4	31.7	7,885	50.1	45.4	33.4	37.4	2,034
Ecological zone										
Mountain	46.3	39.1	36.5	40.8	602	52.6	52.0	40.8	40.2	151
Hill	45.7	46.8	43.1	44.7	3,615	65.3	65.1	49.1	53.1	896
Terai	23.8	22.3	20.1	21.5	4,509	39.1	30.3	20.5	25.3	1,214
Development region										
Eastern	42.1	39.9	36.9	35.8	2,098	50.2	44.0	31.4	29.2	583
Central	21.3	20.9	19.4	21.3	2,804	42.4	38.5	32.9	31.9	750
Western	40.7	41.1	35.9	42.5	1,771	60.8	52.5	30.3	47.9	436
Mid-western	45.0	46.6	44.3	44.1	1,197	54.4	54.0	53.0	53.7	295
Far-western	30.9	25.9	23.1	23.6	855	52.7	48.5	16.1	34.0	197
Subregion										
Eastern Mountain	50.3	48.2	47.3	43.6	126	61.6	60.5	48.8	40.7	33
Central Mountain	48.6	50.9	47.8	53.9	209	53.8	68.4	61.5	60.7	59
Western Mountain	42.5	25.7	22.7	29.2	267	46.2	30.8	15.4	19.2	59
Eastern Hill	58.0	51.8	50.1	47.1	580	64.5	64.0	51.0	47.6	161
Central Hill	45.3	44.0	41.0	43.2	945	60.2	64.9	57.4	47.6	278
Western Hill	50.1	53.5	46.5	54.4	1,075	78.8	75.2	44.0	59.8	235
Mid-western Hill	41.3	48.6	46.8	43.4	648	59.6	58.1	57.0	62.6	143
Far-western Hill	22.0	23.5	21.6	18.5	368	55.7	51.1	17.5	47.3	80
Eastern Terai	34.7	34.3	30.5	30.4	1,393	43.3	34.4	21.8	20.7	389
Central Terai	4.1	3.9	3.5	4.7	1,651	28.8	16.5	12.2	17.2	413
Western Terai	26.2	22.0	19.7	24.0	696	39.9	26.1	14.4	34.2	201
Mid-western Terai	53.1	49.7	46.7	49.1	438	54.1	54.6	53.5	49.2	126
Far-western Terai	32.6	27.8	24.3	26.3	331	46.5	52.5	19.6	29.7	85
Marital status										
Married	34.5	33.8	30.8	32.6	8,342	51.0	45.9	33.5	37.8	2,198
Divorced/separated/ widowed	33.7	30.6	28.9	29.6	384	31.7	33.2	23.4	22.1	63
Education										
No education	26.3	25.6	23.8	24.1	6,279	33.5	33.7	23.1	23.7	852
Primary	48.7	49.2	44.9	48.5	1,294	49.9	46.9	34.2	36.9	670
Some secondary	61.8	59.8	53.5	59.8	814	67.2	55.3	41.9	50.5	452
SLC and above	63.9	59.8	51.1	59.3	339	75.4	62.2	47.0	57.9	287
Total	34.4	33.6	30.8	32.4	8,726	50.4	45.5	33.2	37.3	2,261

na = Not applicable

SLC = School Leaving Certificate

¹ *Shriman shrimatile parewarbare kurakani gareko chhoto radio natak*

5.20 CONTACT OF NONUSERS WITH FAMILY PLANNING PROVIDERS

When they 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 the various options available, and, if encouraged, to motivate nonusers to adopt a method of family planning. To get insight into the level of contact between nonusers and health workers, currently married women were asked whether a family planning fieldworker had visited them during the 12 months preceding the survey and discussed family planning. In addition, women were asked whether 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 5.22 shows fieldworkers discussed family planning with only 9 percent of nonusers during the 12 months preceding the survey, while five times as many nonusers (40 percent) missed opportunities to discuss family planning when they visited a health facility. At the same time, only 8 percent of nonusers discussed family planning at a health facility. (One of the reasons for the low level of exposure to family planning from fieldworkers could be the lack of emphasis on home visits by family planning fieldworkers.) Eighty-six 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.

There is little difference in contact of nonusers with family planning providers by background characteristics, suggesting a huge scope for improving dissemination of family planning information throughout the country and improving the level of acceptance among nonusers.

Table 5.22 Contact of nonusers with family planning providers

Among currently married women who are not using contraception, percentage who were visited by a fieldworker who discussed family planning, percentage who visited a health facility and discussed family planning, percentage who visited a health facility but did not discuss family planning, and percentage who did not discuss family planning with a fieldworker or at a health facility in the 12 months preceding the survey, by background characteristics, Nepal 2001

Background characteristic	Women who were visited by a field worker who discussed family planning	Women who visited a health facility and discussed family planning	Women who visited a health facility but did not discuss family planning	Women who did not discuss family planning with a field worker or at a health facility	Number of women
Age					
15-19	4.1	4.3	30.6	92.7	819
20-24	7.8	8.2	51.0	85.9	1,258
25-29	11.6	10.4	48.0	82.2	973
30-34	10.6	9.8	43.1	83.7	641
35-39	12.0	10.2	30.8	82.2	481
40-44	9.6	6.6	25.9	86.4	451
45-49	7.2	2.8	22.5	91.5	439
Residence					
Urban	6.4	5.4	46.9	89.3	299
Rural	9.0	8.0	39.0	86.0	4,762
Ecological zone					
Mountain	7.4	9.4	31.3	86.4	391
Hill	6.2	7.3	38.0	88.2	2,184
Terai	11.3	8.0	42.1	84.4	2,487
Development region					
Eastern	10.1	9.4	36.6	83.7	1,085
Central	9.3	6.8	36.3	87.6	1,606
Western	7.7	9.9	47.4	84.9	1,067
Mid-western	5.1	6.2	44.0	89.8	739
Far-western	11.8	5.5	33.3	84.9	564
Subregion					
Eastern Mountain	3.5	12.9	35.9	85.3	65
Central Mountain	5.5	11.5	36.4	86.2	115
Western Mountain	9.6	7.1	27.0	86.9	211
Eastern Hill	5.9	6.6	33.2	89.4	352
Central Hill	5.4	7.0	26.7	90.0	442
Western Hill	8.5	9.9	47.3	84.0	670
Mid-western Hill	2.6	6.9	44.9	90.9	447
Far-western Hill	8.3	3.2	28.1	89.9	273
Eastern Terai	13.0	10.6	38.4	80.5	668
Central Terai	11.4	6.2	40.4	86.7	1,049
Western Terai	6.4	10.0	47.6	86.3	397
Mid-western Terai	10.5	5.7	51.5	85.8	203
Far-western Terai	16.7	6.6	43.9	78.9	169
Education					
No education	9.1	7.4	36.3	86.6	3,785
Primary	8.3	7.9	43.9	85.8	726
Some secondary	7.6	10.7	53.5	84.8	408
SLC and above	8.2	10.9	63.0	81.3	142
Total	8.8	7.8	39.5	86.2	5,061
SLC = School Leaving Certificate					

5.21 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 and men interviewed in the 2001 NDHS survey were asked the number of times they discussed family planning with their spouse in the year preceding the survey.

Table 5.23 shows the percent distribution of currently married women and men who know about family planning by the number of times they discussed family planning with their spouse in the year before the survey. In general, women are less likely to report having discussed family planning with their spouse than men. Fifty-nine percent of women never discussed family planning with their husband in the past year, compared with 48 percent of men. Twenty-nine percent of women and 31 percent of men discussed family planning once or twice with their spouse, while 13 percent of women and 21 percent of men discussed family planning with their spouse three or more times in the past year. Interspousal communication is more common among women age 20-34 and men age 20-39 than among younger or older women and men. Results from the 1996 NFHS indicate that there has been little change in the extent of interspousal communication over the last five years.

Table 5.23 Discussion of family planning with spouse						
Percent distribution of currently married women and men who know a contraceptive method by the number of times they discussed family planning with their spouse in the past year, according to age, Nepal 2001						
Age	Number of times family planning discussed with spouse				Total	Number of women/men
	0	1-2	3+	Missing		
WOMEN						
15-19	63.9	27.0	9.1	0.0	100.0	929
20-24	49.8	36.0	14.1	0.1	100.0	1,638
25-29	49.1	34.2	16.5	0.2	100.0	1,612
30-34	49.5	32.6	17.8	0.1	100.0	1,367
35-39	62.3	26.1	11.3	0.2	100.0	1,096
40-44	73.4	18.9	7.6	0.1	100.0	932
45-49	85.4	11.0	3.7	0.0	100.0	727
Total	58.6	28.7	12.6	0.1	100.0	8,300
MEN						
15-19	46.4	32.6	19.6	1.4	100.0	70
20-24	38.4	34.2	27.4	0.0	100.0	287
25-29	36.2	41.5	22.2	0.0	100.0	338
30-34	40.5	36.2	23.1	0.2	100.0	338
35-39	37.1	35.5	27.2	0.2	100.0	313
40-44	48.5	28.8	22.6	0.0	100.0	255
45-49	64.0	23.7	12.3	0.0	100.0	235
50-54	63.0	24.2	12.7	0.0	100.0	198
55-59	82.0	9.0	8.7	0.2	100.0	154
Total	47.7	31.4	20.8	0.1	100.0	2,189

The fact that both men and women in the same household were interviewed provides an opportunity to link responses obtained from currently married women with those obtained from their husband. A total of 840 couples who are currently using contraception were linked in this manner. Table 5.24 shows the primary decisionmaker in the use of contraception among these couples. This could shed some light on the degree of autonomy women exercise over their reproductive decisionmaking. Findings from the survey indicate that using contraception is mainly a joint decision among couples. Among women who say contraceptive use was a joint decision, 84 percent of their husbands agree. There are discrepancies, however, among women who say contraceptive use was mainly their decision or their husband's decision, more than three-quarters of their husbands say it was a joint decision.

According to wife, using contraception is mainly:	According to husband, using contraception is mainly:				Total	Number of couples
	Wife's decision	His decision	Joint decision	Other		
Her decision	22.8	1.4	75.8	0.0	100.0	155
Her husband's decision	0.0	26.6	73.4	0.0	100.0	69
Joint decision	5.7	10.1	84.0	0.2	100.0	606
Total	8.5	10.0	81.4	0.1	100.0	840

The 2001 NDHS also gathered information from 1,864 couples about their attitude toward family planning. Women and men were separately asked their perception of their spouse's attitude toward family planning. Table 5.25 shows the percent distribution of couples by husband's actual attitude toward family planning, according to the wife's perception of his attitude.

The data indicate that when wives report that their husband approves of family planning, they are generally accurate. For example, in 97 percent of cases in which the wife reported that her husband approved of family planning, the husband also said he approved. At the same time, in 87 percent of the cases when the wife reported that her husband disapproved of family planning, the opposite was true, that is, the husband approved. This information reinforces the importance of spousal communication and greater male involvement in reproductive decisionmaking to ensure the success of family planning programs in Nepal.

Wife's perception of husband's attitude toward family planning	Husband's actual attitude toward family planning			Total	Number of couples
	Approves	Disapproves	Don't know		
Approves	96.7	2.7	0.6	100.0	1,518
Disapproves	86.6	10.5	2.9	100.0	180
Don't know	87.7	9.9	2.4	100.0	166
Total	94.9	4.1	1.0	100.0	1,864

This chapter focuses on the principal factors, other than contraception, that affect a woman's risk of becoming pregnant and thus help to determine fertility in Nepal. These factors include nuptiality and sexual intercourse, postpartum amenorrhea and abstinence from sexual relations, and termination of exposure to pregnancy. In many societies, marriage signals the onset of a woman's exposure to the risk of childbearing, postpartum amenorrhea and sexual abstinence affect the intervals between births, and the onset of menopause marks the end of a woman's reproductive life. These factors determine the length and pace of reproductive activity and are therefore important for understanding fertility.

The 2001 Nepal Demographic and Health Survey (NDHS) included questions on the proximate determinants of fertility administered to all ever-married women. In this chapter, a number of tables are based on *all women*, that is, they include both ever-married and never-married women. In constructing these tables, the denominators have been expanded to represent all women by multiplying the number of ever-married women by an inflation factor equal to the ratio of all women to ever-married women reported in the Household Questionnaire. The inflation factors are calculated by single year of age, either for the population as a whole or, in cases where the results are presented by background characteristics, separately for each category of the characteristic in question.

6.1 CURRENT MARITAL STATUS

The distribution of all women age 15-49 and all men age 15-59 according to their marital status¹ is shown in Table 6.1. The data indicate that 18 percent of women of reproductive age in Nepal have never married, 79 percent are currently married, 1 percent are divorced or separated, and 2 percent are widowed. Marriage is almost universal in Nepal. The proportion never married declines sharply with increasing age from 60 percent of women in the age group 15-19 to less than 5 percent of women in the age group 25-29. Further evidence of the universality of marriage is seen among women age 35 and over, more than 98 percent of whom have married.

Widowhood is the leading cause of marital disruption, followed by marital separation. The proportion widowed increases steadily with age, from 1 percent or less among women under age 30 to 10 percent among women age 45-49. As in the case of widowhood, separation also rises with age from 1 percent among those less than 35 years to nearly 3 percent among women age 35-39 (Table 6.1). The proportion of women who are widowed, divorced, or separated has decreased very slightly when compared with the 1996 NFHS.

Table 6.1 also provides information on the marital status of men. More than a quarter of all men between 15-59 have never been married. This figure is 10 percentage points higher than the figure for women. Marriage is also universal among Nepalese men, which can be seen clearly by the fact that only 5 percent of men in the age group 30-34 have never married. As expected, the proportion of widowers increases with age, from less than 1 percent among men below age 34 to a high of 9 percent among men age 55-59.

¹In the NDHS, a woman not yet cohabiting with her marriage partner is not considered currently married.

Table 6.1 Current marital status							
Percent distribution of women and men by current marital status, according to age, Nepal 2001							
Age	Marital status					Total	Number of women/men
	Never married	Married	Divorced	Separated	Widowed		
WOMEN							
15-19	59.7	39.8	0.0	0.4	0.0	100.0	2,335
20-24	17.1	82.1	0.1	0.4	0.3	100.0	2,001
25-29	4.5	93.2	0.3	1.1	1.0	100.0	1,744
30-34	2.5	94.0	0.3	1.1	2.1	100.0	1,464
35-39	1.9	92.3	0.0	2.7	3.1	100.0	1,191
40-44	1.1	89.9	0.0	1.8	7.2	100.0	1,042
45-49	1.4	86.2	0.0	2.2	10.1	100.0	849
Total	17.9	78.5	0.1	1.1	2.4	100.0	10,626
MEN							
15-19	88.7	11.3	0.0	0.0	0.0	100.0	619
20-24	43.5	55.4	0.4	0.7	0.0	100.0	521
25-29	16.2	83.4	0.0	0.0	0.5	100.0	406
30-34	4.8	93.9	0.2	0.7	0.5	100.0	362
35-39	1.4	96.5	0.5	0.4	1.2	100.0	326
40-44	0.9	96.8	0.0	0.7	1.6	100.0	263
45-49	1.3	95.6	0.0	0.0	3.1	100.0	246
50-54	0.2	93.2	1.3	0.5	4.8	100.0	217
55-59	1.8	88.9	0.0	0.0	9.3	100.0	174
Total	27.8	70.1	0.2	0.3	1.5	100.0	3,133

Data from the national censuses and the 2001 NDHS show that the proportion of never-married women below age 25 has increased gradually over time (Table 6.2). Note that the census data refer to formal marriage, whereas the 2001 NDHS refers to effective marriage (living with husband). Except for the year 1981, a steady increase is observed across most age groups in the proportion of women who never married over the period 1961-2001. This is a clear indication that the age at marriage in Nepal has increased over the last 40 years.

Table 6.2 also shows the proportion of never-married males by age from 1961 through 2001. As in the case of females, data indicate that there has been a gradual increase in the proportion of males never married over the years. A proportionately larger change has been observed among the younger age groups (15-19 and 20-24) indicating that age at marriage among males is increasing faster among younger men. For example, in 1961, 63 percent of males in the age group 15-19 had not married, which gradually increased to 79 percent in 1991 and 89 percent in 2001. This is an indication of a gradual shift to later marriage.

Table 6.2 Trends in proportion never married

Percentage of women and men who have never married, by age group, Nepal 1961-2001

Age group	1961	1971	1981	1991	2001 NDHS
WOMEN					
15-19	25.7	39.3	49.2	52.7	59.7
20-24	5.3	7.9	13.1	12.8	17.1
25-29	1.9	2.6	5.4	3.7	4.5
30-34	1.0	1.4	3.1	1.9	2.5
35-39	0.8	1.1	2.6	1.3	1.9
40-44	0.7	0.9	2.5	1.1	1.1
45-49	0.6	0.8	2.9	0.9	1.4
MEN					
15-19	63.3	73.0	74.1	79.4	88.7
20-24	26.4	33.1	40.9	38.1	43.5
25-29	10.2	12.3	19.5	12.7	16.2
30-34	4.7	5.7	12.4	5.2	4.8
35-39	2.7	3.3	8.9	2.8	1.4
40-44	2.1	2.3	8.0	2.1	0.9
45-49	1.6	1.6	7.4	1.6	1.3
50-54	1.5	1.4	6.9	1.6	1.2
55-59	1.3	1.2	7.0	1.4	1.8

Source: Data for 1961-1991 are from the Central Bureau of Statistics, 1995:173.

6.2 POLYGYNY

Marital unions are predominantly of two types, those that are monogamous and those that are polygynous. The distinction has social significance and possible fertility implications, although the relationship between union type and fertility is complex and not well understood. In this survey, the extent of polygyny in Nepal was measured by asking currently married women, “Besides yourself, how many other wives does your husband have?” and men, “Do you have more than one wife?” and if yes, “How many?”

The proportion of currently married women and men in a polygynous union is shown in Table 6.3 according to age groups and selected background characteristics. Overall, less than 5 percent of currently married women and less than 3 percent of men in Nepal reported being in a polygynous union. Older women and men are more likely to be in a polygynous union than younger women and men. There are few differences in polygyny by urban-rural residence, ecological zone, and development region. Women in the Eastern and Far-western *terai* subregions and men in the Eastern mountain subregion are more likely to report being in a polygynous union (6 percent each) than in any other subregion.

There is a weak inverse relationship between respondents’ education and polygyny—the proportion of married women in a polygynous union is 5 percent among uneducated women compared with 3 percent among women who have at least SLC level of education. The corresponding data for men is 4 percent and 1 percent, respectively. This indicates that as the level of schooling increases, both women and men are less likely to be in a polygynous union.

Table 6.3 Polygyny

Percentage of currently married women and men who are in a polygynous marriage, by background characteristics, Nepal 2001

Background characteristic	Women		Men	
	Percent-age	Number of women	Percent-age	Number of men
Age				
15-19	1.6	930	0.0	70
20-24	3.0	1,643	0.6	289
25-29	4.2	1,625	1.2	338
30-34	5.4	1,377	1.6	340
35-39	5.0	1,099	2.2	315
40-44	6.6	936	3.1	255
45-49	6.5	732	4.8	235
50-54	na	na	4.3	202
55-59	na	na	7.1	155
Residence				
Urban	4.3	792	2.8	223
Rural	4.4	7,550	2.6	1,975
Ecological zone				
Mountain	3.4	573	2.8	144
Hill	4.4	3,444	2.7	869
Terai	4.6	4,325	2.5	1,185
Development region				
Eastern	5.4	2,002	3.5	569
Central	3.4	2,684	2.2	732
Western	4.2	1,693	1.7	421
Mid-western	4.9	1,150	2.9	285
Far-western	5.0	813	3.1	190
Subregion				
Eastern Mountain	2.6	118	6.1	31
Central Mountain	3.5	197	1.8	57
Western Mountain	3.8	258	2.0	56
Eastern Hill	4.6	552	3.5	158
Central Hill	4.0	899	2.7	270
Western Hill	4.3	1,017	2.3	227
Mid-western Hill	5.0	627	2.3	140
Far-western Hill	4.7	349	3.2	75
Eastern Terai	6.1	1,332	3.3	380
Central Terai	3.1	1,588	1.9	406
Western Terai	4.0	676	1.0	194
Mid-western Terai	5.0	417	3.3	121
Far-western Terai	5.6	313	4.1	84
Education				
No education	4.8	5,970	3.5	808
Primary	3.6	1,247	2.0	660
Some secondary	3.6	793	2.6	445
SLC and above	2.5	332	1.3	284
Total	4.4	8,342	2.6	2,198
Note: Total includes women with missing information on number of cowives who are not shown separately				
na = Not applicable				
SLC = School Leaving Certificate				

6.3 AGE AT FIRST MARRIAGE

Marriage marks the point in a woman's life at which childbearing becomes socially acceptable. Women who marry early will on average, have a longer exposure to the risk of becoming pregnant, and therefore, early age at first marriage often implies early age at childbearing and higher fertility in a society. Information on age at first marriage was obtained by asking women for the month and year or age when they started living together with their first husband.

Table 6.4 shows that the median age at first marriage for ever-married women in Nepal age 15-49 is 16.6 years. The median age at first marriage has risen slowly over the last 25 years or so, from 16.1 years among the cohort of women currently age 45-49 to 16.8 years among the cohort of women age 20-24 (representing more recent marital patterns).

Table 6.4 also provides information on age at first marriage among ever-married men. On average men marry about three years later than women, with the median age at marriage for men age 15-59 being 19.7. The data show that over the years, there has been no change in the median age at marriage among males.

Table 6.4 also examines the median age at marriage for women and men by selected background characteristics. Rural women marry about a year earlier than urban women, and rural men marry two years earlier than urban men. Women and men in the *terai* marry about a year earlier than women and men in the hills. Among the development regions, the Eastern development region has the highest median age at marriage for both women and men (17.1 years and 20.3 years, respectively) and the Far-western region has the lowest (16.1 years and 19.0 years, respectively). There is a strong positive relationship between education and age at first marriage. Women with no education tend to marry two years earlier than women with some secondary education and three years earlier than women with at least an SLC. The educational difference is less pronounced among men.

6.4 AGE AT FIRST SEXUAL INTERCOURSE

In the 2001 NDHS, currently married women and ever-married men were asked about their age at first sexual intercourse. Table 6.4 shows the median age at first sexual intercourse for ever-married women and men. Since the question on age at first sexual intercourse was not asked of women who were divorced, separated, or widowed, it is assumed that their age at first sexual intercourse is the same as their age at first marriage in this table. Overall, the median age at first sexual intercourse among Nepalese women age 15-49 is 16.7 years, which is nearly identical to the median age at first marriage, implying that women's first sexual experience usually occurs within the context of marriage (Table 6.4). There is little difference in the median age at first sexual intercourse among women by age, indicating that the median age at first sexual intercourse for women has not changed much over the years.

The median age at first sexual intercourse among men age 15-59 is 18.8 years (Table 6.4). This suggests that women have their first sexual experience two years earlier than men. However, men initiate sex about one year before marriage.

Table 6.4 Median age at marriage and median age at first sexual intercourse

Median age at marriage and median age at first sexual intercourse among ever-married women and men, by background characteristics, Nepal 2001

Background characteristic	Women		Men	
	Median age at marriage	Median age at first sexual intercourse	Median age at marriage	Median age at first sexual intercourse
Age				
20-24	16.8	16.9	18.7	17.8
25-29	16.9	16.9	20.0	19.0
30-34	16.7	16.8	20.1	19.1
35-39	16.6	16.8	20.3	19.4
40-44	16.4	16.7	20.1	19.2
45-49	16.1	16.6	19.9	19.2
50-54	na	na	20.1	19.1
55-59	na	na	19.9	19.2
Residence				
Urban	17.2	17.5	21.4	20.2
Rural	16.5	16.7	19.5	18.7
Ecological zone				
Mountain	16.9	17.0	20.2	18.7
Hill	17.1	17.3	20.6	19.5
Terai	16.2	16.4	19.2	18.5
Development region				
Eastern	17.1	17.3	20.3	19.4
Central	16.3	16.4	19.4	18.8
Western	16.9	17.1	20.2	18.8
Mid-western	16.4	16.6	19.4	18.6
Far-western	16.1	16.3	19.0	18.1
Subregion				
Eastern Mountain	19.3	19.5	22.1	21.5
Central Mountain	17.1	17.3	19.8	18.8
Western Mountain	16.2	16.3	19.0	18.1
Eastern Hill	18.2	18.6	21.7	20.3
Central Hill	17.3	17.6	20.5	19.4
Western Hill	17.3	17.4	21.2	20.2
Mid-western Hill	16.6	16.7	19.7	18.9
Far-western Hill	16.0	16.2	19.1	18.2
Eastern Terai	16.6	16.8	19.7	18.9
Central Terai	15.8	15.9	19.0	18.5
Western Terai	16.5	16.6	18.7	18.1
Mid-western Terai	16.4	16.5	19.0	18.5
Far-western Terai	16.1	16.3	19.1	18.0
Education				
No education	16.3	16.5	19.8	19.1
Primary	16.8	16.8	18.8	18.2
Some secondary	17.4	17.5	19.8	18.8
SLC and above	19.5	19.6	21.4	20.2
Total	16.6	16.7	19.7	18.8

Note: Total includes women age 15-19 who are not shown separately because less than 50 percent were married or had had sexual intercourse by age 15. Since the question on age at first sexual intercourse was not asked of women who were divorced, separated or widowed, it is assumed that their age at first sexual intercourse is the same as their age at marriage.

na = Not applicable

SLC = School Leaving Certificate

Rural men initiate sex a year and a half earlier than urban men. Men living in the *terai* initiate sex about a year earlier than men living in the mountains or hills. Men residing in the Far-western development region have sex earlier than men living in any other development region. Men with no education have their first sexual experience a year earlier than men with at least an SLC.

6.5 RECENT SEXUAL ACTIVITY

In the absence of effective contraception, the probability of becoming pregnant is related to the frequency of intercourse. Information on sexual activity, therefore, can be used to refine measures of exposure to pregnancy. In the 2001 NDHS, women were asked how long ago their last sexual activity occurred. Even though most women were embarrassed to answer this question at first, field observations showed that with some probing, most women did answer the question, and for the most part, they seemed to be honest with their answers.

Table 6.5 provides information on the timing of last sexual intercourse for currently married women of reproductive age. Overall, 71 percent of married women were sexually active in the four weeks preceding the survey, 23 percent had had sexual intercourse within one year but not in the four weeks before the survey, while 5 percent had had their most recent sexual intercourse one or more years before the survey.

The relationship between recent sexual activity and age follows a bell-shaped pattern with a plateau at age 30-39 and lower percentages at younger and older ages. A similar pattern is observed for marital duration, with a peak among those women who have been married for 15-19 years.

The proportion of currently married women sexually active in the last four weeks is higher in urban areas than in rural areas. Women living in the hills are less sexually active (68 percent) than women residing in the mountains and *terai*. Women residing in the Western region were least likely to be sexually active in the four weeks prior to the survey (65 percent), and women residing in the Eastern region were the most likely (75 percent). Sexual activity in the past four weeks ranges from a low of 58 percent among women living in the Western hill subregion to a high of 78 percent among women living in the Central hill subregion. There is little variation in recent sexual activity by women's level of education.

The 2001 NDHS data show that the type of contraceptive method currently used is related to the timing of sexual activity, with users more likely than nonusers to have had sex recently. Among contraceptive users, those who use spacing methods are more likely to be sexually active than those using sterilization.

Table 6.5 Recent sexual activity: women

Percent distribution of currently married women by timing of last sexual intercourse, according to background characteristics, Nepal 2001

Background characteristic	Timing of last sexual intercourse				Total	Number of women
	Within the last 4 weeks	Within 1 year ¹	One or more years	Missing		
Age						
15-19	68.4	28.5	2.4	0.7	100.0	930
20-24	67.9	26.6	4.5	1.0	100.0	1,643
25-29	70.9	23.7	4.9	0.5	100.0	1,625
30-34	76.8	18.6	3.9	0.7	100.0	1,377
35-39	76.6	18.8	3.8	0.8	100.0	1,099
40-44	70.7	22.5	6.2	0.7	100.0	936
45-49	62.2	26.7	10.5	0.6	100.0	732
Marital duration						
Married only once						
0-4 years	68.9	27.2	2.9	1.0	100.0	1,652
5-9 years	66.9	26.7	5.7	0.7	100.0	1,569
10-14 years	75.2	19.7	4.6	0.5	100.0	1,368
15-19 years	76.0	19.3	4.0	0.7	100.0	1,114
20-24 years	73.7	21.2	4.1	0.9	100.0	873
25+ years	66.7	23.8	9.1	0.5	100.0	1,184
Married more than once	73.1	23.4	3.1	0.5	100.0	581
Residence						
Urban	79.0	16.2	4.1	0.6	100.0	792
Rural	70.1	24.2	4.9	0.7	100.0	7,550
Ecological zone						
Mountain	73.1	21.5	4.8	0.6	100.0	573
Hill	67.5	25.4	6.5	0.7	100.0	3,444
Terai	73.5	22.2	3.6	0.8	100.0	4,325
Development region						
Eastern	75.1	19.2	4.7	1.0	100.0	2,002
Central	74.1	22.6	2.8	0.4	100.0	2,684
Western	64.7	26.9	7.7	0.8	100.0	1,693
Mid-western	68.9	26.0	4.9	0.1	100.0	1,150
Far-western	66.7	25.8	5.9	1.7	100.0	813
Subregion						
Eastern Mountain	77.4	16.8	4.8	1.0	100.0	118
Central Mountain	73.5	22.8	3.8	0.0	100.0	197
Western Mountain	70.9	22.6	5.6	0.9	100.0	258
Eastern Hill	74.0	18.8	6.4	0.8	100.0	552
Central Hill	78.4	17.1	4.0	0.5	100.0	899
Western Hill	58.3	31.8	9.0	0.9	100.0	1,017
Mid-western Hill	64.8	29.6	5.5	0.0	100.0	627
Far-western Hill	60.3	30.6	7.5	1.6	100.0	349
Eastern Terai	75.3	19.6	4.0	1.1	100.0	1,332
Central Terai	71.7	25.7	2.1	0.5	100.0	1,588
Western Terai	74.3	19.4	5.7	0.6	100.0	676
Mid-western Terai	73.4	22.2	4.1	0.4	100.0	417
Far-western Terai	73.3	21.0	3.8	1.9	100.0	313
Education						
No education	70.9	23.3	5.0	0.7	100.0	5,970
Primary	71.9	23.1	4.6	0.5	100.0	1,247
Some secondary	69.6	24.7	5.1	0.6	100.0	793
SLC and above	72.6	23.8	2.3	1.2	100.0	332
Current contraceptive						
Female sterilization	78.4	18.8	2.7	0.1	100.0	1,252
Pill	92.1	7.9	0.0	0.0	100.0	135
IUD	94.5	5.5	0.0	0.0	100.0	34
Condom	91.8	8.2	0.0	0.0	100.0	241
Periodic abstinence	91.0	6.8	2.2	0.0	100.0	94
Other method	86.4	12.4	1.1	0.1	100.0	1,525
No method	62.4	29.5	7.0	1.1	100.0	5,061
Total	71.0	23.4	4.9	0.7	100.0	8,342

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

SLC = School Leaving Certificate

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

Table 6.6 provides information on recent sexual activity for ever-married men age 15-59. Eighty-two percent of men had sex within the last four weeks, 14 percent had their last instance of sexual intercourse within the last year, and 5 percent had their most recent sexual experience one or more years ago.

Table 6.6 Recent sexual activity: men					
Percent distribution of ever-married men by timing of last sexual intercourse, according to background characteristics, Nepal 2001					
Background characteristic	Timing of last sexual intercourse			Total	Number of men
	Within the last 4 weeks	Within 1 year ¹	One or more years		
Age					
15-19	94.9	5.1	0.0	100.0	70
20-24	87.8	11.4	0.8	100.0	295
25-29	83.8	15.7	0.5	100.0	340
30-34	84.4	13.7	1.9	100.0	344
35-39	86.4	11.0	2.6	100.0	322
40-44	83.6	12.5	3.9	100.0	261
45-49	81.4	13.7	4.9	100.0	243
50-54	74.4	15.4	10.2	100.0	216
55-59	51.7	23.8	24.6	100.0	171
Marital status					
In polygamous union	83.1	13.2	3.7	100.0	327
In monogamous union	83.9	14.1	2.0	100.0	1,869
Divorced/separated/widowed	4.9	9.9	85.2	100.0	65
Residence					
Urban	76.9	19.0	4.1	100.0	227
Rural	82.0	13.3	4.7	100.0	2,034
Ecological zone					
Mountain	81.5	12.2	6.3	100.0	151
Hill	80.0	15.8	4.2	100.0	896
Terai	82.6	12.6	4.7	100.0	1,214
Development region					
Eastern	77.3	17.4	5.3	100.0	583
Central	85.1	11.0	3.8	100.0	750
Western	78.2	15.5	6.3	100.0	436
Mid-western	83.7	12.7	3.6	100.0	295
Far-western	84.2	12.0	3.8	100.0	197
Subregion					
Eastern Mountain	81.4	14.0	4.7	100.0	33
Central Mountain	80.3	12.8	6.8	100.0	59
Western Mountain	82.7	10.6	6.7	100.0	59
Eastern Hill	75.4	19.8	4.8	100.0	161
Central Hill	81.9	14.7	3.4	100.0	278
Western Hill	79.5	14.8	5.6	100.0	235
Mid-western Hill	80.5	17.3	2.2	100.0	143
Far-western Hill	83.0	11.4	5.6	100.0	80
Eastern Terai	77.7	16.7	5.5	100.0	389
Central Terai	88.0	8.3	3.7	100.0	413
Western Terai	76.7	16.3	7.1	100.0	201
Mid-western Terai	87.0	8.9	4.0	100.0	126
Far-western Terai	86.6	11.8	1.6	100.0	85
Total	81.5	13.8	4.6	100.0	2,261

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

In general, as age increases, the proportion of males having sexual intercourse in the last four weeks decreases. For example, compared with 95 percent of men age 15-19 who were sexually active in the last four weeks, the corresponding data for men age 30-34 is 84 percent, and for men age 55-59, it is 52 percent.

There is virtually no difference in the timing of last sexual intercourse among men in a monogamous relationship or polygynous relationship. About 5 percent of males who are not currently in a marital union were sexually active in the last four weeks. A higher proportion of rural males (82 percent) had had sexual intercourse within the last four weeks than their urban counterparts (77 percent). Although there is no significant relationship between recent sexual intercourse and ecological zone, some relationship by development region can be observed. Men in the Eastern development region are the least likely to have had sex in the last four weeks (77 percent), and men residing in the Central region the most likely (85 percent).

6.6 POSTPARTUM INSUSCEPTIBILITY

Postpartum amenorrhea refers to the interval between childbirth and the return of menstruation. During this period, the risk of pregnancy is much reduced. The length of protection from conception after childbirth depends on the duration and intensity of breastfeeding (which plays a role in the delayed resumption of menstruation after birth) and the length of time before sexual intercourse is resumed. Women who gave birth during the five years prior to the survey were asked about the duration of postpartum amenorrhea and sexual abstinence. Women are considered *insusceptible* if they are not exposed to the risk of pregnancy, either because they are amenorrheic or are still abstaining from sex after a birth.

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

Table 6.7 presents the percentage of births in the last three years for which mothers are postpartum amenorrheic, abstaining, and insusceptible by the number of months since the birth.

The median length of postpartum amenorrhea is 11.1 months in Nepal, and the median length of abstinence from sex during the postpartum period is 2.2 months. The median length of postpartum insusceptibility is 11.4 months. The period of postpartum amenorrhea is considerably longer than the period of postpartum abstinence and is therefore a principal determinant of the length of postpartum insusceptibility to pregnancy in Nepal.

Virtually all women are insusceptible to pregnancy within the first two months after a birth, and both amenorrhea and abstinence are important factors in their insusceptibility. However, starting from the second month after birth, the contribution of abstinence to the period of insusceptibility is greatly reduced as more women resume sexual relations. At 10-11 months after birth, one-half of all women are still amenorrheic, while only 3 percent are still abstaining. By 18-19 months postpartum, fewer than one in six women are insusceptible (18 percent), largely because of amenorrhea (15 percent). Only 4 percent of postpartum women are still abstaining at a duration of 18-19 months.

Table 6.7 Postpartum amenorrhea, abstinence and insusceptibility

Percentage of births in the three years preceding the survey for which mothers are postpartum amenorrheic, abstaining, and insusceptible, by number of months since birth, and median and mean durations, Nepal 2001

Months since birth	Percentage of births for which the mother is:			Number of births
	Amenorrheic	Abstaining	Insusceptible	
<2	95.2	86.7	97.6	166
2-3	86.9	41.5	91.0	223
4-5	73.5	16.1	76.7	291
6-7	61.0	9.0	62.0	220
8-9	67.1	11.9	72.3	234
10-11	50.0	3.0	51.2	215
12-13	42.3	4.8	43.7	220
14-15	31.9	1.4	32.5	242
16-17	22.2	5.2	26.1	213
18-19	14.5	4.2	17.9	252
20-21	6.2	2.7	7.6	221
22-23	8.5	3.6	11.3	236
24-25	3.9	1.9	5.8	200
26-27	2.5	1.2	3.6	228
28-29	2.6	3.1	5.3	242
30-31	1.1	1.5	2.7	261
32-33	2.8	1.8	4.4	199
34-35	1.1	1.8	2.3	206
Total	31.5	10.1	33.8	4,071
Median	11.1	2.2	11.4	na
Mean	11.7	4.3	12.5	na

Note: Estimates are based on status at the time of the survey.
na = Not applicable

Given the postpartum abstinence plays an insignificant role in postpartum insusceptibility, there is little variation in postpartum abstinence by background characteristics, and the variation by postpartum amenorrhea and insusceptibility is similar. The median duration of postpartum amenorrhea is slightly higher (by four months) for older women than for younger women (Table 6.8). This difference can be explained to a large extent by the length and intensity of breastfeeding and food supplementation to newborn children as well as the dietary intake of mothers.

The urban-rural difference in postpartum amenorrhea is more pronounced. For example, postpartum amenorrhea among rural women is 11 months, while it is only four months for urban women. This could be because the frequency and intensity of breastfeeding is higher among rural women than among urban women, with supplementation taking place at an earlier age among urban children than among rural children.

Variations in these measures are rather small by ecological region; however, some differences by development region have been observed. The length of postpartum amenorrhea is longest among women in the Mid-western development region and shortest among women in the Western development region.

Table 6.8 Median duration of postpartum insusceptibility by background characteristics

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 2001

Background characteristic	Postpartum amenorrhea	Postpartum abstinence	Postpartum insusceptibility	Number of births
Age				
15-29	10.1	2.2	10.7	2,911
30-49	13.7	2.2	13.9	1,159
Residence				
Urban	4.2	2.5	6.7	246
Rural	11.2	2.2	11.5	3,824
Ecological zone				
Mountain	12.3	2.1	12.5	303
Hill	11.4	2.4	11.7	1,658
Terai	10.6	2.0	11.0	2,110
Development region				
Eastern	9.5	2.2	10.3	938
Central	11.3	2.0	11.3	1,367
Western	8.7	2.5	10.0	706
Mid-western	13.9	2.2	14.6	612
Far-western	12.1	2.5	12.3	448
Subregion				
Eastern Mountain	8.3	2.0	8.8	57
Central Mountain	8.9	2.9	8.9	101
Western Mountain	16.0	1.8	16.0	145
Eastern Hill	10.2	2.2	10.2	296
Central Hill	11.2	2.3	11.2	412
Western Hill	8.2	3.4	10.5	374
Mid-western Hill	15.4	2.2	15.9	374
Far-western Hill	11.6	3.7	11.6	201
Eastern Terai	9.3	2.3	10.5	585
Central Terai	11.6	1.8	11.6	854
Western Terai	9.3	1.9	10.0	332
Mid-western Terai	10.6	2.2	10.8	182
Far-western Terai	11.6	2.4	12.1	158
Education				
No education	12.0	2.1	12.2	2,962
Primary	8.8	2.3	9.1	580
Some secondary	6.0	2.1	7.1	360
SLC and above	5.5	4.0	6.2	168
Total	11.1	2.2	11.4	4,071
Note: Medians are based on current status. SLC = School Leaving Certificate				

Postpartum amenorrhea is negatively associated with women's level of education. As the level of education increases, the length of postpartum amenorrhea decreases. In fact, the length of postpartum amenorrhea is more than twice as long among women with no formal schooling as among those with an SLC or higher levels of education. This could be because educated women provide supplementation much earlier than recommended, thereby decreasing the intensity and frequency of breastfeeding and reducing the period of insusceptibility.

6.7 TERMINATION OF EXPOSURE TO PREGNANCY

The chance of becoming pregnant declines with age. After age 30, an increasing proportion of women become infecund or subfecund. Although the onset of infecundity is difficult to determine for an individual woman, there are ways of estimating it for a population. Table 6.9 presents data on the decreasing exposure to the risk of pregnancy due to menopause for women age 30.

For analytical purposes and to enable comparability across countries and across time, in this report a woman is considered menopausal if she is neither pregnant nor postpartum amenorrheic and has not had a menstrual period in the six months preceding the survey or if she reports herself as being menopausal. The proportion of women who have reached menopause increases steadily with age, from 3 percent among women age 30-34, to 14 percent of women age 42-43, and to 56 percent among women age 48-49.

Age	Percentage menopausal ¹	Number of women
30-34	3.4	1,377
35-39	5.2	1,099
40-41	9.0	401
42-43	14.2	383
44-45	27.3	314
46-47	45.2	319
48-49	55.7	250
Total	13.6	4,144

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

Information on fertility preferences is important to measure the overall attitudes of society toward childbearing and the general course of future fertility. Data on fertility preferences are also useful for assessing the unmet need for family planning and the number of unwanted or mistimed births in the population. These, together with data on contraceptive prevalence, provide an estimation of the demand for family planning. In the 2001 NDHS, currently married (nonpregnant) women and men were asked whether they want to have another child, and if so, how soon. Currently married pregnant women were asked whether they wanted another child after the one they were expecting and, if so, how long they would like to wait from the birth of the child they were expecting until the birth of the next child. Additionally, women were asked for their desired family size and the number of children they would choose to have if they could start afresh.

7.1 DESIRE FOR MORE CHILDREN

Table 7.1 shows the fertility preferences among currently married women and men by number of living children. More than two-fifths of currently married Nepalese women age 15-49 want no more children, and an additional one-quarter either have been sterilized or say that they cannot have any more children. Three in ten women want to have a child at some time in the future, 17 percent say they would like to have another child after two years, and 12 percent say they would like to have another soon (within two years). Only 1 percent say that they want another child but are not sure when. Thus, the vast majority of women want to either space their next birth or limit childbearing altogether. These women can be considered to be potentially in need of family planning services.

Desire for additional children is expected to drop progressively as the number of living children increases. This pattern is observed in Table 7.1. A large majority (65 percent) of currently married women who have no living children want to have a child soon, compared with 1 percent of currently married women with five living children. The proportion of women who want another child later also decreases with the increase in the number of living children. Twenty-seven percent of childless women want to have a child after two years. Among women who have one child, 57 percent do not want to have another child at least for another two years. At the same time, the proportion of women expressing a desire for no more children and who are sterilized or infecund increases progressively with the increase in the number of living children.

Table 7.1 also shows that nearly one in two currently married men want no more children, and one in five have been sterilized or say that they cannot have any more children.¹ Thirty percent of married men want to have a child at some time in the future. Ten percent say that they would like to have another child within two years, and 20 percent say they would like to have another child after two years. About 1 percent said that they want another child but are not sure when.

¹ Some of this difference may be because the number of living children includes current pregnancy for women, but for men, it does not since the survey did not collect information on the pregnancy status of each wife.

Table 7.1 Fertility preferences by number of living children								
Percent distribution of currently married women and men by desire for children, according to number of living children, Nepal 2001								
Desire for children	Number of living children ¹							Total
	0	1	2	3	4	5	6+	
WOMEN								
Have another soon ²	64.7	19.6	6.3	3.3	1.6	1.1	0.1	11.5
Have another later ³	26.7	56.6	16.6	6.1	2.0	2.3	0.3	16.6
Have another, undecided when	2.6	3.1	1.3	0.5	0.7	1.1	0.4	1.3
Undecided	0.7	1.8	2.1	1.1	1.3	0.7	0.9	1.4
Want no more	1.2	14.4	53.1	50.9	55.8	58.9	70.9	44.3
Sterilized/declare infecund ⁴	4.1	4.5	20.6	38.1	38.7	35.9	27.4	24.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	784	1,310	1,723	1,704	1,281	765	775	8,342
MEN								
Have another soon ²	41.8	13.3	5.2	3.2	2.5	2.0	1.8	10.2
Have another later ³	25.9	54.5	19.1	8.8	5.9	3.9	1.1	19.5
Have another, undecided when	1.0	0.9	0.7	0.4	0.0	0.0	0.0	0.5
Undecided	0.0	2.8	1.4	2.5	2.0	1.0	0.6	1.7
Want no more	22.6	22.5	54.6	52.8	56.1	69.1	76.6	47.6
Sterilized/declare infecund ⁴	8.6	5.9	18.9	32.4	33.5	23.9	19.9	20.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	294	370	444	452	294	176	167	2,198
Note: Total includes women and men for whom information on fertility preferences is missing who are not shown separately.								
¹ For women, includes current pregnancy								
² Wants next birth within 2 years								
³ Wants to delay next birth for 2 or more years								
⁴ Includes both female and male sterilization								

The desire for additional children by number of living children among men is similar to that observed for women, that is, the desire for additional children decreases progressively as the number of living children increases. Forty-two percent of married men with no children want to have a child soon, while only 2 percent of those with five or more children want to have another child soon. Twenty-six percent of men who have no children want to have a child later. Among men who have one living child, 55 percent want to have another child later, 23 percent do not want any more children, and 6 percent have been sterilized or say that they are infecund. The proportion of men who want another child after two years decreases with the number of living children. On the other hand, the proportion of men expressing a desire for no more children increases progressively with the number of living children. In contrast to just 1 percent of women, 23 percent of men with no living children said that they do not want any children.

Table 7.2 presents the distribution of monogamous couples by desire for more children. This table excludes women who stated that they are currently pregnant, since similar information on the current pregnancy status of the wife(wives) was not collected from men. Overall, three in five couples agree on their desire either to have more children (22 percent) or to have no more children (36 percent). This shows a relatively high level of agreement among couples on their desire for children. An examination of the desire for more children among monogamous couples by place of residence shows that couples residing in urban areas and those residing in the mountain ecological zone are more likely to agree on their desire for more children than couples residing in rural areas or the hills or *terai*. There is little difference in the level of agreement among couples by development region. Overall, a higher percentage of husbands want more children than wives; for example, the percentage of monogamous couples in which the husband wants more children but the wife does not want any more is 7 percent, compared with only 3 percent of couples in which the reverse is true. However, this difference is more obvious among rural couples, couples residing in the mountain zone, and couples living in the Far-western region.

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	16.4	4.5	1.5	45.8	30.2	1.6	100.0	167
Rural	22.2	7.3	3.1	35.0	30.7	1.8	100.0	1,445
Ecological zone								
Mountain	31.0	7.5	1.0	41.8	17.3	1.4	100.0	108
Hill	21.9	8.7	3.6	43.4	20.3	2.1	100.0	624
Terai	20.3	5.7	2.6	30.2	39.6	1.5	100.0	880
Development region								
Eastern	19.9	7.9	2.4	36.8	31.9	1.1	100.0	415
Central	21.1	7.6	2.5	36.3	30.9	1.6	100.0	551
Western	22.4	4.2	4.0	35.9	29.8	3.7	100.0	294
Mid-western	21.4	6.2	4.2	37.9	28.8	1.6	100.0	212
Far-western	27.2	9.3	1.7	30.9	30.5	0.4	100.0	140
Total	21.6	7.0	2.9	36.1	30.6	1.7	100.0	1,612

7.2 DESIRE TO LIMIT CHILDBEARING BY BACKGROUND CHARACTERISTICS

Table 7.3 shows the percent distribution of currently married women and men who want no more children by number of living children and selected background characteristics. Three-fourths of urban women, compared with two-thirds of rural women, want to stop bearing children. There is little difference in women's desire to limit childbearing by ecological zone. The desire to limit childbearing is lowest among women in the Far-western development region and highest in the Eastern region. The desire to limit childbearing is more apparent at higher levels of education than at lower levels. For example, 68 percent of women with no education want no more children, compared with 59 percent of women with at least an SLC.

Urban-rural differences in the desire to limit childbearing are more obvious among women than among men. Table 7.3 shows only a 4 percentage point difference for men, compared with a 10 percentage point difference among women. However, differences by ecological region are more pronounced for men than women. The desire to stop childbearing is lowest among men who live in the *terai*, with little difference between men who live in the mountains or hills. Men who live in the Far-western development region are less likely to want to limit childbearing than men in the other regions. Similar to women, men's desire to stop childbearing varies inversely with education.

The pattern in the desire to limit childbearing by background characteristics does not change much when currently pregnant women and husbands of currently pregnant women are excluded from the table.

Background characteristic	Number of living children: women ¹								Number of living children: men							
	0	1	2	3	4	5	6+	Total	0	1	2	3	4	5	6+	Total
Residence																
Urban	2.4	26.4	89.0	94.9	96.0	93.4	90.3	74.8	(25.0)	22.4	70.4	71.2	(70.6)	*	*	58.3
Rural	1.9	14.9	69.3	85.6	90.7	88.7	88.5	64.7	24.6	23.8	60.0	63.4	68.0	75.5	82.5	53.9
Ecological zone																
Mountain	3.4	16.2	69.3	86.5	90.9	90.0	86.9	64.9	25.6	24.5	65.9	(84.8)	(91.0)	*	*	58.7
Hill	2.4	21.0	77.5	88.1	92.7	91.1	87.0	67.8	28.0	22.4	69.9	73.6	77.1	79.7	87.3	59.5
Terai	1.3	12.2	67.1	85.4	90.1	87.4	90.4	64.0	21.2	24.4	55.2	57.1	60.8	69.2	77.3	50.1
Development region																
Eastern	1.8	19.3	73.4	90.7	92.8	90.7	91.0	68.8	22.4	21.0	51.3	55.9	67.0	(63.1)	(75.6)	48.8
Central	1.5	18.6	69.0	83.2	93.5	92.2	92.9	65.1	23.5	25.7	69.0	68.9	73.2	(87.0)	(91.5)	58.9
Western	2.9	18.9	80.4	86.9	89.8	84.2	80.8	66.6	28.6	18.4	66.8	73.4	65.2	(76.4)	(83.7)	58.7
Mid-western	1.5	5.7	68.7	89.9	86.9	87.4	90.7	63.9	26.5	32.3	64.5	55.7	63.0	(72.7)	*	53.7
Far-western	2.0	8.7	58.6	80.7	88.0	87.1	80.2	59.9	20.8	20.2	39.3	62.9	66.3	(67.9)	(65.9)	45.2
Education																
No education	2.5	12.4	63.2	84.5	90.3	88.7	88.3	67.7	41.6	36.1	59.7	65.1	67.7	76.4	79.7	60.3
Primary	0.0	19.1	78.0	90.6	95.1	91.1	96.3	61.1	20.2	20.0	55.1	60.5	70.5	(76.0)	(92.8)	52.1
Some secondary	3.0	19.3	92.7	92.7	97.9	95.3	69.3	59.9	5.6	17.9	62.5	66.2	67.8	79.8	*	47.1
SLC and above	(0.0)	28.5	88.8	(97.8)	*	*	*	58.5	(12.6)	(16.8)	73.2	67.0	(63.2)	*	*	54.2
Total	1.9	16.2	71.8	86.5	91.2	89.0	88.6	65.6	24.6	23.6	61.4	64.2	68.2	75.4	83.3	54.4
Excluding currently pregnant	1.9	16.4	72.3	86.9	91.7	89.4	88.2	66.2	24.6	26.2	62.6	64.4	68.4	74.4	83.3	55.5

Note: Women and men who have 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.
 SLC = School Leaving Certificate
¹Includes current pregnancy

7.3 NEED FOR FAMILY PLANNING SERVICES

Currently married women who say that they do not want any more children or that they want to wait two or more years before having another child, but are not using contraception, are considered to have an *unmet need* for family planning.² Women who are using family planning methods are said to have a *met need* for family planning. Together they constitute the *total demand* for family planning.

Table 7.4 shows the need for family planning among currently married women by selected background characteristics. Twenty-eight percent of currently married women in Nepal have an unmet need for family planning services, 11 percent for spacing and 16 percent for limiting births. At the same time, 39 percent of currently married women are currently using a contraceptive method, with 4 percent using for spacing and 36 percent using for limiting. Taken together, two in three Nepalese women have a demand for family planning. In other words, if all women with unmet need for spacing and limiting were to use family planning, the contraceptive prevalence rate would increase from 39 percent to 67 percent. Fifty-nine percent of the demand for family planning is currently being satisfied. This implies that Nepal's family planning program has some way to go to meet both the spacing and limiting needs of couples.

As expected, unmet need for spacing is higher among younger women, while unmet need for limiting is higher among older women, with total unmet need being lowest among women age 45-49. Unmet need is twice as high among women in rural areas as among women in urban areas. Unmet need for family planning is lower among women in the *terai* than in the other ecological zones. Unmet need is lowest among women residing in the Eastern development region and highest among women living in the Western and Far-western regions. One-fifth of women living in the Eastern *terai* subregion have an unmet need for family planning, compared with 37 percent of women living in the Western mountain subregion. Unmet need for family planning is negatively associated with women's level of education, ranging from a high of 28 percent among women with no education to a low of 21 percent among women with at least an SLC.

A comparison with the 1996 NFHS data shows that the unmet need for family planning has decreased from 31 percent in 1996 to 28 percent in 2001 (Pradhan et al., 1997). During the same period, the percentage of demand satisfied increased from 48 percent in 1996 to 59 percent in 2001. These data provide good information to program managers who plan family planning services, provider training, and commodity and equipment procurement. Through the results of this research, family planning program managers can identify spacing and limiting needs, but it must be clarified that expressed needs do not necessarily equate with what methods couples would choose to satisfy those needs. It should not be a foregone conclusion that limiting needs are only satisfied with sterilization services. Limiting needs can be satisfied with spacing methods. A voluntary family planning program requires informed choice and a comprehensive range of methods from which men and women can choose for either limiting or spacing.

² For an exact description of the calculation, see footnote 1, Table 7.4.

Table 7.4 Need for family planning

Percentage of currently married women with unmet need for family planning and with met need for family planning, and the total demand for family planning, by background characteristics, Nepal 2001

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	33.4	2.2	35.6	10.7	1.2	12.0	44.1	3.5	47.6	25.2	930
20-24	23.8	9.4	33.2	8.6	14.8	23.4	32.4	24.2	56.6	41.4	1,643
25-29	10.8	21.0	31.9	2.9	37.2	40.1	13.8	58.2	72.0	55.7	1,625
30-34	4.1	23.2	27.2	1.7	51.8	53.5	5.7	74.9	80.7	66.3	1,377
35-39	1.1	23.2	24.3	0.5	55.7	56.2	1.6	78.9	80.6	69.8	1,099
40-44	0.5	20.5	20.9	0.0	51.9	51.9	0.5	72.3	72.8	71.3	936
45-49	0.0	11.5	11.5	0.0	40.0	40.0	0.0	51.5	51.5	77.7	732
Residence											
Urban	6.5	9.2	15.8	7.5	54.7	62.2	14.1	63.9	78.0	79.8	792
Rural	11.9	17.1	29.0	3.4	33.5	36.9	15.3	50.6	66.0	56.0	7,550
Ecological zone											
Mountain	9.6	22.9	32.5	3.0	28.7	31.8	12.7	51.6	64.3	49.4	573
Hill	11.8	18.6	30.4	3.9	32.7	36.6	15.7	51.3	67.0	54.6	3,444
Terai	11.3	13.7	25.0	3.9	38.6	42.5	15.2	52.4	67.5	62.9	4,325
Development region											
Eastern	8.8	15.3	24.1	5.5	40.3	45.8	14.2	55.6	69.8	65.6	2,002
Central	11.4	15.6	27.0	4.2	36.0	40.2	15.6	51.6	67.2	59.8	2,684
Western	11.7	18.8	30.5	2.8	34.1	36.9	14.5	52.9	67.4	54.8	1,693
Mid-western	12.8	16.6	29.4	2.4	33.3	35.7	15.3	49.9	65.2	54.9	1,150
Far-western	14.9	16.5	31.4	2.7	27.9	30.7	17.6	44.4	62.0	49.4	813
Subregion											
Eastern Mountain	8.1	21.9	30.0	2.9	42.3	45.2	11.0	64.2	75.2	60.1	118
Central Mountain	9.7	18.8	28.4	5.9	35.9	41.8	15.5	54.7	70.2	59.5	197
Western Mountain	10.3	26.5	36.8	0.9	17.0	17.9	11.2	43.5	54.7	32.8	258
Eastern Hill	10.8	22.6	33.3	5.8	30.4	36.2	16.6	53.0	69.5	52.1	552
Central Hill	8.2	14.6	22.9	7.0	43.9	50.9	15.2	58.6	73.8	69.0	899
Western Hill	11.5	22.2	33.8	2.4	31.7	34.1	13.9	53.9	67.9	50.3	1,017
Mid-western Hill	14.9	17.8	32.7	1.9	26.9	28.7	16.8	44.7	61.4	46.8	627
Far-western Hill	17.7	13.7	31.4	0.9	20.9	21.8	18.6	34.5	53.2	40.9	349
Eastern Terai	8.0	11.7	19.7	5.6	44.3	49.8	13.5	56.0	69.5	71.7	1,332
Central Terai	13.5	15.7	29.2	2.4	31.5	33.9	15.9	47.2	63.1	53.7	1,588
Western Terai	12.0	13.6	25.6	3.4	37.8	41.2	15.4	51.4	66.8	61.7	676
Mid-western Terai	10.0	13.8	23.8	3.8	47.5	51.3	13.7	61.3	75.0	68.3	417
Far-western Terai	14.5	12.6	27.1	5.5	40.6	46.2	20.0	53.2	73.3	63.0	313
Education											
No education	9.7	18.6	28.4	2.0	34.6	36.6	11.7	53.2	65.0	56.3	5,970
Primary	15.5	13.4	28.9	5.5	36.4	41.8	21.0	49.7	70.7	59.1	1,247
Some secondary	16.7	7.9	24.6	9.5	39.0	48.5	26.2	46.9	73.1	66.4	793
SLC and above	13.2	7.3	20.5	16.4	40.8	57.2	29.6	48.0	77.6	73.6	332
Total	11.4	16.4	27.8	3.8	35.5	39.3	15.2	51.9	67.1	58.6	8,342

SLC = School Leaving Certificate

¹Unmet need for spacing includes pregnant women whose pregnancy was mistimed, amenorrheic women who are not using family planning and whose last birth was mistimed, and fecund women who are neither pregnant nor amenorrheic and who are not using any method of family planning and say 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 unless they say it would not be a problem if they discovered they were pregnant in the next few weeks. Unmet need for limiting refers to pregnant women whose pregnancy was unwanted, amenorrheic women whose last child was unwanted, and fecund women who are neither pregnant nor amenorrheic and who are not using any method of family planning and who want no more children. Excluded from the unmet need category are pregnant and amenorrheic women who became pregnant while using a method (these women are in need of a better method of contraception).

²Using 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.

7.4 IDEAL FAMILY SIZE

In the 2001 NDHS information on ideal family size was gathered in two ways. Women and men who had no living children were asked how many children they would like to have if they could choose the number of children to have. Those with 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 could choose exactly the number of children to have. These questions are based on hypothetical situations; therefore, the responses to them are expected to in part reflect societal norms prevalent in the past as well as at present because respondents with larger families are more likely to be older and have larger ideal size because of attitudes they acquired 20 to 30 years ago. Among women and men who have not started childbearing, the data provide an idea of the total number of children these women will have in the future.

Table 7.5 shows that most women and men (98 percent) were able to give a numeric response to the question on ideal number of children. In general, the ideal number of children for Nepalese women and men is only marginally different. Ever-married women want on average 2.6 children, while ever-married men want on average 2.8 children. There was a small decline in the mean ideal number of children among women between 1996 (2.9) and 2001 (2.6).

Forty-six percent of women and 39 percent of men express a preference for a two-child family, while 34 percent of women and 38 percent of men express a preference for a three-child family. Thirteen percent of women and 14 percent of 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. Both women and men in Nepal prefer a small family size. In general, women and men with four or more living children prefer fewer children. For example, 92 percent of women with five children say that if they could choose again, they would have fewer than five, and 72 percent of women with four children would have fewer.

Table 7.6 shows the mean ideal number of children for ever-married women and men by age and selected background characteristics. The mean ideal number of children for women increases with age from 2.4 children among women age 15-19 to 3.0 among women age 45-49. In every age group, rural women have a larger ideal family size than urban women. Overall, there is little difference in the mean ideal number of children by ecological and development region. Education varies inversely with the mean ideal number of children, with a one-child difference between women with no education and women with at least an SLC. The pattern in the mean ideal number of children by background characteristics is similar for men and women.

Table 7.5 Ideal number of children

Percent distribution of ever-married women and men by ideal number of children, and mean ideal number of children for ever-married women and men and for currently married women and men, according to number of living children, Nepal 2001

Ideal number of children	Number of living children ¹							Total
	0	1	2	3	4	5	6+	
WOMEN								
0	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0
1	6.2	11.2	4.2	2.3	1.1	0.6	0.2	3.9
2	56.8	56.7	67.1	38.4	36.5	27.4	18.5	45.8
3	26.7	24.2	22.4	48.1	34.3	44.4	38.6	33.7
4	6.9	6.0	4.8	8.4	24.6	19.9	29.8	12.7
5	1.4	0.7	0.4	0.8	1.2	4.2	5.3	1.5
6+	0.2	0.1	0.1	0.3	0.6	1.1	2.9	0.6
Non-numeric responses	1.6	1.0	0.9	1.7	1.7	2.4	4.7	1.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	830	1,374	1,798	1,787	1,336	798	803	8,726
Mean ideal number of children²								
Ever-married women	2.4	2.3	2.3	2.7	2.9	3.0	3.3	2.6
Number	816	1,359	1,781	1,758	1,314	779	765	8,572
Currently married women	2.4	2.3	2.3	2.7	2.9	3.0	3.3	2.6
Number	774	1,297	1,707	1,675	1,260	745	739	8,198
MEN								
1	4.2	4.0	2.7	1.6	0.6	2.3	0.9	2.4
2	40.7	46.6	50.5	35.3	35.8	21.0	27.3	39.4
3	36.8	39.7	31.1	41.9	33.9	47.4	36.5	37.6
4	10.5	8.3	12.0	14.5	22.1	16.8	20.0	14.0
5	1.9	0.8	2.0	3.3	2.0	7.7	5.0	2.7
6+	2.6	0.3	0.7	0.6	2.6	1.6	6.4	1.6
Non-numeric responses	3.4	0.4	0.9	2.8	2.9	3.3	3.9	2.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	316	378	454	466	301	177	168	2,261
Mean ideal number of children²								
Ever-married men	2.7	2.6	2.6	2.8	3.0	3.1	3.2	2.8
Number	305	377	450	453	293	171	162	2,210
Currently married men	2.7	2.5	2.6	2.8	2.9	3.1	3.2	2.8
Number	285	368	440	439	286	170	161	2,150

¹ For women, includes current pregnancy

² Means are calculated excluding the women and men giving non-numeric responses.

Table 7.6 Mean ideal number of children by background characteristics

Mean ideal number of children for ever-married women and men, by age and background characteristics, Nepal 2001

Background characteristic	Age							All women	All men
	15-19	20-24	25-29	30-34	35-39	40-44	45-49		
Residence									
Urban	2.1	2.0	2.2	2.2	2.4	2.6	2.6	2.3	2.3
Rural	2.4	2.4	2.6	2.7	2.9	3.0	3.1	2.7	2.9
Ecological zone									
Mountain	2.1	2.3	2.5	2.7	2.9	3.1	3.2	2.7	2.9
Hill	2.1	2.2	2.4	2.6	2.8	2.8	2.9	2.5	2.7
Terai	2.5	2.5	2.6	2.7	2.9	3.0	3.1	2.7	2.8
Development region									
Eastern	2.3	2.4	2.4	2.6	2.8	2.9	3.0	2.6	2.7
Central	2.5	2.5	2.7	2.7	2.9	2.8	3.0	2.7	2.9
Western	2.1	2.1	2.2	2.4	2.6	2.7	2.9	2.4	2.7
Mid-western	2.3	2.3	2.6	2.9	3.2	3.3	3.2	2.8	2.9
Far-western	2.4	2.5	2.8	2.9	3.0	3.1	3.2	2.8	2.7
Subregion									
Eastern Mountain	2.1	2.1	2.1	2.7	2.9	3.1	3.1	2.6	3.0
Central Mountain	2.0	2.2	2.4	2.3	2.7	2.7	2.9	2.4	2.7
Western Mountain	2.3	2.4	2.7	3.0	3.0	3.3	3.5	2.9	3.1
Eastern Hill	2.0	2.1	2.4	2.6	2.9	3.0	2.9	2.6	2.8
Central Hill	2.1	2.1	2.4	2.5	2.6	2.5	2.7	2.4	2.7
Western Hill	2.0	2.0	2.1	2.2	2.3	2.5	2.9	2.3	2.6
Mid-western Hill	2.3	2.3	2.6	3.1	3.4	3.5	3.2	2.8	2.8
Far-western Hill	2.5	2.7	2.9	3.1	3.2	3.3	3.2	2.9	2.7
Eastern Terai	2.4	2.5	2.5	2.6	2.8	2.9	3.0	2.6	2.7
Central Terai	2.8	2.7	2.9	2.8	3.0	3.0	3.2	2.9	3.1
Western Terai	2.3	2.3	2.5	2.6	3.0	2.9	3.0	2.6	2.7
Mid-western Terai	2.5	2.3	2.4	2.7	2.9	3.1	3.1	2.7	2.8
Far-western Terai	2.3	2.4	2.6	2.7	2.7	2.8	3.1	2.6	2.7
Education									
No education	2.6	2.6	2.7	2.8	3.0	3.0	3.1	2.8	3.2
Primary	2.2	2.2	2.2	2.3	2.6	2.5	2.8	2.3	2.8
Some secondary	2.0	2.0	2.1	2.2	2.3	2.3	2.4	2.1	2.5
SLC and above	1.7	1.8	2.0	1.9	2.0	1.9	2.0	1.9	2.2
All women	2.4	2.4	2.5	2.7	2.9	2.9	3.0	2.6	na
All men	2.6	2.5	2.6	2.8	2.8	2.8	3.1	na	2.8

Note: Total for men includes men age 50-54 (mean 3.1) and 50-59 (mean 3.3) who are not shown separately.
na = Not applicable
SLC = School Leaving Certificate

7.5 FERTILITY PLANNING

In the NDHS, women were asked a series of questions for each child born in the preceding five years and any current pregnancy to determine whether a particular pregnancy was wanted then (planned), wanted later (mistimed), or not wanted (unplanned). This information may in fact underestimate unplanned childbearing since women may rationalize unplanned births and declare them as planned once they occur.

Table 7.7 shows that more than one in five births in Nepal is unwanted, while two in three births are planned and 14 percent are mistimed. In general, the proportion of unwanted births increases with birth order, from 2 percent among second births to 51 percent among births of order four and above. Unwanted births also generally increase with mother's age, rising from a low of 1 percent among mothers below 20 years of age to a high of 71 percent among mothers age 40-44. Mistimed births are lowest among high order births (order four and above) and are highest among births of order two. Mistimed births also tend to decrease with mother's age.

Table 7.7 Fertility planning status						
Percent distribution of births in the five years preceding the survey (including current pregnancies), by fertility planning status, according to birth order and mother's age at birth, Nepal 2001						
Birth order and mother's age at birth	Planning status of birth				Total	Number of births
	Wanted then	Wanted later	Wanted no more	Missing		
Birth order						
1	83.8	15.5	0.1	0.6	100.0	1,868
2	75.4	22.4	1.6	0.6	100.0	1,770
3	66.8	14.1	18.8	0.3	100.0	1,338
4+	42.2	7.1	50.5	0.3	100.0	2,752
Mother's age at birth						
<20	76.5	22.0	0.9	0.6	100.0	1,448
20-24	74.0	17.9	7.7	0.4	100.0	2,674
25-29	60.8	11.5	27.4	0.3	100.0	1,862
30-34	49.7	4.4	45.4	0.5	100.0	1,028
35-39	33.5	1.6	64.5	0.3	100.0	504
40-44	26.9	1.1	71.4	0.6	100.0	192
45-49	*	*	*	*	100.0	19
Total	64.1	13.8	21.6	0.4	100.0	7,729

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

Another way of measuring unwanted fertility utilizes the data on ideal family size to calculate what the total fertility rate would be if all unwanted births were avoided. This measure may also suffer from underestimation to the extent that women are unwilling to report an ideal family size lower than their actual family size. Despite these shortcomings, this information is useful in gauging the potential demographic impact of eliminating unwanted births.

Table 7.8 shows the total wanted fertility rates and actual fertility rates for the three years preceding the survey, by selected background characteristics. The wanted fertility rates are calculated in the same manner as the total fertility rates, but unwanted births are excluded from the numerator. Unwanted births are those that exceed the number mentioned as ideal by the respondent. This rate represents the level of fertility that would have prevailed in the three years preceding the survey if all unwanted births had been prevented.

The wanted fertility rate in Nepal is 2.5 births per woman (a decline from the 1996 level of 2.9 children per woman), 1.6 children less than the actual total fertility rate. This implies that the total fertility rate is 64 percent higher than it would be if unwanted births were avoided. The gap between wanted and observed fertility rate is wider among rural women than among urban women. Within ecological zones, the gap is widest in the mountains (2.2). Among the development regions, the gap varies between 1.3 children per woman in the Western region and 2.1 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. For example, women with no education have 1.8 children more than their ideal, compared with women with at least an SLC level of education who have 0.3 children above their ideal.

An increase in women's status and empowerment may lower fertility through a negative association with desired family size and a positive association with ability to meet family-size goals through the effective use of contraception. Table 7.9 shows the mean ideal number of children and the unmet need for spacing and limiting by the three indicators of women's status, namely, women's decision-making participation, women's attitude toward refusing sex with their husband, and women's attitude toward wife beating. The mean ideal number of children varies little by the first two women's status indicators and varies positively with the third. The data show that women who are least likely to agree that a man is justified in beating his wife have the lowest mean ideal family size and vice versa. Unmet need for family planning and especially for spacing decreases as women's involvement in household decision-making increases. There is no clear relationship between unmet need for family planning and women's attitude toward refusing sex with their husband and wife beating.

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 2001

Background characteristic	Total wanted fertility rate	Total fertility rate
Residence		
Urban	1.4	2.1
Rural	2.6	4.4
Ecological zone		
Mountain	2.6	4.8
Hill	2.3	4.0
Terai	2.6	4.1
Development region		
Eastern	2.3	3.8
Central	2.7	4.3
Western	2.2	3.5
Mid-western	2.6	4.7
Far-western	2.9	4.7
Education		
No education	3.0	4.8
Primary	2.0	3.2
Some secondary	1.6	2.3
SLC and above	1.8	2.1
Total	2.5	4.1

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.

SLC = School Leaving Certificate

Table 7.9 Ideal number of children and unmet need for family planning by women's status

Mean ideal number of children and unmet need for spacing and limiting, by women's status indicators, Nepal 2001

Women's status indicator	Mean ideal number of children ¹	Number	Unmet need for family planning ²			Number of women
			For spacing	For limiting	Total	
Number of decisions in which woman has final say³						
0	2.5	1,303	23.3	10.5	33.7	1,327
1-2	2.7	3,683	12.1	16.1	28.2	3,761
3-4	2.7	1,888	6.0	15.3	21.3	1,914
5	2.6	1,698	4.1	19.0	23.1	1,725
Number of reasons to refuse sex with husband						
0	2.8	96	8.1	17.0	25.1	102
1-2	2.8	253	15.3	15.5	30.8	261
3-4	2.6	8,223	10.8	15.7	26.4	8,363
Number of reasons wife beating is justified						
0	2.6	6,133	10.0	16.1	26.2	6,216
1-2	2.6	1,885	12.8	15.3	28.1	1,940
3-4	2.9	446	13.9	11.6	25.5	457
5	3.1	109	12.2	12.4	24.6	113
Total	2.6	8,572	10.9	15.7	26.5	8,726

¹Totals are calculated excluding the women giving non-numeric responses.

²See Table 7.4 for definition of unmet need for family planning

³Either by herself or jointly with others

This chapter presents information on levels, trends, and differentials in neonatal, postneonatal, infant, and child mortality and on the prevalence of high-risk fertility behavior. This information is central to an assessment of the demographic situation in Nepal. It is also crucial to the design of policies and programs targeted at the reduction of infant and child mortality and the avoidance of high-risk behavior.

Mortality estimates are computed from information collected in the pregnancy history section of the Women's Questionnaire administered in the 2001 Nepal Demographic and Health Survey (NDHS). Reproductive histories were obtained from ever-married women. Each woman was first asked about the number of her own sons and daughters living with her, the number living elsewhere and the number who had died, and the number of pregnancies that did not end in a live birth. She was then asked for a history of all her pregnancies, including the type of pregnancy outcome and the month and year the pregnancy ended. For each pregnancy ending in a live birth, the mother was asked the child's name, sex, age (if alive) or age at death (if dead), and whether the child was living with her.

The information on live births is used to directly estimate mortality rates. In this report, infant and child mortality are measured using the following five rates:

Neonatal mortality: the probability of dying within the first month of life

Postneonatal mortality: the difference between infant and neonatal mortality

Infant mortality: the probability of dying before the first birthday

Child mortality: the probability of dying between the first and fifth birthday

Under-five mortality: the probability of dying before the fifth birthday.

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

Information on pregnancies that did not end in a live birth and on children who died within seven days 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 DATA QUALITY

The reliability of mortality estimates depends on the sampling variability of the estimates and on nonsampling errors. Sampling errors are presented in Appendix B. Nonsampling errors arise from data collection problems and, in the case of mortality data, the most common types of problems are as follows: misreporting of age at death; misreporting of dates of birth and event underreporting (that is, both the birth and death of the child). The possible occurrence of these data problems in the 2001 NDHS will be discussed with reference to the data quality tables in Appendix C.

In the case of misreporting age at death, the most typical problem in survey data is the misreporting of infant deaths, which occur in the late postneonatal period, as deaths at 12 months or one year of age (digit preference in the reporting of age). Such misreporting results in underestimation of the infant mortality rates and overestimation of child mortality rates. A review of the reported age at death data (Table C.6) indicates that digit preferences in reported death at 12 months or one year is not a problem in the 2001 NDHS and that reporting errors did not arise from this source.

Misreporting of the date of birth of deceased children is common in many surveys that include both demographic and health information for children born since a specified date (that is, for children below age five). In the 2001 NDHS, the cutoff date for asking health questions was Baisakh 2052 in the Nepali calendar (corresponding to April 1995 in the Gregorian calendar). Table C.4 indicates that there is little misreporting of dates of birth for living children but that there is evidence of misreporting of dates for deceased children. The evidence for this is the 203 births in calendar year 2051 (1994) but only 128 births in calendar year 2052 (1995). The deficit in calendar year 2052 is believed to be the result of misreporting of date of birth by interviewers who want to avoid collecting the health data for deceased children. The transference of deceased children out of the five-year period preceding the survey strongly suggests that the estimated infant mortality rate for that period will be negatively biased and will understate the true level of infant mortality for the period of the late 1990s.

The problem of underreporting is usually most severe for deaths that occur very early in infancy. Table C.5 provides data for evaluating the occurrence of underreporting of early infant deaths. Selective underreporting of early neonatal deaths would result in an abnormally low ratio of deaths under seven days to all neonatal deaths. In the 2001 NDHS, this ratio is high (between 65 and 69) so that it can be concluded that there has not been selective omission of early infant deaths.¹

While the evidence in Table C.5 does not indicate selective underreporting of early neonatal deaths, it is possible that there was a general tendency to underreport deceased children for the five-year period preceding the survey, the period for which health data are collected for each recorded birth. The motivation that interviewers have for omitting these events has already been indicated. The possibility that this occurred must be considered because of the sharp drop in infant and child mortality rates, a topic that is further discussed in the next section.

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 five-year periods preceding the survey. Under-five mortality in Nepal is 91 deaths per 1,000 births in the most recent five-year period (0-4 years preceding the survey). This means that about one in every 11 children born in the country dies before reaching age five. Slightly more than two in three under-five deaths occur in the first year of life—infant mortality is 64 deaths per 1,000 births

¹There are no model mortality patterns for the neonatal period. However, one review of data from several developing countries concluded that at levels of neonatal mortality of 20 per 1,000 or higher, approximately 70 percent of neonatal deaths occur within the first six day of life (Boerma, 1988).

Years preceding the survey	Neonatal mortality (NN)	Postneonatal mortality (PNN) ¹	Infant mortality (${}_1q_0$)	Child mortality (${}_4q_1$)	Under-five mortality (${}_5q_0$)
0-4	38.8	25.6	64.4	28.6	91.2
5-9	56.5	33.5	90.0	39.7	126.2
10-14	63.1	44.0	107.2	57.0	158.0

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

and child mortality is 29 deaths per 1,000 births. During infancy, the risk of neonatal death (39 per 1,000) is one and half times higher than the risk of postneonatal death (26 per 1,000).

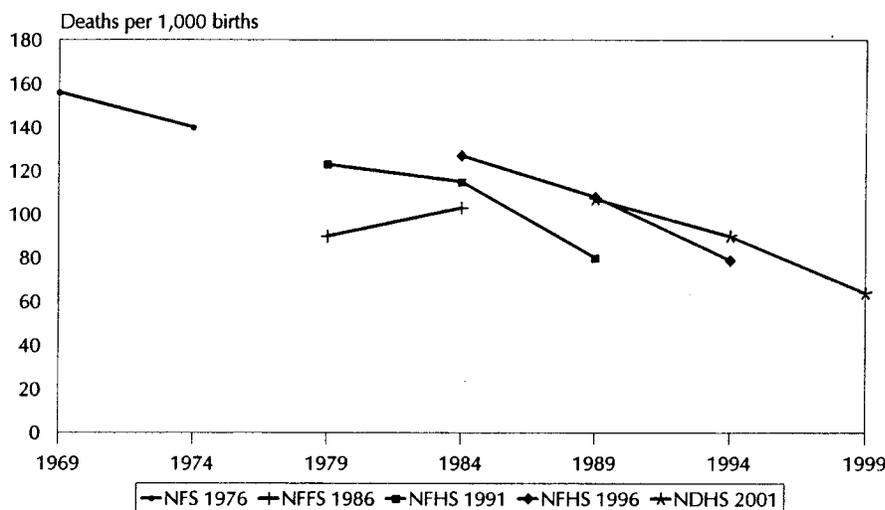
According to data collected in the 2001 NDHS, mortality levels have declined rapidly in Nepal since the early 1980s (Table 8.1). However, as discussed in the earlier section on data quality, this decline could be overstated due to the misreporting of the dates of birth of deceased children and the underreporting of deceased children. Under-five mortality in the five years before the survey is 58 percent of what it was 10-14 years before the survey. Comparable data for child mortality (50 percent) and infant mortality (60 percent) indicate that the pace of decline is somewhat faster for child mortality than for infant mortality. The corresponding figures for neonatal and postneonatal mortality are 61 percent and 58 percent, respectively.

Mortality trends can also be examined by comparing data from the 2001 NDHS with data from other earlier sources. However, these comparisons should be interpreted with caution since the quality of data, method of analysis, time references, and sample coverage varies. Table 8.2 and Figure 8.1 show direct estimates of infant mortality from various sources. There is some indication that the infant mortality rate was underestimated in the 1986 and 1991 data, but this does not change the broad conclusion that there has been a substantial decline in infant mortality over the 30 years preceding the survey from about 150 in the late 1960s to about half this level in the late 1990s.

Approximate midpoint	NFS 1976	NFFS 1986	NFHS 1991	NFHS 1996	NDHS 2001
1969	156				
1974	140				
1979		90	123		
1984		103	115	127	
1988			80	108	107
1993				79	90
1998					64

Source: Ministry of Health, 1987:80; Ministry of Health, 1993:132; Pradhan et al., 1997: 102

**Figure 8.1 Trends in Infant Mortality
Nepal, 1969-2001**



Note: Data for 1976 to 1996 surveys are from Pradhan et al., 1997: Table 7.2, p. 102.

8.3 SOCIOECONOMIC DIFFERENTIALS IN MORTALITY

Table 8.3 presents differentials in childhood mortality in Nepal by place of residence and mother's education (Figure 8.2). To have a sufficient number of cases for statistical reliability, mortality rates are calculated for a ten-year period.

Mortality is consistently lower in urban than in rural areas. In the ten years preceding the survey, infant mortality was 37 percent lower and under-five mortality was 41 percent lower in urban areas than in rural areas. There is also considerable variation in mortality by ecological zone with children living in the mountains faring much worse than children living in the hills or *terai*. For example, one in six children living in the mountains dies before the fifth birthday, compared with one in nine children living in the *terai* and one in eleven children living in the hill zone. Settlements are scattered in the mountains and a health institution covers a much larger geographic area than in the hills and *terai*, thereby making them less accessible. Mortality is also much higher in the Far-western development region of Nepal than in the other regions.

Maternal education is strongly related to mortality. Children born to mothers with no education experience much higher levels of mortality than children born to mothers with some education; children born to the most highly educated mothers are least likely to die young. For example, under-five mortality for children of uneducated mothers is 121 per 1,000 births, 64 percent higher than for children of mothers who have some primary education and nearly double that of children of mothers who have some secondary education.

Table 8.3 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 socioeconomic characteristic, Nepal 2001

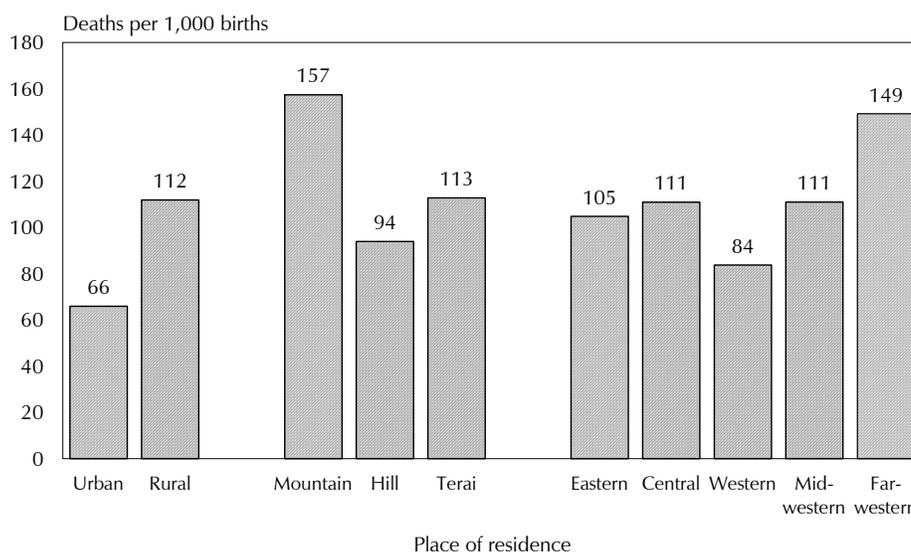
Socioeconomic characteristic	Neonatal mortality (NN)	Postneonatal mortality (PNN) ¹	Infant mortality (_{1q0})	Child mortality (_{4q1})	Under-five mortality (_{5q0})
Residence					
Urban	36.6	13.5	50.1	16.7	65.9
Rural	48.5	30.8	79.3	35.4	111.9
Ecological zone					
Mountain	64.9	47.1	112.0	51.2	157.4
Hill	41.9	24.3	66.2	29.7	93.9
Terai	49.7	31.1	80.8	34.8	112.8
Development region					
Eastern	50.5	27.0	77.5	29.6	104.8
Central	48.4	29.0	77.4	36.4	110.9
Western	39.1	21.0	60.1	25.1	83.7
Mid-western	40.5	32.3	72.9	41.2	111.0
Far-western	64.4	47.8	112.2	41.7	149.2
Mother's education					
No education	51.6	33.0	84.6	39.5	120.7
Primary	41.2	19.8	61.0	13.4	73.5
Some secondary	31.3	18.6	49.9	14.3	63.5
SLC and above	(8.8)	(2.3)	(11.2)	(3.7)	(14.9)

Note: Rates in parentheses are based on 250-499 exposed children

SLC = School Leaving Certificate

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

Figure 8.2 Under-five Mortality Rates by Place of Residence



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

Nepal 2001

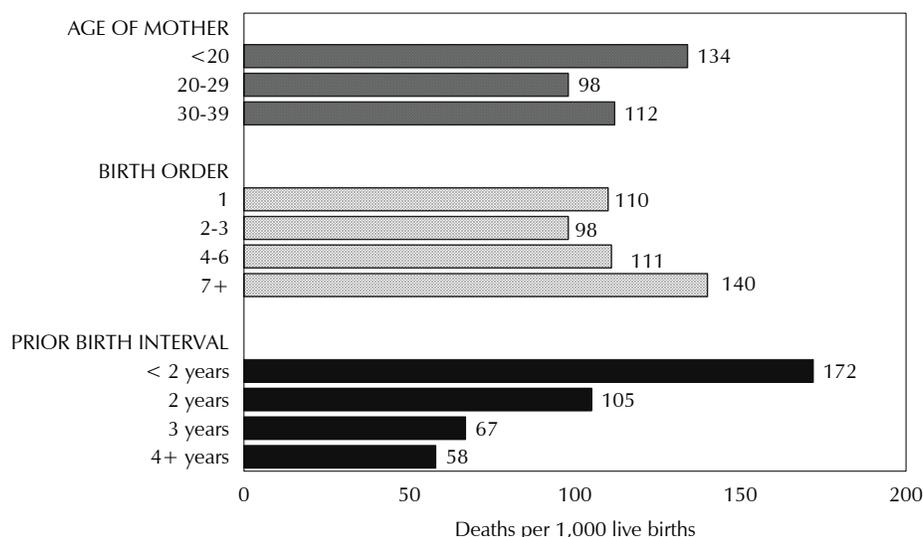
8.4 DEMOGRAPHIC DIFFERENTIALS IN MORTALITY

Besides socioeconomic characteristics, demographic characteristics of the child and the mother have been found to affect mortality risks. Some of these factors are the sex of the child, mother's age at birth, birth order, length of previous birth interval, and the mother's perception of the size of the child at birth. The relationship between these demographic characteristics and mortality is shown in Table 8.4 and Figure 8.3.

As expected, neonatal mortality is higher among males than among females. There is little variation in postneonatal mortality and infant mortality by sex of the child. However, child mortality is nearly one and a half times higher for females than for males. Since female mortality is typically lower than male mortality during childhood, this pattern suggests some gender-related differences in child-rearing practices and health care utilization.

Table 8.4 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 2001					
Demographic characteristic	Neonatal mortality (NN)	Postneonatal mortality (PNN) ¹	Infant mortality (₁ q ₀)	Child mortality (₄ q ₁)	Under-five mortality (₅ q ₀)
Child's sex					
Male	52.0	27.2	79.2	27.8	104.8
Female	43.3	31.9	75.2	40.2	112.4
Mother's age at birth²					
<20	71.2	37.1	108.2	28.5	133.6
20-29	40.3	27.3	67.6	32.6	98.0
30-39	42.8	30.1	72.9	42.5	112.3
Birth order					
1	56.8	32.0	88.8	22.9	109.7
2-3	44.1	27.5	71.6	28.6	98.1
4-6	39.7	29.7	69.4	44.8	111.1
7+	63.0	31.1	94.1	51.1	140.4
Previous birth interval³					
<2	79.9	44.5	124.4	54.8	172.4
2 years	39.7	28.0	67.8	40.0	105.1
3 years	26.5	18.8	45.2	22.4	66.6
4+ years	21.7	17.2	38.9	20.1	58.2
Birth size⁴					
Small/very small	58.1	32.2	90.3	na	na
Average or larger	32.4	24.0	56.4	na	na
na = Not applicable					
¹ Computed as the difference between the infant and neonatal mortality rates					
² Rates for age group 40-49 are not shown because they are based on fewer than 250 exposed children.					
³ Excludes first-order births					
⁴ Rates for the five-year period before the survey					

Figure 8.3 Under-Five Mortality by Selected Demographic Characteristics



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

Nepal 2001

The relationship between maternal age (at birth) and neonatal, postneonatal, infant, and under-five mortality shows a U-shaped curve. These mortality measures are substantially higher among children born to mothers less than 20 or more than 30 years old.

As expected, first births and higher order births experience higher mortality, indicating a U-shaped relationship between birth order and mortality. For example, infant mortality for first births and births of order seven and higher is 89 per 1,000 births and 94 per 1,000 births, respectively, compared with about 70 per 1,000 births for second to sixth order births.

Mortality among children is negatively associated with the length of the previous birth interval. Under-five mortality decreases sharply from a high of 172 for children born less than two years after a previous birth to 58 per 1,000 live births for children born four or more years after a previous birth.

A child's size at birth has often been found to be an important determinant of the chances of survival in infancy. Since most births in Nepal take place outside of a health facility, few children are weighed at birth; as such, in the 2001 NDHS, mothers were asked to assess their child's size at birth. Even though this is a subjective assessment, it has been shown to closely correlate with actual birth weight in most countries. Due to small numbers, births have been grouped into small/very small and average/larger to give statistically reliable estimates. As expected, size of the baby at birth and mortality are negatively associated. For example, children who were regarded as very small or small have an infant mortality rate that is 60 percent higher than that for average/large children.

8.5 WOMEN'S STATUS AND CHILD MORTALITY

Since women are the primary caregivers, their status can impact the health status and survival of their children. Women who are empowered are in a better position to access information, make decisions, and act effectively to address their own and their children's health. Table 8.5 shows the relationship between mortality rates and the three indicators of women's empowerment measured in the 2001 NDHS. In general, the more decisionmaking power a woman has, the lower the level of childhood mortality, as observed with four of the five mortality rates (the exception being child mortality). There is no clear relationship between childhood mortality rates and women's attitudes toward a woman's right to refuse sex with her husband or toward wife beating.

Women's status indicators	Neonatal mortality (NN)	Postneonatal mortality (PNN) ¹	Infant mortality (₁ q ₀)	Child mortality (₄ q ₁)	Under-five mortality (₅ q ₀)
Number of decisions in which woman has final say²					
0	57.2	33.6	90.8	24.8	113.3
1-2	49.7	34.3	84.0	35.1	116.2
3-4	38.8	24.9	63.7	33.9	95.4
5	47.1	21.5	68.6	34.5	100.8
Number of reasons to refuse sex with husband					
1-2	49.7	32.9	82.5	(33.2)	(113.0)
3-4	47.6	29.6	77.1	34.0	108.5
Number of reasons wife beating is justified					
0	48.9	29.5	78.4	34.5	110.1
1-2	41.7	28.4	70.1	36.4	103.9
3-4	54.5	35.1	89.7	16.1	104.3

Note: Rates in parentheses are based on 250-499 exposed children. Rates for 0 reasons to refuse sex with husband and 5 reasons wife beating is justified are not shown because they are based on fewer than 250 exposed children.

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

² Either by herself or jointly with others

8.6 PERINATAL MORTALITY

Perinatal mortality reflects an adverse outcome for pregnancies of at least seven months gestation. The perinatal mortality rate is obtained by summing all stillbirths and deaths to children within the first week of life (early neonatal deaths) and dividing by the sum of all stillbirths and live births. The perinatal mortality rate captures stillbirths and early neonatal deaths, two seemingly different outcomes that result from similar conditions.

In the 2001 NDHS, women were asked to report on all the pregnancies that they had in their lifetime. The pregnancy history provides information on all the respondent's children born alive or dead, whether or not still living, and all the pregnancies that did not end in a live birth.

Information on perinatal mortality is obtained from reports of pregnancy losses and pregnancy duration (which defines stillbirths) and deaths to children within the first week of life. These events are highly susceptible to omission and misreporting. Nevertheless, retrospective surveys provide more representative and complete enumeration of perinatal deaths than most vital registration systems and hospital-based studies in developing countries.

Data obtained from this survey have been summarized in Table 8.6. The perinatal mortality rate for the five years prior to the survey is 47 deaths per 1,000 pregnancies, a decline from 61 deaths in the ten years preceding the 1996 NFHS.

As expected, mothers' age has a U-shaped relationship with perinatal mortality. For example, perinatal mortality is higher among women in the youngest and oldest age groups. Perinatal mortality is about twice as high if the length of the previous birth interval is shorter than 15 months than if the birth interval is 15 months or longer.

Perinatal mortality is lower in urban areas than in rural areas and among mothers living in the hill region than among those living in the mountains or *terai*. Perinatal mortality is also lowest in the Western development region. There is an inverse relationship between perinatal mortality and mother's education.

Table 8.6 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 2001

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	32	61	69.9	1,322
20-29	86	80	39.5	4,194
30-39	33	31	44.7	1,425
40-49	5	11	82.7	193
Previous pregnancy interval in months				
<15	16	22	109.7	351
15-26	42	39	45.0	1,804
27-38	27	35	34.9	1,781
39+	71	85	48.8	3,198
Residence				
Urban	8	8	36.6	458
Rural	148	173	48.1	6,676
Ecological zone				
Mountain	19	18	66.1	554
Hill	66	59	42.4	2,939
Terai	72	105	48.6	3,641
Development region				
Eastern	39	53	55.7	1,649
Central	52	58	46.5	2,362
Western	20	27	37.0	1,282
Mid-western	28	17	41.9	1,076
Far-western	17	27	57.1	766
Mother's education				
No education	125	142	50.2	5,301
Primary	21	24	45.1	991
Some secondary	10	17	45.1	597
SLC and above	0	0	0.0	244
Total	156	182	47.4	7,134

SLC = School Leaving Certificate

¹ A still birth is a fetal death that occurs in a pregnancy lasting seven or more months.

² An early neonatal death is the death of a live-born child at age 0 to 6 days.

³ The perinatal mortality rate is the sum of the number of stillbirths and early neonatal deaths divided by the number of pregnancies of seven or more months duration.

8.7 HIGH-RISK FERTILITY BEHAVIOR

Research has shown that there is a strong relationship between certain characteristics associated with fertility behavior and children's survival chances. Typically, the probability of dying in infancy is much greater for children born to mothers who are too young or too old, children born after a short birth interval, and children born to mothers with high parity. For analysis purposes, a mother is classified as "too young" if she is less than 18 years old and "too old" if she is over 34 at the time of delivery. A "short birth interval" is defined as a birth occurring less than 24 months after the previous birth, and a mother is of "high parity" if she has given birth to three or more living children, that is, if the child is of birth order four or higher.

Table 8.7 shows the percent distribution of children born in the five years preceding the survey and of currently married women by these risk factors. The table also displays the risk ratio of mortality for children by comparing the proportion of deceased children in each high-risk category with the proportion of deceased children not in any high-risk category.

Fifty-three percent of Nepalese children born in the five years preceding the survey fall into a high-risk category, with 37 percent in a single high-risk category and 16 percent in a multiple high-risk category. Three in ten births in Nepal are not in any risk category, and 18 percent are in an unavoidable risk category (first order births to women age 18-34).

The relationship between risk factors and mortality is given by the risk ratios displayed in column 2 of Table 8.7. 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 who are age 35 or older, with a birth interval less than 24 months and birth order three or higher. These children are nearly 2.4 times more likely to die than children not in any high-risk category. Fortunately, only 1 percent of births are in this category. It is also worthwhile to note that 7 percent of births occur to mothers who have three or more children and a short previous birth interval. These children are more than twice as likely to die as children who are not in any high-risk category. Another 7 percent of births occur to women under age 18; these babies are also subject to twice the risk of dying than children who are not in any high-risk category.

Table 8.7 High-risk fertility behavior

Percent distribution of children born in the five years preceding the survey by category of elevated risk of mortality, 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 2001

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	29.8	1.00	32.3 ^a
Unavoidable risk category			
First order births between age 18 and 34 years	17.5	1.30	8.3
Single high-risk category			
Mother's age <18	6.6	2.24	2.3
Mother's age >34	0.4	1.62	2.9
Birth interval <24 months	9.1	1.34	8.9
Birth order >3	20.5	1.17	13.3
Subtotal	36.6	1.41	27.4
Multiple high-risk category			
Age <18 & birth interval <24 months ²	0.4	2.01	0.3
Age >34 & birth interval <24 months	0.0	0.00	0.1
Age >34 & birth order >3	7.8	1.08	21.4
Age >34 & birth interval <24 months & birth order >3	1.0	2.38	2.3
Birth interval <24 months & birth order >3	6.8	2.18	7.9
Subtotal	16.1	1.65	32.1
In any avoidable high-risk category	52.7	1.48	59.4
Total	100.0	na	100.0
Number of births	6,978	na	8,342

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

na = Not applicable

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

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

^a Includes sterilized women

The final column of Table 8.7 addresses the question of what percentage of currently married women have the potential for having a high-risk birth. This was obtained by simulating the distribution of currently married women by the risk category in which a birth would fall if a woman were to conceive at the time of the survey.

Overall, 59 percent of currently married women have the potential to give birth to a child with an elevated risk of mortality. Twenty-one percent of these women are or would be too old and have or would have too many children. A slightly higher proportion of women exhibit the potential for having a birth in a multiple high-risk category than in a single high-risk category.

MATERNAL AND CHILD HEALTH

The Safe Motherhood Program in Nepal has adopted two major strategies to improve maternal health—provide around-the-clock essential obstetric services and ensure the presence of skilled attendants at deliveries, especially at-home deliveries (Ministry of Health, 2001). In recognizing that the majority of women do not have access to maternal health care services due to social, economic, and political reasons, the Ministry of Health is emphasizing a multisectoral approach that encompasses medical interventions and nonhealth programs that promote access to and utilization of services. Based on the National Health Policy, the Safe Motherhood National Plan of Action (1994–1997) was developed. Ten districts were initially selected for the program, and in the first phase, the program was launched in three districts. After the evaluation of the first phase, six more districts were incorporated in the second phase by 2001. In conjunction with the Ministry of Health’s efforts, several other programs to support safe motherhood have been initiated by international organizations like the World Health Organization (WHO), the United Nations Children’s Fund (UNICEF), the United Nations Population Fund (UNFPA), the Department for International Development (DFID), U.S. Agency for International Development (USAID), and German Agency for Technical Cooperation (GTZ) in several targeted districts. These include the promotion of maternal health programs through the construction of maternity facilities, human resource development, and the provision of essential obstetric care kits and maternal and child health equipment to primary health centers and hospitals. USAID supports the Safe Motherhood Program with the maternal and child health workers (MCHWs) refresher training curriculum, the National Safe Motherhood Subcommittee and regular newsletter, the National Safe Motherhood IEC strategy, postabortion care training as part of emergency obstetric care, and the Birth Preparedness Package for families to plan for normal births and emergencies.

This chapter presents the survey findings in four areas of importance to maternal and child health: antenatal, delivery, and postnatal services; characteristics of the newborn; vaccination coverage; and common childhood illnesses and their treatment. Combined with information on maternal and childhood mortality, this information can be used to identify subgroups of women and children who are “at risk” because of low levels of use or nonuse of maternal and child health services and to provide information to assist in the planning of appropriate improvements in services.

9.1 ANTENATAL CARE

ANTENATAL CARE COVERAGE

The maternal health care services that a mother receives during her pregnancy and at the time of delivery is important for the well being of the mother and her child. Antenatal care (ANC) can be assessed according to the type of service provider, number of visits made, the stage of pregnancy at the time of first visit, services and information provided during ANC checkups (including whether tetanus toxoid vaccinations were received). Information on ANC coverage was collected from women who had a live birth in the five years preceding the survey. For women with two or more live births during the five-year period, the data refer to the most recent birth only.

Table 9.1 and Figure 9.1 show the percent distribution of mothers who had a live birth in the five years preceding the survey by source of antenatal care received during pregnancy according to

Table 9.1 Antenatal care

Percent distribution of women who had a live birth in the five years preceding the survey by antenatal care (ANC) provider during pregnancy for the most recent birth, according to background characteristics, Nepal 2001

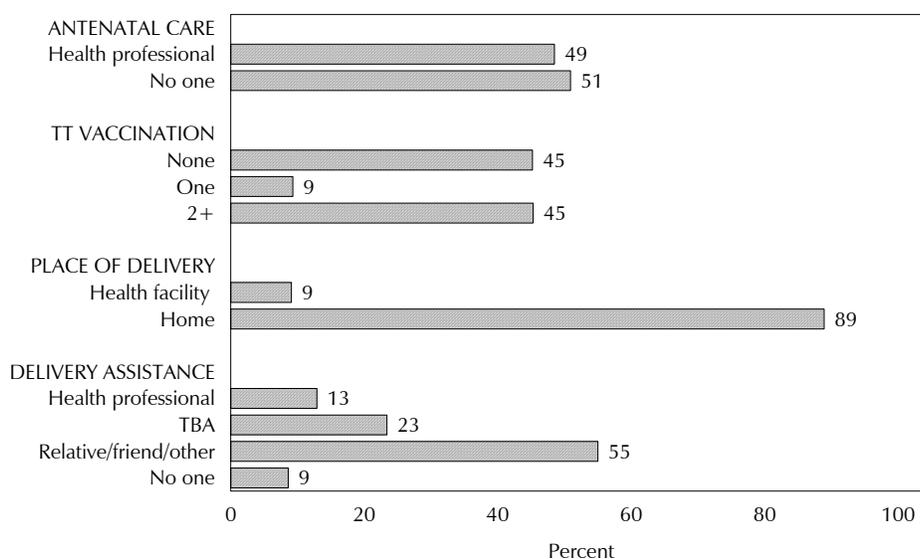
Background characteristic	Doctor	Nurse/auxiliary nurse midwife	Health assistant/auxiliary health worker	Maternal child health worker	Village health worker	Traditional birth attendant/other	No one	Total	Number of women
Age									
<20	21.5	13.4	13.8	4.4	5.8	0.4	40.7	100.0	773
20-34	17.2	11.7	10.8	3.2	6.7	0.6	49.8	100.0	3,419
35-49	6.5	5.7	8.6	2.5	4.7	0.4	71.6	100.0	553
Birth order									
1	27.4	14.8	13.6	4.0	4.8	0.4	35.0	100.0	993
2-3	18.5	13.6	11.7	3.9	6.9	0.5	44.9	100.0	1,900
4-5	11.3	8.3	9.4	2.0	6.0	0.9	62.1	100.0	1,107
6+	5.4	5.3	8.2	3.0	7.5	0.2	70.4	100.0	746
Residence									
Urban	54.5	20.2	4.3	0.8	1.1	1.3	17.6	100.0	332
Rural	13.8	10.6	11.5	3.5	6.7	0.5	53.4	100.0	4,414
Ecological zone									
Mountain	5.5	7.0	13.8	3.0	1.2	0.1	69.3	100.0	361
Hill	15.8	10.3	10.4	4.6	2.8	0.1	56.0	100.0	1,979
Terai	19.0	12.8	11.1	2.2	10.1	1.0	43.9	100.0	2,405
Development region									
Eastern	17.1	17.0	15.4	1.7	2.0	1.2	45.7	100.0	1,102
Central	18.6	7.8	10.1	2.3	13.2	0.6	47.4	100.0	1,535
Western	22.9	12.7	12.1	6.1	2.8	0.0	43.5	100.0	914
Mid-western	7.1	8.4	8.4	5.2	5.5	0.3	64.9	100.0	693
Far-western	11.1	11.0	5.8	2.2	2.6	0.2	67.0	100.0	502
Subregion									
Eastern Mountain	8.3	7.3	21.8	3.1	1.6	0.0	58.0	100.0	74
Central Mountain	5.7	12.2	18.7	5.2	2.2	0.4	55.7	100.0	122
Western Mountain	4.2	3.1	6.6	1.4	0.3	0.0	84.3	100.0	166
Eastern Hill	12.7	17.1	13.0	3.2	3.8	0.0	50.2	100.0	347
Central Hill	22.7	12.7	11.3	2.0	3.1	0.2	48.0	100.0	484
Western Hill	24.2	11.8	13.1	8.1	1.8	0.0	41.0	100.0	521
Mid-western Hill	3.8	3.6	6.2	5.8	3.3	0.4	77.0	100.0	405
Far-western Hill	7.9	2.8	5.4	2.5	1.7	0.0	79.6	100.0	223
Eastern Terai	20.3	18.0	15.9	0.7	1.1	1.9	42.1	100.0	681
Central Terai	18.1	4.7	8.3	2.1	19.9	0.9	46.0	100.0	930
Western Terai	21.2	13.9	10.7	3.3	4.1	0.0	46.8	100.0	393
Mid-western Terai	14.8	18.7	15.0	5.2	11.2	0.2	34.8	100.0	222
Far-western Terai	18.2	25.8	3.5	2.3	4.7	0.6	44.5	100.0	179
Education									
No education	9.5	8.7	10.7	2.9	6.9	0.5	60.8	100.0	3,437
Primary	22.3	17.7	12.1	4.6	7.0	0.5	35.5	100.0	684
Some secondary	42.8	20.4	11.9	4.5	3.1	1.2	16.0	100.0	439
SLC and above	65.8	14.9	10.1	3.1	0.9	0.0	5.2	100.0	186
Total	16.6	11.3	11.0	3.3	6.3	0.5	50.9	100.0	4,745

Note: If more than one source of ANC was mentioned, only the provider with the highest qualifications is considered in this tabulation. Total includes women with missing information on antenatal care provider who are not shown separately. SLC = School Leaving Certificate

selected background characteristics. Interviewers were instructed to record all persons a woman had seen for antenatal care for the most recent birth. But in the table, only the provider with the highest qualifications is listed if the woman had seen more than one provider.

Overall, one in two pregnant women received antenatal care. Twenty-eight percent of mothers received antenatal care either from a doctor (17 percent) or a nurse or auxiliary nurse midwife (11 percent). Another 11 percent of mothers received antenatal care from a health assistant (HA) or auxiliary health worker (AHW). Village health workers (VHWs) provided antenatal care to 6 percent of women and maternal and child health workers (MCHWs) provided care to 3 percent of mothers. Traditional birth attendants (TBAs) provided antenatal care to less than 1 percent of mothers.

Figure 9.1 Antenatal Care, Tetanus Toxoid (TT) Vaccinations, Place of Delivery, and Delivery Assistance



Note: Health professional refers to doctor, nurse/auxiliary nurse midwife, health assistant/auxiliary health worker, maternal child health worker, village health worker.
TBA = Traditional birth attendant

Nepal 2001

Comparison with the 1996 Nepal Family Health Survey results shows that there were some improvements in the utilization of antenatal services during the last five years. The percentage of women receiving antenatal services from a doctor, nurse, or auxiliary nurse midwife (ANM) has increased from 24 percent in 1996 to 28 percent in 2001. At the same time, the percentage of mothers receiving antenatal care from a HA or AHW increased from 2 percent to 11 percent. The percentage of mothers who did not receive any antenatal care dropped from 56 percent to 51 percent over the same period.

Younger women are more likely to use antenatal services than older women. This is especially true for care from doctors, nurses or ANMs and HAs or AHWs. Similarly, lower birth order is associated with greater use of antenatal services provided by medically trained personnel. Perhaps this pattern occurs because young women tend to be more educated than older women and are thus more likely to know that antenatal care from medically trained personnel is superior in quality. Also older women who have given birth previously may feel less need for ANC services. There are large differences in the use of antenatal care services between urban and rural women. Overall, 82 percent of women from urban areas utilize antenatal care services, compared with 47 percent of their rural

counterparts. Urban women use doctors and nurses or ANMs much more often than rural women, whereas rural women are more likely to use HAs or AHWs and MCHWs for antenatal care.

Utilization of antenatal care services is higher in the *terai* and in the Western, Eastern, and Central development regions than in the other regions. Similarly, women from the *terai* subregions and Western and Central hills use ANC services more often and from doctors and nurses or ANMs than in other areas. Women from the Western mountains are least likely to obtain ANC services, while women from the Mid-western *terai* are most likely to use ANC services. Reported use of doctors for antenatal care should be viewed with caution because in most rural areas, nurses and paramedical personnel are regarded as doctors and health posts and subhealth posts are regarded as hospitals.

The utilization of antenatal care services is positively associated with mother's level of education. Ninety-five percent of women with an SLC and above received antenatal care services, compared with 39 percent of women with no education. Use of a doctor for antenatal care increases from 10 percent among uneducated women to 66 percent among women who have completed their SLC.

Antenatal care can be more effective in avoiding adverse pregnancy outcomes when it is sought early in the pregnancy and continues through to delivery. The National Safe Motherhood Program guidelines in Nepal recommend at least four visits during pregnancy. The first visit should be made soon after the woman realizes she is pregnant. The second visit should be made between the fifth and the seventh month of pregnancy. The third visit should be made at the beginning of the ninth month, and the last visit should be made the same week that the baby is due. Additional visits should be made if any problems or danger signs arise.

Table 9.2 indicates that most Nepalese women who receive antenatal care get it at a relatively late stage in their pregnancy and do not make the minimum recommended number of antenatal visits. Only one in seven (14 percent) women make four or more visits during their entire pregnancy. Urban women are four times more likely than rural women to have made four or more ANC visits. Sixteen percent of women reported that their first visit occurred at less than four months of pregnancy. Forty-one percent of urban women, compared with 15 percent of rural women, made their first antenatal visit when they were less than four months pregnant. Among women who received antenatal care, the median duration of pregnancy at first visit was five months.

Table 9.2 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 birth, and by the timing of the first visit according to residence, Nepal 2001

Number and timing of ANC visits	Residence		
	Urban	Rural	Total
Number of ANC visits			
None	17.6	53.4	50.9
1	6.5	7.9	7.8
2-3	27.3	26.8	26.8
4+	48.4	11.8	14.3
Don't know/missing	0.3	0.2	0.2
Total	100.0	100.0	100.0
Number of months pregnant at time of first ANC visit			
No antenatal care	17.6	53.4	50.9
<4	41.0	14.6	16.4
4-5	24.3	18.2	18.7
6-7	14.4	10.7	11.0
8+	2.2	2.9	2.8
Don't know/missing	0.5	0.2	0.2
Total	100.0	100.0	100.0
Median months pregnant at first visit (for those with ANC)	4.0	5.1	5.0
Number of women	332	4,414	4,745

CARE COMPONENTS

Pregnancy complications are an important cause of maternal and child morbidity and mortality. Thus, providing adequate and proper information to expectant mothers about the danger signs associated with pregnancy and the appropriate action to be taken is an essential component of antenatal care.

Table 9.3 shows the components of antenatal care among women who received antenatal care for the most recent birth in the five years preceding the survey. About one in two mothers who received antenatal care reported that they were informed about the danger signs of pregnancy complications or had their weight measured, while one in seven had their height measured as a part of their ANC checkup. Among various services that a woman receives during her antenatal checkup, measurement of blood pressure is important. It is encouraging to note that three in five women reported that their blood pressure was measured. Urine tests and blood tests were each done for about three in ten women who received antenatal care. The relatively low coverage for these two tests may indicate a lack of testing facilities in most of the health institutions.

About one in four women with a live birth in the five years preceding the survey reported that they received iron/folic acid tablets.

Younger women and low parity women are more likely to receive information about pregnancy complications and other components of antenatal care services than older and high parity women. A similar pattern is observed by urban-rural residence, with urban women more likely than rural women to receive the various components of antenatal care. In terms of ecological region, a higher percentage of mothers from the mountain region received information on signs of complications than mothers from the other ecological regions. In general, a higher percentage of women residing in the hill ecological zone received the various components of antenatal care.

The different components of antenatal care received varies with women's level of education, with educated women much more likely to have received all components of antenatal care than uneducated women. For example, twice as many women with an SLC and above received information about pregnancy complications than women with no education.

Table 9.3 Components of antenatal care

Percentage of women with a live birth in the five years preceding the survey who received antenatal care for the most recent birth, by content of antenatal care, and percentage of women with a live birth in the five years preceding the survey who received iron/folic acid tablets for the most recent birth, by background characteristics, Nepal 2001

Background characteristic	Among women who received antenatal care								
	Informed of signs of pregnancy complications	Weight measured	Height measured	Blood pressure measured	Urine sample taken	Blood sample taken	Number of women	Received iron/folic acid tablets	Number of women
Age at birth									
<20	49.9	50.1	15.1	65.4	30.9	31.6	458	29.5	773
20-34	47.9	47.7	14.3	59.1	29.5	27.6	1,715	23.0	3,419
35-49	37.9	30.1	7.4	51.9	20.9	16.1	157	11.4	553
Birth order									
1	55.9	55.0	16.4	71.7	38.5	38.2	645	36.8	993
2-3	46.8	49.4	15.0	59.3	30.3	28.6	1,045	25.1	1,900
4-5	44.1	39.0	11.6	51.8	19.9	16.5	420	15.0	1,107
6+	34.2	27.4	6.6	43.3	13.9	12.9	221	9.3	746
Residence									
Urban	58.6	79.1	27.3	84.9	59.3	58.1	273	50.7	332
Rural	46.2	42.8	12.2	56.5	25.2	23.6	2,058	20.6	4,414
Ecological zone									
Mountain	55.7	38.9	4.5	47.0	18.1	13.9	111	14.1	361
Hill	51.4	52.7	14.3	67.1	33.4	30.3	870	22.1	1,979
Terai	44.6	44.0	14.5	56.2	27.3	27.0	1,350	24.5	2,405
Development region									
Eastern	39.3	51.5	13.8	57.2	23.3	23.1	599	24.0	1,102
Central	46.9	42.7	14.8	54.8	33.2	31.7	807	24.8	1,535
Western	54.0	56.1	15.5	71.7	38.4	35.8	517	28.5	914
Mid-western	47.4	26.9	9.1	56.7	17.7	15.5	243	11.3	693
Far-western	61.9	52.5	13.0	61.9	18.7	16.0	165	18.4	502
Subregion									
Eastern Mountain	40.7	38.3	8.6	48.1	17.3	14.8	31	16.6	74
Central Mountain	68.6	44.1	0.0	52.9	18.6	14.7	54	22.2	122
Western Mountain	46.7	28.9	8.9	33.3	17.8	11.1	26	7.0	166
Eastern Hill	31.8	36.9	8.3	43.9	15.3	14.0	173	19.7	347
Central Hill	59.3	67.8	25.2	72.6	47.8	47.0	251	28.1	484
Western Hill	50.2	57.9	12.8	75.3	40.7	34.3	307	30.9	521
Mid-western Hill	61.1	17.5	6.1	63.6	12.5	10.7	93	9.1	405
Far-western Hill	69.4	67.1	4.6	77.3	16.2	12.5	45	15.6	223
Eastern Terai	42.5	59.0	16.6	63.8	27.2	27.7	395	27.1	681
Central Terai	38.3	30.1	11.1	46.0	27.5	25.9	502	23.5	930
Western Terai	59.5	53.6	19.5	66.4	35.0	38.1	209	25.3	393
Mid-western Terai	37.7	32.7	10.9	52.0	21.2	19.1	145	17.6	222
Far-western Terai	63.0	51.2	17.9	62.3	19.8	18.1	99	27.1	179
Education									
No education	39.4	35.3	10.0	50.5	19.7	18.4	1,346	15.1	3,437
Primary	50.7	51.9	16.4	66.1	28.5	27.7	440	29.4	684
Some secondary	59.5	66.6	21.3	74.0	47.9	45.2	368	50.7	439
SLC and above	77.9	83.2	22.4	86.3	64.1	61.4	176	72.5	186
Total	47.6	47.0	14.0	59.9	29.2	27.6	2,330	22.7	4,745

SLC = School Leaving Certificate

TETANUS TOXOID COVERAGE

Tetanus toxoid injection, an important component of antenatal care, is given during pregnancy primarily for the prevention of neonatal tetanus. Neonatal tetanus is one of the major causes of infant deaths in Nepal. For full protection, it is recommended that a pregnant woman should receive at least two doses of tetanus toxoid during her first pregnancy, administered one month apart, and a booster shot during each subsequent pregnancy. Five doses of tetanus toxoid injections are considered to provide lifetime protection. However, if a pregnant woman does not have a card showing that she has received previous doses (as is often the case), she is likely to be given two doses, one month apart, for each pregnancy to ensure adequate protection.

Table 9.4 presents data on tetanus toxoid coverage during pregnancy for women who had a live birth in the five years preceding the survey by selected background characteristics. Forty-five percent of women received two or more doses of tetanus toxoid injections during their pregnancy, and 9 percent received only one dose. Nearly one in two women did not receive any tetanus toxoid injection during her pregnancy.

Mothers giving birth at a younger age and having lower birth order children are more likely to receive tetanus toxoid injections than older mothers and those with higher birth order children. For example, two-thirds of mothers below age 20 received one or more doses of tetanus toxoid injections, compared with one-third of mothers age 35-49. These patterns make sense since older, higher parity mothers most likely received tetanus toxoid injections during previous pregnancies. A larger difference is observed in coverage of tetanus toxoid shots among urban women than among rural women (81 percent versus 53 percent). A large difference in tetanus toxoid coverage is also observed by ecological zone. Mothers from the *terai* have the highest tetanus toxoid coverage (67 percent) compared with the hill and mountain zones (44 percent and 29 percent, respectively). In terms of development region, the Eastern, Central, and Western regions have higher tetanus toxoid coverage than the Mid-western and Far-western regions (about 60 percent versus 40 percent, respectively). Tetanus toxoid coverage is highest in the Eastern *terai* subregion and lowest in the Western mountain subregion.

Education of mothers is strongly associated with tetanus toxoid coverage. Pregnant mothers with an SLC and above are twice as likely as mothers with no education to receive at least one dose of tetanus toxoid injections (95 percent and 47 percent, respectively).

Table 9.4 Tetanus toxoid injections

Percent distribution of women who had a live birth in the five years preceding the survey by number of tetanus toxoid injections received during pregnancy for the most recent birth, according to background characteristics, Nepal 2001

Background characteristic	None	One injection	Two or more injections	Don't know/missing	Total	Number of women
Age at birth						
<20	34.2	10.0	55.7	0.1	100.0	773
20-34	44.1	9.4	46.3	0.2	100.0	3,419
35-49	67.9	7.6	24.5	0.0	100.0	553
Birth order						
1	31.5	10.0	58.5	0.0	100.0	993
2-3	39.1	9.8	50.9	0.2	100.0	1,900
4-5	53.7	8.8	37.3	0.2	100.0	1,107
6+	66.4	7.9	25.5	0.1	100.0	746
Residence						
Urban	18.3	13.9	67.3	0.5	100.0	332
Rural	47.3	9.0	43.7	0.1	100.0	4,414
Ecological zone						
Mountain	71.1	7.6	21.3	0.0	100.0	361
Hill	55.8	9.1	34.9	0.1	100.0	1,979
Terai	32.7	9.7	57.4	0.2	100.0	2,405
Development region						
Eastern	37.4	9.0	53.6	0.0	100.0	1,102
Central	38.7	10.9	50.1	0.4	100.0	1,535
Western	44.1	11.7	44.1	0.1	100.0	914
Mid-western	60.4	5.3	34.3	0.0	100.0	693
Far-western	63.7	6.4	29.9	0.1	100.0	502
Subregion						
Eastern Mountain	62.2	8.3	29.5	0.0	100.0	74
Central Mountain	61.7	10.0	28.3	0.0	100.0	122
Western Mountain	81.9	5.6	12.5	0.0	100.0	166
Eastern Hill	50.8	9.8	39.4	0.0	100.0	347
Central Hill	46.8	9.5	43.2	0.6	100.0	484
Western Hill	45.9	13.6	40.4	0.0	100.0	521
Mid-western Hill	70.4	4.6	25.0	0.0	100.0	405
Far-western Hill	79.4	5.1	15.5	0.0	100.0	223
Eastern Terai	27.9	8.7	63.5	0.0	100.0	681
Central Terai	31.5	11.7	56.5	0.3	100.0	930
Western Terai	41.7	9.0	49.1	0.3	100.0	393
Mid-western Terai	35.0	6.7	58.2	0.0	100.0	222
Far-western Terai	34.8	8.0	56.8	0.3	100.0	179
Education						
No education	53.0	7.8	39.0	0.2	100.0	3,437
Primary	34.6	12.4	52.8	0.2	100.0	684
Some secondary	18.2	14.1	67.7	0.0	100.0	439
SLC and above	4.6	14.2	81.1	0.0	100.0	186
Total	45.2	9.3	45.3	0.2	100.0	4,745

SLC = School Leaving Certificate

9.2 DELIVERY CARE

The objective of providing safe delivery services is to protect the life and health of the mother and her child by ensuring the delivery of a baby safely. An important component of efforts to reduce the health risk to mothers and children is to increase the proportion of babies delivered under the supervision of health professionals. Proper medical attention under hygienic conditions during delivery can reduce the risk of complications and infections that may cause death or serious illness either to the mother or the baby or both. The National Safe Motherhood Program encourages women to deliver at facilities under the care of skilled attendants when it is feasible and ensures that facilities are upgraded and providers are trained to manage complications. Respondents in the 2001 NDHS were asked to provide information on the place of birth of all children born in the five years preceding the survey.

PLACE OF DELIVERY

Traditionally, Nepalese children are delivered at home either without assistance or with the assistance of TBAs or relatives and friends. At the national level, only 9 percent of births are delivered in health facilities, compared with 89 percent at home (Table 9.5). This is a slight improvement since 1996, when 8 percent of births were delivered in health facilities. This suggests that despite an increase in the number of health facilities offering delivery services, use of health facilities during deliveries is still minimal among most Nepalese women.

Table 9.5 also shows that births to young women and low parity births are more likely to be delivered at health facilities than births to older women and high parity births. A child born in an urban area is six times more likely (45 percent) to be delivered at a health facility than a child from a rural area (7 percent). Children living in the mountain ecological zone are less likely to be delivered in a health facility than children living in the hill and *terai* zones.

Use of a health facility for delivery increases sharply with maternal education from 4 percent of births among women with no education to 55 percent among children of women with an SLC or higher level of education.

Institutional deliveries are about five times more common among births to mothers who had four or more antenatal checkups (40 percent) than among births to mothers who had one to three antenatal checkups (8 percent). Institutional deliveries are least prevalent (2 percent) among births to mothers who did not receive any antenatal checkups. Several factors are likely to contribute to this positive relationship between antenatal checkups and institutional deliveries. Women who have had contact with health facilities during pregnancy are more likely to subsequently deliver in an institution because of the advice and encouragement from health personnel. Women with pregnancy complications are more likely than other women to go for antenatal checkups and deliver in a health facility because they are more aware of the health risks associated with a complicated pregnancy. Women, especially the young, urban, and educated, with knowledge of the benefits of modern medical care will choose to use both antenatal and delivery services.

Table 9.5 Place of delivery

Percent distribution of live births in the five years preceding the survey by place of delivery, according to background characteristics, Nepal 2001

Background characteristic	Health facility			Home	Other	Missing	Total	Number of births
	Government sector	Non-gov. (NGO) sector	Private medical sector					
Mother's age at birth								
<20	9.2	1.5	1.4	85.9	1.8	0.2	100.0	1,290
20-34	6.9	0.9	1.1	89.1	1.9	0.1	100.0	5,043
35-49	3.1	0.2	0.3	93.0	3.5	0.0	100.0	645
Birth order								
1	14.5	2.2	2.4	78.6	2.1	0.2	100.0	1,665
2-3	6.1	0.8	1.1	90.2	1.6	0.1	100.0	2,790
4-5	3.3	0.3	0.2	93.8	2.4	0.0	100.0	1,534
6+	2.3	0.2	0.3	94.8	2.4	0.0	100.0	990
Residence								
Urban	34.9	5.7	3.9	53.8	1.4	0.2	100.0	449
Rural	5.1	0.6	0.9	91.3	2.0	0.1	100.0	6,529
Ecological zone								
Mountain	3.2	0.0	0.1	93.8	2.9	0.1	100.0	535
Hill	7.2	1.4	1.0	87.8	2.5	0.1	100.0	2,873
Terai	7.4	0.8	1.3	89.0	1.4	0.1	100.0	3,570
Development region								
Eastern	7.5	1.4	0.8	89.7	0.5	0.1	100.0	1,610
Central	9.0	1.3	1.4	86.2	2.0	0.1	100.0	2,310
Western	7.2	0.9	1.3	86.9	3.5	0.1	100.0	1,261
Mid-western	2.8	0.0	1.0	93.3	2.9	0.0	100.0	1,048
Far-western	5.2	0.5	0.5	92.3	1.2	0.3	100.0	749
Subregion								
Eastern Mountain	5.7	0.0	0.4	94.0	0.0	0.0	100.0	107
Central Mountain	3.9	0.0	0.0	88.1	7.8	0.3	100.0	177
Western Mountain	1.6	0.0	0.0	97.7	0.7	0.0	100.0	251
Eastern Hill	4.5	0.2	0.0	94.4	0.8	0.0	100.0	533
Central Hill	14.1	3.4	1.7	79.5	1.2	0.1	100.0	692
Western Hill	9.5	1.7	1.9	82.5	4.1	0.2	100.0	683
Mid-western Hill	1.7	0.0	0.8	93.1	4.5	0.0	100.0	634
Far-western Hill	2.6	1.1	0.0	95.3	1.0	0.0	100.0	330
Eastern Terai	9.3	2.2	1.4	86.7	0.4	0.1	100.0	969
Central Terai	7.2	0.4	1.5	89.2	1.7	0.0	100.0	1,441
Western Terai	4.5	0.0	0.5	92.1	2.8	0.0	100.0	578
Mid-western Terai	5.8	0.0	1.7	92.0	0.5	0.0	100.0	318
Far-western Terai	10.1	0.0	1.3	85.9	1.9	0.8	100.0	264
Mother's education								
No education	3.5	0.2	0.5	93.8	1.9	0.1	100.0	5,176
Primary	9.9	1.0	1.1	85.9	2.1	0.1	100.0	970
Some secondary	20.4	4.8	2.5	69.7	2.3	0.2	100.0	587
SLC and above	37.1	7.5	10.6	42.8	2.0	0.0	100.0	244
Antenatal care visits¹								
None	1.5	0.0	0.2	95.8	2.4	0.0	100.0	2,414
1-3	6.5	0.6	1.3	90.2	1.3	0.0	100.0	1,643
4+	29.3	6.3	4.4	57.7	2.3	0.0	100.0	680
Total	7.0	1.0	1.1	88.9	2.0	0.1	100.0	6,978

Note: Total includes 9 births with missing information on antenatal care visits which are not shown separately.

SLC = School Leaving Certificate

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

ASSISTANCE DURING DELIVERY

Assistance by skilled health personnel during delivery is considered to be effective in the reduction of maternal and neonatal mortality. Births delivered at home are usually more likely to be delivered without assistance from a health professional, whereas births delivered at health facilities are more likely to be delivered by health personnel with at least minimal training in the provision of normal delivery services.

Table 9.6 and Figure 9.1 show the percent distribution of live births in the five years preceding the survey by the type of person providing assistance during delivery according to background characteristics. Only 13 percent of deliveries are assisted by health professionals, that is, doctors, nurses or ANMs, HAs or AHWs, MCHWs, and VHWs. Of these, 8 percent are doctors and 3 percent are nurses or ANMs. Contrary to expectations, the proportion of deliveries assisted by MCHWs is very low (less than 1 percent) in spite of the fact that in Nepal, MCHWs have been assigned to subhealth posts for the promotion of maternal and child health services. This finding suggests that MCHWs are either not properly deployed or they are not very effective in providing delivery services.

Although traditional birth attendants are considered to be less effective in reducing maternal deaths, TBAs continue to play a prominent role in assisting deliveries, especially in rural areas. The contribution of TBAs to providing delivery care remained almost the same over the last ten years at about 23 percent. More than half of births are assisted by relatives, friends, and other nonhealth personnel, while about one in ten births are delivered without any assistance at all.

Differences in delivery assistance by background characteristics are marked. This is especially obvious for assistance provided by doctors. Births to young mothers below age 20 and first order births are more likely to receive assistance from doctors during delivery. Urban births are seven times more likely than rural births to be delivered by doctors. Delivery assistance from doctors is about three times as high in the hills and *terai* (more than 8 percent) than in the mountains (3 percent). Similarly, a higher proportion of deliveries in the Central development region (10 percent) are assisted by doctors than in the other development regions.

Women's education is positively associated with deliveries by medical professionals. For example, only 4 percent of births to women with no education were assisted by a doctor, compared with 48 percent of births to women with at least an SLC. This could probably be attributed to the fact that women with higher levels of education mostly come from urban areas where the services of a doctor are more readily available.

Table 9.6 Assistance during delivery

Percent distribution of live births in the five years preceding the survey by person providing assistance during delivery, according to background characteristics, Nepal 2001

Background characteristic	Doctor	Nurse/auxiliary nurse midwife	Health assistant/auxiliary health worker	Maternal child health worker	Village health worker	Traditional birth attendant	Relative/friend/other	No one	Total	Number of births
Mother's age at birth										
<20	10.7	4.5	2.1	0.5	0.1	24.7	53.2	4.1	100.0	1,290
20-34	7.6	3.0	1.2	0.4	0.2	23.4	55.2	8.8	100.0	5,043
35-49	3.1	0.7	1.2	0.4	0.3	20.4	57.2	16.7	100.0	645
Birth order										
1	16.1	6.2	2.6	0.6	0.2	23.0	48.5	2.7	100.0	1,665
2-3	7.2	2.8	1.2	0.5	0.2	25.0	55.7	7.2	100.0	2,790
4-5	3.2	1.6	1.0	0.1	0.3	23.2	58.0	12.7	100.0	1,534
6+	2.6	0.8	0.5	0.4	0.1	19.8	59.5	16.4	100.0	990
Residence										
Urban	39.4	10.9	0.8	0.0	0.0	9.4	35.9	3.5	100.0	449
Rural	5.6	2.5	1.4	0.4	0.2	24.4	56.4	9.0	100.0	6,529
Ecological zone										
Mountain	3.0	1.0	0.8	0.7	0.2	10.1	71.4	12.8	100.0	535
Hill	8.3	2.6	1.2	0.7	0.2	7.0	67.1	12.9	100.0	2,873
Terai	8.1	3.7	1.6	0.2	0.2	38.6	42.9	4.6	100.0	3,570
Development region										
Eastern	7.9	5.4	1.9	0.1	0.3	25.6	49.5	9.2	100.0	1,610
Central	10.4	2.5	1.3	0.2	0.2	29.2	47.6	8.6	100.0	2,310
Western	7.7	3.9	1.0	1.4	0.1	17.8	58.5	9.6	100.0	1,261
Mid-western	3.7	0.4	1.7	0.3	0.2	19.4	68.0	6.1	100.0	1,048
Far-western	5.6	2.1	0.4	0.2	0.1	15.8	65.9	9.6	100.0	749
Subregion										
Eastern Mountain	6.0	1.4	2.5	0.4	0.4	6.0	58.5	24.8	100.0	107
Central Mountain	2.7	1.8	0.6	1.2	0.0	2.1	77.6	13.7	100.0	177
Western Mountain	1.8	0.2	0.2	0.5	0.2	17.5	72.6	6.9	100.0	251
Eastern Hill	4.8	1.9	1.2	0.0	0.6	9.9	64.9	16.7	100.0	533
Central Hill	16.7	4.0	1.3	0.2	0.0	6.6	54.4	16.7	100.0	692
Western Hill	10.3	5.0	1.8	2.5	0.2	8.9	59.0	12.3	100.0	683
Mid-western Hill	2.2	0.3	0.5	0.0	0.0	4.7	83.4	8.9	100.0	634
Far-western Hill	4.1	0.6	1.0	0.2	0.0	3.4	82.5	8.1	100.0	330
Eastern Terai	9.9	7.7	2.3	0.1	0.1	36.4	40.1	3.2	100.0	969
Central Terai	8.3	1.9	1.5	0.1	0.3	43.3	40.6	4.1	100.0	1,441
Western Terai	4.6	2.6	0.0	0.2	0.0	28.3	57.9	6.4	100.0	578
Mid-western Terai	7.5	1.0	4.4	0.8	0.8	47.1	37.4	1.0	100.0	318
Far-western Terai	9.1	5.0	0.0	0.2	0.2	33.1	39.4	12.3	100.0	264
Mother's education										
No education	3.7	1.5	1.0	0.2	0.2	25.6	58.2	9.5	100.0	5,176
Primary	9.7	4.4	2.5	0.8	0.2	19.4	53.9	8.9	100.0	970
Some secondary	23.9	9.2	2.3	1.3	0.2	16.3	42.9	4.0	100.0	587
SLC and above	47.8	16.3	2.6	1.1	0.0	9.9	20.8	1.6	100.0	244
Total	7.8	3.1	1.4	0.4	0.2	23.4	55.0	8.6	100.0	6,978

Note: If the respondent mentioned more than one person attending during delivery, only the most qualified person is considered in this tabulation. Total includes births for whom information on assistance at delivery is missing and not shown separately. SLC = School Leaving Certificate

USE OF HOME DELIVERY KIT

The clean home delivery kit was developed in the early 1990s by Maternal Child Health Products with funding from USAID. It is a social marketing product now supported by other donors as well as by revenue from sales. It is not widely marketed, however, and in some donor or NGO-supported areas it is available at no cost. Where it is sold, the average cost is about Rps. 25 or about US\$0.33 per unit. The kit contains a new razor blade, clean threads, hand soap, a plastic sheet to place under the woman, a plastic disc (used to replace the traditional coin placed under the cord when it is cut), and pictorial instructions. Since most babies are delivered at home with the assistance of elders or relatives and TBAs, use of the clean home delivery kit could play an important role in reducing neonatal tetanus and other infections.

Table 9.7 provides information on the use of the clean home delivery kits by type of residence and ecological zone. A clean delivery kit was used in only 9 percent of home deliveries. Although use of clean delivery kits in home deliveries has improved over the last five years (from 2 percent in 1996 to 9 percent in 2001), it has still not reached the bulk of Nepalese mothers. Home deliveries in urban areas are more likely to involve these delivery kits (14 percent) than home deliveries in rural areas (9 percent). Likewise, clean delivery kits are more likely to be used in the *terai* (12 percent) than in the hills or mountains (6 percent each). In terms of development regions, births in the Eastern and Western regions are more likely to involve clean delivery kits than births in the other regions.

DELIVERY CHARACTERISTICS

Less than 1 percent of births in Nepal are delivered by caesarean section (Table 9.8). This could in part be due to the high percentage of home deliveries coupled with a weak health care referral system. Births to older women, first order births, births in urban areas, births in the hill ecological zone, births in the Central development region, and births to women with at least an SLC are more likely to be delivered by caesarean section. There has been little change in the percentage of deliveries by caesarean section over the last five years.

Babies in Nepal are usually not weighed at birth since most deliveries take place outside an institutional setting. Thus, it is difficult to know whether the baby was underweight at birth. To overcome this, respondents were asked to provide an assessment of their child's size at birth. This type of assessment is subject to considerable error for individual births. However, at the aggregate level, it has been observed that there is a strong association between the actual weight at birth and a mother's perception of the size of her child at birth.

In the absence of birth weight, a mother's assessment of the size of the baby at birth can be a useful measure of the survival chances of a child. The 2001 NDHS data indicate that about one in five births (21 percent) was reported as being very small or smaller than average. Births in the mountain ecological zone and Far-western development region and births to mothers with low levels of education are more likely to be reported as being very small or smaller than average. Nearly 80 percent of the mothers report that their baby was of average size or larger at birth.

Table 9.7 Use of clean home delivery kits

Percentage of births delivered at home in the five years preceding the survey in which a clean home delivery kit was used, by residence and region, Nepal 2001

Residence and region	Clean home delivery kit used	Number of births
Residence		
Urban	13.8	242
Rural	9.2	5,960
Ecological zone		
Mountain	6.3	502
Hill	6.4	2,523
Terai	12.3	3,177
Development region		
Eastern	12.0	1,445
Central	8.5	1,992
Western	11.7	1,096
Mid-western	5.9	977
Far-western	8.0	692
Total	9.4	6,202

Table 9.8 Delivery characteristics

Percentage of live births in the five years preceding the survey delivered by caesarean section, and percent distribution by mother's estimate of baby's size at birth, according to background characteristics, Nepal 2001

Background characteristic	Delivery by C-section	Size of child at birth			Total	Number of births
		Very small	Smaller than average	Average or larger		
Mother's age at birth						
<20	0.7	7.1	16.9	75.8	100.0	1,290
20-34	0.8	5.6	14.2	80.1	100.0	5,043
35-49	1.0	7.3	16.8	75.9	100.0	645
Birth order						
1	1.6	6.8	17.5	75.5	100.0	1,665
2-3	0.8	5.1	12.7	82.1	100.0	2,790
4-5	0.4	6.5	13.9	79.6	100.0	1,534
6+	0.5	6.8	18.9	74.4	100.0	990
Residence						
Urban	4.8	7.4	13.4	79.0	100.0	449
Rural	0.6	5.9	15.1	78.9	100.0	6,529
Ecological zone						
Mountain	0.3	16.9	14.1	68.9	100.0	535
Hill	1.1	7.4	15.8	76.7	100.0	2,873
Terai	0.7	3.4	14.4	82.1	100.0	3,570
Development region						
Eastern	1.0	5.4	13.5	81.0	100.0	1,610
Central	1.2	4.7	12.1	83.1	100.0	2,310
Western	0.8	5.5	14.5	79.9	100.0	1,261
Mid-western	0.1	5.1	18.8	76.2	100.0	1,048
Far-western	0.3	13.8	22.3	63.5	100.0	749
Subregion						
Eastern Mountain	0.7	6.4	16.0	77.7	100.0	107
Central Mountain	0.6	20.0	6.6	73.1	100.0	177
Western Mountain	0.0	19.1	18.7	62.2	100.0	251
Eastern Hill	0.4	7.6	13.2	79.1	100.0	533
Central Hill	2.7	8.0	12.3	79.5	100.0	692
Western Hill	1.3	7.8	11.7	80.3	100.0	683
Mid-western Hill	0.0	5.5	19.8	74.7	100.0	634
Far-western Hill	0.3	8.4	27.9	63.7	100.0	330
Eastern Terai	1.4	4.1	13.4	82.4	100.0	969
Central Terai	0.6	1.3	12.7	86.1	100.0	1,441
Western Terai	0.3	2.7	17.8	79.4	100.0	578
Mid-western Terai	0.3	4.2	19.2	76.6	100.0	318
Far-western Terai	0.5	12.3	14.4	72.3	100.0	264
Mother's education						
No education	0.4	6.0	16.3	77.5	100.0	5,176
Primary	1.1	7.3	11.4	81.2	100.0	970
Some secondary	1.9	4.7	11.6	83.4	100.0	587
SLC and above	6.1	4.3	7.7	88.0	100.0	244
Total	0.8	6.0	15.0	78.9	100.0	6,978

Note: Total includes births for whom information on size at birth is not known or missing and not shown separately.

SLC = School Leaving Certificate

9.3 POSTNATAL CARE

The National Safe Motherhood program recommends that mothers should have a postnatal checkup within two days of delivery. This recommendation is based on the fact that a large number of maternal and neonatal deaths occur during the 48 hours after delivery. To assess the extent of postnatal care utilization, respondents who had a birth in the five years preceding the survey were asked whether they received a postnatal checkup after the delivery of their last birth. Table 9.9 shows the timing of postnatal checkups for the most recent birth that occurred outside a health facility. The timing of the first postnatal checkup was not asked of mothers who had an institutional birth because it is assumed that these mothers would normally receive postnatal care within the first two crucial days after delivery as part of their routine care.

Postnatal care is uncommon in Nepal. Seventy-nine percent of mothers who delivered outside a health facility do not receive any postnatal checkup. Less than one in five mothers receive postnatal care within the first two days after delivery.

Postnatal care utilization varies by place of residence. Rural women are slightly more likely to receive postnatal care within two days of delivery, compared with urban women (17 percent and 13 percent, respectively). Women from the *terai* ecological zone, Central development region, and Central *terai* are more likely to receive postnatal care within the first two days of delivery than women from other regions. A somewhat higher percentage of women having no education receive postnatal care within two days of delivery than women having at least an SLC level of education. This anomaly may be because a smaller percentage of deliveries in urban areas and to educated women occur at home, and it could be specific to women or families who have reservations about utilizing health facilities for deliveries.

9.4 REPRODUCTIVE HEALTH CARE AND WOMEN'S STATUS

Table 9.10 shows whether a woman's use of reproductive health services varies by her level of empowerment as measured by three indicators: her participation in decisionmaking, her attitudes toward a woman's right to refuse sex with her husband, and her attitudes toward wife beating. The more say a woman has in decisionmaking, the greater control she has over her reproductive needs. Similarly, empowerment over her reproductive needs is likely to vary positively with the number of reasons she believes a woman is justified in refusing sex with her husband. On the other hand, empowerment over her reproductive needs is likely to vary negatively relative to the number of reasons she believes wife beating is justified.

In the case of Nepal, there is little variation in the utilization of reproductive health services by women's decisionmaking autonomy. However, there is a positive relationship between utilization of reproductive health services and women's empowerment as measured by her attitude toward women's ability to refuse sex with their husband. For example, one in two women who believe that a woman can refuse sex with her husband for three or four reasons receives antenatal care services, compared with only one in three women who believe a wife should refuse sex with her husband for any reason at all. There appears to be a mixed association between women's empowerment as measured by the number of reasons women believe that wife beating is justified and their care-seeking behavior. For example, half as many women who believe that wife beating is not justified for any reason at all receive postnatal care within the first two days of delivery as women who believe that wife beating is justified for five reasons— a positive association. On the other hand, twice as many women in the former group receive delivery assistance from a health professional as women in the latter group— a negative association.

Table 9.9 Postnatal care by background characteristics

Percent distribution of women who had a noninstitutional live birth in the five years preceding the survey by timing of postnatal care for the most recent noninstitutional birth, according to background characteristics, Nepal 2001

Background characteristic	Timing of first postnatal checkup			Did not receive postnatal checkup ¹	Total	Number of women
	Within 2 days of delivery	3-6 days after delivery	7-41 days after delivery			
Age at birth						
<20	18.0	1.1	3.7	77.2	100.0	675
20-34	17.7	0.8	2.7	78.7	100.0	3,082
35-49	12.8	0.4	1.5	85.4	100.0	534
Birth order						
1	17.5	1.9	3.7	77.0	100.0	791
2-3	17.1	0.8	3.1	78.9	100.0	1,715
4-5	17.5	0.1	2.4	80.0	100.0	1,061
6+	16.3	0.8	1.0	81.9	100.0	724
Residence						
Urban	12.6	0.5	5.1	81.8	100.0	180
Rural	17.3	0.8	2.6	79.2	100.0	4,111
Ecological zone						
Mountain	1.8	0.4	0.8	97.1	100.0	350
Hill	2.0	0.4	2.1	95.5	100.0	1,781
Terai	32.1	1.2	3.5	63.1	100.0	2,160
Development region						
Eastern	13.2	1.5	4.0	81.2	100.0	986
Central	39.4	0.6	2.3	57.7	100.0	1,335
Western	8.5	0.8	2.1	88.6	100.0	838
Mid-western	0.5	0.6	2.7	96.1	100.0	663
Far-western	1.1	0.2	2.0	96.6	100.0	470
Subregion						
Eastern Mountain	4.9	0.5	0.5	94.0	100.0	69
Central Mountain	1.4	0.5	0.5	97.7	100.0	117
Western Mountain	0.7	0.4	1.1	97.9	100.0	163
Eastern Hill	2.3	0.3	2.7	94.7	100.0	331
Central Hill	2.6	0.7	3.6	93.1	100.0	378
Western Hill	3.8	0.8	1.9	93.4	100.0	465
Mid-western Hill	0.0	0.0	1.4	98.6	100.0	393
Far-western Hill	0.0	0.0	0.3	99.7	100.0	214
Eastern Terai	20.3	2.3	5.2	72.1	100.0	586
Central Terai	61.2	0.5	2.0	36.3	100.0	840
Western Terai	14.3	0.8	2.4	82.4	100.0	372
Mid-western Terai	1.6	2.0	6.1	90.3	100.0	205
Far-western Terai	2.5	0.3	4.6	92.5	100.0	156
Education						
No education	18.8	0.6	2.2	78.3	100.0	3,289
Primary	11.4	0.6	3.4	84.6	100.0	601
Some secondary	11.7	1.9	4.8	81.6	100.0	315
SLC and above	14.5	5.4	8.0	72.1	100.0	86
Total	17.1	0.8	2.7	79.3	100.0	4,291

Note: Total includes women for whom information on timing or postnatal care is not known or missing and not shown separately.

SLC = School Leaving Certificate

¹Includes women who received the first postnatal checkup after 41 days

Table 9.10 Reproductive health care by women's status

Percentage of women who had a live birth in the five years preceding the survey, who received antenatal care and postnatal care from a medical professional for the most recent birth, and percentage of births in the five years preceding the survey for which mothers received professional delivery care, by women's status indicators, Nepal 2001

Women's status indicator	Percentage of women who received antenatal care from a doctor/nurse/ANM/HA/AHW/MCHW/VHW	Percentage of women who received postnatal care within the first two days of delivery ¹	Number of women	Percentage of births for whom mothers received delivery care from a doctor/nurse/ANM/HA/AHW/MCHW/VHW	Number of births
Number of decisions in which woman has final say²					
0	52.8	26.0	758	13.7	1,061
1-2	46.3	24.6	2,276	11.8	3,460
3-4	51.5	27.0	935	14.7	1,347
5	47.7	23.2	777	13.2	1,110
Number of reasons to refuse sex with husband					
0	33.7	13.9	55	6.5	84
1-2	35.6	19.7	144	14.4	213
3-4	49.1	25.4	4,547	12.9	6,681
Number of reasons wife beating is justified					
0	48.3	24.4	3,357	13.1	4,932
1-2	48.3	20.8	1,095	12.2	1,601
3-4	53.1	48.6	240	14.6	358
5	50.1	46.4	53	6.0	87
Total	48.6	25.1	4,745	12.9	6,978
ANM = Auxiliary nurse midwife					
HA = Health assistant					
AHW = Auxiliary health worker					
MCHW = Maternal child health worker					
VHW = Village health worker					
¹ Includes mothers who delivered in a health facility					
² Either by herself or jointly with others					

9.5 VACCINATION OF CHILDREN

Universal immunization of children under one year of age against the six vaccine-preventable diseases (tuberculosis, diphtheria, pertussis, tetanus, poliomyelitis, and measles) is one of the most cost-effective programs in reducing infant and child morbidity and mortality. The expanded program on immunization (EPI) is a priority program for the government of Nepal. Among the immediate objectives of the program are: to reduce measles cases by 90 percent and deaths due to measles by 95 percent from previous levels by the year 2000; and to eradicate polio by the year 2000 (Ministry of Health, 2001). Since 1988, the expanded program on immunization under the Ministry of Health has covered all 75 districts of Nepal. The program in Nepal follows the guidelines set by the World Health Organization. To be fully immunized, a child should receive the following vaccinations: one

dose of BCG, three doses each of DPT and polio, and one dose of measles vaccine. BCG, which is given at birth or at first clinical contact, protects against tuberculosis. DPT protects against diphtheria, pertussis, and tetanus. DPT and polio each require three vaccinations at approximately six, ten, and 14 weeks of age; however, since this regime is not always followed, emphasis is given on getting all three doses by the time the child reaches 12 months of age. Measles should be given at or soon after the child reaches nine months. It is recommended that children receive the complete schedule of vaccinations before 12 months of age. Children who receive protection against all six vaccine-preventable illnesses are considered fully vaccinated.

In addition to the routine doses of polio vaccines given during clinical visits, the EPI program in Nepal includes supplemental immunization activities, including national immunization days (NIDs) for polio eradication and outbreak response immunization for all cases in high-risk areas (Ministry of Health, 2001). The NIDs have been held regularly since 1996 and more recently a modification of the immunization strategy has resulted in intensive national immunization days, including sub-national immunization days (SNIDs) and mopping-up rounds.

The 2001 NDHS collected information on childhood immunization coverage, including immunizations received during national immunization day campaigns, for all living children born in the five years preceding the survey. This information is important for the monitoring and evaluation of the EPI. Information on vaccination coverage was collected in two ways: from vaccination cards shown to the interviewer and from mother's verbal reports. If the cards were available, the interviewer copied the vaccination dates directly onto the questionnaire. When a vaccination card for the child was not seen or if a vaccine had not been recorded as being given, the mother was asked to recall the vaccines given to her child. In Nepal, mothers often do not receive or keep vaccination cards, so most data depends on accurate recall of their children's vaccination. Information was also collected on whether a child ever had a vaccination card. Table 9.11 shows the percentage of children age 12-23 months who have received the various vaccinations by source of information, that is, from vaccination card or mother's report. This is the youngest cohort of children who have reached the age by which they should be fully immunized.

Table 9.11 Vaccinations by source of information

Percentage of children age 12-23 months who received specific vaccines at any time before the survey, by source of information (vaccination card or mother's report), and percentage vaccinated by 12 months of age, Nepal 2001

Source of information	BCG	DPT			Polio ¹				Measles	All ²	No vaccinations	Number of children
		1	2	3	0	1	2	3				
Vaccinated at any time before survey												
Vaccination card	16.1	15.8	15.2	14.2	0.3	16.0	15.9	15.5	12.9	12.5	0.0	212
Mother's report	68.3	68.1	63.5	58.0	1.7	83.0	82.6	76.0	57.7	53.1	0.9	1,101
Either source	84.5	84.0	78.7	72.1	2.0	99.0	98.5	91.5	70.6	65.6	0.9	1,313
Vaccinated by 12 months of age³												
	82.9	82.5	77.4	70.6	2.0	97.3	96.4	90.4	63.6	60.1	3.4	1,313

¹ Polio 0 is the polio vaccination given at birth.
² BCG, measles and three doses each of DPT and polio vaccine (excluding polio vaccine given at birth)
³ For children whose information was based on the mother's report, the proportion of vaccinations given during the first year of life was assumed to be the same as for children with a written record of vaccination.

Sixty percent of children are fully vaccinated by 12 months of age, 83 percent have received the BCG vaccination, and 64 percent have been vaccinated against measles. Coverage for the first dose of DPT is 83 percent, but this drops to 77 percent for the second dose and further to 71 percent for the third dose. Polio coverage is much higher at 97 percent for the first dose, 96 percent for the second dose, and 90 percent for the third dose. Although DPT and polio vaccinations are provided at the same time, polio coverage is much higher than DPT coverage primarily because of the success of the intensive national immunization day campaigns and other polio eradication activities. The Nepal Micronutrient Status Survey (NMSS), carried out in 1998, also showed a very high coverage for polio (96 percent) among children age 12-23 months (Ministry of Health, 1999).

Vaccination coverage has improved significantly over the last five years (Figure 9.2). The percentage of children age 12-23 months who are fully immunized by 12 months of age increased by 67 percent, from 36 percent in 1996 (Pradhan et al., 1997) to 60 percent in 2001. Coverage with all three doses of DPT increased from 51 to 71 percent of children, while complete polio coverage increased from 48 to 90 percent of children. BCG coverage increased from 73 to 83 percent, and measles vaccination increased from 45 to 64 percent.

Figure 9.2 Percentage of Children Age 12-23 Months Who Received Specific Vaccinations by 12 Months of Age, 1996 and 2001

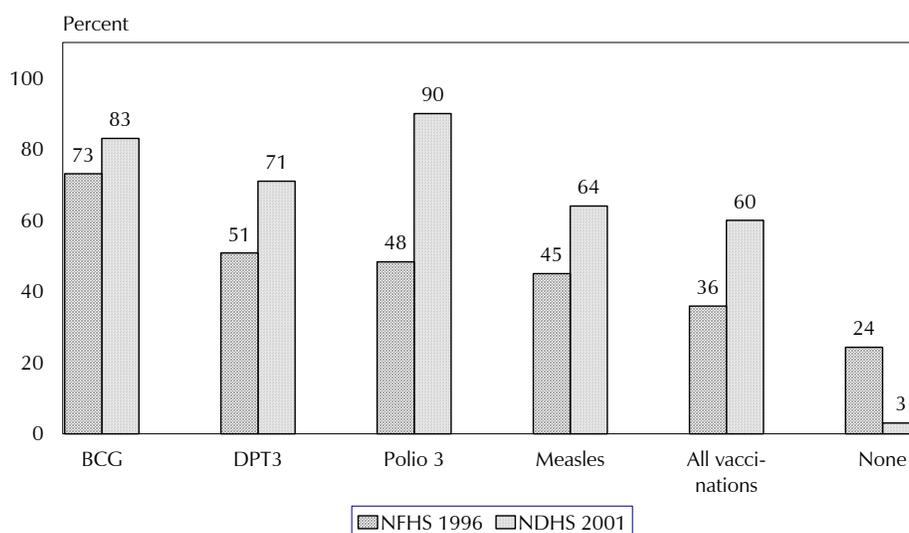


Table 9.12 presents vaccination coverage at any time before the survey (according to information from vaccination cards and mothers' reports) among children age 12-23 months by background characteristics. Male children are slightly more likely to be fully immunized than female children (68 percent versus 64 percent). Birth order has a negative relationship with vaccination coverage[∞] as the birth order increases vaccination coverage decreases. More than 71 percent of first and second order births were fully immunized, compared with only 54 percent for sixth and higher order births.

Table 9.12 Vaccinations by background characteristics

Percentage of children age 12-23 months who received specific vaccines at any time before the survey (according to a vaccination card or the mother's report), and percentage with a vaccination card, by background characteristics, Nepal 2001

Background characteristic	DPT			Polio ¹				Measles	All ²	No vaccinations	Percentage with a vaccination card seen	Number of children	
	BCG	1	2	3	0	1	2						3
Sex													
Male	86.1	85.8	81.8	74.2	2.9	99.3	99.0	92.1	72.9	67.5	0.7	17.3	631
Female	82.9	82.3	75.8	70.2	1.2	98.7	98.1	90.9	68.5	63.9	1.0	15.1	682
Birth order													
1	90.5	91.2	87.1	78.2	2.9	98.6	98.6	95.2	76.3	71.6	1.4	20.6	326
2-3	87.9	87.1	82.3	77.7	2.7	99.1	98.5	93.1	74.9	71.1	0.9	15.4	531
4-5	79.4	78.5	70.9	62.8	0.7	98.6	97.8	89.0	62.1	55.6	0.8	15.0	265
6+	71.7	70.4	65.1	59.2	0.4	100.0	99.4	84.1	60.7	54.0	0.0	12.2	190
Residence													
Urban	88.4	88.0	86.4	78.2	6.2	100.0	98.2	95.4	80.6	74.9	0.0	17.5	87
Rural	84.2	83.7	78.1	71.7	1.7	98.9	98.5	91.2	69.9	65.0	0.9	16.1	1,226
Ecological zone													
Mountain	78.0	78.5	71.5	67.0	0.6	99.4	98.4	85.0	72.3	63.5	0.6	8.8	95
Hill	83.3	82.4	80.3	76.8	2.8	98.2	98.0	89.7	73.2	70.4	1.5	12.9	564
Terai	86.4	86.1	78.3	68.8	1.5	99.6	99.0	94.0	68.1	61.8	0.4	20.0	654
Development region													
Eastern	92.5	92.1	88.6	81.0	3.6	100.0	99.5	96.5	78.6	73.8	0.0	21.5	303
Central	84.9	84.6	76.8	67.3	0.9	98.9	98.7	91.7	64.9	60.0	1.1	12.6	423
Western	84.8	84.5	77.9	73.1	3.2	97.3	96.9	93.2	68.0	64.8	2.7	22.4	230
Mid-western	81.7	80.5	78.6	74.0	1.2	99.2	98.7	86.4	76.1	69.9	0.0	9.9	216
Far-western	69.5	68.7	64.1	63.2	1.0	99.6	98.3	85.3	66.5	59.7	0.4	15.0	141
Subregion													
Eastern Mountain	(74.4)	(82.1)	(74.4)	(71.8)	(0.0)	(100.0)	(97.4)	(84.6)	(74.4)	(71.8)	(0.0)	(12.8)	15
Central Mountain	91.3	92.8	85.5	81.2	0.0	98.6	98.6	92.8	79.7	76.8	1.4	14.5	36
Western Mountain	68.0	65.3	58.7	53.3	1.3	100.0	98.7	78.7	65.3	49.3	0.0	2.7	43
Eastern Hill	93.1	92.2	91.2	86.3	3.9	100.0	100.0	98.0	76.5	75.5	0.0	15.7	112
Central Hill	82.6	80.1	80.1	77.0	1.9	98.1	98.1	86.8	70.0	68.5	1.9	16.4	132
Western Hill	90.3	91.4	87.1	83.9	6.1	95.7	95.7	94.6	77.4	76.3	4.3	16.8	122
Mid-western Hill	81.3	80.0	78.8	75.0	1.3	98.8	98.8	85.0	77.5	73.8	0.0	5.0	133
Far-western Hill	58.3	58.3	52.4	50.5	0.0	99.0	97.1	81.8	57.3	47.6	1.0	9.8	64
Eastern Terai	93.6	92.9	88.2	78.4	3.8	100.0	99.3	96.5	80.2	72.9	0.0	25.9	176
Central Terai	85.2	85.8	73.9	60.3	0.6	99.4	99.0	94.1	60.1	53.2	0.6	10.3	255
Western Terai	78.7	76.9	67.6	61.1	0.0	99.1	98.1	91.7	57.4	51.9	0.9	28.7	109
Mid-western Terai	83.1	82.7	80.6	76.8	1.3	100.0	99.2	90.3	73.4	66.7	0.0	22.4	66
Far-western Terai	88.8	87.8	85.7	85.7	1.7	100.0	99.0	94.8	82.5	81.8	0.0	27.6	49
Mother's education													
No education	79.7	78.8	72.5	64.3	1.1	98.6	98.1	89.0	63.2	57.0	1.2	14.3	931
Primary	94.4	94.7	90.8	87.8	3.2	100.0	99.4	96.5	84.6	83.2	0.0	19.6	191
Some secondary	96.7	97.9	96.2	93.6	4.5	100.0	99.2	98.5	92.9	89.6	0.0	22.1	132
SLC and above	100.0	100.0	97.8	96.4	6.6	100.0	100.0	100.0	93.1	90.9	0.0	20.8	58
Total	84.5	84.0	78.7	72.1	2.0	99.0	98.5	91.5	70.6	65.6	0.9	16.2	1,313

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

SLC = School Leaving Certificate

¹Polio 0 is the polio vaccination given at birth.

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

As expected, urban coverage (75 percent) is higher than rural coverage (65 percent); however, the gap has narrowed over the last five years. This indicates that there has been considerable improvement in immunization coverage in rural areas, while a relatively smaller change occurred in urban areas. The percentage of children age 12-23 months fully immunized is higher among children residing in the hill ecological zone than among children residing in the mountain and *terai* zones. In spite of the fact that transportation is better in the *terai* and it is easier to maintain a cold-chain, the coverage in that zone is lower. This could be attributed to a higher dropout in the third dose of DPT and a lower coverage for the measles vaccination. The Eastern development region has the highest immunization coverage (74 percent) compared with the other development regions. Immunization coverage is highest in the Far-western *terai* subregion (82 percent).

The percentage of children fully immunized increases with mother's educational level. For example, only 57 percent of children of mothers with no education are fully immunized, compared with 91 percent of children whose mothers have completed an SLC or above.

Vaccination cards were seen for 16 percent of children, with first order births and children from the *terai* region the most likely to have cards. Educated mothers are also more likely to show a vaccination card than mothers with little or no education.

9.6 PREVALENCE AND TREATMENT OF ARI AND FEVER

ACUTE RESPIRATORY INFECTION

Acute respiratory infection (ARI) is one of the leading causes of childhood morbidity and mortality in Nepal. The ARI program focuses on its early diagnosis and treatment with antibiotics, which can prevent a large proportion of deaths due to pneumonia. Therefore, emphasis is placed in the early recognition of the signs of ARI and its impending severity by primary health care workers and health volunteers. In the 2001 NDHS, the prevalence of ARI was estimated by asking mothers whether their children below five years of age had been sick with a cough accompanied by short, rapid breathing in the two weeks preceding the survey. These symptoms are compatible with ARI. It should be noted that morbidity data are subjective since the information is based on a mother's perception of her child's illness without any medical diagnosis. The prevalence of ARI is also subject to seasonality.

Table 9.13 shows that 23 percent of children below five years of age had symptoms of ARI at some time in the two weeks preceding the survey. The prevalence of ARI varies with the age of the child. Prevalence was highest among children 6-11 months of age. The prevalence of ARI decreases with increasing age. There are no significant differences in the prevalence of ARI by sex of the child and urban-rural residence. However, there are marked differences by region of residence. The prevalence of ARI is lowest in the hill zone (20 percent) compared with the *terai* and mountain zones. Prevalence is also lowest in the Mid-western region (15 percent) and highest in the Eastern region (30 percent) compared with the other development regions.

ARI prevalence varied little by mothers' education, with the exception of children of mothers with at least an SLC level of education, who are least likely to show symptoms of ARI. Prevalence is also slightly higher among children whose mothers smoke cigarettes or other tobacco (25 percent) than among children of mothers who do not smoke (22 percent).

Table 9.13 Prevalence and treatment of symptoms of ARI and fever

Percentage of children under five years who had a cough accompanied by short, rapid breathing (symptoms of ARI) in the two weeks preceding the survey, and percentage who had fever in the two weeks preceding the survey, and among children with symptoms of ARI and/or fever, percentage for whom treatment was sought from a health facility or provider, by background characteristics, Nepal 2001

Background characteristic	Children with symptoms of ARI	Children with fever	Number of children	Children with symptoms of ARI and/or fever, for whom treatment was sought from a health facility/provider ¹	Number of children
Age in months					
<6	28.1	27.9	651	21.6	259
6-11	36.3	47.8	631	27.9	357
12-23	27.7	40.9	1,313	25.8	626
24-35	21.5	32.4	1,245	19.4	481
36-47	17.7	26.1	1,329	21.8	419
48-59	15.0	22.8	1,301	25.5	354
Sex					
Male	23.7	32.1	3,194	25.9	1,238
Female	21.8	31.8	3,277	21.6	1,259
Residence					
Urban	23.8	26.7	431	33.3	158
Rural	22.7	32.3	6,040	23.1	2,338
Ecological zone					
Mountain	31.7	32.9	480	21.7	198
Hill	20.3	30.3	2,698	23.7	947
Terai	23.5	33.2	3,292	24.0	1,351
Development region					
Eastern	30.0	35.1	1,499	28.5	662
Central	25.4	35.7	2,126	20.0	918
Western	18.4	27.0	1,196	29.7	397
Mid-western	15.1	27.1	975	17.7	297
Far-western	17.4	29.0	674	22.7	223
Subregion					
Eastern Mountain	29.9	33.7	99	26.9	40
Central Mountain	47.6	40.5	163	19.7	94
Western Mountain	20.7	26.8	218	21.4	65
Eastern Hill	23.7	29.4	498	25.2	166
Central Hill	25.1	30.7	656	29.7	244
Western Hill	22.6	32.8	653	27.1	259
Mid-western Hill	12.4	27.9	593	12.3	177
Far-western Hill	15.0	30.4	298	18.4	101
Eastern Terai	33.5	38.4	901	29.8	456
Central Terai	22.8	37.6	1,306	15.9	579
Western Terai	13.3	20.1	543	34.5	138
Mid-western Terai	22.2	28.9	298	28.4	104
Far-western Terai	14.7	24.6	244	26.5	73
Mother's education					
No education	22.6	32.8	4,758	20.9	1,840
Primary	24.6	29.9	915	31.3	353
Some secondary	23.1	30.0	553	33.7	218
SLC and above	18.6	27.6	244	28.9	86
Mother's smoking status					
Smokes cigarettes/tobacco	25.4	na	1,671	na	670
Does not smoke cigarettes/tobacco	21.9	na	4,799	na	1,826
Total	22.8	32.0	6,471	23.7	2,496

na = Not applicable

ARI = Acute respiratory infection

SLC = School Leaving Certificate

¹Excludes pharmacy, shop, and traditional practitioner

FEVER

Fever is a manifestation of malaria, although it also accompanies various other illnesses. Malaria and fever contribute to high levels of malnutrition and high mortality. Although fever can occur throughout the year, malaria is more prevalent during the rainy season. For this reason, temporal factors must be taken into account when interpreting fever as an indicator of malaria prevalence. Presumptive treatment of fever with antimalarial tablets is advocated where malaria is endemic. Table 9.13 shows the percentage of children under five years of age who had fever during the two weeks preceding the survey.

Thirty-two percent of children under five years of age had fever in the two weeks preceding the survey. The prevalence of fever varies with the age of the child. One in two children age 6-11 months had fever; this decreases to about one in five children among those age 48-59 months. There is little variation in the prevalence of fever by sex, but children residing in rural areas have a higher prevalence of fever (32 percent) than urban children (27 percent). Differences in the prevalence of fever by ecological region are minor. Prevalence of fever is lowest among children of mothers with at least an SLC level of education.

TREATMENT OF ARI AND FEVER

Table 9.13 shows the percentage of children with symptoms of ARI and or fever for whom treatment was sought. As shown by the table, use of a health facility or provider for the treatment of ARI and/or fever is low in Nepal. Less than one in four children (24 percent) with symptoms of ARI and/or fever were taken to a health facility or provider for the treatment of ARI. Children age 24-35 months are least likely (19 percent) to be taken for treatment, while those age 6-11 months are most likely to be taken for treatment (28 percent). A higher proportion of male than female children are taken for treatment (26 percent versus 22 percent). Likewise a higher proportion of urban than rural children are taken to a health facility or provider (33 percent versus 23 percent). Children residing in the Eastern and Western development regions and especially the Western *terai* subregion are more likely than other children to be taken for treatment. Children of mothers with no education are least likely to be taken for treatment (21 percent), compared with mothers with some education.

9.7 DIARRHEA

STOOL DISPOSAL

Diarrhea is frequently caused by the use of contaminated water and unhygienic practices related to food preparation and excreta disposal. If human feces are left uncontained, diarrheal disease may spread by direct or indirect contact. So stool disposal practices also play a vital role in the prevalence of diarrhea.

Table 9.14 presents information on the disposal of the stools of children under five years of age by background characteristics and type of toilet facilities available in the household. Only 18 percent of children's stools are "contained," that is, the child always uses the toilet facilities or the child's stool is thrown into the toilet or buried in the yard. On the other hand, 65 percent of children's stools are either thrown outside the dwelling or yard, while 15 percent of children's stools are rinsed away, indicating a high potential in Nepal for the spread of diarrheal diseases from uncontained stools.

Table 9.14 Disposal of child's stools

Percent distribution of mothers whose youngest child under five years is living with her by way in which child's fecal matter is disposed of, according to background characteristics and type of toilet facilities in household, Nepal 2001

Background characteristic	Stools contained			Stools not contained					Total	Number of mothers
	Child always uses toilet/latrine	Thrown into toilet/latrine	Buried in yard	Thrown outside dwelling	Thrown outside yard	Rinsed away	Not disposed of	Other		
Residence										
Urban	4.0	34.9	8.0	16.1	25.1	8.9	0.5	2.4	100.0	325
Rural	0.6	7.5	7.2	14.1	52.3	15.0	0.9	2.3	100.0	4,286
Ecological zone										
Mountain	1.4	7.0	5.6	18.3	44.9	21.1	0.5	1.2	100.0	345
Hill	1.0	15.3	8.3	14.3	45.0	12.7	1.2	2.2	100.0	1,933
Terai	0.5	5.0	6.6	13.6	55.7	15.3	0.7	2.6	100.0	2,333
Development region										
Eastern	1.7	10.9	9.8	17.7	42.9	13.4	2.2	1.4	100.0	1,079
Central	1.1	9.2	5.1	6.2	58.7	17.6	0.2	1.9	100.0	1,483
Western	0.0	17.2	10.9	19.6	29.8	14.8	1.0	6.6	100.0	887
Mid-western	0.3	2.7	4.4	9.7	70.2	11.8	0.7	0.3	100.0	676
Far-western	0.4	2.3	5.5	27.6	51.6	11.8	0.1	0.7	100.0	486
Subregion										
Eastern Mountain	3.7	16.6	8.6	16.0	36.4	17.6	1.1	0.0	100.0	71
Central Mountain	0.4	7.6	7.2	14.3	30.0	36.8	0.4	3.1	100.0	118
Western Mountain	1.1	2.2	3.0	22.2	60.0	10.7	0.4	0.4	100.0	156
Eastern Hill	4.5	14.6	9.7	12.9	46.6	5.8	3.6	2.3	100.0	340
Central Hill	1.0	22.5	10.0	9.9	37.7	16.6	0.4	1.9	100.0	476
Western Hill	0.0	25.9	12.4	23.2	17.0	16.0	0.8	4.7	100.0	504
Mid-western Hill	0.0	1.3	3.4	4.2	79.4	10.5	1.3	0.0	100.0	397
Far-western Hill	0.0	1.2	2.3	23.6	61.0	11.1	0.0	0.9	100.0	216
Eastern Terai	0.0	8.5	9.9	20.3	41.8	16.7	1.6	1.2	100.0	667
Central Terai	1.2	2.2	2.3	3.2	73.7	15.6	0.0	1.6	100.0	889
Western Terai	0.0	5.8	8.9	14.9	46.7	13.3	1.3	9.2	100.0	383
Mid-western Terai	1.0	5.4	6.8	19.6	50.5	15.7	0.0	0.9	100.0	219
Far-western Terai	0.0	3.8	10.3	31.1	42.8	11.5	0.0	0.6	100.0	175
Education										
No education	0.2	4.4	5.2	15.2	57.2	14.8	0.9	2.0	100.0	3,330
Primary	1.9	15.8	10.7	13.4	38.1	15.2	1.2	3.7	100.0	673
Some secondary	2.2	25.5	15.3	11.5	29.5	13.4	0.3	2.5	100.0	423
SLC and above	4.3	41.3	13.7	6.1	20.1	12.4	0.0	2.3	100.0	184
Toilet facilities										
None	0.0	1.9	5.4	14.7	58.9	15.7	1.0	2.3	100.0	3,469
Traditional pit toilet	2.1	26.3	14.7	14.7	28.0	11.4	0.7	2.0	100.0	700
Ventilated improved pit latrine	4.4	31.7	16.7	6.8	25.4	10.3	0.0	4.6	100.0	79
Flush toilet	4.9	44.6	8.2	10.1	17.5	11.7	0.6	2.4	100.0	362
Total	0.8	9.5	7.2	14.2	50.4	14.6	0.9	2.3	100.0	4,611

Note: Total include one mother for whom information on toilet facilities was given as 'other' and women for whom information on disposal of child's stool is missing, who are not shown separately.

SLC = School Leaving Certificate

The way in which children's stools are disposed of varies markedly by urban-rural residence. Forty-seven percent of urban children's stools are contained, compared with only 15 percent in rural areas. Regional variations exist in the practice of stool disposal. Hygienic disposal of stools is more common in the hill ecological zone and in the Western development region than in the other regions. Not surprisingly, education exerts a positive influence on the hygienic disposal of children's stools, as does the availability of toilet facilities.

PREVALENCE OF DIARRHEA

Diarrhea has been singled out for investigation for two reasons. Dehydration caused by diarrhea is a major cause of morbidity and mortality among young children, and the condition can be easily treated by oral rehydration therapy (ORT). Exposure to agents that cause diarrheal disease is frequently related to the use of contaminated water and unhygienic practices of food preparation and excreta disposal. The most effective way to control dehydration is to administer oral rehydration therapy promptly.

The Ministry of Health in Nepal has given high priority to the control of diarrhea through preventive as well as curative strategies. To reduce the severity of symptoms from dehydration, health education programs promote the use of ORT. The availability of oral rehydration salt (ORS) packages all over the country has been increased along with an expanded social marketing system providing supplies to female community health volunteers. In the 2001 NDHS, information was collected on the prevalence of diarrhea among children under five years of age in the two weeks before the interview. The information on prevalence should be interpreted with caution since the incidence of diarrhea varies with the season.

Table 9.15 shows the percentage of children under five years of age with diarrhea in the two weeks preceding the survey by selected background characteristics. One in five children experienced diarrhea at some time in the two weeks preceding the survey.

Table 9.15 Prevalence of diarrhea

Percentage of children under five years with diarrhea in the two weeks preceding the survey, by background characteristics, Nepal 2001

Background characteristic	Diarrhea in the two weeks preceding the survey	Number of children
Age		
<6	18.7	651
6-11	34.5	631
12-23	29.6	1,313
24-35	20.2	1,245
36-47	15.3	1,329
48-59	10.6	1,301
Sex		
Male	21.3	3,194
Female	19.5	3,277
Residence		
Urban	16.6	431
Rural	20.7	6,040
Ecological zone		
Mountain	20.2	480
Hill	18.5	2,698
Terai	22.0	3,292
Development region		
Eastern	23.8	1,499
Central	23.2	2,126
Western	17.1	1,196
Mid-western	13.8	975
Far-western	19.2	674
Subregion		
Eastern Mountain	21.5	99
Central Mountain	25.2	163
Western Mountain	15.9	218
Eastern Hill	25.7	498
Central Hill	15.9	656
Western Hill	19.5	653
Mid-western Hill	13.1	593
Far-western Hill	21.2	298
Eastern Terai	23.1	901
Central Terai	26.6	1,306
Western Terai	14.3	543
Mid-western Terai	16.7	298
Far-western Terai	16.5	244
Mother's education		
No education	21.2	4,758
Primary	20.6	915
Some secondary	16.4	553
SLC and above	13.2	244
Source of drinking water		
Piped water	19.7	2,110
Dug well	22.0	2,681
Tubewell/borehole	23.5	259
Surface water	17.8	1,417
Total	20.4	6,471

Note: Total includes 4 children for whom information on source of drinking water is missing, and not shown separately.

SLC = School Leaving Certificate

The incidence of diarrhea varies with age. Prevalence is highest among children age 6-11 months (35 percent). There is little discernible difference in the prevalence of diarrhea by sex of the child, urban-rural residence, and ecological zone. Prevalence is higher in the Eastern and Central development regions.

Children of mothers with little or no education are also more likely to have diarrhea than children of mothers with at least some secondary education. Children living in households where the main source of drinking water is from a well (dug well, tube well, or borehole) are also more prone to diarrhea than children living in households with access to piped drinking water.

KNOWLEDGE OF ORS PACKETS

A major component of ORT is the early administration of a solution prepared from ORS packets to prevent dehydration. To assess the knowledge of ORS in Nepal, mothers were asked whether they know about ORS packets.

Table 9.16 shows the percentage of mothers who know about ORS packets for treatment of diarrhea among women who gave birth in the five years preceding the survey. As indicated by the table, knowledge of ORS packets is nearly universal (98 percent). No discernible differences in knowledge by background characteristics exist.

DIARRHEA TREATMENT

Table 9.17 provides information on whether medical care was sought for diarrhea in the two weeks preceding the survey. The percentage of children who received specific treatments for diarrhea is also shown by selected background characteristics. Particular attention is focused on treatment with oral rehydration therapy, including the use of ORS packets, and increased fluids. Oral rehydration therapy in Nepal includes recommended home fluids, but the use of oral rehydration salts is the main method being promoted. Recommended home fluids according to the Ministry of Health guidelines include breast milk and other liquids, but sugar-salt-water solution is no longer being actively promoted. The policy has also seen a shift in recent years, emphasizing the importance of giving increased fluid during diarrheal episodes, away from specifying the types of fluids to be given (NPC, 2000).

Table 9.16 Knowledge of ORS packets

Percentage of mothers with births in the five years preceding the survey who know about ORS packets for treatment of diarrhea, by background characteristics, Nepal 2001

Background characteristic	Percentage of mothers who know about ORS packets	Number of children
Age		
15-19	97.9	379
20-24	98.3	1,370
25-29	98.3	1,354
30-34	97.6	850
35-49	96.0	792
Residence		
Urban	98.3	332
Rural	97.7	4,414
Ecological zone		
Mountain	95.8	361
Hill	97.6	1,979
Terai	98.2	2,405
Development region		
Eastern	97.3	1,102
Central	98.3	1,535
Western	97.3	914
Mid-western	98.8	693
Far-western	96.5	502
Subregion		
Eastern Mountain	95.9	74
Central Mountain	99.1	122
Western Mountain	93.4	166
Eastern Hill	97.8	347
Central Hill	97.7	484
Western Hill	96.7	521
Mid-western Hill	99.6	405
Far-western Hill	95.2	223
Eastern Terai	97.3	681
Central Terai	98.5	930
Western Terai	98.0	393
Mid-western Terai	99.3	222
Far-western Terai	99.3	179
Education		
No education	97.0	3,437
Primary	99.4	684
Some secondary	99.8	439
SLC and above	100.0	186
Total	97.8	4,745

ORS = Oral rehydration salts
SLC = School Leaving Certificate

Table 9.17 Diarrhea treatment

Percentage of children under five years who had diarrhea in the two weeks preceding the survey taken for treatment to a health provider, percentage who received oral rehydration therapy (ORT), and percentage given other treatments, by background characteristics, Nepal 2001

Background characteristic	Percentage taken to a health provider ¹	Oral rehydration therapy (ORT)			Other treatments				No treatment	Number of children
		ORS packets	Increased fluids	ORS or increased fluids	Pill/syrup	Injection	Intra-venous solution	Home remedy/ other		
Age in months										
<6	9.9	11.2	13.3	19.5	24.0	2.4	0.0	2.2	64.2	121
6-11	23.1	23.8	20.7	35.6	42.2	1.5	0.6	7.0	39.1	218
12-23	26.3	39.2	31.3	54.9	44.9	0.8	1.2	5.9	28.8	388
24-35	20.1	32.9	35.4	54.8	35.5	1.2	0.5	8.1	28.1	251
36-47	18.3	41.3	22.8	50.4	34.6	0.9	0.4	6.2	32.5	203
48-59	19.9	29.2	24.4	43.4	28.9	0.0	0.0	14.8	37.4	138
Sex										
Male	20.2	32.5	28.2	48.5	37.7	0.9	0.4	6.7	33.4	681
Female	22.2	31.8	24.9	44.4	37.3	1.3	0.8	7.5	36.9	639
Residence										
Urban	23.1	45.6	39.2	63.2	43.6	0.0	1.2	4.0	25.7	71
Rural	21.1	31.4	25.9	45.6	37.1	1.1	0.6	7.3	35.6	1,249
Ecological zone										
Mountain	28.2	29.1	28.4	48.1	19.2	0.6	0.0	6.9	43.9	97
Hill	23.7	31.2	37.7	52.1	28.1	1.0	0.3	7.8	36.3	500
Terai	18.5	33.2	18.7	42.5	46.4	1.2	0.9	6.7	33.1	723
Development region										
Eastern	19.1	38.7	32.3	51.5	33.2	1.7	0.6	8.2	33.6	357
Central	17.6	27.2	16.5	37.7	45.5	0.8	1.2	5.9	36.3	493
Western	30.0	33.8	33.5	52.1	35.6	0.0	0.0	7.6	34.8	205
Mid-western	16.7	27.5	37.3	53.2	26.1	1.2	0.0	10.3	34.1	135
Far-western	31.3	35.5	27.2	50.8	33.9	1.7	0.0	5.1	35.8	130
Subregion										
Eastern Mountain	32.1	33.9	50.0	58.9	25.0	0.0	0.0	12.5	30.4	21
Central Mountain	20.5	23.1	24.4	43.6	14.1	0.0	0.0	1.3	51.3	41
Western Mountain	35.0	33.3	20.0	46.7	21.7	1.7	0.0	10.0	43.3	35
Eastern Hill	22.4	42.2	44.8	60.3	16.4	0.0	0.0	12.1	33.6	128
Central Hill	26.4	29.6	34.4	50.0	34.8	2.4	1.2	4.0	35.2	104
Western Hill	29.8	33.2	39.4	55.1	35.6	0.0	0.0	6.2	34.6	127
Mid-western Hill	(8.6)	(17.2)	(37.5)	(46.1)	(21.6)	(2.2)	(0.0)	(10.8)	(40.9)	77
Far-western Hill	27.7	24.7	25.7	40.3	33.7	1.0	0.0	5.0	41.0	63
Eastern Terai	15.7	37.0	22.9	45.3	44.3	3.0	1.0	5.4	34.0	208
Central Terai	14.6	26.9	10.3	33.3	52.4	0.4	1.3	6.9	34.9	348
Western Terai	30.3	34.6	23.8	47.2	35.5	0.0	0.0	10.0	35.1	77
Mid-western Terai	27.4	46.9	38.5	67.0	34.1	0.0	0.0	11.2	19.6	50
Far-western Terai	33.2	48.7	36.2	67.7	42.2	2.6	0.0	0.0	25.4	40
Mother's education										
No education	18.7	29.1	21.6	42.5	35.9	1.2	0.5	7.3	37.3	1,009
Primary	27.4	39.0	37.7	55.0	40.6	0.0	1.5	4.8	31.5	188
Some secondary	26.7	43.0	47.0	62.7	40.7	0.0	0.0	8.6	26.8	91
SLC and above	(45.9)	(57.9)	(60.4)	(76.5)	(60.3)	(7.7)	(0.0)	(10.5)	(9.4)	32
Total	21.2	32.2	26.6	46.5	37.5	1.1	0.6	7.1	35.1	1,320

Note: Total includes children with missing information on diarrhea treatment who are not shown separately. Figures in parentheses are based on 25-49 unweighted cases.

ORS = Oral rehydration salts

SLC = School Leaving Certificate

¹ Excludes pharmacy, shop, and traditional practitioner

One in five children with diarrhea in the two weeks prior to the survey was taken to a health facility for treatment. Children age 12-23 months are most likely to be taken for treatment, and children less than six months of age are least likely. There is little difference in the percentage of children taken for treatment for diarrhea by child's sex and urban-rural residence. Children residing in the mountain ecological zone (28 percent) and children from the Western and Far-western development regions (about 30 percent) are more likely to be taken to a health facility for treatment than children residing in the other regions.

Children of mothers with an SLC are more than twice as likely to take their sick children to a health facility as mothers with no education.

Almost half of children with diarrhea received some sort of oral rehydration therapy, that is, either ORS or increased fluids, with 32 percent of children being treated with ORS and 27 percent receiving increased fluids. Thirty-eight percent of children were given a pill or syrup, while 7 percent receive home remedies or other treatments. However, a large proportion of children with diarrhea (35 percent) were not given any treatment.

Generally, therapeutic intervention increases with the increasing age of the child up to 24-35 months and then declines thereafter. Similarly the proportion of children not treated decreases sharply with increasing age of the child. For example, 64 percent of children under six months of age were not treated for diarrhea, compared with 28 percent of children age 24-35 months.

ORT varies markedly by place of residence, by rural-urban residence (from 46 percent in rural areas to 63 percent in urban areas), by ecological zone (from 43 percent in the *terai* to 52 percent in the hill), and by development region (from 38 percent in the Central region to 53 percent in the Mid-western region).

Children of educated mothers are also more likely to receive ORT than children of noneducated mothers.

FEEDING PRACTICE DURING DIARRHEA

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

Table 9.18 presents the percent distribution of children under five years who had diarrhea in the two weeks preceding the survey by feeding practices. One in three children who had diarrhea were given the same amount of liquids, and 27 percent were given more than the usual amount. However, one in four children were given less than their usual amount to drink and 16 percent were not given anything to drink at all. This finding is surprising given the high intensity of educational activities in this area during the last five years.

One in three children with diarrhea was given the same amount of food and 7 percent were given more than the usual amount to eat. However, 44 percent of children with diarrhea were given less than usual. Despite the substantial increase in educational activities about the importance of maintaining food intake during diarrhea, 6 percent of children with diarrhea were not given any food.

Table 9.18 Feeding practices during diarrhea

Percent distribution of children under five years who had diarrhea in the two weeks preceding the survey by amount of liquids and food offered compared with normal practice, Nepal 2001

Liquids/foods	Percent
Amount of liquids offered	
About the same	32.9
More than usual	26.6
Less than usual	23.9
Nothing to drink	16.4
Don't know	0.1
Total	100.0
Amount of food offered	
About the same	32.3
More than usual	6.6
Less than usual	43.8
Stopped food	6.0
Never gave food	11.2
Don't know	0.0
Total	100.0
Number of children	1,320

9.8 WOMEN'S STATUS AND USE OF HEALTH SERVICES

Status and self-respect of women can be a major determinant of a mother's ability to obtain adequate health care for her children. Table 9.19 shows the percentage of children age 12-23 months who have been fully vaccinated, the percentage of children with fever and/or symptoms of ARI, and the percentage of children with diarrhea in the two weeks preceding the survey who were taken to a health provider, according to the three measures of women's status.

The table shows that greater autonomy in decisionmaking is positively related to utilization of health facilities and the likelihood that children are fully immunized, though the relationships are not strong. For example, 71 percent of children of women who participate in five household decisions are fully immunized, compared with 65 percent of children of women who have no final say in any of the five household decisions. The data for Nepal show that children of women who believe that wife beating is not justified for any reason are slightly more likely to be fully vaccinated and taken to a health facility for treatment of ARI, fever, and diarrhea.

Table 9.19 Child health care by women's status						
Percentage of children age 12-23 months fully vaccinated, and percentage of children under five years who were ill with a fever, symptoms of ARI and/or diarrhea in the two weeks preceding the survey who were taken to a health provider for treatment, by women's status indicators, Nepal 2001						
Women's status indicator	Percentage of children age 12-23 months fully vaccinated ¹	Number of children	Percentage of children with fever and/or symptoms of ARI taken to a health provider ²	Number of children	Percentage of children with diarrhea taken to a health provider ²	Number of children
Number of decisions in which woman has final say³						
0	64.8	202	20.1	385	20.2	203
1-2	65.4	675	23.5	1,223	20.5	666
3-4	62.6	245	22.7	504	20.2	249
5	71.2	191	29.6	384	25.6	203
Number of reasons to refuse sex with husband						
0	*	17	(22.5)	30	*	12
1-2	(57.0)	40	15.0	73	(14.6)	38
3-4	65.6	1,256	24.0	2,393	21.5	1,270
Number of reasons wife beating is justified						
0	66.8	940	25.4	1,733	21.9	916
1-2	64.2	287	20.0	598	21.3	316
3-4	60.9	74	19.9	137	13.3	67
5	*	12	*	29	*	21
Total	65.6	1,313	23.7	2,496	21.2	1,320
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 Those who have received BCG, measles and three doses each of DPT and polio vaccine (excluding polio vaccine given at birth)						
² Excludes pharmacy, shop and traditional practitioner						
³ Either by herself or jointly with others						

9.9 WOMEN'S PERCEPTIONS OF PROBLEMS IN ACCESSING HEALTH CARE

Many factors can prevent a woman from getting medical advice or treatment for herself. In the 2001 NDHS, women age 15-49 were asked whether various issues pose “a big problem,” “a small problem,” or are “not a problem” in accessing health care for themselves when they are sick.

Table 9.20 shows that two in three women consider getting money for treatment to be a big problem, and 57 percent mention not wanting to go to a health facility alone to be a big problem. One in two women also considers the distance to a health facility, having to take transport, and lack of a female provider to be big problems. Knowing where to go was a big problem for 28 percent of women. In general, 87 percent of women mentioned that they considered accessing health care to be a big problem for any of the specified reasons. Education and urban-rural residence are the two background variables most likely to impact a woman's perception of being able to access health care for herself. Urban women are much less likely than rural women to cite any of the specified reasons as being a big problem in accessing health care for themselves. Similarly, nearly twice as many women with no education mention at least one of the specified problems as women with an SLC level of education or above.

9.10 USE OF SMOKING TOBACCO

Tobacco smoking during pregnancy increases the risk of having a small or low birth weight baby. Its use at other times also adversely affects women's health and may increase respiratory illnesses among children. Table 9.21 shows the percentage of women who smoke cigarettes or pipes or use tobacco and the distribution of women who smoke by the number of cigarettes smoked in the last 24 hours by background characteristics. Since more than one mode of tobacco consumption is possible, the percentage using tobacco may sum to more than 100 percent.

Nearly one in four women smoke cigarettes, while 4 percent smoke a pipe, and 6 percent use some other form of tobacco. Smoking is more prevalent among older women than among younger women, in rural areas than in urban areas, and in the mountain ecological zone and Midwestern development region than in the other regions. Education is negatively associated with smoking. Women who are neither pregnant nor breastfeeding are also more likely to smoke than other women.

One in five women who smoke reported that they consumed 10 or more cigarettes in the 24 hours preceding the survey, 16 percent smoked 6-9 cigarettes, 39 percent smoked 3-5 cigarettes, and 18 percent smoked 1-2 cigarettes. Five percent of women who usually smoke did not smoke in the 24 hours preceding the survey.

Table 9.20 Problems in accessing health care

Percentage of women who report they have big problems in accessing health care for themselves when they are sick, by type of problem and background characteristics, Nepal 2001

Background characteristic	Knowing where to go for treatment	Getting permission to go for treatment	Getting money for treatment	Distance to health facility	Having to take transport	Not wanting to go alone	Concern there may not be a female provider	Any of the specified problems	Number of women
Age									
15-19	30.2	27.7	62.3	54.5	54.0	66.1	52.0	87.6	941
20-29	27.0	17.7	63.8	48.3	48.6	54.2	47.2	84.8	3,324
30-39	26.6	14.9	68.1	50.7	51.7	56.9	50.3	86.9	2,595
40-49	30.4	13.3	70.5	52.2	52.9	58.6	50.5	88.3	1,867
Number of living children									
0	31.2	27.0	62.4	53.5	52.4	65.5	53.3	86.5	1,051
1-2	26.2	16.3	61.0	47.6	47.8	53.4	48.4	83.7	3,101
3-4	25.8	13.7	66.7	48.4	50.0	55.8	47.2	85.9	3,016
5+	33.4	17.9	78.9	58.6	58.7	61.9	52.8	93.1	1,557
Marital status									
Married	27.9	17.3	65.7	50.3	51.0	57.1	49.2	86.2	8,342
Divorced, separated, widowed	29.5	10.1	79.9	55.6	52.4	59.1	53.4	92.7	384
Residence									
Urban	18.3	9.6	43.6	22.2	20.0	38.6	39.3	67.8	841
Rural	29.0	17.8	68.8	53.5	54.4	59.2	50.4	88.5	7,885
Ecological zone									
Mountain	41.7	23.2	82.2	73.4	83.5	76.6	62.8	96.9	602
Hill	34.9	16.9	66.6	58.1	62.4	62.8	61.5	89.0	3,615
Terai	20.5	16.3	64.0	41.4	37.6	50.1	37.8	83.1	4,509
Development region									
Eastern	32.7	21.6	67.0	48.3	48.7	58.5	61.1	87.9	2,098
Central	26.1	22.7	67.1	46.3	46.1	54.5	36.2	83.6	2,804
Western	15.4	10.2	48.7	43.7	41.1	52.2	57.2	82.6	1,771
Mid-western	46.1	7.0	79.8	68.5	70.8	66.2	40.2	92.3	1,197
Far-western	23.1	15.3	79.9	58.9	65.9	61.1	60.3	92.3	855
Subregion									
Eastern Mountain	40.6	21.8	62.7	62.4	71.8	63.0	72.4	92.4	126
Central Mountain	43.3	27.3	83.3	62.8	78.5	77.0	59.5	96.5	209
Western Mountain	41.0	20.5	90.5	86.8	92.9	82.7	60.9	99.4	267
Eastern Hill	46.1	25.7	71.0	64.9	69.6	65.1	70.5	92.8	580
Central Hill	39.7	27.5	63.1	44.4	50.1	56.7	52.6	81.7	945
Western Hill	17.6	11.1	49.7	47.2	48.3	57.5	69.4	85.7	1,075
Mid-western Hill	56.0	6.4	85.3	85.3	88.2	75.8	51.4	97.5	648
Far-western Hill	18.3	10.6	85.5	66.8	78.2	67.4	64.8	96.4	368
Eastern Terai	26.4	19.8	65.7	40.1	37.9	55.3	56.1	85.4	1,393
Central Terai	16.1	19.3	67.3	45.2	39.8	50.3	23.9	83.1	1,651
Western Terai	11.9	8.8	47.2	38.2	29.9	43.9	38.2	78.0	696
Mid-western Terai	34.0	7.9	69.0	39.4	40.0	45.6	25.9	82.6	438
Far-western Terai	18.2	13.3	68.8	36.6	38.9	46.6	45.1	84.7	331
Education									
No education	31.7	19.3	75.8	56.8	57.1	62.8	51.8	92.0	6,279
Primary	23.7	13.4	53.3	42.4	44.3	50.2	50.9	81.3	1,294
Some secondary	14.2	10.8	35.5	26.7	27.8	37.5	38.0	67.9	814
SLC and above	7.9	2.7	14.6	21.5	21.0	27.5	24.7	48.6	339
Employment									
Not employed	24.0	19.9	51.4	36.4	32.3	52.6	37.7	75.4	1,390
Working for cash	22.8	12.4	60.2	37.3	34.7	46.4	47.8	79.9	1,061
Not working for cash	29.7	17.1	70.7	55.9	58.0	60.1	52.2	90.0	6,273
Total	27.9	17.0	66.3	50.5	51.0	57.2	49.4	86.5	8,726

Note: Total includes 2 women with missing information on employment who are not shown separately
SLC = School Leaving Certificate

Table 9.21 Use of smoking tobacco

Percentage of women who smoke cigarettes or use tobacco and percent distribution of cigarette smokers by number of cigarettes smoked in preceding 24 hours, according to background characteristics and maternity status, Nepal 2001

Background characteristic	Uses tobacco			Does not use tobacco	Number of women	Number of cigarettes					Total	Number of cigarette smokers
	Cigarettes	Pipe	Other tobacco			0	1-2	3-5	6-9	10+		
Age												
15-19	7.3	0.9	3.2	89.8	941	11.9	25.3	43.4	10.7	8.7	100.0	68
20-34	17.0	3.0	4.6	78.6	4,751	5.5	22.0	40.3	14.9	17.3	100.0	808
35-49	37.9	6.7	8.0	53.8	3,034	4.9	15.5	38.6	16.8	24.3	100.0	1,150
Residence												
Urban	13.6	0.6	3.4	83.0	841	4.0	15.1	43.4	16.3	21.2	100.0	114
Rural	24.3	4.4	5.9	69.9	7,885	5.5	18.6	39.2	15.8	21.0	100.0	1,912
Ecological zone												
Mountain	34.6	12.6	8.9	56.5	602	9.2	18.5	37.5	16.1	18.7	100.0	208
Hill	27.8	4.8	5.7	66.4	3,615	6.3	18.8	40.6	14.6	19.7	100.0	1,005
Terai	18.0	2.4	5.2	77.0	4,509	3.2	17.9	38.6	17.2	23.1	100.0	814
Development region												
Eastern	22.0	1.3	11.7	68.2	2,098	1.6	13.9	40.9	18.3	25.3	100.0	462
Central	23.9	1.7	3.0	73.7	2,804	3.0	13.9	40.5	19.6	22.9	100.0	670
Western	18.3	0.2	5.4	76.9	1,771	1.2	13.7	34.9	18.0	32.1	100.0	324
Mid-western	28.8	16.0	4.7	62.0	1,197	16.4	36.0	40.5	4.7	2.3	100.0	345
Far-western	26.3	10.0	1.2	71.2	855	9.0	20.9	38.0	13.2	18.9	100.0	225
Subregion												
Eastern Mountain	22.1	0.0	11.2	69.4	126	1.4	19.2	39.7	17.8	21.9	100.0	28
Central Mountain	44.3	1.5	16.7	53.4	209	4.0	17.1	40.6	16.6	21.7	100.0	93
Western Mountain	32.8	27.2	1.7	52.9	267	17.1	19.7	33.6	15.1	14.5	100.0	88
Eastern Hill	28.3	0.0	18.8	55.8	580	1.3	8.1	40.1	21.5	28.9	100.0	164
Central Hill	28.8	1.9	1.8	69.2	945	5.5	17.0	44.5	14.5	18.5	100.0	272
Western Hill	21.5	0.0	4.8	74.1	1,075	1.7	10.6	32.1	20.6	35.1	100.0	231
Mid-western Hill	38.4	17.5	4.6	54.1	648	13.0	34.5	44.5	6.0	2.0	100.0	249
Far-western Hill	24.1	11.3	0.0	74.7	368	11.3	22.0	40.2	10.4	16.1	100.0	89
Eastern Terai	19.4	2.0	8.8	73.3	1,393	1.8	16.8	41.5	16.4	23.4	100.0	270
Central Terai	18.5	1.6	2.0	78.9	1,651	0.5	10.2	37.0	25.1	27.2	100.0	305
Western Terai	13.4	0.4	6.4	81.3	696	0.0	21.5	41.9	11.8	24.7	100.0	93
Mid-western Terai	15.7	4.8	6.0	78.2	438	14.5	42.7	37.5	0.8	4.4	100.0	69
Far-western Terai	23.1	8.6	1.8	72.8	331	12.7	25.4	31.3	10.2	20.4	100.0	76
Education												
No education	29.4	5.5	6.3	64.2	6,279	5.6	18.1	39.4	15.7	21.2	100.0	1,849
Primary	12.2	0.7	5.9	82.8	1,294	2.0	23.0	38.3	17.8	18.8	100.0	158
Some secondary	2.3	0.0	2.5	95.2	814	*	*	*	*	*	100.0	19
SLC and above	0.2	0.0	1.0	98.8	339	*	*	*	*	*	100.0	1
Maternity status												
Pregnant	16.0	2.6	5.4	78.4	751	4.4	21.9	42.3	13.4	18.0	100.0	120
Breastfeeding (not pregnant)	20.5	4.5	5.0	74.8	3,544	6.4	22.9	39.8	13.9	17.1	100.0	726
Neither	26.6	4.0	6.3	67.1	4,431	4.8	15.3	39.0	17.2	23.7	100.0	1,180
Total	23.2	4.1	5.7	71.2	8,726	5.4	18.4	39.4	15.8	21.0	100.0	2,027

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

SLC = School Leaving Certificate

The 2001 Nepal Demographic and Health Survey (NDHS) included questions about the nutritional status of children and their mothers, including infant feeding practices, duration and intensity of breastfeeding, the types of complementary foods given, and whether or not a bottle with a nipple was used. In addition, information on vitamin A supplementation was collected for children. Mothers were also asked about their intake of iron/folic acid tablets during pregnancy and vitamin A supplements during the two months after a pregnancy. To assess the nutritional status of all children under the age of five and women age 15-49, anthropometric (height and weight) data were also collected.

Infant feeding practices affect the health of both the mother and her child. They are important determinants of children's nutritional status and many studies have shown that breastfeeding has beneficial effects on the nutritional status, morbidity, and mortality of young children. Breastfeeding is also associated with longer periods of postpartum amenorrhea, which in turn leads to longer birth intervals and lower fertility levels. A longer birth interval allows mothers to recover fully before the next pregnancy and averts maternal depletion, which may follow births that are too closely spaced.

Maternal nutritional status has important implications for the health of the mother as well as that of her children. A woman who is in poor nutritional health has a greater risk of having an adverse pregnancy outcome and is more likely to give birth to underweight babies.

10.1 INITIATION OF BREASTFEEDING

Table 10.1 shows the percentage of children born in the five years before the survey according to breastfeeding status and the timing of initial breastfeeding, by selected 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 1996 NFHS showed similar results on the percentage breastfed. Due to the large percentage of children ever breastfed, differentials by background characteristics are small.

Early initiation of breastfeeding is beneficial for both mothers and children. Early suckling benefits mothers because it stimulates the release of a hormone that helps the uterus to contract. The first breast milk is important for babies because it contains colostrum, which is highly nutritious and rich in antibodies that protect the newborn from diseases. The early initiation of breastfeeding also increases the bond between mother and child.

Data from the 2001 NDHS indicate that nearly one in three children born in the five years preceding the survey are breastfed within one hour of birth. It is encouraging to note that the percentage of children breastfed within one hour of birth has nearly doubled over the last five years; similar data collected in the 1996 NFHS showed this percentage to be 18. Comparable data collected in the 1991 NFHS showed that 22 percent of children were breastfed within one hour of birth (Ministry of Health, 1993).

Table 10.1 Initial breastfeeding

Percentage of children born in the five years preceding the survey who were ever breastfed, and among children ever breastfed, percentage who started breastfeeding within one hour and within one day of birth, percentage who received a prelacteal feed, and percentage who received the first milk, by background characteristics, Nepal 2001

Background characteristic	Percentage ever breastfed	Number of children	Percentage who started breastfeeding:		Percentage who received a prelacteal feed ²	Percentage who received the first milk	Number of children ever breastfed
			Within 1 hour of birth	Within 1 day of birth ¹			
Sex							
Male	97.8	3,450	30.7	64.6	41.2	69.1	3,373
Female	98.3	3,528	31.5	65.3	40.5	69.3	3,467
Residence							
Urban	97.0	449	34.2	72.3	39.4	72.2	436
Rural	98.1	6,529	30.9	64.4	41.0	69.0	6,404
Ecological zone							
Mountain	98.7	535	34.5	91.4	16.8	65.3	528
Hill	98.6	2,873	42.3	87.2	14.8	77.9	2,833
Terai	97.5	3,570	21.4	42.8	65.7	62.8	3,479
Development region							
Eastern	97.3	1,610	26.2	64.0	44.7	67.4	1,566
Central	97.6	2,310	13.2	47.6	59.7	58.5	2,254
Western	98.8	1,261	32.0	59.1	43.1	81.3	1,247
Mid-western	98.7	1,048	65.5	89.4	15.9	76.4	1,034
Far-western	98.6	749	46.5	95.3	6.7	75.6	738
Subregion							
Eastern Mountain	97.9	107	37.7	90.9	23.2	81.2	105
Central Mountain	99.4	177	10.5	86.8	25.2	58.9	176
Western Mountain	98.6	251	50.2	94.9	8.2	63.1	247
Eastern Hill	96.9	533	35.0	92.8	13.2	76.5	517
Central Hill	98.6	692	24.7	89.6	17.2	72.7	682
Western Hill	99.0	683	38.1	71.1	24.1	79.8	677
Mid-western Hill	99.2	634	65.3	92.8	9.8	83.3	629
Far-western Hill	99.1	330	55.3	95.6	2.8	76.4	328
Eastern Terai	97.4	969	20.2	45.2	64.3	60.8	944
Central Terai	96.9	1,441	7.9	22.2	84.7	51.5	1,396
Western Terai	98.6	578	24.7	44.9	65.5	83.0	570
Mid-western Terai	97.9	318	66.7	82.1	28.7	70.3	311
Far-western Terai	97.7	264	37.6	93.6	12.9	77.4	258
Mother's education							
No education	98.0	5,176	29.8	62.0	42.4	65.2	5,072
Primary	98.3	970	32.4	72.5	36.0	77.2	953
Some secondary	97.5	587	36.6	72.5	35.8	82.8	572
SLC and above	99.5	244	40.7	78.2	39.7	89.0	243
Assistance at delivery							
Traditional birth attendant	97.6	1,633	20.6	36.5	68.0	56.2	1,594
Health professional ³	97.3	897	32.8	71.5	44.3	79.7	873
Other	98.3	3,840	35.3	73.2	31.8	72.1	3,775
No one	98.3	603	30.3	79.6	20.8	71.2	593
Place of delivery							
Health facility	97.6	554	35.5	76.5	41.6	85.7	541
At home	98.1	6,202	30.9	63.8	41.0	67.7	6,084
Other	97.1	216	26.6	70.1	36.0	71.3	210
Total	98.0	6,978	31.1	64.9	40.9	69.2	6,840

Note: Total includes 5 children for whom information on assistance at delivery is missing and 6 children for whom information on place of delivery is missing who are not shown separately. Table is based on all births whether the children are living or dead at the time of interview. SLC = School Leaving Certificate

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 before the mother started breastfeeding regularly.

³ Doctor, nurse/auxiliary nurse midwife, health assistant/auxiliary health worker, maternal child health worker, village health worker.

Two out of three babies are breastfed within one day of birth, a slight improvement over the last five years, from 60 percent in 1996. The majority of children receive colostrum—69 percent of children are given the first milk.

There is little difference in the timing of initial breastfeeding by sex of the child. However, more urban children are breastfed within one hour of birth and within one day of birth than rural children. Still, a higher proportion of children in urban areas do not receive the first milk, compared with rural children. Children living in the *terai* are least likely to be breastfed immediately after birth or 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 1996 NFHS. Children from the Mid-western development region are most likely to be breastfed immediately after birth. Nearly all children in the Far-western development region are breastfed within one day of birth.

Women who have completed their SLC are slightly more likely to initiate breastfeeding within one hour and one day of birth than women who have lower levels of education. Surprisingly, these educated women are less likely to give the first milk to their children. There is a difference in the timing of initial breastfeeding between children delivered by medically trained personnel and children delivered by nonmedical personnel. Children delivered by a traditional birth attendant are least likely to be breastfed within one hour and one day of birth. These children are also least likely to receive the first milk. Children delivered in a health facility are more likely than children delivered at home to be breastfed within one hour of birth and within one day of birth, and these children are also more likely to receive the first milk.

Prelacteal feeds, that is, giving something other than breast milk to newborns before the mother's milk flows regularly, are discouraged because they are less nutritious than breast milk, are more susceptible to contamination, and discourage suckling. Two-fifths of the children born in the five years preceding the survey were given prelacteal feeds. The data indicate that prelacteal feeds are more common in the *terai*, where two in three children receive them, compared with about one in seven children living in the mountain and hill zones. Three-fifths of children living in the Central development region received prelacteal feeds, compared with only 7 percent of children living in the Far-western region. Prelacteal feeds are also more common among children whose births were attended by a TBA than other births.

10.2 BREASTFEEDING STATUS BY AGE OF THE CHILD

Children who received only breast milk in the 24 hours before the survey are defined as being *exclusively breastfed*, and children who are *fully breastfed* receive only plain water in addition to breast milk. Exclusive breastfeeding is recommended for the first six months of a child's life because breast milk is uncontaminated and contains all the nutrients needed by children in the first few months of life. In addition, the mother's antibodies in breast milk provide immunity to children. Early complementary feeding is discouraged for several reasons. First, it exposes infants to pathogens and increases their risk of infection, especially diarrheal disease. Second, it decreases infants' intake of breast milk and therefore suckling, which reduces breast milk production. Third, in a harsh socioeconomic environment, supplementary food is often nutritionally inferior.

Information on feeding was obtained by asking mothers about the current breastfeeding status of all children under five years of age and food (liquid or solid) given to the child during the 24 hours prior to the survey. Even though information on breastfeeding was collected for all children born in the five years preceding the survey, the tables on breastfeeding are restricted to children born in the three years before the survey because most children are weaned by age three.

Table 10.2 shows the percent distribution of children under three years by breastfeeding status. Contrary to the World Health Organization's recommendation of exclusive breastfeeding for the first six months of life, only two-thirds of children less than six months of age are exclusively breastfed. Nearly nine in ten children less than two months of age are exclusively breastfed, while only about half of the children continue to be exclusively breastfed by the time they are 4-5 months old. The proportion of children exclusively breastfed declines sharply for children six months and older when solid and mushy food become an important part of their diet. 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. By 6-7 months of age, 53 percent of children are given breast milk and complementary foods. This rises to 95 percent by 12-19 months of age.

Table 10.2 Breastfeeding status by age

Percent distribution of youngest children under three years living with the mother by breastfeeding status and percentage of children under three years using a bottle with a nipple, according to age in months, Nepal 2001

Age in months	Breastfeeding and consuming:							Total	Number of children	Percentage using a bottle with a nipple ¹	Number of children
	Not breast-feeding	Exclusively breastfed	Plain water only	Water-based liquids/juice	Other milk	Complementary foods					
<2	0.0	86.7	6.3	0.0	4.0	3.1	100.0	161	2.1	161	
2-3	0.0	72.8	11.7	2.1	8.0	5.5	100.0	211	2.3	214	
4-5	0.0	54.2	14.9	0.9	12.5	17.7	100.0	275	6.1	276	
6-7	0.6	17.7	18.5	1.5	9.2	52.5	100.0	206	3.6	207	
8-9	0.4	4.5	10.7	0.9	4.6	78.9	100.0	222	1.5	222	
10-11	1.8	1.9	8.0	0.5	1.0	86.7	100.0	202	5.2	202	
12-15	1.4	0.1	3.5	0.0	0.2	94.8	100.0	443	2.7	447	
16-19	3.3	0.3	0.4	0.3	0.3	95.4	100.0	422	1.5	432	
20-23	8.0	0.0	0.0	0.0	1.0	91.0	100.0	401	2.1	433	
24-27	12.7	0.0	0.0	0.0	0.0	87.3	100.0	320	1.6	401	
28-31	18.7	0.9	0.0	0.0	0.4	80.1	100.0	334	0.8	471	
32-35	22.1	0.0	0.2	0.0	0.0	77.7	100.0	247	0.8	374	
<6	0.0	68.3	11.7	1.0	8.9	10.1	100.0	648	3.9	651	
6-9	0.5	10.8	14.5	1.2	6.8	66.2	100.0	428	2.5	429	

Note: Breastfeeding status refers to a "24-hour" period (yesterday and last night). Children classified as *breastfeeding and consuming plain water only* consume no supplements. The categories of not breastfeeding, exclusively breastfed, breastfeeding and consuming plain water, water-based 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 water-based liquids and who do not receive complementary foods are classified in the water-based 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

Bottle-feeding is discouraged for very young children because of its potential negative effects on child health. It is often associated with increased risk of illness, especially diarrheal disease, because of the difficulty in sterilizing the nipples properly. The use of a bottle is associated with a lessening of the intensity of breastfeeding and a consequent shortening of the period of postpartum amenorrhea. The use of bottles with nipples is relatively rare in Nepal. Data from the 2001 NDHS shows that only 4 percent of children under six months of age and 3 percent of children age 6-9 months are given something to drink from a bottle.

10.3 DURATION AND FREQUENCY OF BREASTFEEDING

Table 10.3 presents the duration of breastfeeding by selected background characteristics. The estimates of mean and median duration of breastfeeding are based on current status data, that is, the proportion of children under three years of age who were being breastfed at the time of the survey, as opposed to retrospective data on the length of breastfeeding of older children who are no longer breastfed.

In Nepal, the median duration of breastfeeding is 33 months. The mean duration of breastfeeding is 29 months, an increase of one month over the last five years, according to data collected in the 1996 NFHS.

Both the duration and frequency of breastfeeding can affect the length of postpartum amenorrhea. Table 10.3 shows that almost all children under six months of age were breastfed six times or more in the 24 hours preceding the survey. Breastfeeding is more frequent in the daytime than at night, with the mean number of feeds in the daytime being eight compared with five at night. Breastfeeding is slightly more frequent among children in the *terai* and among children residing in the Central development region.

Table 10.3 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 living with the mother who were breastfed six or more times in the 24 hours preceding the survey, and mean number of feeds (day/night), by background characteristics, Nepal 2001

Background characteristic	Median duration (months) of breastfeeding ¹				Breastfeeding children under six months ²			
	Any breastfeeding	Exclusive breastfeeding	Predominant breastfeeding ³	Number of children	Percentage breastfed 6+ times in last 24 hours	Mean number of day feeds	Mean number of night feeds	Number of children
Sex								
Male	33.9	4.0	5.7	1,990	98.6	8.0	5.4	317
Female	31.3	4.1	5.5	2,107	96.5	7.9	5.4	331
Residence								
Urban	32.1	0.8	2.6	248	100.0	(7.6)	(5.4)	27
Rural	32.9	4.3	5.8	3,848	97.4	8.0	5.4	621
Ecological zone								
Mountain	34.2	3.3	3.4	304	95.2	6.3	4.5	43
Hill	32.8	3.6	4.4	1,665	95.1	6.1	4.9	234
Terai	32.7	4.5	7.0	2,128	99.3	9.3	5.8	371
Development region								
Eastern	32.3	3.8	6.0	946	95.0	8.1	4.7	166
Central	28.1	4.3	6.5	1,375	98.7	9.2	6.1	227
Western	33.9	3.4	4.9	712	100.0	8.1	5.2	96
Mid-western	33.9	4.9	5.2	612	98.0	6.1	5.4	82
Far-western	~ 36.0	3.7	4.5	451	96.0	5.7	4.7	76
Subregion								
Eastern Mountain	31.1	1.4	1.6	58	96.3	(6.3)	(3.6)	10
Central Mountain	31.9	3.5	3.5	101	95.5	*	*	12
Western Mountain	~ 36.0	4.1	4.1	145	94.4	(5.6)	(4.8)	21
Eastern Hill	29.9	1.7	2.8	299	88.6	(6.7)	(4.8)	48
Central Hill	28.2	4.2	5.2	413	95.3	(5.8)	(4.7)	54
Western Hill	34.5	3.7	3.7	376	100.0	(6.5)	(5.1)	41
Mid-western Hill	33.0	4.2	4.6	374	96.9	(5.8)	(5.4)	53
Far-western Hill	30.9	4.6	5.0	203	94.9	5.9	4.7	37
Eastern Terai	32.6	5.1	7.1	590	97.7	8.8	4.8	107
Central Terai	26.9	4.5	7.6	861	100.0	10.5	6.7	162
Western Terai	33.2	3.0	6.2	337	100.0	9.3	5.3	55
Mid-western Terai	~ 36.0	6.3	6.6	182	100.0	*	*	19
Far-western Terai	~ 36.0	3.4	4.4	159	100.0	5.7	5.0	28
Mother's education								
No education	33.0	4.6	6.1	2,980	97.6	8.0	5.4	457
Primary	~ 36.0	3.0	3.9	584	96.5	7.5	5.1	104
Some secondary	32.3	3.1	5.0	361	97.8	7.6	5.6	56
SLC and above	28.1	2.3	3.2	171	100.0	(8.9)	(5.4)	31
Total	32.8	4.1	5.6	4,096	97.5	8.0	5.4	648
Mean for all children	28.9	5.0	6.5	na	na	na	na	na

Note: Median and mean durations are based on current status. 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. 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

SLC = School Leaving Certificate

¹ It is assumed that non-last-born children or last-born children not living with the mother are not currently breastfeeding

² Excludes children who do not have a valid answer on the number of times breastfed

³ Either exclusively breastfed or received breast milk and plain water, water-based liquids, and/or juice only (excludes other milk)

10.4 TYPES OF COMPLEMENTARY FOODS

Information on the types of food given to children under three years in the 24 hours preceding the survey, according to their breastfeeding status, is shown in Table 10.4. This information was gathered for the youngest breastfeeding child below three years. If an eligible mother had two children in this category, only the youngest child was taken into consideration. In the case of Nepal, the introduction of other liquids such as water, juice, and food made of grains takes place earlier than the recommended age of about six months. Among breastfeeding children under six months of age, 13 percent received milk supplements, 3 percent received other liquids, 10 percent received food made from grains, 4 percent consumed food made with ghee/oil and butter, and less than 1 percent consumed fruits and vegetables. Overall, 10 percent of breastfeeding children under six months of age consumed solid or semisolid food. Even a small proportion of children under two months of age (3 percent) were given solid or semisolid food. Breastfeeding children also consumed other milk supplements early in life, with one in five children 4-5 months of age receiving milk supplements.

Table 10.4 Foods consumed by children in the day or night preceding the interview,

Percentage of youngest children under three years of age living with the mother who consumed specific foods in the day or night preceding the interview, by breastfeeding status and age, Nepal 2001

Age in months	Other milk/cheese/yogurt	Other liquids ¹	Food made from grains	Fruits/vegetables	Food made from roots/tubers	Food made from legumes	Meat/fish/liver/poultry/eggs	Food made with ghee/oil/fat/butter	Fruits and vegetables rich in vitamin A ²	Any solid or semisolid food	Number of children
BREASTFEEDING CHILDREN											
<2	5.7	0.0	2.4	0.7	0.0	0.0	0.0	1.4	0.0	3.1	161
2-3	9.7	4.2	5.5	0.5	0.0	0.0	0.0	2.0	0.0	5.5	211
4-5	20.1	4.0	17.2	1.3	0.2	2.3	1.3	6.1	0.9	18.3	275
6-7	29.5	9.4	51.9	8.5	12.7	18.3	3.0	14.0	4.5	53.4	205
8-9	36.9	19.0	76.7	25.7	32.6	35.7	9.1	33.9	17.9	79.5	222
10-11	34.4	16.3	87.6	31.3	49.9	36.0	12.0	42.7	21.9	90.4	198
12-15	41.2	27.2	95.0	49.7	63.7	43.0	17.9	54.4	39.1	96.1	437
16-19	41.0	33.3	98.6	51.4	66.8	53.5	19.6	58.4	37.6	98.7	408
20-23	46.2	36.8	98.4	52.8	66.3	46.5	21.3	55.0	38.6	98.9	369
24-27	41.3	37.9	100.0	58.9	72.4	51.1	22.1	65.5	44.9	100.0	279
28-31	46.1	41.8	98.0	53.3	73.5	52.7	22.3	61.7	38.5	99.5	272
32-35	51.2	42.5	98.7	53.5	72.5	51.1	22.7	57.0	43.0	99.7	192
NONBREASTFEEDING CHILDREN											
<24	59.8	53.2	96.4	51.3	66.6	46.0	21.6	63.0	36.9	96.4	58
24-27	(55.7)	(46.6)	(97.0)	(59.7)	(81.5)	(47.0)	(22.5)	(67.9)	47.9	(100.0)	41
28-31	53.6	46.5	96.0	60.7	61.1	50.5	23.4	61.6	45.2	96.0	62
32-35	53.3	44.0	97.6	68.0	66.4	36.9	36.1	51.7	52.9	97.6	54

Note: Breastfeeding status and food consumed refer to a "24-hour" period (yesterday and last night). Figures in parentheses are based on 25-49 unweighted cases.

¹ Does not include plain water

² Includes pumpkins, carrots, green leafy vegetables, mangoes, and papayas.

WHO recommends the introduction of solid food to infants around the age of six months because by that age, breast milk by itself is no longer sufficient to maintain a child's optimal growth. It is evident that after six months of age, there is a marked increase in the type of food given to infants with more than half of children in the age group 6-7 months given any solid and semisolid food. The percentage of children consuming solid and semisolid food gradually rises, and by one year of age, nearly all children are fed solid and semisolid foods.

A majority of children (65 percent) age 6-9 months consumed food made from grains. One in four children each consumed foods made from legumes, ghee/oil/fat and butter, and roots and tubers. The consumption of fruits and vegetables was found to be relatively low with only 17 percent of the children age 6-9 months consuming fruits and vegetables rich in vitamin A. Similarly, only 6 percent of children 6-9 months of age consumed meat, fish, liver, poultry, and eggs in the previous day, all of which are rich in body-building substances essential to good health and contain nutrients that are important for balanced physical and mental development. The introduction of these foods in the diet is very late and stands out to be the least consumed category of food at all ages up to 35 months.

10.5 FREQUENCY OF FOOD SUPPLEMENTATION

The nutritional requirements of young children are more likely to be met if they are fed a variety of foods. In the 2001 NDHS, interviewers read a list of specific foods and asked mothers to report the number of days during the last seven days her child consumed each food. For any food consumed at least once in the last seven days, the mother was also asked for the number of times that child had consumed the food in the 24 hours preceding the survey. Tables 10.5 and 10.6 show the mean number of times and the mean number of days children under age three consumed specific foods in the 24 hours preceding the survey and in the seven days before the survey, by age and breastfeeding status.

Foods rich in vitamin A were hardly given to children in the 24 hours and seven days preceding the survey. Children tend to consume food made from grains more often than other foods. This is especially the case with children above 12 months of age who consumed food made from grain every day in the preceding seven days and about three times a day. Meat, fish, liver, and poultry are least often consumed. As expected, nonbreastfeeding children tend to consume milk supplements more often in a day and during the week.

Table 10.5 Frequency of foods consumed by children in the day or night preceding the interview

Mean number of times specific foods were consumed in the day or night preceding the interview by youngest children under three years of age living with the mother, according to breastfeeding status and age, Nepal 2001

Age in months	Other milk/cheese/yogurt	Other liquids ¹	Food made from grains	Fruits/vegetables	Food made from roots/tubers	Food made from legumes	Meat/fish/liver/poultry/eggs	Food made with ghee/oil/fat/butter	Fruits and vegetables rich in vitamin A ²	Number of children
BREASTFEEDING CHILDREN										
<2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	161
2-3	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	211
4-5	0.5	0.1	0.3	0.0	0.0	0.0	0.0	0.1	0.0	275
6-7	0.6	0.2	1.1	0.1	0.2	0.3	0.0	0.2	0.1	205
8-9	0.8	0.3	1.8	0.5	0.6	0.5	0.1	0.7	0.3	222
10-11	0.9	0.3	2.3	0.5	0.9	0.6	0.2	0.9	0.3	198
12-15	1.0	0.5	2.9	0.8	1.3	0.7	0.2	1.2	0.6	437
16-19	1.0	0.6	3.1	1.0	1.4	1.0	0.3	1.4	0.6	408
20-23	1.1	0.6	3.3	0.9	1.3	0.8	0.3	1.2	0.5	369
24-27	1.0	0.7	3.4	1.1	1.4	0.9	0.3	1.6	0.7	279
28-31	1.0	0.7	3.4	1.0	1.6	1.0	0.3	1.6	0.6	272
32-35	1.2	0.8	3.5	1.0	1.5	0.9	0.3	1.4	0.7	192
<6	0.3	0.1	0.2	0.0	0.0	0.0	0.0	0.1	0.0	648
6-9	0.7	0.2	1.5	0.3	0.4	0.4	0.1	0.5	0.2	426
NONBREASTFEEDING CHILDREN										
<24	2.0	1.3	3.1	1.1	1.5	0.9	0.3	1.8	0.6	58
24-27	(1.5)	(0.8)	(3.5)	(0.9)	(1.6)	(1.0)	(0.3)	(1.7)	0.6	41
28-31	1.5	0.8	3.4	1.2	1.3	1.0	0.4	1.6	0.8	62
32-35	1.2	0.8	3.6	1.2	1.5	0.7	0.5	1.3	0.8	54

Note: Breastfeeding status and food consumed refer to a "24-hour" period (yesterday and last night). Figures in parentheses are based on 25-49 unweighted cases.

¹ Does not include plain water

² Includes pumpkins, carrots, green leafy vegetables, mangoes, and papayas.

Table 10.6 Frequency of foods consumed by children in preceding seven days

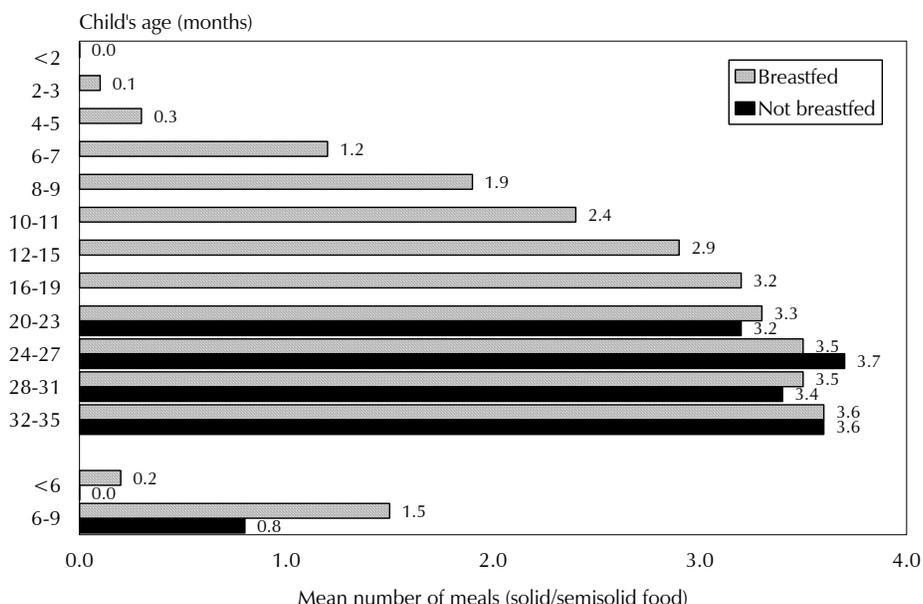
Mean number of days specific foods were received in the seven days preceding the interview by youngest children under three years of age living with the mother, by breastfeeding status and age, Nepal 2001

Age in months	Liquids			Solid/semisolid foods						Fruits and vegetables rich in vitamin A			Number of children
	Plain water	Other milk	Other liquids	Food made from grains	Food made from roots/tubers	Fruits and vegetables not rich in vitamin A	Food made from legumes	Cheese/yogurt	Meat/fish/liver/poultry/eggs	Food made from ghee/oil/fat/butter	Pumpkins/carrots/papayas/mangoes	Green leafy vegetables	
BREASTFEEDING CHILDREN													
<2	0.5	0.3	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	161
2-3	1.2	0.6	0.3	0.4	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	211
4-5	2.5	1.3	0.3	1.1	0.0	0.0	0.1	0.0	0.0	0.4	0.0	0.1	275
6-7	5.1	2.0	0.6	3.5	0.8	0.2	1.0	0.1	0.1	1.0	0.0	0.3	205
8-9	6.4	2.6	1.3	5.5	2.1	0.6	2.1	0.1	0.5	2.2	0.2	0.9	222
10-11	6.8	2.2	1.1	6.1	3.0	0.7	2.1	0.4	0.6	2.8	0.3	1.1	198
12-15	6.9	2.7	1.8	6.7	4.2	1.1	2.7	0.4	0.8	3.5	0.3	1.9	437
16-19	7.0	2.7	2.2	6.9	4.4	1.4	3.2	0.5	0.9	3.8	0.5	1.8	408
20-23	6.9	3.0	2.4	6.9	4.3	1.3	2.9	0.6	1.1	3.5	0.5	2.0	369
24-27	7.0	2.7	2.4	7.0	4.8	1.4	3.1	0.7	1.0	4.3	0.7	2.1	279
28-31	6.9	2.9	2.8	6.9	4.8	1.4	3.3	0.7	1.0	3.9	0.5	1.7	272
32-35	7.0	3.3	2.9	6.9	4.9	1.4	3.2	0.9	1.1	3.6	0.7	2.1	192
<6	1.6	0.8	0.2	0.6	0.0	0.0	0.1	0.0	0.0	0.2	0.0	0.0	648
6-9	5.7	2.3	1.0	4.5	1.4	0.4	1.6	0.1	0.4	1.6	0.1	0.6	426
Total	5.7	2.3	1.6	5.3	3.1	0.9	2.2	0.4	0.7	2.7	0.3	1.3	3,230
NONBREASTFEEDING CHILDREN													
<24	6.7	4.1	3.3	6.7	4.2	1.7	2.7	0.8	1.2	4.0	0.3	1.9	58
24-27	(7.0)	(3.6)	(3.3)	(6.7)	(4.8)	(1.5)	(3.0)	(1.4)	(1.0)	(4.1)	(0.4)	(2.2)	41
28-31	6.7	3.5	3.3	6.7	4.4	1.6	3.2	1.4	0.9	4.1	0.9	2.0	62
32-35	6.9	3.2	3.3	6.8	4.3	2.0	2.8	0.5	1.2	3.6	0.5	3.0	54

Note: Breastfeeding status refers to a "24-hour" period (yesterday and last night). Figures in parentheses are based on 25-49 unweighted cases.

Figure 10.1 indicates that the mean number of meals taken in a day increases with the age of children after six months from one meal a day among children age 6-7 months, to two meals a day among children 8-9 months, and to three meals a day among children 12 months and above.

Figure 10.1 Number of Meals Consumed Per Day by Children Under 36 Months Living with the Mother



Note: Data are not shown for groups with fewer than 25 unweighted cases.

Nepal 2001

10.6 MICRONUTRIENT INTAKE

Micronutrient deficiency is an important cause of childhood morbidity and mortality. The poor intake of nutritious food, frequent episodes of infections and infestation of parasites are some of the primary causes of micronutrient deficiency. Among the various strategies to overcome micronutrient malnutrition and improve food intake, consumption of fortified food and genetically modified food and direct supplementation are the more important interventions. The 2001 NDHS gathered information on vitamin A intake through food as well as through direct supplementation for children, as well as on the intake of vitamin A capsules postpartum and the consumption of iron and folic acid tablets during pregnancy among women.

Table 10.7 shows that 28 percent of children under three years of age consumed fruits and vegetables rich in vitamin A at least once in the seven days preceding the survey. The consumption of fruits and vegetables rich in vitamin A is higher among older children than among younger children. For example, more than two in five children age 24-35 months consumed fruits and vegetables rich in vitamin A, compared with about one in five children age 10-11 months. There is little gender difference or variation by birth order in the consumption of fruits and vegetables rich in vitamin A. Thirty-seven percent of urban children consumed fruits and vegetables rich in vitamin A, compared with 28 percent of rural children. Children in the *terai* ecological zone are less likely to consume fruits and vegetables rich in vitamin A than children in the other two ecological zones. Children living in the Far-western development region are also least likely to consume fruits and vegetables rich in vitamin A. Children of educated mothers are more likely to consume fruits and vegetables rich in vitamin A than children of mothers with no education.

An important strategy for overcoming vitamin A deficiency in the country has been the distribution of vitamin A capsules through the Nepal National Vitamin A Program, which has been in place since 1993 and covers nearly all the districts of the country.¹ During the distribution, children 6-11 months old receive 100,000 international units (IU) and children 12-59 months receive 200,000 IU of vitamin A. Children under six months are not covered because most children in this age group are breastfed and receive vitamin A through breast milk. The vitamin A distribution in Nepal was carried out during the months of Kartik and Baisakh in the Nepali calendar, which roughly corresponds to October and April in the Gregorian calendar.² Fieldwork spanned recall in the two different rounds, and the data were used to capture the most recent applicable month. Mothers of children under five were initially asked whether they knew about the most recent vitamin A capsule distribution. If the respondent did not know about the distribution, then she was asked whether 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. A respondent was asked whether her child received vitamin A during that distribution. If she reported that her child did receive vitamin A, then she was asked to describe what happened

Table 10.7 Vitamin A intake among children

Percentage of youngest children under age three living with the mother who consumed fruits and vegetables rich in vitamin A in the seven days preceding the survey, by background characteristics, Nepal 2001

Background characteristic	Consumed fruits and vegetables rich in vitamin A ¹	Number of children
Age in months		
<6	0.4	648
6-9	11.4	428
10-11	22.2	202
12-23	38.4	1,266
24-35	43.2	901
Sex		
Male	29.1	1,677
Female	27.4	1,768
Birth order		
1	29.5	798
2-3	27.7	1,396
4-5	27.5	758
6+	28.6	493
Breastfeeding status		
Breastfeeding	27.1	3,230
Not breastfeeding	45.5	215
Residence		
Urban	37.2	221
Rural	27.6	3,224
Ecological zone		
Mountain	37.9	253
Hill	30.2	1,414
Terai	25.3	1,778
Development region		
Eastern	32.5	792
Central	26.2	1,148
Western	28.8	607
Mid-western	28.0	520
Far-western	24.6	378
Subregion		
Eastern Mountain	37.4	47
Central Mountain	37.3	88
Western Mountain	38.5	118
Eastern Hill	45.3	248
Central Hill	35.2	357
Western Hill	31.5	324
Mid-western Hill	22.7	314
Far-western Hill	8.7	171
Eastern Terai	25.7	497
Central Terai	20.3	704
Western Terai	25.7	283
Mid-western Terai	36.8	159
Far-western Terai	35.5	135
Mother's education		
No education	26.2	2,486
Primary	34.3	495
Some secondary	33.2	311
SLC and above	31.9	152
Mother's age at birth		
<20	29.9	602
20-24	25.8	1,170
25-29	28.0	852
30-34	32.5	492
35-49	27.9	329
Total	28.2	3,445

SLC = School Leaving Certificate

¹Includes pumpkins, carrots, green leafy vegetables, mangoes, and papayas.

¹ Seventy-two of the 75 districts were covered by the program as of April 2001.

² The distributions that are relevant for the 2001 NDHS fieldwork were the rounds of October 18 and 19, 2000, and April 19 and 20, 2001.

during the event. Interviewers were instructed to circle a spontaneous response if a respondent mentioned that the child received a red capsule, the capsule was cut, the child's name was written down, and the capsule was provided at a central location. If any one of these four descriptions was not mentioned spontaneously, the respondent was probed

Table 10.8 shows coverage levels of vitamin A supplementation among children 6-59 months of age. Overall, 81 percent of children age 6-59 months received vitamin A supplementation during the most recent distribution. The 1998 NMSS showed that 87 percent of children age 6-59 months received vitamin A supplementation in the most recent distribution preceding the survey. In addition, minisurveys conducted by the Nepal Technical Assistance Group (NTAG) after every round of the distribution have shown coverage ranging from 86 percent to above 95 percent (NTAG, 2001). Among children who received vitamin A supplementation, the four specific descriptive conditions on vitamin A mentioned above were recounted spontaneously by mothers of 10 percent of children, whereas in the case of 81 percent of children, this information was obtained through probing.

Children 12-59 months are more likely to receive vitamin A supplementation than younger children. With the exception of children in the age groups 6-9 months and 10-11 months, there is little difference in vitamin A supplementation by age. It is possible that the low level of coverage (44 percent) for children 6-9 months could be because some children were under six months of age and thus ineligible during the last distribution. The DHS does not ask the age of the child during the vitamin A distribution but rather takes into account the age on the day of the interview. The inclusion of these ineligible children may lead to some slight underestimation in the coverage.

There is little difference in vitamin A supplementation by sex of the child. The urban-rural difference in vitamin A intake is more obvious, with rural children somewhat more likely to receive vitamin A capsules than urban children. Four out of five children in rural areas received vitamin A capsules, compared with three in four children in urban areas. Differences by ecological zone are minimal. Children residing in the Western region are somewhat more likely to have received vitamin A supplementation, especially children living in the Western hill, Western *terai*, and Far-western *terai* subregions. Vitamin A supplementation for children increases slightly with education of mothers. These differences are consistent with findings from the NMSS 1998 and also with the minisurveys conducted by NTAG.

A mother's nutritional status during pregnancy is important both for the child's intrauterine development and for protection against maternal morbidity and mortality. The 2001 NDHS gathered information on whether mothers received vitamin A supplementation during the first two months after a delivery and whether women received iron and folic acid tablets during pregnancy. Information on the occurrence of night blindness was also collected from women. Night blindness is an indicator of severe vitamin A deficiency, from which pregnant women are especially prone to suffer. Since some of the reported cases of night blindness could also be attributed to vision difficulties in general and not specific to vitamin A deficiency, it is important to make this distinction and exclude these cases to get a more precise estimate of night blindness.

Table 10.8 Vitamin A supplement

Percentage of children 6-59 months who received vitamin A supplement during the most recent distribution, and among those who received vitamin A, the percentage of children whose mothers mentioned, spontaneously or after probing, all four conditions of receipt of vitamin A, by background characteristics, Nepal 2001

Background characteristic	Percentage of children who received vitamin A	Number of children	Among children who received vitamin A:		Number of children
			Percentage whose mother mentioned all four conditions spontaneously ¹	Percentage whose mother mentioned all four conditions after probing ¹	
Age in months					
6-9	44.1	455	3.7	89.0	201
10-11	73.0	217	6.2	83.9	159
12-23	83.3	1,394	8.3	83.0	1,162
24-35	85.5	1,345	8.9	83.1	1,149
36-47	84.5	1,452	9.6	81.5	1,226
48-59	84.0	1,430	13.5	76.4	1,201
Sex					
Male	80.9	3,119	9.6	81.0	2,522
Female	81.2	3,174	9.8	81.7	2,576
Residence					
Urban	75.3	422	10.3	75.5	318
Rural	81.4	5,870	9.7	81.8	4,780
Ecological zone					
Mountain	80.5	487	13.2	81.6	392
Hill	81.9	2,622	7.6	84.0	2,147
Terai	80.4	3,183	11.0	79.2	2,559
Development region					
Eastern	79.5	1,440	9.1	80.6	1,146
Central	78.2	2,069	16.3	71.5	1,619
Western	86.0	1,159	9.3	81.9	997
Mid-western	83.6	958	1.9	95.0	801
Far-western	80.4	666	3.6	91.4	535
Subregion					
Eastern Mountain	79.9	97	12.3	71.4	77
Central Mountain	81.1	165	22.1	75.5	134
Western Mountain	80.3	226	7.0	90.4	181
Eastern Hill	82.0	483	9.2	79.9	396
Central Hill	78.8	636	15.4	74.0	501
Western Hill	85.8	639	6.7	83.5	548
Mid-western Hill	83.2	574	1.7	94.8	478
Far-western Hill	77.4	291	1.7	91.6	225
Eastern Terai	78.1	861	8.7	82.0	673
Central Terai	77.6	1,268	15.9	69.8	984
Western Terai	86.3	520	12.5	80.1	449
Mid-western Terai	84.1	298	2.4	95.0	250
Far-western Terai	85.8	236	1.9	93.9	202
Mother's education					
No education	80.2	4,688	8.4	83.2	3,758
Primary	83.3	862	12.2	78.1	718
Some secondary	83.3	529	14.2	75.0	440
SLC and above	84.9	214	16.1	71.6	181
Total	81.0	6,293	9.7	81.4	5,098

Note: Information on vitamin A supplements is based on mother's recall.

SLC = School Leaving Certificate

¹ Child received a red capsule; the capsule was cut; the child's name was written down; and the capsule was provided at a central location.

Table 10.9 shows micronutrient intake among mothers and the status of night blindness during pregnancy. Overall, 10 percent of recent mothers received a vitamin A supplement within two months postpartum. Younger women and women with fewer children are more likely to receive vitamin A postpartum. There is a marked difference by urban-rural residence, with 23 percent of urban women receiving vitamin A postpartum, compared with only 9 percent of women in rural areas. Women residing in the *terai* ecological zone and especially in the Far-western *terai* subregion are more likely than residents of other regions to receive vitamin A postpartum. Similarly, educated women are more likely to receive vitamin A postpartum than women with no education.

In general, 20 percent of women reported night blindness during pregnancy. When adjusted for blindness not attributed to vitamin A deficiency during pregnancy, the data in Table 10.9 show that 8 percent of women reported night blindness during their last pregnancy.

Iron-deficiency anemia has remained a public health problem in Nepal. To combat this problem, the government has embarked on a program to provide 60 milligrams of iron per day to pregnant women from the beginning of their second trimester of pregnancy through 45 days postpartum for all pregnant women visiting health posts. In spite of this program, the 2001 NDHS data show that more than three in four women who gave birth in the five years preceding the survey did not take iron/folic acid tablets during their pregnancy, and 14 percent reported taking iron/folic acid tablets for less than 60 days. Three percent of women reported taking these tablets for 60-89 days and 6 percent reported taking them for 90 days or longer. Younger women, women living in the urban areas, and educated women are more likely to take iron/folic acid tablets than other women.

10.7 NUTRITIONAL STATUS OF CHILDREN

The nutritional status of young children reflects the level and pace of household, community, and national development. Malnutrition is a direct result of insufficient food intake or repeated infectious disease or a combination of both. It can result in an increased risk of illness and death and can also result in a lower level of cognitive development.

The 2001 NDHS measured the heights and weights for all children under five years of age to estimate their nutritional status. Anthropometry provides one of the most important indicators of children's nutritional status. A three-piece Shorr portable measuring board was used to measure the height of children; children under two years were measured lying down (supine), while those over two years were measured standing up. The weight of children was obtained to the nearest 0.1 kilogram using the UNISCALE digital scales from UNICEF. The scales were calibrated on a regular basis in the field against standard weights. Three internationally accepted indices of physical growth describing children's nutritional status were constructed from combining the height, weight, and age data: height-for-age, weight-for-height, and weight-for-age.

Table 10.9 Micronutrient intake among mothers

Among women who gave birth in the five years preceding the survey, percentage who received a vitamin A dose in the first two months after delivery, percentage who suffered from night blindness during pregnancy, and percentage who took iron/folic acid tablets for specific numbers of days, by background characteristics, Nepal 2001

Background characteristic	Received vitamin A dose postpartum ¹	Percentage who suffered night blindness during pregnancy		Number of days women took iron/folic acid tablets during pregnancy				Number of women	
		Reported	Adjusted ²	None	<60	60-89	90+		Don't know/missing
Mother's age at birth									
<20	11.7	16.6	4.8	70.4	19.1	3.5	7.0	0.1	773
20-24	12.9	17.1	6.6	72.7	15.9	3.7	7.3	0.3	1,551
25-29	10.2	19.8	8.6	76.8	14.5	2.5	5.9	0.4	1,181
30-34	6.2	22.9	10.0	86.2	9.6	1.2	2.9	0.1	687
35-49	6.7	26.1	8.9	88.6	7.6	1.3	2.2	0.3	553
Number of children ever born									
1	15.4	13.3	4.1	63.2	19.3	4.5	12.7	0.3	993
2-3	10.8	18.1	7.2	74.7	16.1	3.2	5.8	0.2	1,900
4-5	8.0	22.2	8.8	84.7	11.3	1.4	2.2	0.4	1,107
6+	5.9	27.8	11.0	90.7	6.7	1.3	1.3	0.0	746
Residence									
Urban	22.8	7.1	2.9	48.8	24.3	6.3	20.1	0.5	332
Rural	9.4	20.5	7.9	79.3	13.4	2.5	4.6	0.2	4,414
Ecological zone									
Mountain	4.3	36.8	8.7	85.9	10.5	1.3	2.3	0.0	361
Hill	8.3	19.5	5.5	77.8	13.3	2.5	6.2	0.2	1,979
Terai	12.9	17.1	9.0	75.3	15.5	3.2	5.7	0.3	2,405
Development region									
Eastern	12.2	19.2	7.6	76.0	14.6	2.8	6.5	0.1	1,102
Central	9.7	21.4	7.8	74.9	13.7	3.6	7.3	0.5	1,535
Western	10.1	12.6	4.0	71.4	19.6	3.1	5.7	0.1	914
Mid-western	4.1	24.3	8.0	88.7	8.0	0.8	2.6	0.0	693
Far-western	17.1	21.1	12.5	81.4	13.3	1.9	3.1	0.4	502
Subregion									
Eastern Mountain	7.3	14.5	3.6	83.4	10.9	0.5	5.2	0.0	74
Central Mountain	0.9	43.9	2.6	77.8	17.8	3.0	1.3	0.0	122
Western Mountain	5.6	41.5	15.3	93.0	4.9	0.3	1.7	0.0	166
Eastern Hill	8.3	21.6	2.2	80.3	12.7	3.2	3.8	0.0	347
Central Hill	13.4	19.3	1.7	71.3	12.6	3.3	12.2	0.6	484
Western Hill	7.9	11.3	3.3	69.1	19.9	3.8	7.1	0.0	521
Mid-western Hill	1.6	26.3	9.9	90.9	7.5	0.0	1.6	0.0	405
Far-western Hill	10.4	23.2	16.1	84.2	10.8	1.0	3.4	0.6	223
Eastern Terai	14.7	18.5	10.7	72.9	16.0	2.8	8.1	0.2	681
Central Terai	8.9	19.6	11.6	76.3	13.8	3.9	5.5	0.5	930
Western Terai	13.0	14.2	4.9	74.4	19.3	2.2	3.8	0.3	393
Mid-western Terai	9.4	10.7	3.2	82.4	10.1	2.5	5.0	0.0	222
Far-western Terai	30.5	13.0	5.2	72.6	20.5	3.8	2.8	0.3	179
Mother's education									
No education	7.3	22.6	9.0	84.8	10.8	1.5	2.7	0.2	3,437
Primary	11.8	15.8	4.8	70.5	19.7	3.8	5.9	0.1	684
Some secondary	21.7	8.8	2.9	49.1	26.2	6.8	17.4	0.5	439
SLC and above	32.9	3.3	1.4	26.8	27.8	12.1	32.6	0.7	186
Total	10.3	19.6	7.5	77.2	14.2	2.7	5.7	0.2	4,745

Note: For women with two or more live births in the five-year period, data refer to the most recent birth.

SLC = School Leaving Certificate

¹ In the first two months after delivery

² Women who reported night blindness but did not report difficulty with vision during the day

These three indices provide indications of children's susceptibility to diseases and their chances of survival and are expressed as standardized (Z-scores) deviation units from the median of a reference population recommended by the World Health Organization. The use of a reference population is based on the finding that well-nourished children in all population groups for which data exist follow similar growth patterns before puberty and thus exhibit similar distributions of height and weight at given ages (Martorell and Habicht, 1986). One of the most commonly used reference populations is the international reference population defined by the U.S. National Center for Health Statistics (NCHS) and accepted by WHO and the U.S. Centers for Disease Control and Prevention (CDC). The reference population serves as a point of comparison, facilitating the examination of differences in the anthropometric status of subgroups in a population and changes in nutritional status over time. Children who fall below two standard deviations from the reference median are regarded as malnourished, whereas children who fall three standard deviations below the reference median are regarded as severely malnourished. Since children's height and weight change with age, it is suggested that height and weight be related to age and that weight be related to height, taking the sex of the child into consideration. Each of the three indices measures somewhat different aspects of nutritional status.

The height-for-age index provides an indicator of linear growth retardation. Children whose height-for-age is below minus two standard deviations (-2 SD) from the median of the reference population are considered short for their age, or *stunted*. Children who are below minus three standard deviations (-3 SD) from the reference population median are *severely stunted*. Stunting of a child's growth may be the result of failure to receive adequate nutrition over a long period or of the effects of recurrent or chronic illness. Height-for-age, therefore, represents a measure of the outcome of undernutrition in a population over a long period and does not vary appreciably with the season of data collection.

The weight-for-height index measures body mass in relation to body length. Children whose weight-for-height is below minus two standard deviations (-2 SD) from the median of the reference population are too thin for their height, or *wasted*, while those whose weight-for-height is below minus three standard deviations (-3 SD) from the reference population median are *severely wasted*. Wasting represents the failure to receive adequate nutrition during the period immediately before the survey. It may be the result of recent episodes of illness, especially diarrhea, or of acute food shortage.

Weight-for-age is a composite index of height-for-age and weight-for-height. Children whose weight-for-age is below minus two standard deviations (-2 SD) from the median of the reference population are *underweight* for their age, while those who are below minus three standard deviations (-3 SD) from the reference population are *severely underweight*. Being underweight for one's age, therefore, could mean that a child is stunted or wasted or both stunted and wasted.

Table 10.10 shows the nutritional status of children under five years classified as malnourished according to the three indices of nutritional status, by background characteristics. The validity of these indices is determined by several factors, including the coverage of the population of children and the accuracy of the anthropometric measurements. The survey was not able to measure the height and weight of all eligible children, usually because the child was not at home at the time

Table 10.10 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 2001

Background characteristic	Height-for-age			Weight-for-height			Weight-for-age			Number of children
	Percentage below -3 SD	Percentage below -2 SD ¹	Mean z-score (SD)	Percentage below -3 SD	Percentage below -2 SD ¹	Mean z-score (SD)	Percentage below -3 SD ¹	Percentage below -2 SD ¹	Mean z-score (SD)	
Age in months										
<6	1.0	9.9	-0.8	1.1	3.3	-0.2	0.9	6.7	-0.7	604
6-9	4.4	20.7	-1.2	1.0	5.9	-0.6	4.6	28.7	-1.4	423
10-11	11.0	36.5	-1.7	1.5	14.0	-1.0	18.2	54.5	-2.1	200
12-23	21.1	52.4	-2.1	3.4	22.4	-1.3	21.0	60.1	-2.2	1,308
24-35	23.1	57.2	-2.2	0.2	7.0	-1.0	16.3	56.2	-2.1	1,232
36-47	29.5	62.8	-2.3	0.3	5.9	-0.8	11.6	52.7	-2.0	1,338
48-59	27.9	60.4	-2.3	0.4	6.6	-0.8	8.8	49.1	-1.9	1,306
Sex										
Male	19.0	49.2	-2.0	1.3	10.6	-0.9	10.9	46.1	-1.8	3,157
Female	23.6	51.8	-2.1	0.9	8.7	-0.9	14.2	50.5	-1.9	3,253
Birth order²										
1	16.9	46.2	-1.9	0.8	9.6	-0.8	8.7	43.3	-1.8	1,415
2-3	18.5	47.5	-1.9	1.4	10.0	-0.9	11.5	46.4	-1.8	2,549
4-5	25.1	54.5	-2.2	0.9	8.9	-0.9	14.9	52.3	-2.0	1,380
6+	30.3	60.1	-2.3	1.3	10.3	-1.0	19.2	56.3	-2.1	891
Birth interval in months²										
First birth ³	17.1	46.2	-1.9	0.8	9.6	-0.8	8.7	43.4	-1.8	1,422
<24	26.2	56.8	-2.2	1.4	8.8	-0.9	16.4	50.2	-2.0	1,077
24-47	22.2	51.6	-2.0	1.3	9.6	-0.9	13.3	50.9	-1.9	2,796
48+	19.2	46.7	-1.9	0.9	11.3	-0.9	12.5	46.6	-1.8	941
Size at birth²										
Very small	31.4	61.7	-2.4	0.5	10.0	-0.9	20.5	61.4	-2.2	373
Small	29.1	61.1	-2.3	1.1	14.0	-1.0	20.0	61.2	-2.2	960
Average or larger	19.1	47.7	-1.9	1.1	8.8	-0.8	10.6	44.9	-1.8	5,075
Residence										
Urban	11.4	36.7	-1.6	0.6	8.2	-0.7	6.7	33.0	-1.6	426
Rural	22.0	51.5	-2.0	1.1	9.7	-0.9	13.0	49.4	-1.9	5,983
Ecological zone										
Mountain	28.2	61.2	-2.3	0.9	6.2	-0.7	13.9	49.9	-1.9	488
Hill	21.5	52.7	-2.1	0.6	5.7	-0.7	10.0	45.3	-1.8	2,685
Terai	20.1	47.1	-1.9	1.6	13.4	-1.1	14.6	50.6	-2.0	3,237
Development region										
Eastern	17.9	44.6	-1.8	0.8	7.8	-0.8	8.7	41.0	-1.7	1,479
Central	23.1	52.3	-2.0	1.4	12.5	-0.9	15.8	51.7	-2.0	2,098
Western	19.9	50.3	-2.0	0.9	7.0	-0.8	10.8	44.7	-1.8	1,197
Mid-western	23.2	53.8	-2.1	1.2	8.2	-0.9	12.2	52.2	-2.0	971
Far-western	23.1	53.7	-2.1	0.9	11.2	-0.9	15.1	54.6	-2.0	665
Subregion										
Eastern Mountain	17.6	51.3	-2.0	0.0	1.9	-0.4	6.4	33.0	-1.6	102
Central Mountain	24.7	60.8	-2.3	0.3	5.7	-0.4	8.2	41.8	-1.7	168
Western Mountain	36.0	66.1	-2.5	1.9	8.6	-1.0	21.8	64.2	-2.3	217
Eastern Hill	18.9	48.8	-2.0	0.2	3.8	-0.6	6.5	38.4	-1.7	495
Central Hill	23.1	51.7	-2.1	0.5	3.3	-0.5	8.4	40.5	-1.7	646
Western Hill	16.6	47.9	-2.0	0.0	4.2	-0.6	7.0	39.9	-1.7	660
Mid-western Hill	25.3	59.2	-2.3	1.4	8.1	-0.9	14.4	55.8	-2.1	592
Far-western Hill	26.2	59.1	-2.2	0.6	12.6	-0.9	17.1	58.1	-2.1	292
Eastern Terai	17.3	41.4	-1.7	1.3	10.8	-0.9	10.1	43.4	-1.8	882
Central Terai	22.9	51.5	-2.0	2.0	18.1	-1.2	20.5	58.6	-2.1	1,283
Western Terai	23.9	53.3	-2.0	2.0	10.5	-1.0	15.4	50.5	-2.0	537
Mid-western Terai	14.2	37.0	-1.7	0.5	8.7	-1.0	5.2	40.8	-1.8	295
Far-western Terai	13.7	43.2	-1.8	0.7	10.7	-0.9	9.0	46.0	-1.8	240
Mother's education⁴										
No education	24.9	54.9	-2.1	1.3	10.8	-0.9	15.0	53.1	-2.0	4,594
Primary	13.8	43.0	-1.8	0.6	8.2	-0.8	8.3	41.0	-1.7	887
Some secondary	10.8	34.7	-1.6	0.5	5.3	-0.7	5.0	31.3	-1.5	530
SLC and above	2.4	27.9	-1.2	0.7	3.0	-0.6	0.7	21.9	-1.2	224
Mother's age⁴										
15-19	14.1	40.9	-1.7	1.3	9.5	-0.7	9.4	38.1	-1.6	372
20-24	18.2	45.1	-1.9	1.1	11.1	-0.9	11.7	46.3	-1.8	1,890
25-29	20.4	49.7	-2.0	1.3	9.2	-0.9	11.4	48.7	-1.9	1,981
30-34	22.8	54.9	-2.1	0.7	8.2	-0.8	13.5	48.0	-1.9	1,198
35-49	30.3	61.2	-2.3	1.1	9.6	-0.9	16.8	55.7	-2.1	968
Children of interviewed mothers	21.3	50.5	-2.0	1.1	9.7	-0.9	12.7	48.4	-1.9	6,235
Total	21.3	50.5	-2.0	1.1	9.6	-0.9	12.6	48.3	-1.9	6,410

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 NCHS/CDC/WHO International Reference Population. The percentage of children who are more than three or more than two standard deviations below the median of the International Reference Population (-3 SD and -2 SD) are shown according to background characteristics. 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 For women who are not interviewed, information is taken from the Household Questionnaire. Excludes children whose mothers are not listed in the household schedule.

the measurements were being taken or because the mother refused to allow the child to be weighed and measured. The survey did not measure 3 percent of children under age five (Appendix Table C.3). In addition, children with incomplete information on month and year of birth and children with grossly improbable height or weight measurements were excluded from the analysis (4 percent of children). Height and weight measurements for Nepal are shown for 6,410 children age 0-59 months at the time of the survey, for whom complete and plausible anthropometric data were collected.

An examination of Table 10.10 on height-for-age suggests that there is considerable chronic malnutrition among Nepalese children. Overall, 51 percent of children under age five are stunted and 21 percent are severely stunted. Data from the 1996 NFHS shows that stunting has in fact gone up slightly from 48 percent, with little change in the percentage severely stunted. Data from the 1998 NMSS showed that 54 percent of children in the same age group were stunted and 22 percent were severely stunted. A child's age is associated with the likelihood of stunting. Stunting increases sharply from 10 percent among children under six months of age to 57 percent among children age 24-35 months. Female children are slightly more likely to be stunted (52 percent) or severely stunted (24 percent) than male children (49 percent and 19 percent, respectively). Stunting is more prevalent among children of higher birth order and children with a short birth interval. As expected, children who were small or very small at birth are more likely to be short for their age than children who were of average birth weight.

Children in rural areas are more likely to be stunted (52 percent) than children in urban areas (37 percent), and children in the mountain zone are more likely to be stunted (61 percent) than children in the hill (53 percent) and *terai* (47 percent) zones. This is probably because healthy food is more readily available in the hills and *terai* than in the mountains. The Eastern development region has the lowest level of stunting (45 percent).

As expected, stunting decreases with increasing level of mother's education, such that children of mothers with no education are more likely to be stunted than children of mothers with higher levels of education.

The weight-for-height index in Table 10.10 provides a measure of wasting or acute malnutrition. Overall, 10 percent of children under the age of five are wasted and 1 percent are severely wasted. The level of wasting increases from 3 percent among children under six months of age, peaks at 22 percent among children 12-23 months of age, and then declines to 7 percent among children age 48-59 months.

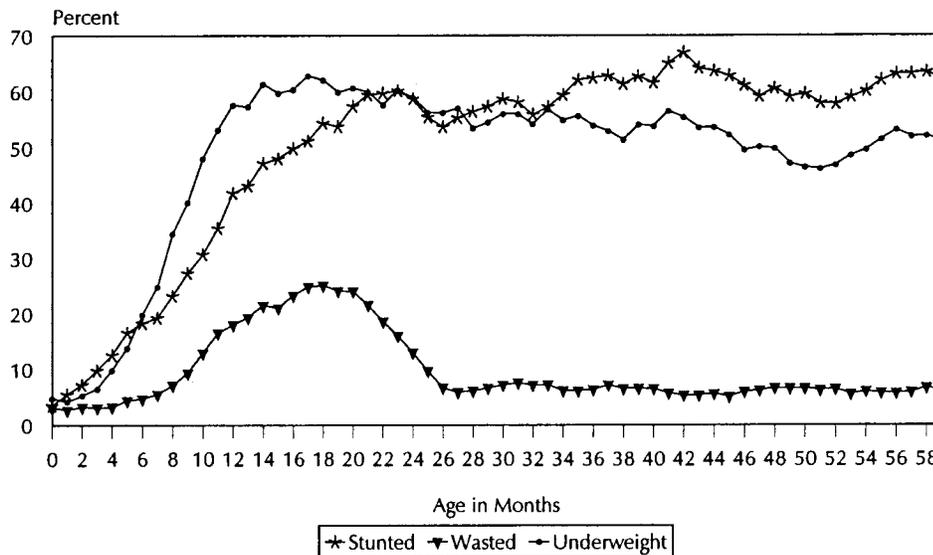
Table 10.10 shows that children living in the hills and mountains, in the Western development region, and especially in the Eastern mountain subregion are less likely to be wasted than other children. The differentials in wasting by mother's education are similar to those observed for stunting.

Weight-for-age takes into account both chronic and acute undernutrition and is often used to monitor nutritional status on a longitudinal basis. Forty-eight percent of Nepalese children are underweight and 13 percent are severely underweight. Low weight-for-age is more common among children more than six months old and children of higher birth order but is not strongly associated with sex or birth interval. Differentials in the percentage of children underweight by socioeconomic characteristics are similar to those observed for wasting.

Of all the children eligible for the anthropometric measurement, 3 percent did not have a mother present in the household, either because they did not live in the same household as the children, were away at the time the individual interview was administered, or did not complete the Women's Questionnaire for some reason. There is no difference in the nutritional status of children whose mother was interviewed and children whose mother was not. It has been argued that children who live in a household where the mother is not present may not receive the same quality of care and nurturing that they would if they lived with their natural mother. Data were run separately for each of these groups to determine whether this might be the case in Nepal. There is virtually no difference in the nutritional status of children whose mother lived in the household and children whose mother did not (data not shown).

Figure 10.2 shows the percentage of children under five years of age by the three measures of malnutrition. The proportion of children malnourished increases sharply from four months through 18 months of age, when underweight plateaus, then fluctuates between 50 and 60 percent through five years of age. The curve for stunting increases a little less sharply reaching almost 60 percent at 24 months, leveling off and rising again from 34 months through 42 months. Wasting has a lower curve that sharply increases from about nine months of age, reaching a high of about 22 percent at 18 months, then sharply declines to less than 10 percent, remaining at that rate between 26 months and five years. It should be noted that a vulnerable age is indicated between 4 and 24 months, when the acceleration of malnutrition is the greatest and at which age effective interventions will have a lifelong impact on the nutritional status of the people of Nepal.

Figure 10.2 Nutritional Status of Children by Age



Note: Plotted values are smoothed by a five-month moving average.

Nepal 2001

Baseline information on the nutritional status of children in the country was provided by the 1975 National Nutritional Status Survey. Surveys like the 1996 NFHS collected information on the nutritional status of children under 36 months of age. A comprehensive study of the nutritional status of children was also conducted in the 1998 NMSS (Ministry of Health, 1999). These studies provide information on malnutrition among Nepalese children. Although there are variations in the survey design, results of these studies indicate that there has hardly been a commendable improvement in the nutritional status of children since the mid-1990s (Table 10.11).

The prevalence of undernutrition among children as indicated by the 2001 NDHS is comparable with the findings of the 1998 NMSS and the findings of the 1996 NFHS. However, there is slight variation, which could be partly attributed to the fact that the information on children was collected from different age groups.

Survey	Year	Location	Age group (months)	Prevalence of undernutrition		
				Stunting ^a	Wasting ^b	Under-weight ^c
National Nutrition Status Survey (NNS)	1975	National	6-59	69.4 ^d	13.0 ^d	69.1 ^d
Nepal Family Health Survey (NFHS)	1996	National	0-36	48.4	11.2	46.9
Nepal Micronutrient Status Survey (NMSS)	1998	National	6-59	54.1	6.7	47.1
Nepal Demographic and Health Survey	2001	National	0-59	50.5	9.6	48.3

^a Percentage of children with height-for-age <-2 SD from WHO/NCHS growth reference
^b Percentage of children with weight-for-height <-2 SD from WHO/NCHS growth reference
^c Percentage of children with weight-for-age <-2 SD from WHO/NCHS growth reference
^d Data taken from WHO Global Database on Child Growth and Malnutrition, 1997

10.8 NUTRITIONAL STATUS OF WOMEN

The 2001 NDHS collected anthropometric data from all ever-married women 15-49 to assess the nutritional status of women. Women's nutritional status is important both as an indicator of overall health and as a predictor of pregnancy outcome for both mother and child. The basic measures used to assess nutritional status in this report are height and weight of women and BMI, which is an indicator that combines height and weight data. Table 10.12 shows the distribution of all women 15-49 years by height and BMI according to selected background characteristics. Height data are missing for less than 1 percent of women, while weight data are not shown for 11 percent of women, for whom information was missing or incomplete or who have been excluded either because they were pregnant at the time of the interview or had given birth within two months of the interview.

Maternal height is an outcome of nutrition during childhood and adolescence. It is useful in predicting the risks associated with difficult deliveries, since small stature is often associated with small pelvis size. Short women also face increased risk of having low birth weight babies. The height below which a woman is considered at nutritional risk is in the range of 140-150 centimeters. The mean height of mothers measured in the 2001 NDHS is 150.2 centimeters, which is similar to findings in the 1996 NFHS. One in seven Nepalese women is below 145 centimeters and can be considered to be at nutritional risk.

Table 10.12 Nutritional status of women by background characteristics

Among women age 15-49, mean height, percentage under 145 cm, mean body mass index (BMI), and percentage with specific BMI levels, by background characteristics, Nepal 2001

Background characteristic	Height			BMI ¹ (kg/m ²)									Number of women
	Mean height in cm	Percent-age below 145 cm	Number of women	Mean BMI	18.5-24.9 (normal)	<18.5 (thin)	17.0-18.4 (mildly thin)	16.0-16.9 (moder-ately thin)	<16.0 (severely thin)	~ 25.0 (over-weight/obese)	25.0-29.9 (over-weight)	~ 30.0 (obese)	
Age													
15-19	150.1	15.7	936	20.1	75.6	23.2	18.0	3.9	1.3	1.2	1.1	0.1	742
20-24	150.3	15.7	1,652	20.2	73.4	23.4	18.0	4.0	1.5	3.2	3.0	0.2	1,322
25-29	150.5	14.1	1,662	20.4	71.8	23.0	15.3	5.0	2.7	5.2	4.4	0.8	1,464
30-34	150.7	13.5	1,425	20.6	66.1	26.0	18.5	5.6	2.0	7.9	7.0	0.8	1,307
35-39	150.3	13.0	1,164	20.3	62.7	28.8	17.1	7.6	4.0	8.5	7.2	1.3	1,115
40-44	150.0	15.8	1,024	20.5	59.1	30.5	17.4	6.6	6.5	10.4	8.4	2.0	1,005
45-49	148.9	21.6	830	20.1	56.1	34.8	18.7	8.6	7.5	9.1	6.8	2.2	829
Residence													
Urban	150.4	13.1	834	22.3	59.1	16.8	11.6	3.4	1.9	24.1	18.9	5.1	776
Rural	150.2	15.5	7,859	20.1	67.7	27.7	18.1	6.1	3.6	4.5	4.0	0.6	7,008
Ecological zone													
Mountain	149.8	17.5	601	20.6	76.5	19.2	15.0	3.0	1.3	4.3	4.0	0.3	538
Hill	150.1	15.7	3,598	20.9	76.1	16.6	13.1	2.8	0.8	7.2	6.0	1.2	3,210
Terai	150.3	14.6	4,494	19.8	58.2	35.6	21.2	8.6	5.8	6.2	5.2	0.9	4,036
Development region													
Eastern	150.3	14.3	2,095	20.4	65.1	27.6	17.2	6.9	3.5	7.3	6.2	1.1	1,869
Central	149.6	18.2	2,784	20.2	62.3	30.8	19.0	6.4	5.4	7.0	5.6	1.4	2,497
Western	150.1	15.7	1,769	20.9	72.1	19.4	13.4	4.3	1.7	8.4	7.4	1.1	1,604
Mid-western	150.8	12.0	1,197	20.1	71.1	25.0	18.3	4.3	2.4	4.0	3.5	0.5	1,072
Far-western	151.2	11.6	849	19.8	69.5	28.4	20.6	6.5	1.4	2.1	1.9	0.2	741
Subregion													
Eastern Mountain	150.2	17.9	126	21.7	78.6	10.1	8.8	0.6	0.6	11.4	10.4	1.0	117
Central Mountain	149.3	17.6	208	20.7	78.4	17.4	14.0	2.2	1.1	4.2	3.9	0.3	189
Western Mountain	149.9	17.3	267	19.9	73.9	25.4	18.9	4.7	1.7	0.7	0.7	0.0	232
Eastern Hill	149.5	20.2	578	20.9	82.4	12.9	10.9	1.5	0.4	4.6	4.0	0.7	498
Central Hill	149.8	17.2	935	21.7	74.1	13.1	10.7	1.5	0.9	12.8	9.6	3.2	848
Western Hill	150.1	15.7	1,073	21.3	78.0	13.1	10.0	2.7	0.4	8.9	7.9	1.0	977
Mid-western Hill	150.7	12.2	648	19.8	73.2	25.1	19.8	3.8	1.5	1.8	1.8	0.0	569
Far-western Hill	151.2	10.8	365	19.6	71.3	27.7	20.6	6.4	0.7	1.0	1.0	0.0	317
Eastern Terai	150.6	11.5	1,391	20.1	56.9	35.1	20.4	9.6	5.0	8.0	6.8	1.3	1,254
Central Terai	149.6	18.9	1,642	19.2	53.3	42.8	24.4	9.7	8.7	3.9	3.4	0.5	1,461
Western Terai	150.2	15.6	696	20.2	63.0	29.3	18.6	6.9	3.9	7.7	6.5	1.2	626
Mid-western Terai	151.4	10.0	438	20.4	67.6	24.5	16.6	4.5	3.4	7.8	6.6	1.2	406
Far-western Terai	151.7	10.3	328	19.9	65.1	31.0	20.7	7.8	2.5	3.9	3.4	0.5	289
Mother's education													
No education	149.9	16.8	6,248	19.9	65.4	30.4	19.2	6.9	4.3	4.2	3.5	0.7	5,638
Primary	150.4	13.6	1,294	21.0	72.3	18.1	14.0	3.3	0.8	9.6	8.1	1.4	1,144
Some secondary	151.5	9.2	814	21.6	69.4	16.3	12.5	2.2	1.5	14.3	12.3	2.0	702
SLC and above	152.2	7.1	338	22.0	67.7	13.0	8.9	2.4	1.7	19.3	16.2	3.1	300
Total	150.2	15.3	8,694	20.3	66.9	26.7	17.4	5.8	3.4	6.5	5.5	1.0	7,784

SLC = School Leaving Certificate

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

Low pre-pregnancy weight is often associated with unfavorable pregnancy outcomes, although maternal height must also be taken into account. The mean weight of mothers, excluding those who were pregnant at the time of the survey or who had a birth within two months of the interview, is 46 kilograms (data not shown). This is a slight improvement over the 1996 NFHS, in which the mean weight of mothers was 45 kilograms.

The BMI, which utilizes both height and weight and provides a better measure of thinness than weight alone, is defined as weight in kilograms divided by the square of the height in meters. For the BMI, a cutoff of 18.5 has been recommended for indicating chronic energy deficiency among nonpregnant women. The mean BMI for women in Nepal is 20.3. One in four women (27 percent) in Nepal falls below the cutoff, indicating that the level of chronic energy deficiency in Nepal is relatively high. The 1998 NMSS also indicates that 25 percent of women in Nepal fell below the cutoff (BMI<18.5). 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, 1999).

In general, there is little variation by background characteristics in maternal height and body mass measures among Nepalese women (Table 10.12). The percentage below 145 centimeters is highest among women age 45-49 (22 percent). Women living in rural areas are more likely to fall below the cutoff of 145 cm than women living in the urban areas. Women residing in the mountains, in the Central region, and the Central *terai* and Eastern hill subregions are more likely to fall below the 145 cm cutoff value than other women. Women's education is related to nutritional status; women with some education are less likely to fall below the cutoff value. For example, 17 percent of women with no education fall below the cutoff, while only 7 percent of women with an SLC and higher education fall below the cutoff value. This could be because women who have had some schooling come from a higher socioeconomic group.

Obesity among Nepalese women varies with age, and as women get older, they are more likely to be obese. This can be observed in the 2001 NDHS findings, where more women above the age of 40 are obese. At the same time a higher proportion of older women are also more likely to be severely thin (<16.0). This indicates that younger women are better able to maintain their normal body weight than women in the older age groups, presumably because they are more active, more health conscious, and less prone to age-related illnesses.

Rural women, women living in the *terai*, women in the Central regions, and especially those in the Central *terai* subregion are more likely than other women to have a BMI lower than 18.5. This is consistent with findings from the 1998 NMSS (Ministry of Health, 1999).

KNOWLEDGE OF HIV/AIDS

Acquired immune deficiency syndrome (AIDS) was first recognized internationally in 1981. As of 2000, an estimated 36 million adults and children around the world were living with the human immunodeficiency virus (HIV) and AIDS (UNAIDS, 2000). AIDS is caused by HIV, and when infected with HIV, a large proportion of people dies within 5-10 years (World Health Organization, 1992). The HIV/AIDS pandemic is one of the most serious health concerns in the world today because of the 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 transmissions from infected mothers as the main routes of transmission of AIDS. Studies have also indicated that HIV cannot be transmitted through food, water, insect vectors, or casual contact.

The first HIV infection in Nepal was identified in 1988. The potential for the spread of HIV in Nepal is large because of extensive use of commercial sex workers, high rates of sexually transmitted diseases, low levels of condom use, and pockets of intravenous drug users. As of October 2001, a total of 533 AIDS cases and 1,564 cases of HIV infection were reported to the Ministry of Health, National Center for AIDS and STD Control (NCASC, 2001). However, these figures are probably grossly underestimated given the current medical and public health infrastructure and limited HIV/AIDS surveillance system in Nepal. One estimate shows approximately 34,000 cases of HIV/AIDS infection in Nepal (UNAIDS, 2000), and another study of female sex workers with sexually transmitted diseases in Kathmandu shows a 17 percent infection rate (FHI/SACTS/USAID, 2000), while it was 50 percent among intravenous drug users (Gurubacharya, 1999). Therefore, the risk of AIDS spreading into the general population through the sexual partners of intravenous drug users and clients of female sex workers is large.

In light of the seriousness of the situation, the government of Nepal is committed to the prevention and control of AIDS and other STDs in Nepal through a multisectoral approach. In 1987, the Nepalese government initiated the National AIDS Prevention and Control Project (NAPCP), with financial and technical support from the World Health Organization. The project aimed at preventing HIV transmission through sex and blood, preventing prenatal transmission, and reducing the impact of HIV/AIDS on individuals and families (Chin et al., 1994). Recognizing the importance of a multisectoral response to preventing the AIDS epidemic, the National AIDS Coordination Committee (NACC) was established in 1992. It was made up of representatives from key ministries and nongovernmental 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 National Center for AIDS and STD Control (NCASC) established in 1993. The NCASC has launched a five-year (1997-2001) Strategic Plan for HIV/AIDS in Nepal. The activities of the NCASC include screening blood samples, conducting surveillance, generating information, providing education and communication materials, promoting condoms, counseling and treating those infected with STDs, and training health workers in the clinical management of HIV/AIDS patients.

The considerable risk of transmission of HIV among the general population, together with the limited capacity of NCASC, resulted in the mobilization of a newly coordinated joint effort to expand the national response to contain the epidemic among drug users and their partners and female sex workers and their clients. The Nepal HIV/AIDS Initiative Program represents the joint effort of the government of Nepal and other multilateral and bilateral agencies. The program was designed in 2001 and is to be implemented in 2002.

The NDHS 2001 included a series of questions on the knowledge of and attitudes toward AIDS. All ever-married women age 15-49 and ever-married men age 15-59 were first asked whether they had ever heard of AIDS. Those who had heard of AIDS were questioned on their knowledge of its transmission and prevention. Respondents were also asked whether they had used condoms for the prevention of HIV/AIDS, their perception of the precautions a person can take to avoid AIDS, and whether they had discussed the disease with their spouse. These results are discussed below.

11.1 KNOWLEDGE OF HIV/AIDS

Data on knowledge of AIDS is presented in Table 11.1 by background characteristics of respondents. Knowledge of AIDS is much higher among men (72 percent) than among women (50 percent). Although women's knowledge of AIDS is lower than men's, the percentage of women who have heard of AIDS has nearly doubled in the last five years from 27 percent in 1996 (Pradhan et al., 1997). Two-fifths of women and two-thirds of men believe there is a way to avoid HIV/AIDS. Some differences in knowledge of AIDS are observed by background characteristics of respondents. Younger respondents, residents of urban areas, those living in the hill region, and those from the Western development region are more likely to have heard about AIDS. Knowledge of AIDS is least prevalent among respondents living in the Western mountain subregion. As level of education increases, respondents' knowledge of AIDS also increases. Knowledge of AIDS is almost universal among respondents who have passed their SLC.

11.2 KNOWLEDGE OF HIV/AIDS PREVENTION

To get an idea of the extent of knowledge about HIV/AIDS, respondents who had heard of AIDS were further asked whether there is anything a person can do to avoid AIDS. Table 11.2 shows the percentage of all ever-married women and men who spontaneously mentioned various ways to avoid contracting the disease. Fifty-eight percent of women and nearly one-third (32 percent) of men have either not heard about AIDS or do not know whether the disease can be avoided. Three percent of women and 2 percent of men think that there is no way to avoid HIV/AIDS.

Men are two and half times (51 percent) more likely than women (21 percent) to spontaneously say that AIDS can be avoided by using condoms. Thirteen percent of women and 28 percent of men stated that the disease can be avoided by limiting the number of sexual partners, while 18 percent of women and 21 percent of men believe that contracting HIV/AIDS can be prevented by avoiding sex with a person who has many partners. The percentage of respondents who mentioned avoiding sex with prostitutes was much higher among males (25 percent) than among females (3 percent).

Three programmatically important ways to avoid the transmission of HIV/AIDS are abstaining from sex, using condoms, and limiting the number of sexual partners. Respondents' knowledge of these three programmatically important ways is presented in Table 11.3. Women are much less knowledgeable about programmatically important ways to avoid HIV/AIDS than men. Nearly twice as many women (62 percent) as men (33 percent) are not aware of any programmatically important ways to avoid the disease. Four times as many men as women mentioned one way (20 percent and 5 percent, respectively), and one in three women and nearly one in two men mentioned two or three ways to avoid HIV/AIDS. Younger respondents, those residing in urban areas, respondents living in

Table 11.1 Knowledge of AIDS

Percentage of women and men who have heard of AIDS and who believe there is a way to avoid HIV/AIDS, by background characteristics, Nepal 2001

Background characteristic	Women			Men		
	Has heard of AIDS	Believes there is a way to avoid HIV/AIDS	Number of women	Has heard of AIDS	Believes there is a way to avoid HIV/AIDS	Number of men
Age						
15-19	52.1	42.3	941	86.2	80.8	102
20-24	55.4	44.1	1,658	87.2	84.3	155
25-29	51.8	41.6	1,666	85.4	81.3	126
30-39	49.0	38.4	2,595	75.3	71.0	806
40-49	42.0	28.6	1,867	68.0	61.9	576
50-59	na	na	na	56.6	50.0	444
Marital status						
Married	49.6	38.4	8,342	72.6	67.6	2,198
Divorced/separated/widowed	49.8	38.6	384	38.4	30.1	63
Residence						
Urban	80.1	67.7	841	92.7	88.6	227
Rural	46.3	35.3	7,885	69.3	64.1	2,034
Ecological zone						
Mountain	44.4	29.9	602	65.7	59.3	151
Hill	60.4	46.2	3,615	80.9	76.2	896
Terai	41.5	33.3	4,509	65.6	60.3	1,214
Development region						
Eastern	57.4	44.9	2,098	68.5	62.9	583
Central	41.9	32.9	2,804	72.8	68.8	750
Western	64.4	56.0	1,771	78.8	73.9	436
Mid-western	41.2	24.0	1,197	67.3	59.9	295
Far-western	36.4	24.5	855	67.3	62.2	197
Subregion						
Eastern Mountain	59.1	39.1	126	68.6	59.3	33
Central Mountain	69.6	50.4	209	86.3	84.6	59
Western Mountain	17.7	9.5	267	43.3	33.7	59
Eastern Hill	59.9	40.4	580	74.7	65.1	161
Central Hill	71.1	55.7	945	92.6	87.5	278
Western Hill	77.3	67.4	1,075	82.5	82.0	235
Mid-western Hill	35.3	19.9	648	68.6	63.0	143
Far-western Hill	29.0	15.3	368	69.6	65.8	80
Eastern Terai	56.2	47.2	1,393	65.9	62.3	389
Central Terai	21.8	17.5	1,651	57.7	54.0	413
Western Terai	44.4	38.5	696	74.4	64.5	201
Mid-western Terai	57.2	34.3	438	73.2	62.6	126
Far-western Terai	51.8	41.2	331	70.7	68.3	85
Education						
No education	36.1	24.7	6,279	45.6	38.3	852
Primary	74.1	60.4	1,294	78.6	72.7	670
Some secondary	93.8	85.5	814	93.7	91.2	452
SLC and above	98.5	94.5	339	98.0	97.0	287
Total	49.6	38.4	8,726	71.7	66.5	2,261

na = Not applicable

SLC = School Leaving Certificate

Table 11.2 Knowledge of ways to avoid HIV/AIDS

Percentage of women and men who spontaneously mentioned ways to avoid HIV/AIDS, Nepal 2001

Ways to avoid HIV/AIDS	Percentage of women	Percentage of men
Does not know of AIDS or if AIDS can be avoided	58.4	31.6
Believes no way to avoid AIDS	3.2	1.9
Does not know specific way ¹	0.8	0.2
Ways to avoid HIV/AIDS		
Abstain from sex	4.7	4.4
Use condoms	20.6	50.8
Limit sex to one partner/stay faithful to one partner	1.1	10.8
Limit number of sexual partners	12.9	28.1
Avoid sex with prostitutes	3.1	25.3
Avoid sex with persons who have many partners	18.1	20.8
Avoid sex with homosexuals	0.0	0.1
Avoid sex with persons who inject drugs intravenously	0.9	2.6
Avoid blood transfusions	4.7	9.8
Avoid injections	4.6	9.3
Avoid sharing razor/ blades	1.3	9.7
Avoid kissing	0.1	0.5
Avoid mosquito bites	0.3	0.5
Seek protection from traditional healer	0.0	0.2
Other	12.3	23.4
Number of women/men	8,726	2,261

¹ Believes there is something a person can do to avoid AIDS, but cannot spontaneously mention any specific way

the hill zone, and those living in the Western development region are more aware of programmatically important ways of HIV/AIDS prevention than their counterparts. The relationship between respondents' level of education and AIDS prevention knowledge is very strong. Eighty-seven percent of women with an SLC and above knew two or three programmatically important ways of HIV/AIDS prevention, compared with only 19 percent of women with no education. A similar pattern is observed for men.

Table 11.3 also presents data on the knowledge of specific ways to avoid HIV/AIDS. The two specific ways presented are use of condoms and limiting the number of sexual partners. One-third of women and three-fifths of men agree that using condoms is a way to avoid HIV/AIDS, while 37 percent of women and 54 percent of men mentioned limiting the number of sexual partners. Differences in knowledge by background characteristics are similar to those discussed earlier.

Table 11.3 Knowledge of programmatically important ways to avoid HIV/AIDS

Percent distribution of women and men by knowledge of three programmatically important ways to avoid HIV/AIDS, and percentage of women and men who know of two specific ways to avoid HIV/AIDS, according to background characteristics, Nepal 2001

Background characteristic	Women							Men						
	Percentage who know programmatically important ways to avoid HIV/AIDS				Percentage who know specific ways to avoid HIV/AIDS			Percentage who know programmatically important ways to avoid HIV/AIDS				Percentage who know specific ways to avoid HIV/AIDS		
	None ¹	One way	Two or three ways	Total	Use condoms	Limit number of sexual partners ²	Number of women	None ¹	One way	Two or three ways	Total	Use condoms	Limit number of sexual partners ²	Number of men
Age														
15-19	58.5	3.8	37.7	100.0	37.9	40.8	941	17.8	25.1	57.1	100.0	78.5	56.8	102
20-24	56.2	4.4	39.4	100.0	39.8	42.4	1,658	16.1	21.6	62.3	100.0	82.1	64.4	155
25-29	59.0	4.9	36.1	100.0	36.4	40.3	1,666	17.9	29.8	52.3	100.0	79.0	55.7	126
30-39	62.2	6.2	31.5	100.0	31.7	36.8	2,595	29.1	20.8	50.0	100.0	66.6	57.2	806
40-49	72.2	6.3	21.5	100.0	21.3	27.1	1,867	38.2	17.3	44.5	100.0	57.4	52.7	576
50-59	na	na	na	na	na	na	na	48.4	16.7	34.9	100.0	45.1	47.9	444
Marital status														
Married	62.2	5.2	32.6	100.0	32.8	36.9	8,342	32.1	20.4	47.5	100.0	63.4	54.7	2,198
Divorced/separated/widowed	61.9	9.2	28.9	100.0	29.0	36.1	384	67.1	9.8	23.1	100.0	29.1	40.8	63
Residence														
Urban	33.0	8.3	58.6	100.0	59.3	64.8	841	10.1	19.8	70.1	100.0	82.7	78.9	227
Rural	65.3	5.1	29.6	100.0	29.8	33.9	7,885	35.7	20.1	44.2	100.0	60.2	51.5	2,034
Ecological zone														
Mountain	70.1	5.1	24.8	100.0	24.9	29.7	602	40.2	21.5	38.3	100.0	47.6	53.2	151
Hill	54.3	7.4	38.4	100.0	38.4	44.6	3,615	23.9	20.2	55.9	100.0	71.5	60.8	896
Terai	67.5	3.8	28.7	100.0	29.0	31.7	4,509	39.1	19.8	41.2	100.0	57.7	49.6	1,214
Development region														
Eastern	56.0	5.6	38.3	100.0	38.9	43.0	2,098	37.2	18.9	43.9	100.0	58.7	54.4	583
Central	67.8	4.1	28.1	100.0	28.4	31.1	2,804	30.8	18.8	50.4	100.0	63.1	58.5	750
Western	44.6	9.4	46.0	100.0	45.5	54.5	1,771	24.4	16.6	59.0	100.0	72.1	64.7	436
Mid-western	76.2	2.9	20.9	100.0	21.1	23.5	1,197	41.1	29.4	29.4	100.0	55.5	32.0	295
Far-western	75.7	4.3	20.0	100.0	20.2	23.4	855	37.3	22.0	40.7	100.0	60.3	48.5	197
Subregion														
Eastern Mountain	60.9	5.5	33.6	100.0	34.5	38.2	126	38.4	22.1	39.5	100.0	53.5	48.8	33
Central Mountain	49.6	8.9	41.5	100.0	41.3	50.4	209	16.2	28.2	55.6	100.0	59.0	86.3	59
Western Mountain	90.5	1.9	7.6	100.0	7.6	9.5	267	65.4	14.4	20.2	100.0	32.7	22.1	59
Eastern Hill	59.8	7.7	32.5	100.0	33.1	39.1	580	34.2	19.6	46.2	100.0	61.7	51.7	161
Central Hill	45.5	6.9	47.6	100.0	49.2	52.1	945	11.7	21.8	66.5	100.0	79.9	73.0	278
Western Hill	33.0	11.6	55.4	100.0	53.8	66.4	1,075	17.5	9.4	73.1	100.0	79.7	78.8	235
Mid-western Hill	80.1	2.3	17.6	100.0	17.6	19.9	648	40.8	35.2	24.0	100.0	57.0	22.9	143
Far-western Hill	84.7	4.6	10.7	100.0	11.2	13.9	368	34.2	20.5	45.3	100.0	63.5	52.2	80
Eastern Terai	54.1	4.7	41.2	100.0	41.6	45.0	1,393	38.3	18.3	43.3	100.0	57.9	55.9	389
Central Terai	82.9	1.8	15.3	100.0	15.0	16.6	1,651	45.7	15.4	38.9	100.0	52.5	44.7	413
Western Terai	62.5	5.9	31.6	100.0	32.7	36.0	696	32.5	25.0	42.5	100.0	63.2	48.3	201
Mid-western Terai	66.2	4.1	29.7	100.0	30.4	32.9	438	35.3	26.8	37.8	100.0	59.3	45.2	126
Far-western Terai	59.2	5.1	35.7	100.0	35.7	39.8	331	31.1	25.1	43.9	100.0	66.7	54.1	85
Education														
No education	76.0	4.8	19.2	100.0	19.2	23.4	6,279	61.0	13.4	25.6	100.0	33.9	38.5	852
Primary	40.0	6.5	53.5	100.0	53.9	58.5	1,294	27.5	24.2	48.3	100.0	67.4	56.4	670
Some secondary	14.9	7.3	77.8	100.0	78.4	83.9	814	8.4	26.8	64.8	100.0	89.3	64.8	452
SLC and above	5.5	7.3	87.3	100.0	88.9	91.0	339	2.4	19.6	78.0	100.0	93.7	79.6	287
Total	62.2	5.4	32.4	100.0	32.6	36.9	8,726	33.1	20.1	46.8	100.0	62.5	54.3	2,261

Note: Programmatically important ways are abstaining from sex, using condoms, and limiting the number of sexual partners. Abstention from sex is measured from a spontaneous response only, and using condoms and limiting the number of sexual partners are measured from spontaneous and probed responses.

na = Not applicable

SLC = School Leaving Certificate

¹ Those who have not heard of AIDS or do not know any of the three programmatically important ways to avoid HIV/AIDS

² Refers to limiting number of sexual partners and limiting sex to one partner/staying faithful to one partner

11.3 KNOWLEDGE OF HIV/AIDS-RELATED ISSUES

Respondents who had heard of HIV/AIDS were further asked whether a healthy-looking person can have AIDS and whether HIV/AIDS can be transmitted from a mother to her child. The results are presented in Table 11.4. About two-fifths of women and three-fifths of men stated correctly that a healthy-looking person can have the AIDS virus and that the AIDS virus can be transmitted from a mother to her child. Older respondents and those living in rural areas are much less likely to be informed about these two aspects of AIDS. Although there is no difference on these two aspects of HIV/AIDS knowledge among women by current marital status, there is a substantial difference among men. A much higher percentage of currently married men are aware of these issues than men who are not currently married. Residents of the hill zone and the Western development region are most aware of these two aspects of HIV/AIDS knowledge. A significant difference also exists by respondents' level of education. Awareness is significantly higher among educated respondents than among respondents with no education.

11.4 SPOUSAL COMMUNICATION ABOUT HIV/AIDS

In the 2001 NDHS, currently married women and men who had heard of AIDS were asked whether they have ever discussed HIV/AIDS prevention with their spouses. Table 11.5 shows that interspousal communication on HIV/AIDS prevention is low in Nepal, with only 14 percent of women and 23 percent of men having ever discussed HIV/AIDS prevention. Discussion is least prevalent among the oldest group of respondents. Urban residents are twice as likely to discuss HIV/AIDS prevention with their spouse as rural residents. Those residing in the mountains are less likely to discuss HIV/AIDS prevention with their spouse than residents of the hills and *terai*. Spousal communication on HIV/AIDS is about six times higher among respondents who have passed their SLC than respondents with no education.

Table 11.4 Knowledge of HIV/AIDS-related issues

Percentage of women and men who say a healthy-looking person can have AIDS and percentage who say HIV/AIDS can be transmitted from mother to child, by background characteristics, Nepal 2001

Background characteristic	Women			Men		
	Percentage who say a healthy-looking person can have AIDS	Percentage who say HIV/AIDS can be transmitted from a mother to a child	Number of women	Percentage who say a healthy-looking person can have AIDS	Percentage who say HIV/AIDS can be transmitted from a mother to a child	Number of men
Age						
15-19	42.4	45.5	941	78.8	79.8	102
20-24	42.1	46.7	1,658	80.8	78.2	155
25-29	40.0	41.6	1,666	76.5	73.5	126
30-39	37.4	40.4	2,595	68.5	66.5	806
40-49	30.8	34.7	1,867	61.2	59.6	576
50-59	na	na	na	48.6	49.6	444
Marital status						
Married	38.0	41.2	8,342	65.4	64.2	2,198
Divorced/separated/ widowed	36.9	40.6	384	37.0	29.1	63
Residence						
Urban	64.0	67.5	841	86.3	80.8	227
Rural	35.1	38.4	7,885	62.2	61.3	2,034
Ecological zone						
Mountain	31.1	34.9	602	57.2	54.3	151
Hill	46.3	50.6	3,615	74.0	72.3	896
Terai	32.1	34.5	4,509	58.6	57.7	1,214
Development region						
Eastern	43.0	49.2	2,098	58.9	57.2	583
Central	32.0	34.2	2,804	66.1	66.0	750
Western	52.1	54.7	1,771	76.7	76.2	436
Mid-western	30.4	31.3	1,197	55.8	49.7	295
Far-western	26.0	30.2	855	62.4	62.1	197
Subregion						
Eastern Mountain	42.1	52.4	126	55.8	61.6	33
Central Mountain	47.6	52.4	209	80.3	73.5	59
Western Mountain	13.0	13.0	267	34.6	30.8	59
Eastern Hill	42.2	50.8	580	64.5	59.7	161
Central Hill	56.6	60.8	945	85.0	84.5	278
Western Hill	61.2	66.4	1,075	80.8	81.0	235
Mid-western Hill	25.0	25.2	648	58.1	51.3	143
Far-western Hill	20.0	22.6	368	63.5	67.3	80
Eastern Terai	43.5	48.3	1,393	56.9	55.8	389
Central Terai	15.9	16.7	1,651	51.4	52.6	413
Western Terai	37.9	36.8	696	71.9	70.6	201
Mid-western Terai	43.1	45.4	438	59.5	52.6	126
Far-western Terai	38.3	46.0	331	68.9	67.9	85
Education						
No education	25.6	28.7	6,279	37.1	36.8	852
Primary	57.4	62.5	1,294	70.2	69.6	670
Some secondary	79.6	83.7	814	88.9	83.7	452
SLC and above	91.7	88.7	339	95.0	94.8	287
Total	37.9	41.2	8,726	64.6	63.3	2,261

na = Not applicable

SLC = School Leaving Certificate

Table 11.5 Discussion of HIV/AIDS with spouse

Percent distribution of currently married women and men by whether they ever discussed HIV/AIDS prevention with their spouse, according to background characteristics, Nepal 2001

Background characteristic	Women				Number of women	Men				Number of men
	Has discussed HIV/AIDS with spouse	Has never discussed HIV/AIDS with spouse	Has not heard of AIDS	Total		Has discussed HIV/AIDS with spouse	Has never discussed HIV/AIDS with spouse	Has not heard of AIDS	Total	
Age										
15-19	11.8	39.9	48.3	100.0	930	29.6	56.6	13.8	100.0	97
20-24	17.3	38.0	44.7	100.0	1,643	31.7	55.4	12.9	100.0	154
25-29	16.2	35.5	48.4	100.0	1,625	29.0	56.4	14.6	100.0	125
30-39	14.3	34.6	51.2	100.0	2,476	24.4	51.3	24.4	100.0	795
40-49	9.3	32.4	58.3	100.0	1,668	21.7	47.6	30.6	100.0	563
50-59	na	na	na	na	na	12.8	45.3	41.9	100.0	412
Residence										
Urban	22.7	57.3	20.0	100.0	792	40.8	52.3	6.8	100.0	223
Rural	13.0	33.3	53.6	100.0	7,550	20.6	49.7	29.7	100.0	1,975
Ecological zone										
Mountain	10.3	34.4	55.3	100.0	573	15.8	51.5	32.7	100.0	144
Hill	15.7	44.8	39.5	100.0	3,444	24.8	57.2	18.1	100.0	869
Terai	13.1	28.4	58.5	100.0	4,325	22.0	44.4	33.6	100.0	1,185
Development region										
Eastern	15.1	42.1	42.8	100.0	2,002	25.5	43.6	30.9	100.0	569
Central	10.7	31.1	58.2	100.0	2,684	22.4	51.3	26.4	100.0	732
Western	20.5	44.0	35.5	100.0	1,693	24.9	56.2	18.9	100.0	421
Mid-western	12.4	28.8	58.8	100.0	1,150	14.5	52.6	32.9	100.0	285
Far-western	10.6	26.5	62.9	100.0	813	23.0	45.8	31.2	100.0	190
Subregion										
Eastern Mountain	14.5	45.2	40.3	100.0	118	22.0	47.6	30.5	100.0	31
Central Mountain	15.5	54.4	30.0	100.0	197	17.0	71.4	11.6	100.0	57
Western Mountain	4.3	14.1	81.6	100.0	258	11.1	33.3	55.6	100.0	56
Eastern Hill	11.4	48.7	39.9	100.0	552	27.7	47.2	25.1	100.0	158
Central Hill	17.9	52.9	29.2	100.0	899	25.0	67.9	7.2	100.0	270
Western Hill	22.4	55.3	22.3	100.0	1,017	30.2	55.3	14.6	100.0	227
Mid-western Hill	9.5	25.8	64.7	100.0	627	13.5	54.4	32.1	100.0	140
Far-western Hill	8.6	21.3	70.1	100.0	349	22.4	50.5	27.0	100.0	75
Eastern Terai	16.7	39.1	44.2	100.0	1,332	24.8	41.8	33.3	100.0	380
Central Terai	6.0	15.8	78.2	100.0	1,588	21.4	37.4	41.3	100.0	406
Western Terai	17.7	27.0	55.3	100.0	676	18.7	57.3	24.0	100.0	194
Mid-western Terai	19.2	37.8	42.8	100.0	417	16.8	56.6	26.6	100.0	121
Far-western Terai	15.5	37.0	47.5	100.0	313	27.4	43.0	29.6	100.0	84
Education										
No education	8.0	27.8	64.2	100.0	5,970	7.9	38.6	53.4	100.0	808
Primary	20.9	53.3	25.8	100.0	1,247	19.6	59.4	21.0	100.0	660
Some secondary	34.8	58.8	6.4	100.0	793	36.1	57.9	6.0	100.0	445
SLC and above	45.5	52.9	1.6	100.0	332	50.7	47.7	1.6	100.0	284
Total	14.0	35.6	50.4	100.0	8,342	22.7	49.9	27.4	100.0	2,198

na = Not applicable

SLC = School Leaving Certificate

11.5 SEXUAL BEHAVIOR

Promotion of safe sex, encouraging monogamous relationships, discouraging multiple sexual partners, and the promotion of condom use are important components of AIDS prevention programs. Information on the sexual behavior of people is important for designing and monitoring intervention programs to control the spread of AIDS. In the 2001 NDHS, a series of questions was asked to determine the proportion of men who had sexual relationships with women other than their wives in the past 12 months. Data presented in Table 11.6 indicate that an overwhelming majority of married Nepalese men (98 percent) did not have sex with anyone other than their wife in the past 12 months. Sexual intercourse outside of marriage is slightly higher among younger men age 15-24, residents of the Far-western *terai* subregion, and those who had attained some secondary level of education.

11.6 KNOWLEDGE AND USE OF CONDOMS

HIV/AIDS prevention and control programs in Nepal have been promoting the use of condoms. Therefore, knowledge of condoms is important information from the program perspective. In the 2001 NDHS, all currently married women and men were asked whether they knew a place where they could get condoms. Female respondents were also asked whether they could obtain condoms by themselves if they desired. Men who had had sexual intercourse with a woman other than their wife in the past year were also asked whether they used a condom during the last sexual intercourse.

Most women (70 percent) and men (84 percent) know a source of condoms (Table 11.7). Knowledge of a source of condoms varies by background characteristics of respondents. Knowledge of a condom source is higher among women age 20-29 and men age 15-29, urban residents, women residing in the hills and *terai* and men residing in the hills, residents of the Central and Western development regions and men in the Far-western region, women living in the Mid-western *terai* subregion and men from the Central hill subregion, and respondents with some secondary education or higher.

Although 70 percent of women know a source for condoms, only half of them said they could get a condom by themselves if they wanted to. Women's personal access to condoms is lowest among the oldest age group 40-49; among women living in rural areas, the *terai*, and the Far-western region; and among women with no education.

Table 11.6 Number of sexual partners

Percent distribution of currently married men by number of persons with whom they had sexual intercourse in the past 12 months, excluding spouses or cohabiting partners, according to background characteristics, Nepal 2001

Background characteristic	Number of sexual partners excluding spouse or cohabiting partner			Total	Number of men
	0	1	2+		
Age					
15-19	95.4	4.6	0.0	100.0	97
20-24	93.4	3.1	3.4	100.0	154
25-29	95.7	2.2	2.1	100.0	125
30-39	97.4	2.0	0.6	100.0	795
40-49	99.6	0.4	0.0	100.0	563
50-59	99.4	0.5	0.1	100.0	412
Residence					
Urban	97.1	2.5	0.4	100.0	223
Rural	97.8	1.5	0.7	100.0	1,975
Ecological zone					
Mountain	98.4	1.0	0.6	100.0	144
Hill	97.8	1.7	0.4	100.0	869
Terai	97.5	1.6	0.8	100.0	1,185
Development region					
Eastern	98.3	1.2	0.5	100.0	569
Central	97.7	1.5	0.8	100.0	732
Western	97.8	1.1	1.1	100.0	421
Mid-western	97.3	2.4	0.3	100.0	285
Far-western	96.4	3.6	0.0	100.0	190
Subregion					
Eastern Mountain	97.6	1.2	1.2	100.0	31
Central Mountain	97.3	1.8	0.9	100.0	57
Western Mountain	100.0	0.0	0.0	100.0	56
Eastern Hill	99.3	0.7	0.0	100.0	158
Central Hill	97.7	2.0	0.3	100.0	270
Western Hill	97.7	1.2	1.2	100.0	227
Mid-western Hill	96.6	3.4	0.0	100.0	140
Far-western Hill	98.4	1.6	0.0	100.0	75
Eastern Terai	97.9	1.4	0.7	100.0	380
Central Terai	97.7	1.1	1.1	100.0	406
Western Terai	98.0	1.0	1.0	100.0	194
Mid-western Terai	97.7	1.6	0.7	100.0	121
Far-western Terai	93.3	6.7	0.0	100.0	84
Education					
No education	99.1	0.4	0.6	100.0	808
Primary	97.6	1.8	0.6	100.0	660
Some secondary	95.8	3.3	0.8	100.0	445
SLC and above	96.9	2.2	0.9	100.0	284
Total	97.7	1.6	0.7	100.0	2,198

SLC = School Leaving Certificate

Table 11.7 Knowledge of source of condoms, and access to condoms

Percentage of currently married women and men who know a source for condoms, and percentage of currently married women who could get a condom, by background characteristics, Nepal 2001

Background characteristic	Women			Men	
	Knows a source for condoms	Could get a condom	Number of women	Knows a source for condoms	Number of men
Age					
15-19	67.3	31.2	930	95.1	97
20-24	78.2	38.3	1,643	91.5	154
25-29	75.6	38.2	1,625	94.6	125
30-39	69.5	34.2	2,476	88.3	795
40-49	56.5	25.8	1,668	82.4	563
50-59	na	na	na	69.7	412
Residence					
Urban	75.6	40.3	792	94.2	223
Rural	68.9	33.1	7,550	83.1	1,975
Ecological zone					
Mountain	62.7	33.5	573	83.6	144
Hill	68.5	40.3	3,444	87.4	869
Terai	71.3	28.6	4,325	81.9	1,185
Development region					
Eastern	70.6	40.3	2,002	81.1	569
Central	72.7	29.5	2,684	85.5	732
Western	71.9	37.9	1,693	86.2	421
Mid-western	67.8	30.6	1,150	79.9	285
Far-western	54.2	27.8	813	90.6	190
Subregion					
Eastern Mountain	68.4	41.6	118	84.1	31
Central Mountain	75.1	41.8	197	92.9	57
Western Mountain	50.7	23.3	258	73.7	56
Eastern Hill	73.0	49.3	552	88.1	158
Central Hill	71.9	42.9	899	95.0	270
Western Hill	75.1	47.6	1,017	83.9	227
Mid-western Hill	62.7	26.4	627	75.9	140
Far-western Hill	43.5	23.2	349	90.5	75
Eastern Terai	69.8	36.5	1,332	77.9	380
Central Terai	72.8	20.4	1,588	78.1	406
Western Terai	67.1	23.2	676	88.9	194
Mid-western Terai	77.9	38.8	417	89.7	121
Far-western Terai	70.4	34.8	313	91.3	84
Education					
No education	62.0	24.8	5,970	66.8	808
Primary	82.2	48.8	1,247	89.3	660
Some secondary	94.0	62.2	793	98.5	445
SLC and above	98.4	70.8	332	99.2	284
Total	69.5	33.8	8,342	84.2	2,198

na = Not applicable

SLC = School Leaving Certificate

Sexual intercourse with noncohabiting partners carries a higher risk of HIV/AIDS transmission because such relationships are usually more temporary and are often associated with exposure to multiple sex partners. The risk of disease transmission is much higher when a condom is not used during sexual intercourse. That is why AIDS prevention and control programs emphasize limiting sexual partners to one and using condoms, especially with noncohabiting partners.

Table 11.8 shows the percentage of men who used a condom during their last sexual intercourse, by type of partner and background characteristics. Condom use is less common during intercourse with a spouse than intercourse with any partner. Only 6 percent of men used a condom during last sexual intercourse with a spouse, compared with 45 percent of men who used a condom during last sexual intercourse with a noncohabiting partner (data not shown). Condom use in general is higher among men who are young; who live in urban areas; who reside in the hill and *terai* zones, the Far-western region, and the Far-western *terai* subregion; and men who have at least an SLC level of education.

Table 11.8 Use of condoms by type of partner

Among men who had sexual intercourse in the past year, percentage who used a condom during last sexual intercourse with spouse or cohabiting partner, and with any partner, by background characteristics, Nepal 2001

Background characteristic	Spouse or cohabiting partner		Any partner ¹	
	Percent	Number	Percent	Number
Age				
15-19	7.7	98	9.2	99
20-24	6.6	152	7.4	154
25-29	7.9	124	8.9	126
30-39	7.0	789	6.9	791
40-49	4.0	554	4.0	554
50-59	1.9	379	1.9	379
Marital status				
Married	5.6	2,143	5.7	2,148
Divorced/separated/widowed	*	4	*	8
Residence				
Urban	9.4	216	9.7	218
Rural	5.2	1,931	5.3	1,938
Ecological zone				
Mountain	3.2	140	3.2	141
Hill	6.3	853	6.7	858
Terai	5.4	1,154	5.4	1,156
Development region				
Eastern	5.2	551	5.2	552
Central	4.8	719	4.9	721
Western	5.7	406	6.0	409
Mid-western	5.3	283	5.8	284
Far-western	10.2	189	10.4	189
Subregion				
Eastern Mountain	2.5	31	2.4	31
Central Mountain	3.7	55	3.7	55
Western Mountain	3.1	55	3.1	55
Eastern Hill	4.3	153	4.3	153
Central Hill	6.6	266	6.9	268
Western Hill	7.0	220	7.6	221
Mid-western Hill	5.8	138	6.9	140
Far-western Hill	8.0	76	8.0	76
Eastern Terai	5.8	367	5.7	367
Central Terai	3.7	398	3.7	398
Western Terai	4.1	186	4.1	187
Mid-western Terai	5.4	121	5.4	121
Far-western Terai	14.5	83	15.1	83
Education				
No education	2.6	772	2.5	774
Primary	5.1	650	5.2	652
Some secondary	7.3	443	7.6	445
SLC and above	12.3	282	13.1	285
Total	5.6	2,148	5.8	2,156

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

SLC = School Leaving Certificate

¹ Includes noncohabiting partner

REFERENCES

Boerma, J. Ties. 1988. Monitoring and evaluation of health interventions: Age- and cause-specific mortality and morbidity in childhood. In *Research and intervention issues concerning infant and child mortality and health*, 195-218. Proceedings of the East Africa Workshop, International Development Research Center, Manuscript Report 200e. Ottawa, Canada.

Central Bureau of Statistics (CBS) [Nepal]. 1991. *Population Census 1991*. Vol. 1, Kathmandu, Nepal: Central Bureau of Statistics.

Central Bureau of Statistics (CBS). 1995 [Nepal]. *Population monograph of Nepal*. Kathmandu, Nepal: Central Bureau of Statistics.

Central Bureau of Statistics (CBS) [Nepal]. 1996. *Statistical pocket book*. Kathmandu, Nepal: Central Bureau of Statistics.

Central Bureau of Statistics (CBS) [Nepal]. 2001a. *Population Census 2001 of Nepal, Provisional population report, 2001*. Kathmandu, Nepal: Central Bureau of Statistics.

Central Bureau of Statistics (CBS) [Nepal]. 2001b. *Statistical year book of Nepal 2001*. Kathmandu, Nepal: Central Bureau of Statistics.

Chin, J., D.W. Dunlop, and H.H. Pyne. 1994. *The HIV/AIDS situation in Nepal*. Washington, DC: SAIPH Division, The World Bank.

Family Health International (FHI), STD/AIDS Counselling and Training Services (SACTS), and U.S. Agency for International Development (USAID). 2000. *Prevalence survey among female sex workers in Kathmandu, Nepal*. Kathmandu, Nepal: FHI, SACTS, and USAID.

Gurubacharya, V.L. HIV transmission among specific groups of people at risk. *Journal of Reproductive Health* 1:19-21.

Martorell, R., and J.P. Habicht. 1986. Growth in early childhood in developing countries. In *Human growth: A comprehensive treatise*, Vol. 3. ed. F. Falkner and J.M. Tanner, New York: Plenum Press, 241-262.

Ministry of Finance [Nepal]. 1996. *Economic Survey, Fiscal Year 1995/96*, Kathmandu, Nepal: Ministry of Finance.

Ministry of Health [Nepal]. 1977. *Nepal Fertility Survey 1976. First Report*. Nepal Family Planning and MCH Project, World Fertility Survey/Nepal Project. Kathmandu, Nepal: Ministry of Health.

Ministry of Health [Nepal]. 1987. *Nepal Fertility and Family Planning Survey Report 1986*. Nepal Family Planning and MCH Project, Planning, Research, and Evaluation Section. Kathmandu, Nepal: Ministry of Health.

Ministry of Health [Nepal]. 1993. *Nepal Fertility, Family Planning, and Health Status Survey Report 1991*. Nepal Family Planning and Maternal Child Health Division, Planning, Research, and Evaluation Section, Kathmandu, Nepal: Ministry of Health.

Ministry of Health [Nepal]. 1999. *Nepal Micronutrient Status Survey 1998*. Kathmandu, Nepal: Ministry of Health, Child Health Division, HMG/N; New ERA; Micronutrient initiative; UNICEF Nepal; and WHO.

Ministry of Health [Nepal]. 2001. *Annual report*. Department of Health Services 2056/57 (1999/2000). Kathmandu, Nepal: Ministry of Health.

Ministry of Population and Environment [Nepal]. 1998. *Review of population policy in Nepal*. Kathmandu, Nepal: Ministry of Population and Environment.

National Center for AIDS and STD Control (NCASC). 2001. *Cumulative HIV/AIDS situation in Nepal*. Kathmandu, Nepal: National Center for AIDS and STD Control.

National Planning Commission (NPC). 2000. *National report on follow-up to the World Summit for Children*. Kathmandu, Nepal: National Planning Commission.

Nepali Technical Assistance Group (NTAG). 2001. *Mini-survey report National Vitamin A Program, April 2001*. Kathmandu, Nepal: Nepali Technical Assistance Group.

Pathak, Ram Sharan. 1999. Male sterilization in Nepal. In *Population and development in Nepal*. Vol. 7. ed. Bal Kumar KC, Central Department of Population Studies, Kathmandu, Nepal: Tribhuvan University. 53-62.

Pradhan, Ajit. 1995. *Fertility in Nepal: An analysis of 1986 and 1991 survey data*, Master's dissertation, Johns Hopkins University, Baltimore, Maryland.

Pradhan, Ajit, Ram Hari Aryal, Gokarna Regmi, Bharat Ban, and Pavalavalli Govindasamy. 1997. *Nepal Family Health Survey 1996*. Kathmandu, Nepal, and Calverton, Maryland: Ministry of Health [Nepal], New ERA, and Macro International Inc.

Risal, R.P., and A. Shrestha. 1989. Fertility and its proximate determinants in South Asia. In *Study on population policies and programmes*. Kathmandu, Nepal: UNFPA.

UNAIDS. 2000. *Report on the global HIV/AIDS epidemic*. Population Bulletin, Vol. 56, No. 1, March 2001. Washington, DC: Population Reference Bureau.

United Nations Development Program (UNDP). 2001. *Nepal human development report 2001. Poverty reduction and governance*. Kathmandu, Nepal: United Nations Development Program.

United States Department of Health, Education and Welfare (USDHEW), U.S. Agency for International Development (USAID), and His Majesty's Government of Nepal (HMG/N). 1977. *1975 Nepal Nutrition Status Survey*, Kathmandu, Nepal: HMG/N and USAID.

World Health Organization (WHO). 1992. *AIDS in Africa—A manual for physicians*. Geneva, Switzerland: World Health Organization.

World Health Organization (WHO). 1997. *WHO global database on child growth and malnutrition*. Geneva, Switzerland: World Health Organization.

A.1 INTRODUCTION

The 2001 Nepal Demographic and Health Survey (NDHS) is the sixth in a series of national-level population and health surveys conducted in Nepal. It is the second nationally representative comprehensive survey conducted as part of the global Demographic and Health Survey (DHS) program, the first being the 1996 Nepal Family Health Survey (NFHS). The 2001 NDHS is the first in the history of demographic and health surveys conducted in Nepal that included a male sample. The 2001 NDHS was carried out under the aegis of the Family Health Division of the Department of Health Services, Ministry of Health, and was implemented by New ERA, a local research organization, which also conducted the 1996 NFHS. ORC Macro provided technical support through its MEASURE *DHS+* project. The survey was funded by the United States Agency for International Development (USAID) through its mission in Nepal.

A.2 SURVEY OBJECTIVES

The principal objective of the 2001 NDHS is to provide current and reliable data on fertility and family planning, infant and child mortality, children's and women's nutritional status, the utilization of maternal and child health services, and knowledge of HIV/AIDS. 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 the Family Health Division of the Ministry of Health to plan, conduct, process, and analyze data from complex national population and health surveys. The 2001 NDHS data is comparable to data collected in the 1996 NFHS and similar to survey data conducted in other developing countries. This allows for temporal and spatial comparisons of demographic health information. The 2001 NDHS also adds to the vast and growing international database on demographic and health variables. The inclusion of data on men adds to the richness of this data.

A.3 SAMPLE DESIGN

The 2001 NDHS collected demographic and health information from a nationally representative sample of ever-married women and men in the reproductive age groups of 15-49 and 15-59, respectively.

The primary focus of the 2001 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 variables for the 13 domains obtained by cross-classifying the three ecological zones (mountains, hills, and *terai*) with the five development regions (Eastern, Central, Western, Mid-western, and Far-western).¹

¹ Due to their small size, the mountain areas of the Western, Mid-western, and Far-western regions were combined.

A.4 SAMPLING FRAME

The 2001 NDHS used the sampling frame provided by the list of census enumeration areas (EAs) with population and household information from the 1991 Population Census. Administratively, Nepal is divided into 75 districts. Each district is subdivided into village development committees (VDCs), and each VDC is divided into wards. The primary sampling unit (PSU) for the 2001 NDHS is a ward or group of wards in rural areas and subwards in urban areas. In rural areas, the ward is small enough for a complete household listing, but in urban areas, the ward size 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 Living Standards Measurement Survey, a project funded by the World Bank.

A.5 SAMPLE SELECTION

The sample for the survey is based on a two-stage, stratified, nationally representative sample of households. At the first stage of sampling, 257 PSUs—42 in urban areas and 215 in rural areas—were selected using systematic sampling with probability proportional to size.² A complete household listing operation was then carried out in all the selected EAs to provide a sampling frame for the second-stage selection of households. Sketch maps were constructed to identify the relative position of housing units in an EA to help interviewers locate selected households during fieldwork. Table A.1 shows the sample distribution of PSUs.

Global positioning system (GPS) units were used to calculate latitude and longitude coordinates for each selected ward (or subward) during the household listing stage. One latitude/longitude coordinate was taken for the center of each settlement or community within the ward. The altitude reading was also taken with the GPS units. The positional accuracy of the GPS readings is approximately 5 to 10 meters for latitude/longitude and approximately 30 meters for altitude. This geographic information allows the 2001 NDHS data to be integrated into a geographic information system (GIS) along with other spatial data collected in the same localities and adds to the depth of information available from the 2001 NDHS.

At the second stage of sampling, systematic samples of 34 households per PSU on average 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 8,400 ever-married women age 15-49. In addition, all ever-married males age 15-59 in every third household were interviewed. To take nonresponse into account, a total of 8,700 households nationwide were selected. The sample size was allocated to each district by urban and rural areas and the numbers of PSUs were calculated based on an average sample “take” (the number of ultimate sampled units in a cluster) of 34 completed interviews per PSU.

² During fieldwork, six PSUs in the Mid-western region were dropped from the sample due to security issues, reducing the total number of PSUs covered to 251 and reducing the number of rural PSUs to 209. This also reduced the expected number of completed interviews to 8,170 from 8,400.

Table A.1 Sample allocation				
Expected number of completed interviews of ever-married women age 15-49 and number of primary sampling units (PSUs) in each development region and district, by residence and ecological zone, Nepal 2001				
Development region/district	Expected number of completed interviews of ever-married women age 15-49	Number of PSUs		
		Urban	Rural	Total
MOUNTAIN				
Eastern	450			
Taplejung	150	-	4	4
Sankhuwasabha	129	-	5	5
Solukhumbu	171	-	3	3
Central	450			
Dolakha	165	-	4	4
Sindhupalchok	247	-	6	6
Rasuwa	38	-	1	1
Western/Mid-western/ Far-western	450			
Jumla	64	-	1	1
Mugu	33	-	1	1
Kalikot	76	-	2	2
Humla	15	-	1	1
Bajhang	125	-	3	3
Bajura	57	-	2	2
Darchula	80	-	2	2
HILL				
Eastern	600			
Bhojpur	85	-	2	2
Dhankuta	51	-	2	2
Illam	102	-	3	3
Khotang	90	-	3	3
Okhaldhunga	60	-	2	2
Panchthar	83	-	2	2
Terhathum	41	-	1	1
Udayapur	88	1	3	4
Central	1,000			
Bhaktapur	54	2	-	2
Dhading	105	-	3	3
Kathmandu	195	8	-	8
Kavrepalanchok	148	1	3	4
Lalitpur	134	2	1	3
Makawanpur	121	1	3	4
Nuwakot	91	-	3	3
Ramechhap	72	-	2	2
Sindhuli	80	-	3	3

Table A.1 Sample allocation—Continued				
Development region/ district	Expected number of completed interviews of ever-married women age 15-49	Number of PSUs		
		Urban	Rural	Total
Western	900			
Arghakhanchi	54	-	2	2
Baglung	93	-	3	3
Gorkha	102	1	2	3
Gulmi	112	-	3	3
Kaski	120	2	1	3
Lamjung	74	-	2	2
Myagdi	38	-	1	1
Palpa	57	-	3	3
Parbat	56	-	2	2
Syangja	95	-	3	3
Tanahu	99	-	3	3
Mid-western	320			
Dailekh	57	1	2	3
Pyuthan	77	-	2	2
Sallyan	85	-	3	3
Surkhet	101	1	2	3
Far-western	500			
Achham	162	-	4	4
Baitadi	165	1	4	5
Dadeldhura	61	-	2	2
Doti	112	-	3	3
TERAI				
Eastern				
Jhapa	1,000			
Morang	243	2	6	8
Sunsari	265	3	5	8
	196	3	4	7
Saptari	160	1	5	6
Siraha	136	-	6	6
Central	1,000			
Dhanusa	189	1	5	6
Mahottari	134	-	5	5
Sarlahi	189	-	5	5
Rautahat	151	-	5	5
Bara	103	2	3	5
Parsa	89	-	4	4
Chitwan	145	1	3	4
Western	550			
Nawalparasi	186	-	5	5
Rupandehi	254	2	5	7
Kapilvastu	110	-	5	5
Mid-western	450			
Banke	124	1	3	4
Bardiya	136	-	4	4
Dang	190	1	4	5
Far-western	500			
Kailali	309	2	6	8
Kanchanpur	191	2	3	5
Total	8,170	42	209	251

A.6 SAMPLING PROBABILITIES

The first stage of sampling in each urban or rural area of a district is done by selecting wards (or subwards) systematically with probability proportional to size (the number of households in each PSU according to the 1991 Population Census). The first-stage selection probability (P_{1i}) is calculated as:

$$P_{1i} = (a * M_i) / (M_i)$$

where

- a: is the number of designated PSUs to be selected in the area,
- M_i : is the number of households of the i^{th} PSU according to the 1991 Population Census,
- M_i : is the number of households in the urban or rural areas of a district according to the 1991 Population Census.

In each selected PSU, a complete household listing operation was carried out and households were selected in such a way as to maintain a self-weighting sample in each of the 13 domains. However, the total sample for the 2001 NDHS survey is weighted and required a final weighting adjustment procedure to provide estimates for the different domains. Accordingly, if the overall sampling fraction (f) by urban and rural areas of a district has been calculated and if c_i is the number of households selected out of the total number of households (L_i) listed in the i^{th} selected PSU, then the self-weighting condition is expressed as:

$$f = P_{1i} * (c_i / L_i)$$

Therefore the final sample of households for selection is given by the following formula:

$$c_i = (f * L_i) / P_{1i}$$

and the household selection interval (I_i) is:

$$I_i = L_i / c_i$$

$$I_i = P_{1i} / f$$

A.7 QUESTIONNAIRES

The 2001 NDHS used three questionnaires: the Household Questionnaire, the Women's Questionnaire, and the Men's Questionnaire. The content and design of the questionnaires were based on the MEASURE *DHS+* Model 'B' Questionnaire. The questionnaires were specifically geared toward obtaining the kind of information needed by health and family planning program managers and policymakers. The model questionnaires were then adapted to local conditions and a number of additional questions specific to ongoing health and family planning programs in Nepal were added. These questionnaires were developed in English and translated into the three principal languages in use in the country: Nepali (the national language), Bhojpuri, and Maithili. They were then independently translated back to English and appropriate changes were made in the translation

of questions in which the back-translated version did not compare well with the original English version. A pretest of all three questionnaires was conducted in the three local languages in September 2000.

All usual members in a selected household and visitors who stayed there the previous night were enumerated using the Household Questionnaire. Specifically, the Household Questionnaire obtained information on the relationship to the head of the household, residence, sex, age, marital status, and education of each usual resident or visitor. This information was used to identify eligible women and men for the individual interview. Ever-married women age 15-49 in all selected households and ever-married men age 15-59 in every third selected household, whether usual residents or visitors, were deemed eligible and were interviewed. The Household Questionnaire also obtained information on some basic socioeconomic indicators such as the source of drinking water, the type of toilet facilities, the ownership of a variety of consumer durable items, and the flooring material. All eligible women and all children born since Baisakh 2052 in the Nepali calendar (which roughly corresponds to April 1995 in the Gregorian calendar) were weighed and measured.

The Women's Questionnaire collected information on female respondent's background characteristics; reproductive history; contraceptive knowledge and use; antenatal, delivery, and postnatal care; infant feeding practices; child immunization and health; marriage; fertility preferences; attitudes about family planning; husband's background characteristics; women's work; and knowledge of HIV/AIDS.

The Men's Questionnaire collected information on the male respondent's background characteristics, contraceptive knowledge and use, marriage, fertility preferences, attitudes about family planning, and knowledge of HIV/AIDS.

A.8 DATA COLLECTION AND PROCESSING

A technical advisory committee was established and chaired by the director general of the Department of Health Services of the Ministry of Health to oversee the performance and activities of the 2001 NDHS. The committee was made up of the director of the Family Health Division of the Ministry of Health (vice-chairman) and other representatives from the Family Health Division, the Planning and Foreign Aid Division, and the Child Health Division of the Ministry of Health and representatives from the Ministry of Population and Environment, the National Planning Commission, the National Center for AIDS and STD Control, the National Health Education Information and Communication Center, the Parliament Secretariat, the Central Bureau of Statistics, the National Health Research Council, the Central Department of Population Studies at Tribhuvan University, New ERA, USAID/Nepal, and ORC Macro.

Training for the main survey was conducted in December 2000 and January 2001 in Kathmandu. A total of 79 field staff participated in the training. They were recruited for their language skills, academic qualifications, and previous survey work experience. Training was conducted mostly in Nepali, and practice sessions were conducted in all three local languages. The four-week training consisted of instruction in general interviewing techniques and field procedures for the survey, a detailed review of the questionnaires, practice in weighing and measuring women and children, mock interviews between participants in the classroom, and practice interviews in the field. In addition, special lectures were given on contraceptive knowledge and practice and the various methods used in Nepal, maternal and child health, and HIV/AIDS. A two-day training on anthropometric measurement was also given. A final selection of interviewers, editors, and supervisors was made based on their performance during the training. Persons selected to be supervisors and editors, and persons recruited for the quality control teams were given an additional two days of training in field

supervision, editing and maintaining data quality in the field. At the end of the training, a total of 11 teams were constituted, comprising one male supervisor, one female editor, and one male and three female interviewers. In addition, one quality control team made up of three highly experienced individuals was constituted.

To maintain uniform survey procedures, four manuals on different aspects of the survey were prepared. The Interviewer's Manual discussed the objectives of the NDHS, interviewing techniques, field procedures, and general procedures for completing the questionnaires and included a detailed discussion of the Household, Women's, and Men's Questionnaires. The manual also contained information on how to weigh and measure women and children. The Supervisor's and Editor's Manual contained instructions on organizing and supervising fieldwork, maintaining and monitoring control sheets, and general rules for editing completed questionnaires and maintaining data quality. Trainers were given the Training Guidelines for DHS Surveys Manual, which describes the administrative and logistical aspects of training and data quality checks. The Household Listing Manual describes the mapping and household listing procedures used in DHS surveys.

The main fieldwork started in mid-January 2001 and lasted until the end of June. Throughout the survey, senior staff from the Ministry of Health, New ERA, USAID/Nepal, and ORC Macro maintained constant contact with the teams through direct communication and spot checking. To ensure high-quality data, teams were closely supervised through field visits, observations of interviews, and checking of completed questionnaires. In addition, the quality control team visited every team in the field to followup on the quality of the data collected. Data quality was also ensured by providing feedback to individual teams on the results of field check tables. These tables were computer generated at regular intervals from data obtained in the completed questionnaires. These results were discussed with the teams to improve their performance.

The completed questionnaires were returned to the New ERA office in Kathmandu for data processing. The office editing staff first checked that questionnaires for all selected households and eligible respondents had been received from the field. In addition, the few questions that had not been precoded (example, occupation, ethnicity) were coded at this time. The data were then entered and edited using microcomputers and the new software CPro, developed jointly by ORC Macro, the U.S. Bureau of Census, and SerPro Ltda. Office editing and data processing activities were initiated soon after the beginning of fieldwork and were completed by mid-July.

A.9 RESPONSE RATE

Information on the household and individual interviews is presented in Tables A.2.1 and A.2.2. A total of 8,864 households were selected for the 2001 NDHS, of which 8,633 were found to be occupied. Household interviews were completed for 8,602 households or more than 99 percent of the occupied households. A total of 8,885 eligible women from these households and 2,353 eligible men from every third household were identified for the individual interviews. Interviews were successfully completed for 8,726 women and 2,261 men. The response rate for eligible women is slightly higher than for eligible men (98 percent and 96 percent, respectively).

Response rates for women and men vary by urban-rural residence. Rural women and especially men are slightly more likely than urban women and men to have completed an interview. There is little difference in the response rate among women by ecological zone, but men residing in the mountain region are more likely to have completed an interview (98 percent) than men residing in the hills (95 percent) and *terai* (96 percent).

Table A.2.1 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 ecological zone and urban-rural residence, Nepal 2001

Result	Ecological zone			Residence		Total
	Moun- tain	Hill	Terai	Urban	Rural	
Selected households						
Completed (C)	97.3	96.7	97.3	95.8	97.2	97.0
Household present but no competent respondent at home (HP)	0.2	0.2	0.4	0.2	0.3	0.3
Refused (R)	0.0	0.1	0.0	0.2	0.0	0.0
Dwelling not found (DNF)	0.0	0.0	0.0	0.1	0.0	0.0
Household absent (HA)	0.8	1.1	0.7	1.4	0.8	0.9
Dwelling vacant/address not a dwelling (DV)	1.7	1.5	1.4	2.2	1.4	1.5
Dwelling destroyed (DD)	0.0	0.1	0.1	0.1	0.1	0.1
Other (O)	0.0	0.3	0.0	0.1	0.1	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of sampled households	1,346	3,512	4,006	1,271	7,593	8,864
Household response rate (HRR) ¹	99.8	99.7	99.5	99.6	99.6	99.6
Eligible women						
Completed (EWC)	98.6	98.2	98.1	96.9	98.4	98.2
Not at home (EWNH)	0.8	1.0	1.3	1.9	1.0	1.1
Refused (EWR)	0.0	0.2	0.2	0.5	0.1	0.2
Partly completed (EWPC)	0.0	0.2	0.0	0.3	0.0	0.1
Incapacitated (EWI)	0.6	0.5	0.4	0.4	0.5	0.5
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	1,205	3,304	4,376	1,191	7,694	8,885
Eligible women response rate (EWRR) ²	98.6	98.2	98.1	96.9	98.4	98.2
Overall response rate (ORR) ³	98.4	97.8	97.7	96.5	98.1	97.8

¹ Using the number of households falling into specific response categories, the household response rate (HRR) is calculated as:

$$\frac{100 * C}{C + HP + R + DNF}$$

² Using the number of eligible women falling into specific response categories, the eligible woman response rate (EWRR) is calculated as:

$$\frac{100 * EWC}{EWC + EWNH + EWR + EWPC + EWI}$$

³The overall response rate (ORR) is calculated as:

$$ORR = HRR * EWRR/100$$

Table A.2.2 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 ecological zone and urban-rural residence, Nepal 2001

Result	Ecological zone			Residence		Total
	Moun- tain	Hill	Terai	Urban	Rural	
Selected households						
Completed (C)	98.1	98.1	98.5	97.2	98.5	98.3
Household present but no competent respondent at home (HP)	0.1	0.0	0.2	0.0	0.2	0.1
Refused (R)	0.0	0.1	0.0	0.3	0.0	0.0
Dwelling not found (DNF)	0.0	0.0	0.0	0.0	0.0	0.0
Household absent (HA)	0.5	0.4	0.4	0.8	0.3	0.4
Dwelling vacant/address not a dwelling (DV)	1.3	0.9	0.8	1.5	0.8	0.9
Dwelling destroyed (DD)	0.0	0.1	0.0	0.1	0.1	0.1
Other (O)	0.0	0.2	0.0	0.1	0.1	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of sampled households	772	2,038	2,564	754	4,620	5,374
Household response rate (HRR) ¹	99.9	99.9	99.7	99.7	99.8	99.8
Eligible men						
Completed (EMC)	98.4	94.7	96.4	92.4	96.7	96.1
Not at home (EMNH)	1.6	3.3	2.7	4.6	2.5	2.8
Refused (EMR)	0.0	0.6	0.0	1.5	0.0	0.2
Partly completed (EMPC)	0.0	0.2	0.1	0.3	0.1	0.1
Incapacitated (EMI)	0.0	1.1	0.7	1.2	0.7	0.8
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of men	312	837	1,204	329	2,024	2,353
Eligible men response rate (EMRR) ²	98.4	94.7	96.4	92.4	96.7	96.1
Overall response rate (ORR) ³	98.3	94.6	96.2	92.1	96.5	95.9

¹ Using the number of households falling into specific response categories, the household response rate (HRR) is calculated as:

$$\frac{100 * C}{C + HP + R + DNF}$$

² Using the number of eligible men falling into specific response categories, the eligible man response rate (EMRR) is calculated as:

$$\frac{100 * EMC}{EMC + EMNH + EMR + EMPC + EMI}$$

³ The overall response rate (ORR) is calculated as:

$$ORR = HRR * EMRR/100$$

The estimates from a sample survey are affected by two types of errors: 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 2001 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 2001 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.

A sampling error is usually measured in terms of the *standard error* for a particular statistic (mean, percentage, etc.), which is the square root of the variance. The standard error can be used to calculate confidence intervals within which the true value for the population can reasonably be assumed to fall. For example, for any given statistic calculated from a sample survey, the value of that statistic will fall within a range of plus or minus two times the standard error of that statistic in 95 percent of all possible samples of identical size and design.

If the sample of respondents had been selected as a simple random sample, it would have been possible to use straightforward formulae for calculating sampling errors. However, the 2001 NDHS sample is the result of a multistage stratified design, and consequently, it was necessary to use more complex formulae. The computer software used to calculate sampling errors for the 2001 NDHS is the ISSA Sampling Error Module (ISSAS). This module used the Taylor linearization method of variance estimation for survey estimates that are means or proportions. The Jackknife repeated replication method is used for variance estimation of more complex statistics such as fertility and mortality rates.

The Taylor linearization method treats any percentage or average as a ratio estimate, $r = y/x$, where y represents the total sample value for variable y , and x represents the total number of cases in the group or subgroup under consideration. The variance of r is computed using the formula given below, with the standard error being the square root of the variance:

$$\text{var}(r) = \frac{1}{x^2} \sum_{h=1}^H \left(\frac{m_h}{m_h} \frac{z_{hi}^2}{m_h} \right)$$

in which

$$z_{hi} = y_{hi} - r \cdot x_{hi} \text{ and } z_h = y_h - r \cdot x_h$$

where h represents the stratum which varies from 1 to H,
 m_h is the total number of enumeration areas selected in the h^{th} stratum,
 y_{hi} is the sum of the values of variable y in EA i in the h^{th} stratum,
 x_{hi} is the sum of the number of cases in EA i in the h^{th} stratum, and
 f is the overall sampling fraction, which is so small that it is ignored.

The Jackknife repeated replication method derives estimates of complex rates from each of several replications of the parent sample, and calculates standard errors for these estimates using simple formulae. Each replication considers *all but one* cluster in the calculation of the estimates. Pseudo-independent replications are thus created. In the 2001 NDHS, there were 251 nonempty clusters (PSUs). Hence, 251 replications were created. The variance of a rate r is calculated as follows:

$$SE^2(r) | \text{var}(r) | = \frac{1}{k(k-1)} \sum_{i=1}^k (r_i - r)^2$$

in which

$$r_i = \frac{k-1}{k} r + \frac{1}{k} r_{(i)}$$

where r is the estimate computed from the full sample of 251 clusters,
 $r_{(i)}$ is the estimate computed from the reduced sample of 250 clusters (i^{th} cluster excluded), and
 k is the total number of clusters.

In addition to the standard error, ISSAS 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. ISSAS also computes the relative error and confidence limits for the estimates.

Sampling errors for the 2001 NDHS are calculated for selected variables considered to be of primary interest. The results are presented in this appendix for the country as a whole, for urban and rural areas, for the three ecological zones (mountains, hills, and *terai*), and for each of the 13 subdomains in the country. For each variable, the type of statistic (mean, proportion, or rate) and the base population are given in Table B.1. Tables B.2 to B.4 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 ($R \pm 2SE$) for each variable. The DEFT is considered undefined when the standard error considering simple random sample is zero (when the estimate is close to 0 or 1).

In general, the relative standard error for most estimates for the country as a whole is small, except for estimates of very small proportions. There are some differentials in the relative standard error for the estimates of subpopulations. For example, for the variable “currently using any contraceptive method” for currently married women age 15-49, the relative standard errors as a percentage of the estimated mean for the whole country, for urban areas, and for rural areas are 2.8 percent, 3.2 percent, and 3.2 percent, respectively.

The confidence interval (e.g., as calculated for “currently using any contraceptive method” for currently married women age 15-49) can be interpreted as follows: the overall national sample proportion is 0.393 and its standard error is 0.011. Therefore, to obtain the 95 percent confidence limits, one adds and subtracts twice the standard error to the sample estimate, i.e. $0.393 \pm 2(0.011)$. There is a high probability (95 percent) that the *true* average proportion of contraceptive use for currently married women age 15-49 is between 0.371 and 0.415

Table B.1 List of selected variables for sampling errors, Nepal 2001

Variable	Estimate	Base Population
WOMEN		
Urban	Proportion	Ever-married women
Literate	Proportion	Ever-married women
No education	Proportion	Ever-married women
Secondary education	Proportion	Ever-married women
Net attendance ratio	Ratio	Children 6-10 years
Currently married	Proportion	All women
Married before age 20	Proportion	All women
Currently pregnant	Proportion	All women
Children ever born	Mean	All women
Children surviving	Mean	All women
Children ever born to women age 40-49	Mean	All women age 40-49
Total fertility rate (3 years)	Rate	All women
Know any contraceptive method	Proportion	Currently married women
Ever used any contraceptive method	Proportion	Currently married women
Currently using any contraceptive method	Proportion	Currently married women
Currently using pill	Proportion	Currently married women
Currently using IUD	Proportion	Currently married women
Currently using injectables	Proportion	Currently married women
Currently using condom	Proportion	Currently married women
Currently using female sterilization	Proportion	Currently married women
Currently using periodic abstinence	Proportion	Currently married women
Using public sector source	Proportion	Current users of modern method
Want no more children	Proportion	Currently married women
Want to delay birth at least 2 years	Proportion	Currently married women
Ideal family size	Mean	Ever-married women
Perinatal mortality (0-4 years)	Ratio	Number of pregnancies of 7+ months
Neonatal mortality (0-4 years)	Rate	Children exposed to the risk of mortality
Postneonatal mortality (0-4 years)	Rate	Children exposed to the risk of mortality
Infant mortality (0-4 years)	Rate	Children exposed to the risk of mortality
Infant mortality (5-9 years)	Rate	Children exposed to the risk of mortality
Infant mortality (10-14 years)	Rate	Children exposed to the risk of mortality
Child mortality (0-4 years)	Rate	Children exposed to the risk of mortality
Under-five mortality (0-4 years)	Rate	Children exposed to the risk of mortality
Mothers received tetanus injection for last birth	Proportion	Women with at least one live birth in five years before survey
Mothers received medical assistance at delivery	Proportion	Births in past 5 years ¹
Had diarrhoea in the 2 weeks before survey	Proportion	Children age 0 to 59 months
Treated with oral rehydration salts (ORS)	Proportion	Children with diarrhoea in two weeks before interview
Taken to a health provider	Proportion	Children with diarrhoea in two weeks before interview
Vaccination card seen	Proportion	Children 12-23 months
Received BCG vaccination	Proportion	Children 12-23 months
Received DPT vaccination (3 doses)	Proportion	Children 12-23 months
Received Polio vaccination (3 doses)	Proportion	Children 12-23 months
Received measles vaccination	Proportion	Children 12-23 months
Received vitamin A supplement	Proportion	Children 6-59 months
Height-for-age (-2SD)	Proportion	Children 0-59 months
Weight-for-height (-2SD)	Proportion	Children 0-59 months
Weight-for-age (-2SD)	Proportion	Children 0-59 months
BMI <18.5	Proportion	Ever-married women
MEN		
Literate	Proportion	Ever-married men age 15-59
No education	Proportion	Ever-married men age 15-59
Secondary education	Proportion	Ever-married men age 15-59
Currently married	Proportion	All men age 15-59
Knows any contraceptive method	Proportion	Currently married men age
Ever used any contraceptive method	Proportion	Currently married men age
Currently using any contraceptive method	Proportion	Currently married men age
Currently using pill	Proportion	Currently married men age
Currently using IUD	Proportion	Currently married men age
Currently using injectables	Proportion	Currently married men age
Currently using condom	Proportion	Currently married men age
Currently using female sterilization	Proportion	Currently married men age
Currently using periodic abstinence	Proportion	Currently married men age
Want no more children	Proportion	Currently married men age
Want to delay birth at least 2 years	Proportion	Currently married men age
Ideal family size	Mean	Ever-married men

¹ Births occurring 1-59 months before interview

Table B.2 Sampling errors - Total sample, Nepal 2001

Variable	Value (R)	Standard error (SE)	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence limits	
			Unweighted (N)	Weighted (WN)			R-2SE	R+2SE
WOMEN								
Urban	0.096	0.007	8726	8726	2.229	0.073	0.082	0.110
Literate	0.355	0.012	8726	8726	2.410	0.035	0.331	0.380
No education	0.720	0.011	8726	8726	2.202	0.015	0.698	0.741
Secondary education	0.132	0.007	8726	8726	2.019	0.055	0.118	0.147
Net attendance ratio	0.730	0.015	6715	6715	2.360	0.021	0.700	0.761
Currently married	0.956	0.002	8726	8726	1.118	0.003	0.951	0.961
Married before age 20	0.808	0.005	8308	8290	1.321	0.006	0.798	0.818
Currently pregnant	0.071	0.003	10599	10626	1.257	0.044	0.064	0.077
Children ever born	2.708	0.043	10599	10626	1.368	0.016	2.621	2.795
Children surviving	2.293	0.034	10599	10626	1.309	0.015	2.224	2.361
Children ever born to women age 40-49	5.406	0.083	1895	1890	1.458	0.015	5.240	5.571
Total fertility rate (3 years)	4.108	0.111	na	30104	1.856	0.027	3.886	4.331
Know any contraceptive method	0.995	0.002	8324	8342	2.274	0.002	0.992	0.999
Ever used any contraceptive method	0.543	0.012	8324	8342	2.185	0.022	0.519	0.567
Currently using any contraceptive method	0.393	0.011	8324	8342	2.054	0.028	0.371	0.415
Currently using pill	0.016	0.002	8324	8342	1.581	0.135	0.012	0.021
Currently using IUD	0.004	0.001	8324	8342	1.188	0.205	0.002	0.006
Currently using injectables	0.084	0.005	8324	8342	1.530	0.055	0.075	0.094
Currently using condom	0.029	0.003	8324	8342	1.431	0.091	0.024	0.034
Currently using female sterilization	0.150	0.008	8324	8342	2.156	0.056	0.133	0.167
Currently using periodic abstinence	0.011	0.001	8324	8342	1.044	0.107	0.009	0.014
Using public sector source	0.794	0.012	3014	2952	1.679	0.016	0.769	0.819
Want no more children	0.443	0.009	8324	8342	1.676	0.021	0.425	0.461
Want to delay birth at least 2 years	0.166	0.004	8324	8342	1.081	0.027	0.157	0.175
Ideal family size	2.634	0.024	8577	8572	2.557	0.009	2.585	2.682
Perinatal mortality (0-4 years)	47.369	2.681	7089	7134	1.000	0.057	42.007	52.731
Neonatal mortality (0-4 years)	38.778	2.967	6998	7044	1.213	0.077	32.844	44.711
Postneonatal mortality (0-4 years)	25.626	2.220	7014	7059	1.156	0.087	21.185	30.066
Infant mortality (0-4 years)	64.403	3.885	7014	7059	1.267	0.060	56.633	72.174
Infant mortality (5-9 years)	90.029	4.183	7102	7070	1.149	0.046	81.664	98.395
Infant mortality (10-14 years)	107.157	6.072	6113	6025	1.374	0.057	95.013	119.302
Child mortality (0-4 years)	28.632	2.725	7085	7131	1.195	0.095	23.182	34.081
Under five mortality (0-4 years)	91.191	4.747	7101	7145	1.278	0.052	81.696	100.686
Mothers received tetanus injection for last birth	0.546	0.017	4731	4745	2.299	0.030	0.513	0.579
Mothers received medical assistance at delivery	0.129	0.008	6931	6978	1.746	0.061	0.113	0.144
Had diarrhea in the 2 weeks before survey	0.204	0.007	6416	6471	1.282	0.033	0.190	0.218
Treated with oral rehydration salts (ORS)	0.322	0.017	1285	1320	1.253	0.053	0.287	0.356
Taken to a health provider	0.212	0.015	1285	1320	1.267	0.071	0.182	0.242
Vaccination card seen	0.162	0.012	1299	1313	1.162	0.074	0.138	0.186
Received BCG vaccination	0.845	0.019	1299	1313	1.845	0.022	0.808	0.882
Received DPT vaccination (3 doses)	0.721	0.024	1299	1313	1.891	0.033	0.674	0.769
Received Polio vaccination (3 doses)	0.915	0.013	1299	1313	1.695	0.014	0.889	0.941
Received measles vaccination	0.706	0.022	1299	1313	1.774	0.032	0.661	0.751
Received vitamin A supplement	0.810	0.008	6261	6293	1.437	0.010	0.794	0.826
Height-for-age (-2 SD)	0.505	0.010	6337	6410	1.524	0.020	0.485	0.525
Weight-for-height (-2 SD)	0.096	0.006	6337	6410	1.468	0.058	0.085	0.108
Weight-for-age (-2 SD)	0.483	0.010	6337	6410	1.470	0.020	0.463	0.502
BMI <18.5	0.266	0.009	7821	7809	1.747	0.033	0.248	0.283
MEN								
Literate	0.698	0.013	2261	2261	1.357	0.019	0.672	0.724
No education	0.377	0.013	2261	2261	1.323	0.036	0.350	0.404
Secondary education	0.327	0.015	2261	2261	1.473	0.044	0.298	0.356
Currently married	0.972	0.003	2261	2261	0.998	0.004	0.965	0.979
Knows any contraceptive method	0.996	0.003	2193	2198	2.243	0.003	0.990	1.002
Ever used any contraceptive method	0.690	0.015	2193	2198	1.474	0.021	0.661	0.719
Currently using any contraceptive method	0.487	0.014	2193	2198	1.333	0.029	0.459	0.516
Currently using pill	0.019	0.004	2193	2198	1.199	0.182	0.012	0.027
Currently using IUD	0.004	0.001	2193	2198	0.844	0.289	0.002	0.006
Currently using injectables	0.102	0.007	2193	2198	1.128	0.072	0.087	0.116
Currently using condom	0.063	0.006	2193	2198	1.124	0.092	0.052	0.075
Currently using female sterilization	0.171	0.011	2193	2198	1.390	0.065	0.148	0.193
Currently using periodic abstinence	0.020	0.003	2193	2198	1.092	0.162	0.014	0.027
Want no more children	0.476	0.014	2193	2198	1.300	0.029	0.448	0.504
Want to delay birth at least 2 years	0.195	0.008	2193	2198	0.960	0.042	0.179	0.211
Ideal family size	2.799	0.030	2213	2210	1.502	0.011	2.739	2.859

na = Not applicable

Table B.3 Sampling errors - Urban sample, Nepal 2001

Variable	Value (R)	Standard error (SE)	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence limits	
			Unweighted (N)	Weighted (WN)			R-2SE	R+2SE
WOMEN								
Urban	1.000	0.000	1154	841	-NaN	0.000	1.000	1.000
Literate	0.642	0.023	1154	841	1.649	0.036	0.596	0.689
No education	0.429	0.025	1154	841	1.721	0.058	0.379	0.479
Secondary education	0.379	0.020	1154	841	1.392	0.053	0.339	0.418
Net attendance ratio	0.887	0.016	774	573	1.217	0.018	0.855	0.919
Currently married	0.942	0.006	1154	841	0.931	0.007	0.929	0.955
Married before age 20	0.673	0.015	1246	913	1.258	0.022	0.644	0.702
Currently pregnant	0.043	0.005	1653	1162	1.002	0.119	0.033	0.054
Children ever born	2.099	0.091	1653	1162	1.012	0.043	1.917	2.281
Children surviving	1.872	0.071	1653	1162	0.906	0.038	1.729	2.015
Children ever born to women age 40-49	4.465	0.166	269	198	1.154	0.037	4.132	4.797
Total fertility rate (3 years)	2.076	0.101	na	3371	0.970	0.049	1.874	2.279
Know any contraceptive method	0.998	0.001	1088	792	1.025	0.001	0.995	1.001
Ever used any contraceptive method	0.773	0.021	1088	792	1.676	0.028	0.731	0.816
Currently using any contraceptive method	0.622	0.020	1088	792	1.344	0.032	0.583	0.662
Currently using pill	0.035	0.008	1088	792	1.389	0.222	0.019	0.050
Currently using IUD	0.016	0.004	1088	792	1.167	0.278	0.007	0.025
Currently using injectables	0.138	0.015	1088	792	1.394	0.106	0.109	0.167
Currently using condom	0.051	0.008	1088	792	1.211	0.158	0.035	0.068
Currently using female sterilization	0.218	0.028	1088	792	2.255	0.130	0.161	0.274
Currently using periodic abstinence	0.024	0.005	1088	792	1.053	0.205	0.014	0.033
Using public sector source	0.567	0.037	595	446	1.826	0.065	0.493	0.642
Want to delay birth at least 2 years	0.132	0.014	1088	792	1.374	0.107	0.104	0.161
Ideal family size	2.273	0.051	1136	827	2.356	0.022	2.171	2.374
Perinatal mortality (0-4 years)	36.635	8.462	651	458	1.051	0.231	19.710	53.560
Neonatal mortality (0-9)	36.561	6.183	1418	1010	1.040	0.169	24.195	48.927
Postneonatal mortality (0-9 years)	13.496	4.223	1419	1011	1.293	0.313	5.050	21.942
Infant mortality (0-9 years)	50.057	8.476	1419	1011	1.263	0.169	33.104	67.009
Child mortality (0-9 years)	16.696	3.361	1425	1014	1.004	0.201	9.974	23.418
Under five mortality (0-9 years)	65.917	9.752	1426	1015	1.272	0.148	46.413	85.421
Mothers received tetanus injection for last birth	0.812	0.024	466	332	1.315	0.030	0.763	0.860
Mothers received medical assistance at delivery	0.511	0.032	637	449	1.367	0.063	0.447	0.576
Had diarrhea in the 2 weeks before survey	0.166	0.021	608	431	1.291	0.124	0.125	0.207
Treated with oral rehydration salts (ORS)	0.456	0.062	107	71	1.142	0.136	0.332	0.580
Taken to a health provider	0.231	0.044	107	71	0.996	0.191	0.143	0.319
Vaccination card seen	0.175	0.047	121	87	1.348	0.270	0.081	0.269
Received BCG vaccination	0.884	0.036	121	87	1.219	0.041	0.812	0.955
Received DPT vaccination (3 doses)	0.782	0.047	121	87	1.244	0.061	0.687	0.876
Received Polio vaccination (3 doses)	0.954	0.034	121	87	1.774	0.036	0.885	1.022
Received measles vaccination	0.806	0.039	121	87	1.062	0.048	0.729	0.883
Received vitamin A supplement	0.753	0.019	594	422	0.926	0.025	0.716	0.791
Height-for-age (-2 SD)	0.367	0.024	602	426	1.119	0.064	0.320	0.414
Weight-for-height (-2 SD)	0.082	0.011	602	426	0.937	0.134	0.060	0.104
Weight-for-age (-2 SD)	0.330	0.022	602	426	1.060	0.067	0.286	0.374
BMI <18.5	0.167	0.012	1069	783	1.031	0.071	0.143	0.190
MEN								
Literate	0.856	0.019	304	227	0.935	0.022	0.819	0.894
No education	0.207	0.033	304	227	1.440	0.162	0.140	0.274
Secondary education	0.575	0.045	304	227	1.573	0.078	0.486	0.664
Currently using any contraceptive method	0.660	0.030	298	223	1.091	0.045	0.600	0.720
Currently using pill	0.030	0.010	298	223	1.015	0.337	0.010	0.050
Currently using IUD	0.019	0.006	298	223	0.747	0.314	0.007	0.030
Currently using injectables	0.159	0.022	298	223	1.023	0.136	0.116	0.203
Currently using condom	0.090	0.019	298	223	1.135	0.210	0.052	0.127
Currently using female sterilization	0.193	0.030	298	223	1.327	0.158	0.132	0.253
Currently using periodic abstinence	0.027	0.010	298	223	1.095	0.384	0.006	0.047
Ideal family size	2.346	0.043	301	225	0.908	0.018	2.261	2.431

na = Not applicable

Table B.4 Sampling errors - Rural sample, Nepal 2001

Variable	Value (R)	Standard error (SE)	Number of cases		Design effect (DEFT)	Relative error (SE/R)	Confidence limits	
			Unweighted (N)	Weighted (WN)			R-2SE	R+2SE
WOMEN								
Literate	0.325	0.013	7572	7885	2.462	0.041	0.298	0.351
No education	0.751	0.011	7572	7885	2.234	0.015	0.728	0.773
Secondary education	0.106	0.008	7572	7885	2.166	0.072	0.091	0.121
Net attendance ratio	0.716	0.016	5941	6142	2.336	0.023	0.684	0.748
Currently married	0.957	0.003	7572	7885	1.129	0.003	0.952	0.963
Married before age 20	0.825	0.005	7091	7374	1.329	0.007	0.814	0.836
Currently pregnant	0.074	0.003	9069	9461	1.251	0.046	0.067	0.081
Children ever born	2.784	0.047	9069	9461	1.367	0.017	2.690	2.877
Children surviving	2.345	0.037	9069	9461	1.304	0.016	2.271	2.419
Children ever born to women age 40-49	5.523	0.091	1624	1690	1.485	0.016	5.342	5.705
Total fertility rate (3 years)	4.358	0.118	na	26760	1.802	0.027	4.121	4.595
Know any contraceptive method	0.995	0.002	7236	7550	2.270	0.002	0.991	0.999
Ever used any contraceptive method	0.519	0.013	7236	7550	2.196	0.025	0.493	0.545
Currently using any contraceptive method	0.369	0.012	7236	7550	2.086	0.032	0.346	0.393
Currently using pill	0.014	0.002	7236	7550	1.630	0.159	0.010	0.019
Currently using IUD	0.003	0.001	7236	7550	1.265	0.282	0.001	0.004
Currently using injectables	0.079	0.005	7236	7550	1.564	0.063	0.069	0.089
Currently using condom	0.027	0.003	7236	7550	1.466	0.104	0.021	0.032
Currently using female sterilization	0.143	0.009	7236	7550	2.125	0.061	0.125	0.160
Currently using periodic abstinence	0.010	0.001	7236	7550	1.058	0.124	0.007	0.012
Using public sector source	0.834	0.013	2419	2507	1.711	0.016	0.808	0.860
Want no more children	0.442	0.010	7236	7550	1.689	0.022	0.422	0.461
Want to delay birth at least 2 years	0.170	0.005	7236	7550	1.050	0.027	0.160	0.179
Ideal family size	2.672	0.026	7441	7746	2.585	0.010	2.619	2.725
Perinatal mortality (0-4 years)	48.105	2.804	6438	6676	0.985	0.058	42.496	53.713
Neonatal mortality (0-9)	48.525	2.500	12655	13080	1.180	0.052	43.524	53.525
Postneonatal mortality (0-9 years)	30.794	1.840	12681	13103	1.156	0.060	27.115	34.474
Infant mortality (0-9 years)	79.319	3.246	12681	13103	1.246	0.041	72.826	85.812
Child mortality (0-9 years)	35.406	2.722	12757	13183	1.480	0.077	29.962	40.850
Under five mortality (0-9 years)	111.917	4.248	12783	13206	1.375	0.038	103.421	120.412
Mothers received tetanus injection for last birth	0.526	0.018	4265	4414	2.300	0.034	0.491	0.561
Mothers received medical assistance at delivery	0.102	0.007	6294	6529	1.754	0.073	0.087	0.117
Had diarrhea in the 2 weeks before survey	0.207	0.007	5808	6040	1.263	0.034	0.193	0.221
Treated with oral rehydration salts (ORS)	0.314	0.018	1178	1249	1.245	0.056	0.278	0.349
Taken to a health provider	0.211	0.016	1178	1249	1.262	0.074	0.179	0.242
Vaccination card seen	0.161	0.012	1178	1226	1.138	0.077	0.136	0.186
Received BCG vaccination	0.842	0.020	1178	1226	1.841	0.023	0.803	0.881
Received DPT vaccination (3 doses)	0.717	0.025	1178	1226	1.889	0.035	0.667	0.767
Received Polio vaccination (3 doses)	0.912	0.014	1178	1226	1.668	0.015	0.885	0.940
Received measles vaccination	0.699	0.024	1178	1226	1.772	0.034	0.651	0.747
Received vitamin A supplement	0.814	0.008	5667	5870	1.458	0.010	0.797	0.831
Height-for-age (-2SD)	0.515	0.010	5735	5983	1.516	0.020	0.494	0.536
Weight-for-height (-2SD)	0.097	0.006	5735	5983	1.467	0.061	0.086	0.109
Weight-for-age (-2SD)	0.494	0.010	5735	5983	1.448	0.020	0.474	0.514
BMI <18.5	0.277	0.010	6752	7026	1.760	0.035	0.258	0.29
MEN								
Literate	0.680	0.014	1957	2034	1.358	0.021	0.651	0.709
No education	0.396	0.014	1957	2034	1.299	0.036	0.367	0.424
Secondary education	0.299	0.015	1957	2034	1.474	0.051	0.269	0.330
Currently using any contraceptive method	0.468	0.016	1895	1975	1.354	0.033	0.437	0.499
Currently using pill	0.018	0.004	1895	1975	1.224	0.206	0.011	0.026
Currently using IUD	0.002	0.001	1895	1975	0.985	0.481	0.000	0.004
Currently using injectables	0.095	0.008	1895	1975	1.145	0.081	0.080	0.111
Currently using condom	0.061	0.006	1895	1975	1.124	0.102	0.048	0.073
Currently using female sterilization	0.168	0.012	1895	1975	1.391	0.071	0.144	0.192
Currently using periodic abstinence	0.020	0.003	1895	1975	1.090	0.177	0.013	0.027
Ideal family size	2.850	0.033	1912	1985	1.539	0.012	2.784	2.917

na = Not applicable

Table C.1 Household age distribution
 Single-year age distribution of the de facto household population by sex (weighted), Nepal 2001

Age	Males		Females		Age	Males		Females	
	Number	Percent	Number	Percent		Number	Percent	Number	Percent
<1	658	3.2	694	3.0	37	182	0.9	207	0.9
1	640	3.1	677	2.9	38	185	0.9	227	1.0
2	625	3.0	686	2.9	39	201	1.0	228	1.0
3	719	3.4	686	2.9	40	215	1.0	224	1.0
4	681	3.3	683	2.9	41	158	0.8	220	0.9
5	677	3.2	661	2.8	42	167	0.8	231	1.0
6	681	3.3	675	2.9	43	134	0.6	201	0.9
7	735	3.5	679	2.9	44	172	0.8	163	0.7
8	661	3.2	667	2.9	45	203	1.0	215	0.9
9	629	3.0	607	2.6	46	172	0.8	193	0.8
10	686	3.3	603	2.6	47	141	0.7	166	0.7
11	601	2.9	551	2.4	48	144	0.7	170	0.7
12	674	3.2	644	2.8	49	133	0.6	104	0.4
13	521	2.5	552	2.4	50	164	0.8	163	0.7
14	536	2.6	508	2.2	51	147	0.7	208	0.9
15	441	2.1	464	2.0	52	121	0.6	161	0.7
16	410	2.0	514	2.2	53	114	0.5	161	0.7
17	382	1.8	527	2.3	54	103	0.5	161	0.7
18	402	1.9	495	2.1	55	134	0.6	153	0.7
19	299	1.4	423	1.8	56	118	0.6	158	0.7
20	314	1.5	423	1.8	57	140	0.7	111	0.5
21	295	1.4	435	1.9	58	114	0.5	89	0.4
22	288	1.4	445	1.9	59	74	0.4	78	0.3
23	232	1.1	347	1.5	60	111	0.5	124	0.5
24	242	1.2	369	1.6	61	134	0.6	125	0.5
25	292	1.4	420	1.8	62	110	0.5	104	0.4
26	223	1.1	391	1.7	63	91	0.4	72	0.3
27	227	1.1	327	1.4	64	81	0.4	81	0.3
28	278	1.3	317	1.4	65	115	0.6	104	0.4
29	245	1.2	317	1.4	66	64	0.3	68	0.3
30	260	1.2	357	1.5	67	107	0.5	107	0.5
31	220	1.1	321	1.4	68	76	0.4	65	0.3
32	247	1.2	324	1.4	69	61	0.3	48	0.2
33	238	1.1	284	1.2	70+	524	2.5	491	2.1
34	190	0.9	231	1.0	Don't know/ missing				
35	273	1.3	332	1.4		2	0.0	2	0.0
36	200	1.0	234	1.0					
					Total	20,833	100.0	23,253	100.0

Note: The de facto population includes all residents and nonresidents who stayed in the household the night before interview.

Table C.2.1 Age distribution of eligible and interviewed women

De facto household population of all women and ever-married women age 10-54, percent distribution of interviewed women age 15-49, and percentage of eligible women who were interviewed (weighted), by five-year age groups, Nepal 2001

Age group	Household population of all women age 10-54	Household population of ever-married women age 10-54	Interviewed women age 15-49		Percentage of eligible women interviewed (weighted)
			Number	Percent	
10-14	2,858	15	na	na	na
15-19	2,423	952	939	10.7	98.6
20-24	2,019	1,716	1,697	19.3	98.9
25-29	1,771	1,698	1,664	19.0	98.0
30-34	1,517	1,483	1,463	16.7	98.6
35-39	1,228	1,204	1,182	13.5	98.1
40-44	1,039	1,030	1,013	11.5	98.4
45-49	849	836	818	9.3	97.9
50-54	854	849	na	na	na
15-49	10,846	8,918	8,775	100.0	98.4

Note: The de facto population includes all residents and nonresidents who stayed in the household the night before the interview. Weights for both household population of women and interviewed women are household weights. Age is based on the household schedule.
na = Not applicable

Table C.2.2 Age distribution of eligible and interviewed men

De facto household population of all men and ever-married men age 10-64, the percent distribution of interviewed men age 15-59, and the percentage of eligible men who were interviewed (weighted), by five-year age groups, Nepal 2001

Age group	Household population of all men age 10-64	Household population of ever-married men age 10-64	Interviewed men age 15-59		Percentage of eligible men interviewed (weighted)
			Number	Percent	
10-14	1,009	2	na	na	na
15-19	667	70	68	3.0	97.9
20-24	512	312	293	13.0	93.9
25-29	421	355	338	15.0	95.4
30-34	376	358	342	15.2	95.5
35-39	339	338	327	14.5	96.8
40-44	262	260	249	11.1	95.8
45-49	268	264	250	11.1	94.7
50-54	215	216	211	9.4	97.5
55-59	186	183	175	7.8	95.6
60-64	194	192	na	na	na
15-59	3,246	2,355	2,253	100.0	95.7

Note: The de facto population includes all residents and nonresidents who stayed in the household the night before the interview. Weights for both household population of men and interviewed men are household weights. Age is based on the household schedule.
na = Not applicable

Table C.3 Completeness of reporting

Percentage of observations missing information for selected demographic and health questions (weighted), Nepal 2001

Subject	Reference group	Percentage with missing information	Number of cases
Birth date	Births in the 15 years preceding the survey		
Month only		0.07	20,077
Month and year		0.00	20,077
Age at death	Deceased children born in the 15 years preceding the survey	0.54	2,381
Age/date at first union ¹	Ever-married women age 15-49	0.06	8,726
Respondent's education	Ever-married women age 15-49	0.00	8,726
Diarrhea in last 2 weeks	Living children age 0-59 months	0.75	6,471
Anthropometry	Living children age 0-59 months (from the household questionnaire)		
Height		2.55	6,692
Weight		1.76	6,692
Height or weight		2.55	6,692

¹Both year and age missing

Table C.4 Births by calendar years

Number of births, percentage with complete birth date, sex ratio at birth, and calendar year ratio by calendar year, according to living (L), dead (D), and total (T) children (weighted), Nepal 2001

Calendar year (Nepali calendar)	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
2058	49	2	51	100.0	100.0	100.0	129.6	275.1	133.4	na	na	na
2057	1,259	73	1,333	100.0	100.0	100.0	92.9	78.2	92.1	na	na	na
2056	1,321	87	1,408	100.0	100.0	100.0	92.9	102.4	93.4	104.9	101.6	104.7
2055	1,259	97	1,357	100.0	100.0	100.0	93.6	146.6	96.6	95.4	91.8	95.1
2054	1,319	125	1,444	100.0	100.0	100.0	102.8	84.0	101.1	103.6	109.1	104.0
2053	1,288	132	1,420	99.9	100.0	99.9	103.9	111.1	104.6	97.6	104.6	98.2
2052	1,321	128	1,449	100.0	100.0	100.0	104.9	130.5	106.9	104.1	76.2	100.9
2051	1,250	203	1,453	99.9	100.0	99.9	100.0	104.9	100.6	96.8	127.8	100.2
2050	1,261	190	1,451	99.9	99.4	99.8	104.4	95.2	103.1	101.0	103.1	101.3
2049	1,248	165	1,413	99.9	100.0	100.0	104.6	88.0	102.5	105.5	86.9	102.9
2054-2058	5,208	384	5,593	100.0	100.0	100.0	95.8	100.3	96.1	na	na	na
2049-2053	6,367	818	7,185	99.9	99.9	99.9	103.6	103.4	103.5	na	na	na
2044-2048	5,242	996	6,238	99.9	99.7	99.9	110.4	92.7	107.4	na	na	na
2039-2043	3,828	911	4,740	99.9	99.7	99.9	102.5	104.7	102.9	na	na	na
<2039	3,714	1,305	5,019	99.9	99.5	99.8	104.2	113.0	106.4	na	na	na
All	24,360	4,414	28,774	99.9	99.7	99.9	103.2	103.5	103.2	na	na	na

Note: Since the new year in the Nepali calendar starts in mid-April, the cutoff for eligibility of births for questions in the health section was Baisakh 2052, which is roughly equivalent to April 1995

na = Not applicable

¹ Both year and month of birth given

² $(B_m/B_f) \times 100$, where B_m and B_f are the numbers of male and female births, respectively

³ $[2B_x / (B_{x-1} + B_{x+1})] \times 100$, where B_x is the number of births in calendar year x

Table C.5 Reporting of age at death in days

Distribution of reported deaths under one month of age by age at death in days and the percentage of neonatal deaths reported to occur at ages 0-6 days, for five-year periods preceding the survey (weighted), Nepal 2001

Age at death (days)	Number of years preceding the survey				Total 0-19
	0-4	5-9	10-14	15-19	
<1	92	124	131	101	447
1	22	38	37	30	128
2	9	20	18	15	62
3	20	35	24	15	94
4	15	17	8	13	52
5	15	15	19	14	62
6	9	10	16	13	48
7	12	14	12	9	46
8	8	17	15	13	53
9	7	5	14	7	33
10	3	9	13	1	26
11	10	7	8	10	35
12	5	13	6	5	29
13	1	5	6	6	18
14	4	5	5	8	22
15	4	14	13	11	42
16	6	5	4	5	19
17	1	3	5	3	12
18	1	4	10	0	15
19	0	3	0	3	6
20	3	12	2	2	19
21	1	2	0	1	4
22	5	9	6	0	20
23	2	5	1	3	10
24	1	1	1	0	2
25	4	2	1	3	10
26	1	1	1	1	4
27	2	2	1	1	6
28	2	2	3	0	7
29	1	0	2	1	3
30	0	0	0	2	2
Percent early neonatal ¹	68.9	64.8	66.7	67.7	66.8

¹ 0-6 days / 0-30 days

Table C.6 Reporting of age at death in months

Distribution of reported deaths under two years of age by age at death in months and the percentage of infant deaths reported to occur at age under one month, for five-year periods preceding the survey, (weighted), Nepal 2001

Age at death (months)	Number of years preceding the survey				Total 0-19
	0-4	5-9	10-14	15-19	
<1 ^a	264	399	378	296	1,337
1	38	49	49	45	181
2	19	26	21	17	83
3	26	27	21	24	97
4	10	22	22	13	67
5	9	13	23	15	60
6	11	15	29	20	75
7	8	7	16	12	44
8	13	12	13	14	51
9	11	14	18	20	63
10	9	18	22	12	61
11	10	19	22	28	79
12	8	26	26	38	98
13	11	10	9	3	33
14	6	5	11	9	31
15	2	9	11	3	25
16	2	2	6	2	12
17	4	3	3	6	16
18	10	23	34	33	100
19	7	1	7	2	16
20	1	3	3	3	10
21	0	0	2	1	3
22	0	0	4	4	8
23	1	5	1	9	17
Missing	4	4	5	7	20
1 Year	1	0	0	1	2
Percent neonatal ¹	61.9	64.2	59.7	57.5	60.9

^aIncludes deaths under 1 month reported in days

¹Under 1 month / under 1 year

Technical and Administrative Staff

Project Director

Bharat Ban

Deputy Project Director

Anjushree Pradhan

Technical Advisor

Dr. Gokarna Regmi
Ajit Pradhan

Senior Technical Staff

Matrika Chapagain, Assistant Research Officer
Muneshor Shrestha, Research Assistant
Puspa Basnet, Research Assistant

Senior Data Processing Staff

Rajendra Lal Singh Dangol
Sarita Baidya

ORC Macro Staff

Dr. Pav Govindasamy, Country Manager
Anne R. Cross, Regional Coordinator
Dr. Alfredo Aliaga, Sampling Specialist
Guillermo Rojas, Deputy Chief of Data Processing
Livia Montana, GPS Specialist
Daniel Vadnais, Data Dissemination Coordinator
Dr. Sidney Moore, Editor
Celia Khan, Document Production
Kaye Mitchell, Document Production

Data Entry Operators

Usha Shrestha
Sahanshila Shrestha
Dipendra Mahat
Janani Magar
Kchhitiz Shrestha
Rajan Dangol
Sashindra Pradhan

File Editors

Deepa Shakya
Bikash Maharjan

Administrative Staff

Anil Kumar Shrestha
Kishor Kumar Shrestha
Sunita Pradhan
Rajendra Kumar Shrestha

Word Processors

Sanu Raja Shakya
Geeta Amatya

Listing Staff

Ram Kumar Dhungel
Kiran Raj Dahal
Dupchen Lama
Jiwan Maharjan
Nirmal K. Shrestha
Ashok Shrestha
Shyam K. Purkutti
Sushi K. Joshi
Harendra Chauracia
Prakash Ghimire
Jagadish Adhikari
Achut Dahal
Nav R. Lamichhane
Surya Kanta Koirala
Narendra G.C.
Sagar Gyawali
Janak Chanda Ballan Chhetri
Som Deep Thapalia
Aalok Babu Prasai
Khadga Prasai
Badri Chapagai
Kumar Shrestha
Suresh Bhandari
Ram B. Thapa
Birendra Chaudhari
Rudra B. Shrestha
Raju Karki

Hari Kumar Shrestha
Arjun Adhikari
Jevan K. Prasai
Jitendra K. Kayastha
Netra Dangal
Dipendra K. Regmi
Bhola Khanal
Binit Ghimire
Birendra P. Ram
Mahendra Bajgai
Roshan Chapagai
Arjun Khatri
Damodar Adhikari
Arjun K. Pandey
Bijaya K. Yadra
Shyam Sundar Prasad
Raghu Nath P. Chaurcia
Ram Krishna Thapa
Dipesh Kr. Shah
Rabindra Udas
Mahendra Ghimire
Keshar Upreti
Bikesh Koirala
Radhyshyam Chaudhari
Dhama K.C.
Dambar Dutt Awesthi

Field Staff

Quality Control

Jevan K. Prasai
Mahendra Bajgai
Rabindra Udas

Supervisors

Keshar Upreti
Sushil Joshi
Netra Dangal
Mithilesh P. Shah
Jitendra L. Kayastha
Birendra Chaudhari

Raju Karki
Dupchen Lama
Nar Raj Lamichhane
Suk Bahadur Gurung
Sher Singh Saud

Field Editors

Kalpana Shrestha
Prabha Khanal
Karuna Tuladhar
Baidehi Mallik
Sumitra Ranjit
Pramila Sharma

Kamala Shrestha
Malati Maskey
Lila Kumari Pandey
Iswara Prasai
Puma Kumari Shrestha

Interviewers

Prem Prasad Bastola
Geeta Adhikari
Bidya Devi Niroula
Muna Shrestha
Sabin Shrestha
Rabina Shrestha
Bhima Rijal
Sita Prasai
Krishna Prasad Basu
Sanu Maiya Maskey
Jamuna Kayastha
Radhika Tiwari
Shyam Sundar Prasad
Laxmi Bachhar
Kiran Chaudhari
Yasodha Baujada
Rudra B. Shrestha
Binita Baidya
Rubina Khatri
Mahesh P. Deo
Rani Malik
Sita Lama
Babita Bhattarai

Ram B. Thapa
Dibya Swara Mainali
Devi Maya Bogati
Saraswati Thapa
Gangu Basnet
Manju Sharma
Sabitri Giri
Rashila Shrestha
Narendra G.C.
Manju Shrestha
Dilli Maya Prasai
Laxmi Shrestha
Likhat Ram Paudel
Pabitra Yogi
Kumari Tamang
Iswori Panday
Dambar Dutt Awasthi
Srijana Adhikari
Sita Devi Adhikari
Laxmi Shova Shrestha
Maya Budhathoki
Roshan Chapagai

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 OF HOUSEHOLD HEAD _____	
NAME OF RESPONDENT ____	
IS HOUSEHOLD SELECTED FOR MAN'S SURVEY (YES=1; NO=2).....	

INTERVIEWER VISITS				
	1	2	3	FINAL VISIT
DATE	_____	_____	_____	DAY MONTH YEAR 2 0
INTERVIEWER'S NAME	_____	_____	_____	INT.CODE
RESULT**	_____	_____	_____	RESULT
NEXT VISIT: DATE	_____	_____		TOTAL NO. 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 RESP. TO HOUSEHOLD QUEST.
SUPERVISOR		FIELD EDITOR		OFFICE EDITOR
NAME _____		NAME _____		
DATE _____		DATE _____		
				KEYED BY

HOUSEHOLD SCHEDULE

Now we would like some information about the people who usually live in your household or who are staying with you now.

LINE NO.	USUAL RESIDENTS AND VISITORS	RELATIONSHIP TO HEAD OF HOUSEHOLD	SEX		RESIDENCE		AGE	MARITAL STATUS				ELIGIBILITY				
			AGE 10 AND OVER		How old is (NAME)?	Has (NAME) ever been married?	IF YES		CIRCLE LINE NO. OF ALL WOMEN AGE 15-49 WITH YES IN COL.8 AND COL. 9.	CIRCLE LINE NO. OF MEN AGE 15-59 WITH YES IN COL.8 AND COL. 9.	CIRCLE LINE NUMBER OF ALL CHILD-REN UNDER AGE 6.					
(1)	(2)	(3)	(4)	(5)			(6)	(7)				(8)	(9)	(10)	(11)	(12)
			M	F	YES	NO	YES	NO	IN YEARS	YES	NO	YES	NO			
01			1	2	1	2	1	2		1	2	1	2	01	01	01
02			1	2	1	2	1	2		1	2	1	2	02	02	02
03			1	2	1	2	1	2		1	2	1	2	03	03	03
04			1	2	1	2	1	2		1	2	1	2	04	04	04
05			1	2	1	2	1	2		1	2	1	2	05	05	05
06			1	2	1	2	1	2		1	2	1	2	06	06	06
07			1	2	1	2	1	2		1	2	1	2	07	07	07
08			1	2	1	2	1	2		1	2	1	2	08	08	08
09			1	2	1	2	1	2		1	2	1	2	09	09	09
10			1	2	1	2	1	2		1	2	1	2	09	09	09
11			1	2	1	2	1	2		1	2	1	2	09	09	09
12			1	2	1	2	1	2		1	2	1	2	10	10	10

* CODES FOR Q.3

- 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 = NEPHEW, NIECE
- 11 = CO-WIFE
- 12 = OTHER RELATIVE
- 13 = ADOPTED/FOSTER/ STEPCCHILD
- 14 = NOT RELATED
- 98 = DON'T KNOW

LINE NO.	EDUCATION						
	IF AGE 5 YEARS OR OLDER		IF AGE 5-24 YEARS				
	Has (NAME) ever attended school?	What is the highest grade of school (NAME) has completed?***	Is (NAME) currently attending school?	During the current school year, did (NAME) attend school at any time?	During the current school year, what grade is/was (NAME) attending?***	During the previous school year, did (NAME) attend school at any time?	During that school year, what grade did (NAME) attend?***
(13)	(14)	(15)	(16)	(17)	(18)	(19)	
YES NO	GRADE	YES NO	YES NO	GRADE	YES NO	GRADE	
01	1 2 NEXT 1 LINE		1 2 GO TO 1 17	1 2 GO TO 1 18		1 2 NEXT 1 LINE	
02	1 2 NEXT 1 LINE		1 2 GO TO 1 17	1 2 GO TO 1 18		1 2 NEXT 1 LINE	
03	1 2 NEXT 1 LINE		1 2 GO TO 1 17	1 2 GO TO 1 18		1 2 NEXT 1 LINE	
04	1 2 NEXT 1 LINE		1 2 GO TO 1 17	1 2 GO TO 1 18		1 2 NEXT 1 LINE	
05	1 2 NEXT 1 LINE		1 2 GO TO 1 17	1 2 GO TO 1 18		1 2 NEXT 1 LINE	
06	1 2 NEXT 1 LINE		1 2 GO TO 1 17	1 2 GO TO 1 18		1 2 NEXT 1 LINE	
07	1 2 NEXT 1 LINE		1 2 GO TO 1 17	1 2 GO TO 1 18		1 2 NEXT 1 LINE	
08	1 2 NEXT 1 LINE		1 2 GO TO 1 17	1 2 GO TO 1 18		1 2 NEXT 1 LINE	
09	1 2 NEXT 1 LINE		1 2 GO TO 1 17	1 2 GO TO 1 18		1 2 NEXT 1 LINE	
10	1 2 NEXT 1 LINE		1 2 GO TO 1 17	1 2 GO TO 1 18		1 2 NEXT 1 LINE	
11	1 2 NEXT 1 LINE		1 2 GO TO 1 17	1 2 GO TO 1 18		1 2 NEXT 1 LINE	
12	1 2 NEXT 1 LINE		1 2 GO TO 1 17	1 2 GO TO 1 18		1 2 NEXT 1 LINE	

** CODES FOR Qs. 14, 17 AND 19

00 = LESS THAN GRADE 1

01 = GRADE 1

02 = GRADE 2

03 = GRADE 3

04 = GRADE 4

05 = GRADE 5

06 = GRADE 6

07 = GRADE 7

08 = GRADE 8

09 = GRADE 9

10 = COMPLETED SLC

11 = INTERMEDIATE 1ST YEAR/ 10+1

12 = INTERMEDIATE COMPLETE/ 10+2

13 = BACHELOR'S NOT COMPLETE

14 = BACHELOR'S COMPLETE/HIGHER

95 = NON-FORMAL EDUCATION

98 = DON'T KNOW

TICK HERE IF CONTINUATION SHEET USED

Just to make sure that I have a complete listing:

- | | | | | |
|--|-----|---|---------------------|----|
| 1) Are there any other persons such as small children or infants that we have not listed? | YES | 0 | ENTER EACH IN TABLE | NO |
| 2) In addition, 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 | 0 | ENTER EACH IN TABLE | NO |
| 3) Are there any guests or temporary visitors staying here, or anyone else who slept here last night, who have not been listed? | YES | 0 | ENTER EACH IN TABLE | NO |

WEIGHT AND HEIGHT MEASUREMENT

CHECK COLUMNS (10) AND (12): RECORD LINE NUMBER, NAME AND AGE OF EVER-MARRIED WOMEN AGE 15-49 AND ALL CHILDREN UNDER AGE 6.

WOMEN 15-49				WEIGHT AND HEIGHT MEASUREMENT OF WOMEN 15-49			
LINE NO.	NAME	AGE		WEIGHT (KILOGRAMS)	HEIGHT (CENTIMETERS)	CURRENTLY PREGNANT	RESULT
FROM COL.(10)	FROM COL.(2)	FROM COL.(7)					1 MEASURED 2 NOT PRESENT 3 REFUSED 6 OTHER
(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)
		YEARS				YES NO/DK	
						1 2	
						1 2	
						1 2	

CHILDREN UNDER AGE 6				WEIGHT AND HEIGHT OF CHILDREN BORN SINCE BAISAKH 1, 2052			
LINE NO.	NAME	AGE	What is (NAME)'s date of birth?	WEIGHT (KILOGRAMS)	HEIGHT (CENTIMETERS)	MEASURED LYING DOWN OR STANDING UP	RESULT
FROM COL.(12)	FROM COL.(2)	FROM COL.(7)					1 MEASURED 2 NOT PRESENT 3 REFUSED 6 OTHER
				0		LYING STAND.	
				0		1 2	
				0		1 2	
				0		1 2	
				0		1 2	
				0		1 2	

TICK HERE IF CONTINUATION SHEET USED

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 OF HOUSEHOLD HEAD _____	
NAME AND LINE NUMBER OF WOMAN _____	

INTERVIEWER VISITS				
	1	2	3	FINAL VISIT
DATE	_____	_____	_____	DAY MONTH YEAR 2 0
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 _____ 3 POSTPONED 6 INCAPACITATED (SPECIFY)				

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 _____		

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
111	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	
112	CHECK 110: CODE '2', '3' OR '4' CIRCLED 3	CODE '1' CIRCLED	0114
113	Do you usually read a newspaper or magazine at least once a week?	YES 1 NO 2	
114	Do you usually listen to the radio every day?	YES 1 NO 2	
115	Do you usually watch television at least once a week?	YES 1 NO 2	
116	What is your religion?	HINDU 1 BUDDHIST 2 MUSLIM 3 CHRISTIAN 4 OTHER _____ (SPECIFY) 6	
117	What is your caste? WRITE CASTE IN SPACE PROVIDED. DO NOT FILL BOX. CODE WILL BE ENTERED BY FIELD EDITOR.	_____ CASTE	
118	Are you currently married or are you widowed, divorced, or separated?	CURRENTLY MARRIED 1 WIDOWED 2 DIVORCED 3 SEPARATED 4	0124
119	Is your husband living with you now or is he staying elsewhere?	LIVING WITH HER 1 STAYING ELSEWHERE 2	0121
120	How long has he been away without coming back? IF LESS THAN 1 MONTH, WRITE '00'.	MONTHS MORE THAN 2 YEARS 95 DOES NOT KNOW 98	
121	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.	
122	Does your husband have any other wives besides yourself?	YES 1 NO 2	0124
123	How many other wives does he have?	NUMBER DON'T KNOW 98	0124
123A	Are you the first, second, wife?	RANK.....	
124	Have you been married only once, or more than once?	ONCE 1 MORE THAN ONCE 2	
125	How old were you when you (first) got married?	AGE	

213	Now I would like to record all your pregnancies, whether born alive, born dead, or lost before birth. Start with the first pregnancy you had. RECORD ALL THE PREGNANCIES. RECORD TWINS AND TRIPLETS ON SEPARATE LINES.						
214	215	216	217	218	219	220	221
	Think back to the time of 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 that child?	Is (NAME) a boy or a girl?	In what month and year was (NAME) born? PROBE: What is his/her birthday?	Is (NAME) still alive?
01	SING... 1 MULT.. 2	BORN ALIVE.....1 (SKIP TO 218)1 BORN DEAD.....2 LOST BEFORE BIRTH3 (SKIP TO 226)1	YES.... 1 NO 2 3 226	_____ (NAME)	BOY...1 GIRL..2	MONTH YEAR	YES.... 1 NO 2 3 225
02	SING... 1 MULT.. 2	BORN ALIVE.....1 (SKIP TO 218)1 BORN DEAD.....2 LOST BEFORE BIRTH3 (SKIP TO 226)1	YES.... 1 NO 2 3 226	_____ (NAME)	BOY...1 GIRL..2	MONTH YEAR	YES.... 1 NO 2 3 225
03	SING... 1 MULT.. 2	BORN ALIVE.....1 (SKIP TO 218)1 BORN DEAD.....2 LOST BEFORE BIRTH3 (SKIP TO 226)1	YES.... 1 NO 2 3 226	_____ (NAME)	BOY...1 GIRL..2	MONTH YEAR	YES.... 1 NO 2 3 225
04	SING... 1 MULT.. 2	BORN ALIVE.....1 (SKIP TO 218)1 BORN DEAD.....2 LOST BEFORE BIRTH3 (SKIP TO 226)1	YES.... 1 NO 2 3 226	_____ (NAME)	BOY...1 GIRL..2	MONTH YEAR	YES.... 1 NO 2 3 225
05	SING... 1 MULT.. 2	BORN ALIVE.....1 (SKIP TO 218)1 BORN DEAD.....2 LOST BEFORE BIRTH3 (SKIP TO 226)1	YES.... 1 NO 2 3 226	_____ (NAME)	BOY...1 GIRL..2	MONTH YEAR	YES.... 1 NO 2 3 225
06	SING... 1 MULT.. 2	BORN ALIVE.....1 (SKIP TO 218)1 BORN DEAD.....2 LOST BEFORE BIRTH3 (SKIP TO 226)1	YES.... 1 NO 2 3 226	_____ (NAME)	BOY...1 GIRL..2	MONTH YEAR	YES.... 1 NO 2 3 225
07	SING... 1 MULT.. 2	BORN ALIVE.....1 (SKIP TO 218)1 BORN DEAD.....2 LOST BEFORE BIRTH3 (SKIP TO 226)1	YES.... 1 NO 2 3 226	_____ (NAME)	BOY...1 GIRL..2	MONTH YEAR	YES.... 1 NO 2 3 225
08	SING... 1 MULT.. 2	BORN ALIVE.....1 (SKIP TO 218)1 BORN DEAD.....2 LOST BEFORE BIRTH3 (SKIP TO 226)1	YES.... 1 NO 2 3 226	_____ (NAME)	BOY...1 GIRL..2	MONTH YEAR	YES.... 1 NO 2 3 225

IF BORN ALIVE AND STILL LIVING			IF BORN ALIVE, BUT NOW DEAD	IF BORN DEAD OR LOST BEFORE BIRTH			
222	223	224	225	226	227	228	229
How old was (NAME) at his/her last birthday? RECORD AGE IN COMPLETED YEARS.	Is (NAME) living with you?	RECORD HOUSEHOLD LINE NUMBER OF CHILD (RECORD '00' IF CHILD NOT LISTED IN HOUSEHOLD)	How old was (NAME) when he/she died? IF '1 YR', PROBE: How many months old was (NAME)? RECORD DAYS IF LESS THAN 1 MONTH; MONTHS IF LESS THAN 2 YEARS; OR YEARS.	In what month and year did this pregnancy end?	How many months did the pregnancy last? RECORD IN COMPLETED MONTHS.	Did you or someone else do anything to end this pregnancy?	Were there any other pregnancies between the previous pregnancy and this pregnancy?
01 AGE IN YEARS	YES 1 NO 2	LINE NUMBER 3 (NEXT PREGNANCY)	DAYS1 MONTHS .2 YEARS3 (NEXT PREGNANCY)	MONTH YEAR	MONTHS	YES 1 NO 2	
02 AGE IN YEARS	YES 1 NO 2	LINE NUMBER 3 (SKIP TO 229)	DAYS1 MONTHS .2 YEARS3 (SKIP TO 229)	MONTH YEAR	MONTHS	YES 1 NO 2	YES..... 1 NO 2
03 AGE IN YEARS	YES 1 NO 2	LINE NUMBER 3 (SKIP TO 229)	DAYS1 MONTHS .2 YEARS3 (SKIP TO 229)	MONTH YEAR	MONTHS	YES 1 NO 2	YES..... 1 NO 2
04 AGE IN YEARS	YES 1 NO 2	LINE NUMBER 3 (SKIP TO 229)	DAYS1 MONTHS .2 YEARS3 (SKIP TO 229)	MONTH YEAR	MONTHS	YES 1 NO 2	YES..... 1 NO 2
05 AGE IN YEARS	YES 1 NO 2	LINE NUMBER 3 (SKIP TO 229)	DAYS1 MONTHS .2 YEARS3 (SKIP TO 229)	MONTH YEAR	MONTHS	YES 1 NO 2	YES..... 1 NO 2
06 AGE IN YEARS	YES 1 NO 2	LINE NUMBER 3 (SKIP TO 229)	DAYS1 MONTHS .2 YEARS3 (SKIP TO 229)	MONTH YEAR	MONTHS	YES 1 NO 2	YES..... 1 NO 2
07 AGE IN YEARS	YES 1 NO 2	LINE NUMBER 3 (SKIP TO 229)	DAYS1 MONTHS .2 YEARS3 (SKIP TO 229)	MONTH YEAR	MONTHS	YES 1 NO 2	YES..... 1 NO 2
08 AGE IN YEARS	YES.....1 NO..... 2	LINE NUMBER 3 (SKIP TO 229)	DAYS 1 MONTHS ... 2 YEARS..... 3 (SKIP TO 229)	MONTH.. YEAR ..	MONTHS	YES..... 1 NO..... 2	YES..... 1 NO..... 2

213	Now I would like to record all your pregnancies, whether born alive, born dead, or lost before birth. Start with the first pregnancy you had. RECORD ALL THE PREGNANCIES. RECORD TWINS AND TRIPLETS ON SEPARATE LINES.						
214	215 Think back to the time of your first pregnancy. Was that a single or multiple pregnancy?	216 Was the baby born alive, born dead, or lost before birth?	217 Did that baby cry, move, or breathe when it was born?	218 What name was given to that child?	219 Is (NAME) a boy or a girl?	220 In what month and year was (NAME) born? PROBE: What is his/her birthday?	221 Is (NAME) still alive?
09	SING ... 1 MULT .. 2	BORN ALIVE.....1 (SKIP TO 218)1 BORN DEAD.....2 LOST BEFORE BIRTH3 (SKIP TO 226)1	YES..... 1 NO 2 3 226	_____ (NAME)	BOY...1 GIRL...2	MONTH YEAR	YES..... 1 NO 2 3 225
10	SING ... 1 MULT .. 2	BORN ALIVE.....1 (SKIP TO 218)1 BORN DEAD.....2 LOST BEFORE BIRTH3 (SKIP TO 226)1	YES..... 1 NO 2 3 226	_____ (NAME)	BOY...1 GIRL...2	MONTH YEAR	YES..... 1 NO 2 3 225
11	SING ... 1 MULT .. 2	BORN ALIVE.....1 (SKIP TO 218)1 BORN DEAD.....2 LOST BEFORE BIRTH3 (SKIP TO 226)1	YES..... 1 NO 2 3 226	_____ (NAME)	BOY...1 GIRL...2	MONTH YEAR	YES..... 1 NO 2 3 225
12	SING ... 1 MULT .. 2	BORN ALIVE.....1 (SKIP TO 218)1 BORN DEAD.....2 LOST BEFORE BIRTH3 (SKIP TO 226)1	YES..... 1 NO 2 3 226	_____ (NAME)	BOY...1 GIRL...2	MONTH YEAR	YES..... 1 NO 2 3 225
13	SING ... 1 MULT .. 2	BORN ALIVE.....1 (SKIP TO 218)1 BORN DEAD.....2 LOST BEFORE BIRTH3 (SKIP TO 226)1	YES..... 1 NO 2 3 226	_____ (NAME)	BOY...1 GIRL...2	MONTH YEAR	YES..... 1 NO 2 3 225
14	SING ... 1 MULT .. 2	BORN ALIVE.....1 (SKIP TO 218)1 BORN DEAD.....2 LOST BEFORE BIRTH3 (SKIP TO 226)1	YES..... 1 NO 2 3 226	_____ (NAME)	BOY...1 GIRL...2	MONTH YEAR	YES..... 1 NO 2 3 225

IF BORN ALIVE AND STILL LIVING			IF BORN ALIVE, BUT NOW DEAD	IF BORN DEAD OR LOST BEFORE BIRTH			
222	223	224	225	226	227	228	229
How old was (NAME) at his/her last birthday? RECORD IN COMPLETED YEARS.	Is (NAME) living with you?	RECORD HOUSEHOLD LINE NUMBER OF CHILD (RECORD '00' IF CHILD NOT LISTED IN HOUSEHOLD)	How old was (NAME) when he/she died? IF '1 YR', PROBE: How many months old was (NAME)? RECORD DAYS IF LESS THAN 1 MONTH; MONTHS IF LESS THAN 2 YEARS; OR YEARS.	In what month and year did this pregnancy end?	How many months did the pregnancy last? RECORD IN COMPLETED MONTHS.	Did you or someone else do anything to end this pregnancy?	Were there any other pregnancies between the previous pregnancy and this pregnancy?
09 AGE IN YEARS	YES 1 NO 2	LINE NUMBER 3 (SKIP TO 229)	DAYS 1 MONTHS . 2 YEARS 3 (SKIP TO 229)	MONTH YEAR	MONTHS	YES 1 NO 2	YES 1 NO 2
10 AGE IN YEARS	YES 1 NO 2	LINE NUMBER 3 (SKIP TO 229)	DAYS 1 MONTHS . 2 YEARS 3 (SKIP TO 229)	MONTH YEAR	MONTHS	YES 1 NO 2	YES 1 NO 2
11 AGE IN YEARS	YES 1 NO 2	LINE NUMBER 3 (SKIP TO 229)	DAYS 1 MONTHS . 2 YEARS 3 (SKIP TO 229)	MONTH YEAR	MONTHS	YES 1 NO 2	YES 1 NO 2
12 AGE IN YEARS	YES 1 NO 2	LINE NUMBER 3 (SKIP TO 229)	DAYS 1 MONTHS . 2 YEARS 3 (SKIP TO 229)	MONTH YEAR	MONTHS	YES 1 NO 2	YES 1 NO 2
13 AGE IN YEARS	YES 1 NO 2	LINE NUMBER 3 (SKIP TO 229)	DAYS 1 MONTHS . 2 YEARS 3 (SKIP TO 229)	MONTH YEAR	MONTHS	YES 1 NO 2	YES 1 NO 2
14 AGE IN YEARS	YES 1 NO 2	LINE NUMBER 3 (SKIP TO 229)	DAYS 1 MONTHS . 2 YEARS 3 (SKIP TO 229)	MONTH YEAR	MONTHS	YES 1 NO 2	YES 1 NO 2
230	Have you had any pregnancy since the last pregnancy mentioned?			YES 1 NO 2			
231	<p>COMPARE 210 WITH NUMBER OF PREGNANCIES IN HISTORY ABOVE AND MARK:</p> <p>NUMBERS ARE SAME NUMBERS ARE DIFFERENT 0 (PROBE AND RECONCILE)</p> <p>3 CHECK: FOR EACH PREGNANCY: YEAR IS RECORDED IN 220 OR 226. FOR EACH LIVING CHILD: CURRENT AGE IS RECORDED IN 222. FOR EACH DEAD CHILD: AGE AT DEATH IS RECORDED IN 225. FOR AGE AT DEATH 12 MONTHS OR 1 YR.: PROBE FOR EXACT NUMBER OF MONTHS.</p>						
232	CHECK 220 AND ENTER THE NUMBER OF LIVE BIRTHS SINCE BAISAKH 1, 2052. IF NONE, RECORD '0'.						

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
233	CHECK 118: CURRENTLY MARRIED 3 WIDOWED, DIVORCED, SEPARATED		Q237
234	Are you pregnant now?	YES 1 NO 2 UNSURE 8	Q237
235	How many months pregnant are you? RECORD NUMBER OF COMPLETED MONTHS.	MONTHS	
236	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?	WANTED THEN 1 WANTED TO WAIT LATER 2 DID NOT WANT AT ALL 3	
237	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	
238	From one menstrual period to the next, is there a time when a woman is more likely to become pregnant if she has sexual relations?	YES 1 NO 2 DON'T KNOW 8	Q301
239	Is this time just before her period begins, during her period, right after her period has ended, or half way between two periods?	JUST BEFORE HER PERIOD BEGINS 1 DURING HER PERIOD 2 RIGHT AFTER HER PERIOD HAS ENDED 3 HALF WAY BETWEEN PERIODS 4 OTHER _____ 6 (SPECIFY) DON'T KNOW 8	

SECTION 3. CONTRACEPTION

<p>Now I would like to talk about family planning - the various ways or methods that a couple can use to delay or avoid a pregnancy.</p> <p>CIRCLE CODE 1 IN 301 FOR EACH METHOD MENTIONED SPONTANEOUSLY. THEN PROCEED DOWN COLUMN 301, READING THE NAME AND DESCRIPTION OF EACH METHOD NOT MENTIONED SPONTANEOUSLY. CIRCLE CODE 1 IF METHOD IS RECOGNIZED, AND CODE 2 IF NOT RECOGNIZED. THEN, FOR EACH METHOD WITH CODE 1 CIRCLED IN 301, ASK 302.</p>			
301	Which ways or methods have you heard about? FOR METHODS NOT MENTIONED SPONTANEOUSLY, ASK: Have you ever heard of (METHOD)?		302 Have you ever used (METHOD)?
01	FEMALE STERILIZATION Women can have an operation to avoid having any more children (also known as tubal ligation).	YES.....1 NO2 3	Have you ever had an operation to avoid having any more children? YES1 NO2
02	MALE STERILIZATION Men can have an operation to avoid having any more children (also known as vasectomy).	YES.....1 NO2 3	Have you ever had a partner who had an operation to avoid having any more children? YES1 NO2
03	PILL Women can take a pill every day to avoid becoming pregnant (example: Nilocon)	YES.....1 NO2 3	YES1 NO2
04	IUD Women can have a loop or coil placed inside them by a doctor or a nurse (example: Copper-T, Loop).	YES.....1 NO2 3	YES1 NO2
05	INJECTABLES Women can have an injection by a health provider which stops them from becoming pregnant for one or more months (example: Sangini/Depo Provera).	YES.....1 NO2 3	YES1 NO2
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 (also known as NORPLANT).	YES.....1 NO2 3	YES1 NO2
07	CONDOM Men can put a rubber sheath on their penis before sexual intercourse (example: Daal).	YES.....1 NO2 3	YES1 NO2
08	FOAM OR JELLY Women can place a suppository, foaming tablets, jelly, or cream in their vagina before intercourse (example: Kamal).	YES.....1 NO2 3	YES1 NO2
09	RHYTHM OR PERIODIC ABSTINENCE 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 NO2 3	YES1 NO2
10	WITHDRAWAL Men can be careful and pull out before climax.	YES.....1 NO2 3	YES1 NO2
11	Have you heard of any other ways or methods that women or men can use to avoid pregnancy?	YES.....1 _____ (SPECIFY) _____ (SPECIFY) NO2 3	YES1 NO2 YES1 NO2
303	CHECK 302: NOT A SINGLE "YES" (NEVER USED) 3 AT LEAST ONE "YES" (EVER USED)		C306

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
304	Have you or your husband ever used anything or tried in any way to delay or avoid getting pregnant?	YES1 NO 2	0329
305	What have you used or done? CORRECT 302 AND 303 (AND 301 IF NECESSARY).		
306	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	
307	CHECK 118: CURRENTLY MARRIED 3 WIDOWED, DIVORCED SEPARATED		0401
308	CHECK 302 (01): WOMAN NOT STERILIZED 3 WOMAN STERILIZED		0311A
309	CHECK 234: NOT PREGNANT OR UNSURE 3 PREGNANT		0329
310	Are you or your husband currently doing something or using any method to delay or avoid getting pregnant?	YES1 NO 2	0329
311	Which method are you using?	FEMALE STERILIZATION A MALE STERILIZATION B PILL C IUD D INJECTABLES E IMPLANTS F CONDOM G FOAM/JELLY H PERIODIC ABSTINENCE I WITHDRAWAL J OTHER _____ X (SPECIFY)	0316A
311A	CIRCLE 'A' FOR FEMALE STERILIZATION. IF MORE THAN ONE METHOD MENTIONED, CIRCLE ALL METHODS MENTIONED. IF MORE THAN ONE METHOD MENTIONED, FOLLOW SKIP INSTRUCTION FOR HIGHEST METHOD ON LIST.		
312	Where did the sterilization take place? IF SOURCE IS HOSPITAL, HEALTH CENTER, OR CLINIC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. _____ (NAME OF PLACE) IF BOTH CODE 'A' AND CODE 'B' ARE CIRCLED IN 311, ASK 312-317 ABOUT FEMALE STERILIZATION ONLY.	GOVERNMENT SECTOR GOVT. HOSPITAL/CLINIC 11 PRIMARY HEALTH CARE CENTRE/HEALTH CENTRE 12 MOBILE CAMP 19 OTHER GOV'T _____ 16 (SPECIFY) NON-GOV'T (NGO) SECTOR FP ASSN. OF NEPAL 21 MARIE STOPES 22 ADRA 23 NEPAL RED CROSS 24 OTHER NGO _____ 26 (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC, NURSING HOME 31 OTHER PRIVATE _____ 36 (SPECIFY) OTHER _____ 96 (SPECIFY) DON'T KNOW 98	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP				
319	<p>Where did you obtain (CURRENT METHOD) when you started using it?</p> <p>IF SOURCE IS HOSPITAL, CLINIC, HEALTH CARE CENTER, OR FAMILY PLANNING CLINIC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE.</p> <p>_____</p> <p>(NAME OF PLACE)</p>	<p>GOVERNMENT SECTOR</p> <p>GOVT. HOSPITAL/CLINIC11</p> <p>PRIMARY HEALTH CARE CENTRE/ HEALTH CENTRE12</p> <p>HEALTH POST13</p> <p>SUB-HEALTH POST14</p> <p>PHC OUTREACH CLINIC15</p> <p>FCHV17</p> <p>CONDOM BOX18</p> <p>OTHER GOV'T16</p> <p>(SPECIFY)</p> <p>NON-GOV'T (NGO) SECTOR</p> <p>FP ASSN. OF NEPAL21</p> <p>MARIE STOPES22</p> <p>ADRA23</p> <p>NEPAL RED CROSS24</p> <p>OTHER NGO26</p> <p>(SPECIFY)</p> <p>PRIVATE MEDICAL SECTOR</p> <p>PRIVATE HOSPITAL/CLINIC, NURSING HOME31</p> <p>PHARMACY32</p> <p>OTHER PRIVATE36</p> <p>(SPECIFY)</p> <p>OTHER SOURCE</p> <p>SHOP41</p> <p>FRIEND/RELATIVE42</p> <p>OTHER96</p> <p>(SPECIFY)</p>					
320	<p>CHECK 311/311A: CIRCLE METHOD CODE:</p> <p>IF MORE THAN ONE METHOD CODE CIRCLED IN 311/311A, CIRCLE CODE FOR HIGHEST METHOD IN LIST.</p>	<p>PILL03</p> <p>IUD04</p> <p>INJECTABLES05</p> <p>IMPLANTS06</p> <p>CONDOM07</p> <p>FOAM, JELLY08</p>	<p>0326</p> <p>0326</p>				
321	<p>You obtained (CURRENT METHOD) from (SOURCE OF METHOD FROM 312 OR 319). At that time, were you told about side effects or problems you might have with the method?</p>	<p>YES1</p> <p>NO2</p>	0323				
322	<p>Were you ever told by a health or family planning worker about side effects or problems you might have with the method?</p>	<p>YES1</p> <p>NO2</p>	0324				
323	<p>Were you told what to do if you experienced side effects or problems?</p>	<p>YES1</p> <p>NO2</p>					
324	<p>CHECK 321:</p> <table border="0" style="width: 100%;"> <tr> <td style="text-align: center; width: 50%;">CODE '1' CIRCLED</td> <td style="text-align: center; width: 50%;">CODE '1' NOT CIRCLED</td> </tr> <tr> <td style="text-align: center;">3</td> <td style="text-align: center;">3</td> </tr> </table> <p>At that time, were you told about other methods of family planning which you could use? When you obtained (CURRENT METHOD) from (SOURCE OF METHOD FROM 312 OR 319), were you told about other methods of family planning which you could use?</p>	CODE '1' CIRCLED	CODE '1' NOT CIRCLED	3	3	<p>YES1</p> <p>NO2</p>	0326
CODE '1' CIRCLED	CODE '1' NOT CIRCLED						
3	3						
325	<p>Were you ever told by a health or family planning worker about other methods of family planning that you could use?</p>	<p>YES1</p> <p>NO2</p>					

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
326	CHECK 311/311A: CIRCLE METHOD CODE:	FEMALE STERILIZATION01 MALE STERILIZATION.....02 PILL.....03 IUD.....04 INJECTABLES05 IMPLANTS06 CONDOM.....07 FOAM, JELLY08 PERIODIC ABSTINENCE09 WITHDRAWAL.....10 OTHER.....96	0332 0332 0332 0332 0332
327	Where did you obtain (CURRENT METHOD) the last time? IF SOURCE IS HOSPITAL, HEALTH CENTER, OR CLINIC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. _____ (NAME OF PLACE)	GOVERNMENT SECTOR GOVT. HOSPITAL/CLINIC11 PRIMARY HEALTH CARE CENTRE/ HEALTH CENTRE12 HEALTH POST13 SUB-HEALTH POST14 PHC OUTREACH CLINIC15 FCHV17 CONDOM BOX18 OTHER GOV'T _____16 (SPECIFY) NON-GOV'T (NGO) SECTOR FP ASSN. OF NEPAL.....21 MARIE STOPES22 ADRA23 NEPAL RED CROSS.....24 OTHER NGO _____26 (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC, NURSING HOME.....31 PHARMACY.....32 OTHER PRIVATE _____36 (SPECIFY) OTHER SOURCE SHOP41 FRIEND/RELATIVE42 OTHER _____96 (SPECIFY)	
328	How long does it take you to travel from your house to this place?	MINUTES 1 HOURS 2 DOES NOT KNOW998	0332
329	Do you know of a place where you can obtain a method of family planning?	YES1 NO 2	0332

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
330	<p>Where is that?</p> <p>IF SOURCE IS HOSPITAL, HEALTH CENTER, OR CLINIC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE.</p> <p>_____</p> <p>(NAME OF PLACE)</p> <p>Any other place?</p> <p>RECORD ALL PLACES MENTIONED.</p>	<p>GOVERNMENT SECTOR</p> <p>GOVT. HOSPITAL/CLINIC A</p> <p>PRIMARY HEALTH CARE CENTRE/ HEALTH CENTRE B</p> <p>HEALTH POST C</p> <p>SUB-HEALTH POST D</p> <p>PHC OUTREACH CLINIC E</p> <p>FCHV F</p> <p>CONDOM BOX G</p> <p>OTHER GOV'T _____ H (SPECIFY)</p> <p>NON-GOV'T (NGO) SECTOR</p> <p>FP ASSN. OF NEPAL I</p> <p>MARIE STOPES J</p> <p>ADRA K</p> <p>NEPAL RED CROSS L</p> <p>OTHER NGO _____ M (SPECIFY)</p> <p>PRIVATE MEDICAL SECTOR</p> <p>PRIVATE HOSPITAL/CLINIC, NURSING HOME N</p> <p>PHARMACY O</p> <p>OTHER PRIVATE _____ P (SPECIFY)</p> <p>OTHER SOURCE</p> <p>SHOP Q</p> <p>FRIEND/RELATIVE R</p> <p>OTHER _____ X (SPECIFY)</p>	
331	<p>How long does it take you to travel from your house to the nearest place?</p>	<p>MINUTES 1</p> <p>HOURS 2</p> <p>DOES NOT KNOW 998</p>	
332	<p>In the last 12 months, were you visited by a health worker who talked to you about family planning?</p>	<p>YES 1</p> <p>NO 2</p>	
333	<p>In the last 12 months, have you visited a health facility for care for yourself (or your children)?</p>	<p>YES 1</p> <p>NO 2</p>	0401
334	<p>Did any staff member at the health facility speak to you about family planning methods?</p>	<p>YES 1</p> <p>NO 2</p>	

SECTION 4A. PREGNANCY, POSTNATAL CARE AND BREASTFEEDING

401	CHECK 232: ONE OR MORE BIRTHS SINCE BAISAKH 1, 2052 3	NO BIRTHS SINCE BAISAKH 1, 2052 3	0484
402	ENTER IN THE TABLE THE LINE NUMBER, NAME, AND SURVIVAL STATUS OF EACH BIRTH SINCE BAISAKH 1, 2052 OR LATER. ASK THE QUESTIONS ABOUT ALL OF THESE BIRTHS. BEGIN WITH THE LAST BIRTH. (IF THERE ARE MORE THAN 2 BIRTHS, USE LAST COLUMN 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 214	LAST BIRTH LINE NUMBER.....	NEXT-TO-LAST BIRTH LINE NUMBER.....
404	FROM 218 AND 221	NAME _____ ALIVE 3 DEAD 3	NAME _____ ALIVE 3 DEAD 3
405	At the time you became pregnant with (NAME), did you want to become pregnant <u>then</u> , did you want to wait until <u>later</u> , or did you <u>not want</u> to have any (more) children at all?	THEN.....1 (SKIP TO 407)1 LATER.....2 NOT AT ALL.....3 (SKIP TO 407)1	THEN.....1 (SKIP TO 422)1 LATER.....2 NOT AT ALL.....3 (SKIP TO 422)1
406	How much longer would you like to have waited?	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 FOR THE TYPE OF PERSON AND RECORD ALL PERSONS SEEN.	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 OTHER _____ X (SPECIFY) NO ONE..... Y (SKIP TO 415)1	
408	How many months pregnant were you when you first received antenatal care for this pregnancy?	MONTHS..... DON'T KNOW.....98	
409	How many times did you receive antenatal care during this pregnancy?	NO. OF TIMES..... DON'T KNOW.....98	
410	CHECK 409: NUMBER OF TIMES RECEIVED ANTENATAL CARE	ONCE MORE THAN ONCE OR DK 3 (SKIP TO 412) 3	

		LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____
411	How many months pregnant were you the last time you received antenatal care?	MONTHS DON'T KNOW98	
412	During this pregnancy, were any of the following done at least once? Were you weighed? Was your height measured? Was your blood pressure measured? Did you give a urine sample? Did you give a blood sample?	YES NO WEIGHT 1 2 HEIGHT 1 2 BLOOD PRESSURE 1 2 URINE SAMPLE 1 2 BLOOD SAMPLE 1 2	
413	Were you told about the signs of pregnancy complications?	YES1 NO2 (SKIP TO 415)1 DON'T KNOW8	
414	Were you told where to go if you had these complications?	YES1 NO2 DON'T KNOW8	
415	During this pregnancy, were you given an injection in the arm to prevent the baby from getting tetanus, that is, convulsions after birth?	YES1 NO2 (SKIP TO 417)1 DON'T KNOW8	
416	During this pregnancy, how many times did you get this injection?	TIMES..... DON'T KNOW8	
417	During this pregnancy, were you given or did you buy any iron/folic acid tablets? SHOW IRON FOLATE TABLETS.	YES1 NO2 (SKIP TO 419)1 DON'T KNOW8	
418	During the whole pregnancy, for how many days did you take the tablets ? IF ANSWER IS NOT NUMERIC, PROBE FOR APPROXIMATE NUMBER OF DAYS.	NUMBER OF DAYS..... DON'T KNOW998	
419	During this pregnancy, did you have difficulty with your vision during the daylight?	YES1 NO2 DON'T KNOW8	
420	During this pregnancy, did you suffer from night blindness [USE LOCAL TERM]?	YES1 NO2 DON'T KNOW8	
421	During this pregnancy, did you eat less than usual, about the same or more than you ate before you got pregnant?	LESS THAN USUAL.....1 ABOUT THE SAME.....2 MORE THAN USUAL3 DON'T KNOW8	
422	When (NAME) was born, was he/she: very large, larger than average, average, smaller than average, or very small?	VERY LARGE1 LARGER THAN AVERAGE.....2 AVERAGE3 SMALLER THAN AVERAGE.....4 VERY SMALL5 DON'T KNOW8	VERY LARGE1 LARGER THAN AVERAGE.....2 AVERAGE3 SMALLER THAN AVERAGE.....4 VERY SMALL5 DON'T KNOW.....8

		LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____
423	Who assisted with the delivery of (NAME)? Anyone else? PROBE FOR THE TYPE OF PERSON AND RECORD ALL PERSONS ASSISTING.	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	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
424	Where did you give birth to (NAME)?	HOME YOUR HOME 11 (SKIP TO 426)1 OTHER HOME 12 GOVERNMENT SECTOR GOVT. HOSPITAL..... 21 PRIMARY HEALTH CARE CEN 22 HEALTH OR SUB-HLTH POST 23 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) (SKIP TO 426)1	HOME YOUR HOME..... 11 (SKIP TO 426)1 OTHER HOME 12 GOVERNMENT SECTOR GOVT. HOSPITAL..... 21 PRIMARY HEALTH CARE CEN. 22 HEALTH OR SUB-HLTH POST 23 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) (SKIP TO 426)1
425	Was (NAME) delivered by caesarian section?	YES 1 (SKIP TO 431)1 NO 2	YES..... 1 (SKIP TO 433)1 NO 2
426	Was a special safe delivery kit used? SHOW SAFE DELIVERY KIT MARKETED BY CRS.	YES 1 NO 2 DOES NOT KNOW 8	YES..... 1 NO 2 DOES NOT KNOW 8
427	After (NAME) was born, did a health professional or a traditional birth attendant check on your health?	YES 1 NO 2 (SKIP TO 431)1	YES..... 1 NO 2
428	How many days or weeks after the delivery did the first check take place? RECORD '00' DAYS IF SAME DAY.	DAYS AFTER DEL 1 WEEKS AFTER DEL. 2 DON'T KNOW 998	

		LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____
429	Who checked on your health at that time? PROBE FOR MOST QUALIFIED PERSON.	HEALTH PROFESSIONAL DOCTOR..... 11 NURSE/AUX.N.MIDWIFE 12 HEALTH ASST/AUX.HEALTH WORKER. 13 MCH WORKER..... 14 VILLAGE HEALTH WORKER... 15 OTHER PERSON TRADITIONAL BIRTH ATTENDANT..... 21 OTHER _____ 96 (SPECIFY)	
430	Where did this first check take place?	HOME YOUR HOME 11 OTHER HOME 12 GOVERNMENT SECTOR GOVT. HOSPITAL..... 21 PRIMARY HEALTH CARE CEN 22 HEALTH OR SUB-HLTH POST 23 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)	
431	In the first two months after delivery, did you receive a vitamin A dose like this? SHOW CAPSULE.	YES1 NO2	
432	Has your period returned since the birth of (NAME)?	YES1 (SKIP TO 434)1 NO2 (SKIP TO 435)1	
433	Did your period return between the birth of (NAME) and your next pregnancy?		YES.....1 NO2 (SKIP TO 437)1
434	For how many months after the birth of (NAME) did you <u>not</u> have a period?	MONTHS DON'T KNOW98	MONTHS DON'T KNOW.....98
435	CHECK 234: RESPONDENT PREGNANT?	NOT PREGNANT PREG- OR UNSURE NANT 3' (SKIP TO 437) 1	
436	Have you resumed sexual relations since the birth of (NAME)?	YES1 NO2 (SKIP TO 438)1	
437	For how many months after the birth of (NAME) did you <u>not</u> have sexual relations?	MONTHS DON'T KNOW98	MONTHS DON'T KNOW.....98
438	Did you ever breastfeed (NAME)?	YES1 NO2 (SKIP TO 446)1	YES.....1 NO2 (SKIP TO 446)1

		LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____
451		GO BACK TO 405 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 452.	GO BACK TO 405 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 452.

		LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____
460	Please tell me if (NAME) received any of the following vaccinations:		
460A	A BCG vaccination against tuberculosis, that is, an injection in the upper arm that usually causes a scar?	YES 1 NO 2 DON'T KNOW 8	YES 1 NO 2 DON'T KNOW 8
460B	Polio vaccine, that is, drops in the mouth?	YES 1 NO 2 (SKIP TO 460E)1 DON'T KNOW 8	YES 1 NO 2 (SKIP TO 460E)1 DON'T KNOW 8
460C	When was the first polio vaccine received, just after birth or later?	JUST AFTER BIRTH..... 1 LATER..... 2	JUST AFTER BIRTH..... 1 LATER..... 2
460D	How many times was the polio vaccine received?	NUMBER OF TIMES.....	NUMBER OF TIMES.....
460E	DPT vaccination, that is, an injection given in the thigh, sometimes at the same time as polio drops?	YES 1 NO 2 (SKIP TO 460G)1 DON'T KNOW 8	YES 1 NO 2 (SKIP TO 460G)1 DON'T KNOW 8
460F	How many times?	NUMBER OF TIMES.....	NUMBER OF TIMES.....
460G	An injection to prevent measles?	YES 1 NO 2 DON'T KNOW 8	YES 1 NO 2 DON'T KNOW 8
461	Were any of the vaccinations (NAME) received during the last two years given as a part of a national immunization day campaign?	YES 1 NO 2 (SKIP TO 463)1 DON'T KNOW 8	YES 1 NO 2 (SKIP TO 463)1 DON'T KNOW 8
462	At which national immunization day campaigns did (NAME) receive vaccinations? RECORD ALL MENTIONED.	MAGH 2057 A MANGSIR 2057 B POUSH 2056 C MANGSIR 2056 D	MAGH 2057 A MANGSIR 2057 B POUSH 2056 C MANGSIR 2056 D
463	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 466)1 DON'T KNOW 8	YES 1 NO 2 (SKIP TO 466)1 DON'T KNOW 8
464	Did (NAME) receive a vitamin A capsule during the event in (Kartik/Baisakh)? IF INTERVIEW IS BEFORE BAISAKH, ASK ABOUT KARTIK. IF INTERVIEW AFTER BAISAKH, ASK ABOUT BAISAKH.	YES 1 NO 2 (SKIP TO 466)1 DON'T KNOW 8	YES 1 NO 2 (SKIP TO 466)1 DON'T KNOW 8
465	Please tell me what happened when you took (NAME) for vitamin A? SHOW CAPSULE. IF MENTIONS SPONTANEOUSLY, CIRCLE CODE '1'. FOR ALL NOT MENTIONED, PROBE, AND CIRCLE '2' IF YES AND '8' IF NO OR DK.	YES YES NO SPN PR 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 PR DK RED CAPSULE 1 2 8 CAPSULE WAS CUT 1 2 8 CHILD'S NAME WRITTEN 1 2 8 CENTRAL SITE 1 2 8
466	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
467	Has (NAME) had an illness with a cough at any time in the last 2 weeks?	YES 1 NO 2 (SKIP TO 469)1 DON'T KNOW 8	YES 1 NO 2 (SKIP TO 469)1 DON'T KNOW 8

		LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____
		LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____
468	When (NAME) had a cough, did he/she breathe faster than usual with short, fast breaths?	YES 1 NO 2 DON'T KNOW 8	YES 1 NO 2 DON'T KNOW 8
469	CHECK 466 AND 467: FEVER OR COUGH?	"YES" IN 466 OR OTHER 467 3 (SKIP TO 472)	"YES" IN 466 OR OTHER 467 3 (SKIP TO 472)
470	Did you seek advice or treatment for the fever/cough?	YES 1 NO 2 (SKIP TO 472)1	YES 1 NO 2 (SKIP TO 472)1
471	Where did you seek advice or treatment? Anywhere else? RECORD ALL MENTIONED.	GOVERNMENT SECTOR GOVT. HOSPITAL/CLINIC A PRIM.HEALTH CARE CENTRE . B HEALTH POST/SUB-H.POST C PHCC OUTREACH CLINIC D FCHV E OTHER GOV'T F (SPECIFY) NON-GOV'T (NGO) SECTOR UMN/RED CROSS G OTHER NGO H (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL I CLINIC/NURSING HOME J PHARMACY K OTHER PRIVATE L (SPECIFY) OTHER SOURCE SHOP M TRAD. PRACTITIONER N OTHER X (SPECIFY)	GOVERNMENT SECTOR GOVT. HOSPITAL/CLINIC A PRIM.HEALTH CARE CENTRE . B HEALTH POST/SUB-H.POST C PHCC OUTREACH CLINIC D FCHV E OTHER GOV'T F (SPECIFY) NON-GOV'T (NGO) SECTOR UMN/RED CROSS G OTHER NGO H (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL I CLINIC/NURSING HOME J PHARMACY K OTHER PRIVATE L (SPECIFY) OTHER SOURCE SHOP M TRAD. PRACTITIONER N OTHER X (SPECIFY)
472	Has (NAME) had diarrhea in the last 2 weeks?	YES 1 NO 2 (SKIP TO 480)1 DON'T KNOW 8	YES 1 NO 2 (SKIP TO 480)1 DON'T KNOW 8
473	Now I would like to know how much (NAME) was offered to drink during the diarrhea. Was he/she offered less than usual to drink, about the same amount, or more than usual to drink?	LESS THAN USUAL 1 ABOUT THE SAME 2 MORE THAN USUAL 3 NOTHING TO DRINK 4 DON'T KNOW 8	LESS THAN USUAL 1 ABOUT THE SAME 2 MORE THAN USUAL 3 NOTHING TO DRINK 4 DON'T KNOW 8
474	When (NAME) had diarrhea, was he/she offered less than usual to eat, about the same amount, more than usual, or nothing to eat?	LESS THAN USUAL 1 ABOUT THE SAME 2 MORE THAN USUAL 3 STOPPED FOOD 4 NEVER GAVE FOOD 5 DON'T KNOW 8	LESS THAN USUAL 1 ABOUT THE SAME 2 MORE THAN USUAL 3 STOPPED FOOD 4 NEVER GAVE FOOD 5 DON'T KNOW 8
475	Was he/she given a fluid made from a special packet such as Jeevan Jal to drink?	YES 1 NO 2 DON'T KNOW 8	YES 1 NO 2 DON'T KNOW 8
476	Was anything (else) given to treat the diarrhea?	YES 1 NO 2 (SKIP TO 478)1 DON'T KNOW 8	YES 1 NO 2 (SKIP TO 478)1 DON'T KNOW 8

		LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____
477	What was given to treat the diarrhea? Anything else? RECORD ALL MENTIONED.	PILL OR SYRUP A INJECTION B (I.V.) INTRAVENOUS..... C HOME REMEDIES/ HERBAL MEDICINES..... D OTHER _____ X (SPECIFY)	PILL OR SYRUP A INJECTION B (I.V.) INTRAVENOUS..... C HOME REMEDIES/ HERBAL MEDICINES..... D OTHER _____ X (SPECIFY)
478	Did you seek advice or treatment for the diarrhea?	YES 1 NO 2 (SKIP TO 480)1	YES 1 NO 2 (SKIP TO 480)1
479	Where did you seek advice or treatment? Anywhere else? RECORD ALL MENTIONED.	GOVERNMENT SECTOR GOVT. HOSPITAL/CLINIC A PRIM.HEALTH CARE CENTRE . B HEALTH POST/SUB-H.POST C PHCC OUTREACH CLINIC D FCHV E OTHER GOV'T _____ F (SPECIFY) NON-GOV'T (NGO) SECTOR UMN/RED CROSS G OTHER NGO _____ H (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL I CLINIC/NURSING HOME J PHARMACY K OTHER PRIVATE _____ L (SPECIFY) OTHER SOURCE SHOP M TRAD. PRACTITIONER..... N OTHER _____ X (SPECIFY)	GOVERNMENT SECTOR GOVT. HOSPITAL/CLINIC..... A PRIM.HEALTH CARE CENTRE . B HEALTH POST/SUB-H.POST C PHCC OUTREACH CLINIC D FCHV..... E OTHER GOV'T _____ F (SPECIFY) NON-GOV'T (NGO) SECTOR UMN/RED CROSS G OTHER NGO _____ H (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL I CLINIC/NURSING HOME J PHARMACY K OTHER PRIVATE _____ L (SPECIFY) OTHER SOURCE SHOP M TRAD. PRACTITIONER..... N OTHER _____ X (SPECIFY)
480		GO BACK TO 454 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 481.	GO BACK TO 454 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 481.

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
481	CHECK 220 AND 223: NUMBER OF CHILDREN BORN SINCE BAISAKH 1, 2052 AND LIVING WITH HER ONE OR MORE 3 NONE		0484
482	What usually happens with your (youngest) child's stools when he/she does not use any toilet facility?	ALWAYS USE TOILET/LATRINE01 THROW IN THE TOILET/LATRINE02 THROW OUTSIDE THE DWELLING.....03 THROW OUTSIDE THE YARD.....04 BURY IN THE YARD.....05 RINSE AWAY.....06 USE DIAPERS07 NOT DISPOSED OF08 OTHER _____ 96 (SPECIFY)	
483	CHECK 475, ALL COLUMNS: NO CHILD RECEIVED FLUID FROM ORS PACKET OR Q.475 NOT ASKED 3 ANY CHILD RECEIVED FLUID FROM ORS PACKET		0486
484	Have you ever heard of a special product called Jeevan Jal or Navajeevan you can get for the treatment of diarrhea?	YES1 NO2	0486
485	Have you ever seen a packet like these? SHOW PACKET OF JEEVAN JAL, OTHER TYPES OF ORS.	YES1 NO2	
486	CHECK 223: HAS ONE OR MORE CHILDREN LIVING WITH HER 3 HAS NO CHILDREN LIVING WITH HER		0488
487	When (your child/one of your children) is seriously ill, can you decide by yourself whether the child should be taken for medical treatment? IF SAYS NO CHILD EVER ILL, ASK: If (your child/one of your children) became seriously ill, could you decide by yourself whether the child should be taken for medical treatment?	YES1 NO2 DEPENDS3	
488	Now I would like to ask you some questions about medical care for you yourself. 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, a small problem, or not problem for you	BIG PROBLEM SMALL PROBLEM NOT A PROBLEM	
	Knowing where to go.	1 2 3	
	Getting permission to go.	1 2 3	
	Getting money needed for treatment.	1 2 3	
	The distance to the health facility.	1 2 3	
	Having to take transport.	1 2 3	
	Not wanting to go alone.	1 2 3	
	Concern that there may not be a female health provider.	1 2 3	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
489	CHECK 220 AND 223: HAS AT LEAST 1 CHILD BORN SINCE BAISAKH 1, 2054 AND LIVING WITH HER 3 DOES NOT HAVE ANY CHILD BORN SINCE BAISAKH 1, 2054 LIVING WITH HER RECORD NAME OF YOUNGEST CHILD LIVING WITH HER AND CONTINUE TO 490 NAME _____		0493
490	Now I would like to ask you about liquids [NAME FROM Q.489] drank over the last seven days, including yesterday. How many <u>days</u> during last seven days did [NAME] drink each of the following? FOR EACH ITEM GIVEN AT LEAST ONCE IN LAST SEVEN DAYS, ASK: In total, how many <u>times</u> yesterday during the day or at night did [NAME] drink [ITEM]? a Plain water? b Any milk, other than breastmilk, such as cow milk, mohi, tinned or powdered milk or infant formula? c Any other liquids such as ghee, honey, tea, soup, rice water? IF 7 OR MORE TIMES, RECORD '7'. IF DON'T KNOW, RECORD '8'.	LAST 7 DAYS NUMBER OF DAYS a <input type="text"/> b <input type="text"/> c <input type="text"/>	YESTERDAY/ LAST NIGHT NUMBER OF TIMES a <input type="text"/> b <input type="text"/> c <input type="text"/>
491	Now I would like to ask you about the types of foods [NAME FROM Q.489] ate over the last seven days, including yesterday. How many <u>days</u> during last seven days did [NAME] eat each of the following foods, either separately or combined with other food? FOR EACH ITEM GIVEN AT LEAST ONCE IN LAST SEVEN DAYS, BEFORE PROCEEDING TO THE NEXT ITEM, ASK: In total, how many <u>times</u> yesterday during the day or at night did [NAME] eat [ITEM]? a Any food made from grains, like rice, millet, sorghum, maize, wheat, or porridge? b Pumpkin, carrots, papaya, or mango? c Food made from roots or tubers, like potatoes, yams, tapioca? d Any green leafy vegetables? e Any other fruits and vegetables, like bananas, apples, guava, green beans, amala, orange, tomatoes? f Meat, poultry, fish, liver, or eggs? g Any food made from legumes, like daal, peanuts, beans? h Cheese or yogurt? i Any food made with ghee, oil, fat, or butter? IF 7 OR MORE TIMES, RECORD '7'. IF DON'T KNOW, RECORD '8'.	LAST 7 DAYS NUMBER OF DAYS a <input type="text"/> b <input type="text"/> c <input type="text"/> d <input type="text"/> e <input type="text"/> f <input type="text"/> g <input type="text"/> h <input type="text"/> i <input type="text"/>	YESTERDAY/ LAST NIGHT NUMBER OF TIMES a <input type="text"/> b <input type="text"/> c <input type="text"/> d <input type="text"/> e <input type="text"/> f <input type="text"/> g <input type="text"/> h <input type="text"/> i <input type="text"/>
492	The last time you fed your child(ren), did you wash your hands immediately before feeding (him/her/them)?	YES 1 NO 2 NEVER FED CHILD(REN)..... 3	
493	Do you smoke cigarettes or bidis or tobacco?	YES, CIGARETTES/BIDIS..... A YES, PIPE B YES, OTHER TOBACCO..... C NO Y	
494	CHECK 493: CODE 'A' CIRCLED 3 CODE 'A' NOT CIRCLED		0601
495	In the last 24 hours, how many cigarettes/bidis did you smoke?	CIGARETTES/BIDIS.....	

SECTION 5. FERTILITY PREFERENCES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
501	CHECK 118: CURRENTLY MARRIED 3 WIDOWED, DIVORCED, SEPARATED		0514
502	CHECK 311/311A: NEITHER STERILIZED 3 HE OR SHE STERILIZED		0514
503	CHECK 234: NOT PREGNANT OR UNSURE 3 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 3 Now I have some questions about the future. After the child you are expecting now, would you like to have another child, or would you prefer not to have any more children?	HAVE (A/ANOTHER) CHILD..... 1 NO MORE/NONE 2 SAYS SHE CAN'T GET PREGNANT 3 UNDECIDED/DON'T KNOW AND PREGNANT 4 UNDECIDED/DON'T KNOW AND NOT PREGNANT OR UNSURE ... 5	0505 0514 0511 0509
504	CHECK 234: NOT PREGNANT OR UNSURE 3 How long would you like to wait from now before the birth of (a/another) child? PREGNANT 3 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 OTHER 996 (SPECIFY) DON'T KNOW..... 998	0510 0514 0510
505	CHECK 234: NOT PREGNANT OR UNSURE 3 PREGNANT		0511
506	CHECK 310: USING A METHOD? NOT ASKED 3 NOT CURRENTLY USING 3 CURRENTLY USING		0509
507	CHECK 504: NOT ASKED 3 24 MONTHS OR MORE OR 02 OR MORE YEARS 3 23 MONTHS OR LESS OR LESS THAN 02 YEARS		0511

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
508	<p>CHECK 503:</p> <p style="text-align: center;"> WANTS A/ANOTHER CHILD WANTS NO (MORE) CHILDREN </p> <p style="text-align: center;"> 3 3 </p> <p> 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 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? </p> <p>PROBE: Any other reason?</p> <p>RECORD ALL MENTIONED.</p>	<p>FERTILITY-RELATED REASONS</p> <p>NOT HAVING SEX..... B</p> <p>INFREQUENT SEX..... C</p> <p>MENOPAUSAL/HYSTERECTOMY..... D</p> <p>SUBFECUND/INFECUND E</p> <p>POSTPARTUM AMENORRHEIC F</p> <p>BREASTFEEDING G</p> <p>FATALISTIC H</p> <p>OPPOSITION TO USE</p> <p>RESPONDENT OPPOSED..... I</p> <p>HUSBAND OPPOSED J</p> <p>OTHERS OPPOSED..... K</p> <p>RELIGIOUS PROHIBITION..... L</p> <p>LACK OF KNOWLEDGE</p> <p>KNOWS NO METHOD M</p> <p>KNOWS NO SOURCE N</p> <p>METHOD-RELATED REASONS</p> <p>HEALTH CONCERNS..... O</p> <p>FEAR OF SIDE EFFECTS P</p> <p>LACK OF ACCESS/TOO FAR Q</p> <p>COST TOO MUCH..... R</p> <p>INCONVENIENT TO USE..... S</p> <p>INTERFERES WITH BODY'S NATURAL PROCESSES T</p> <p>OTHER _____ X (SPECIFY)</p> <p>DON'T KNOW..... Z</p>	
509	<p>In the next few weeks, if you discovered that you were pregnant, would that be a big problem, a small problem, or no problem for you?</p>	<p>BIG PROBLEM 1</p> <p>SMALL PROBLEM 2</p> <p>NO PROBLEM..... 3</p> <p>SAYS SHE CAN'T GET PREGNANT 4</p>	
510	<p>CHECK 310: USING A METHOD?</p> <p style="text-align: center;"> NOT ASKED NOT CURRENTLY USING CURRENTLY USING </p> <p style="text-align: center;"> 3 3 </p>		0514
511	<p>Do you think you will use a method to delay or avoid pregnancy at any time in the future?</p>	<p>YES..... 1</p> <p>NO 2</p> <p>DON'T KNOW..... 8</p>	0513
512	<p>Which method would you prefer to use?</p>	<p>FEMALE STERILIZATION..... 01</p> <p>MALE STERILIZATION 02</p> <p>PILL 03</p> <p>IUD 04</p> <p>INJECTABLES 05</p> <p>IMPLANTS..... 06</p> <p>CONDOM 07</p> <p>FOAM, JELLY 08</p> <p>PERIODIC ABSTINENCE 09</p> <p>WITHDRAWAL 10</p> <p>OTHER _____ 96 (SPECIFY)</p> <p>UNSURE 98</p>	0514

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
520	With whom? Anyone else? RECORD ALL MENTIONED.	HUSBANDA MOTHERB FATHERC SISTER(S)D BROTHER(S)E DAUGHTERF SONG MOTHER-IN-LAWH FRIENDS/NEIGHBORSI OTHER _____ X (SPECIFY)	
521	CHECK 118: CURRENTLY MARRIED 3 WIDOWED, DIVORCED, SEPARATED		0528
522	CHECK 311/311A: ANY CODE CIRCLED 3 NO CODE CIRCLED		0524
523	You have told me that you are currently using contraception. Would you say that using contraception is mainly your decision, mainly your husband's decision, or did you both decide together?	MAINLY RESPONDENT1 MAINLY HUSBAND2 JOINT DECISION3 OTHER _____ 6 (SPECIFY)	
524	Now I want to ask you about your husband's views on family planning. Do you think that your husband approves or disapproves of couples using a method to avoid pregnancy?	APPROVES1 DISAPPROVES2 DON'T KNOW8	
525	How often have you talked to your husband about family planning in the past year?	NEVER1 ONCE OR TWICE2 MORE OFTEN3	
526	CHECK 311/311A: NEITHER STERILIZED 3 HE OR SHE STERILIZED		0528
527	Do you think your husband/partner wants the same number of children that you want, or does he want more or fewer than you want?	SAME NUMBER1 MORE CHILDREN2 FEWER CHILDREN3 DON'T KNOW8	
528	Husbands and wives do not always agree on everything. Please tell me if you think a wife is justified in refusing to have sex with her husband when: She is tired or not in the mood? She has recently given birth? She knows her husband has sex with other women? She knows her husband has a sexually transmitted disease?	YES NO DK TIRED/MOOD1 2 8 RECENT BIRTH1 2 8 OTHER WOMEN1 2 8 HAS STD1 2 8	

SECTION 6. HUSBAND'S BACKGROUND AND WOMAN'S WORK

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
601	CHECK 118: CURRENTLY MARRIED 3 WIDOWED, DIVORCED, SEPARATED		0603
602	How old was your husband on his last birthday?	AGE IN COMPLETED YEARS	
603	Did your (last) husband ever attend school?	YES 1 NO 2	0605
604	What was the highest grade he completed?	GRADE..... DON'T KNOW 98	
605	CHECK 601: CURRENTLY MARRIED 3 FORMERLY MARRIED 3 What is your husband's occupation? That is, what kind of work does he mainly do? What was your (last) husband's occupation? That is, what kind of work did he mainly do?	_____ _____ _____	
606	Aside from your own housework, are you currently working?	YES 1 NO 2	0609
607	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. Are you currently doing any of these things or any other work?	YES 1 NO 2	0609
608	Have you done any work in the last 12 months?	YES 1 NO 2	0618
609	What is your occupation, that is, what kind of work do you mainly do?	_____ _____ _____	
610	CHECK 609: WORKS IN AGRICULTURE 3 DOES NOT WORK IN AGRICULTURE		0612
611	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/FAMILY LAND 1 RENTED LAND/TENANCY 2 SOMEONE ELSE'S LAND 3	
612	Are you self-employed, employed by someone else, or do you do this work for a member of your family?	SELF-EMPLOYED 1 BY SOMEONE ELSE 2 FOR FAMILY MEMBER 3	
613	Do you usually work at home or away from home?	HOME..... 1 AWAY FROM HOME 2	
614	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	
615	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	0618

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
616	Who mainly decides how the money you earn will be used?	RESPONDENT1 HUSBAND2 RESPONDENT AND HUSBAND JOINTLY3 SOMEONE ELSE4 RESPONDENT AND SOMEONE ELSE JOINTLY5	
617	On average, how much of your household's expenditures do your earnings pay for: almost none, less than half, about half, more than half, or all?	ALMOST NONE1 LESS THAN HALF2 ABOUT HALF3 MORE THAN HALF4 ALL5 NONE, HER INCOME IS ALL SAVED.6	
618	Do you own any land, either by yourself or jointly with someone else?	YES, OWNS ALONE1 YES, OWNS JOINTLY2 NO3	0620
619	If you ever needed to, could you sell the land without anyone else's permission?	YES1 NO2 NOT SURE/DOES NOT KNOW8	
620	Do you own any livestock, such as goats or cows, either by yourself or jointly with someone else?	YES, OWNS ALONE1 YES, OWNS JOINTLY2 NO3	0622
621	If you ever needed to, could you sell the animals without anyone else's permission?	YES1 NO2 NOT SURE/DOES NOT KNOW8	
622	Have you yourself ever taken a loan to start or expand a business?	YES1 NO2	0624
623	How did you pay back the loan?	NOT YET PAID BACK1 SOMEONE ELSE PAID FOR HER2 PROFITS FROM BUSINESS3 SOLD ASSETS TO PAY LOAN4 OTHER _____ 6 (SPECIFY)	
624	Who in your family usually has the final say on the following decisions: Your own health care? Making large household purchases? Making household purchases for daily needs? Visits to family, friends, or relatives? What food should be cooked each day?	RESPONDENT = 1 HUSBAND = 2 RESPONDENT & HUSBAND JOINTLY = 3 SOMEONE ELSE = 4 RESPONDENT & SOMEONE ELSE JOINTLY = 5 DECISION NOT MADE/NOT APPLICABLE = 6 1 2 3 4 5 6 1 2 3 4 5 6	
625	Sometimes a husband is annoyed or angered by things which his wife does. In your opinion, is a husband justified in hitting or beating his wife in the following situations: If she goes out without telling him? If she neglects the children? If she argues with him? If she refuses to have sex with him? If she burns the food?	YES NO DK GOES OUT 1 2 8 NEGL. CHILDREN 1 2 8 ARGUES 1 2 8 REFUSES SEX 1 2 8 BURNS FOOD 1 2 8	

SECTION 7: AIDS AND SEXUAL BEHAVIOR

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	0708
702	Is there anything a person can do to avoid getting AIDS or the virus that causes AIDS?	YES 1 NO 2 DON'T KNOW 8	0706
703	What can a person do? Anything else? RECORD ALL MENTIONED.	ABSTAIN FROM SEX A USE CONDOMS B LIMIT SEX TO ONE PARTNER/STAY FAITHFUL TO ONE PARTNER C LIMIT NUMBER OF SEX PARTNERS D AVOID SEX WITH PROSTITUTES E AVOID SEX WITH PERSONS WHO HAVE MANY PARTNERS F AVOID SEX WITH HOMOSEXUALS G AVOID SEX WITH PERSONS WHO INJECT DRUGS INTRAVENOUSLY ... H AVOID BLOOD TRANSFUSIONS I AVOID INJECTIONS J AVOID KISSING K AVOID MOSQUITO BITES L SEEK PROTECTION FROM TRADITIONAL HEALER M AVOID SHARING RAZORS/BLADES N AVOID SEX WITH SOMEONE WHO HAS AIDS O OTHER _____ X (SPECIFY) OTHER _____ Y (SPECIFY) DON'T KNOW Z	
704	Can people protect themselves from getting the AIDS virus by having just one sex partner who has no other partners?	YES 1 NO 2 DON'T KNOW 8	
705	Can people protect themselves from getting the AIDS virus by using a condom every time they have sex?	YES 1 NO 2 DON'T KNOW 8	
706	Is it possible for a healthy-looking person to have the AIDS virus?	YES 1 NO 2 DON'T KNOW 8	
707	Can the virus that causes AIDS be transmitted from a mother to a child?	YES 1 NO 2 DON'T KNOW 8	
708	CHECK 118 AND 701: CURRENTLY MARRIED AND KNOWS AIDS 3 CURRENTLY MARRIED AND DOES NOT KNOW AIDS 3 WIDOWED, DIVORCED, SEPARATED (SKIP TO 710)		0716
709	Have you ever talked about ways to prevent getting the virus that causes AIDS with your husband?	YES 1 NO 2	
710	Now I need to ask you some questions about sexual activity in order to gain a better understanding of some family life issues. How old were you when you first had sexual intercourse?	NEVER 00 AGE IN YEARS FIRST TIME WHEN STARTED LIVING WITH FIRST HUSBAND 96	0713

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
711	<p>When was the last time you had sexual intercourse?</p> <p>RECORD 'YEARS AGO' ONLY IF LAST INTERCOURSE WAS ONE OR MORE YEARS AGO.</p>	<p>DAYS AGO..... 1</p> <p>WEEKS AGO..... 2</p> <p>MONTHS AGO..... 3</p> <p>YEARS AGO 4</p>	0713
712	<p>The last time you had sexual intercourse, was a condom used?</p>	<p>YES 1</p> <p>NO 2</p>	
713	<p>Do you know of a place where one can get condoms?</p>	<p>YES 1</p> <p>NO 2</p>	0716
714	<p>Where is that?</p> <p>IF SOURCE IS HOSPITAL, HEALTH CENTER, OR CLINIC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE.</p> <p>_____</p> <p>(NAME OF PLACE)</p> <p>Any other place?</p> <p>(RECORD ALL MENTIONED)</p>	<p>GOVERNMENT SECTOR</p> <p>GOVT. HOSPITAL/CLINIC.....A</p> <p>PRIMARY HEALTH CARE CENTRE/ HEALTH CENTREB</p> <p>HEALTH POST C</p> <p>SUB-HEALTH POST.....D</p> <p>PHC OUTREACH CLINIC.....E</p> <p>FCHV.....F</p> <p>CONDOM BOX G</p> <p>OTHER GOV'T _____H (SPECIFY)</p> <p>NON-GOV'T (NGO) SECTOR</p> <p>FP ASSN. OF NEPALI</p> <p>MARIE STOPESJ</p> <p>ADRAK</p> <p>NEPAL RED CROSSL</p> <p>OTHER NGO _____M (SPECIFY)</p> <p>PRIVATE MEDICAL SECTOR</p> <p>PRIVATE HOSPITAL/CLINIC, NURSING HOME N</p> <p>PHARMACY O</p> <p>OTHER PRIVATE _____P (SPECIFY)</p> <p>OTHER SOURCE</p> <p>SHOPQ</p> <p>FRIEND/RELATIVE..... R</p> <p>OTHER _____X (SPECIFY)</p>	
715	<p>If you wanted to, could you yourself get a condom?</p>	<p>YES 1</p> <p>NO 2</p> <p>DON'T KNOW/UNSURE 8</p>	
716	<p>RECORD THE TIME.</p>	<p>HOUR.....</p> <p>MINUTES.....</p>	

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: _____

SENTENCES FOR LITERACY TEST

1. Parents love their children.
2. Farming is hard work.
3. The child is reading a book.
4. Children should go to school.
5. Boys and girls are equal.

NEPAL DEMOGRAPHIC AND HEALTH SURVEY 2001
 MAN'S QUESTIONNAIRE
 FOR EVER-MARRIED MEN AGE 15-59

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 OF HOUSEHOLD HEAD _____	
NAME AND LINE NUMBER OF MAN _____	

INTERVIEWER VISITS				
	1	2	3	FINAL VISIT
DATE	_____	_____	_____	DAY MONTH YEAR 2 0
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 _____ 3 POSTPONED 6 INCAPACITATED (SPECIFY)				

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'S BACKGROUND

INFORMED CONSENT

Hello. My name is _____ and I am working with the Ministry of Health. We are conducting a national survey about the health of people in Nepal. We would very much appreciate your participation in this survey. I would like to ask you about your health (and the health of your children). This information will help the government to plan health services. The survey usually takes between 20 and 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 you can choose not to answer any individual question or all of the questions. 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

3

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
101	RECORD THE TIME.	HOUR..... MINUTES.....	
102	First I would like to ask some questions about you and your household. For most of the time until you were 12 years old, did you live in a city, in a town, or in the countryside?	CITY.....1 TOWN.....2 COUNTRYSIDE.....3	
103	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	0105
104	Just before you moved here, did you live in a city, in a town, or in the countryside?	CITY.....1 TOWN.....2 COUNTRYSIDE.....3	
105	In what month and year were you born?	MONTH..... DON'T KNOW MONTH.....98 YEAR..... DON'T KNOW YEAR.....9998	
106	How old were you at your last birthday? COMPARE AND CORRECT 105 AND/OR 106 IF INCONSISTENT.	AGE IN COMPLETED YEARS	
107	Have you ever attended school?	YES.....1 NO.....2	0110
108	What is the highest grade you completed?	GRADE.....	
109	CHECK 108: GRADE 5 OR BELOW GRADE 6 AND ABOVE 3		0113
110	Now I would like you to read out loud as much of this sentence as you can. 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)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
111	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	
112	CHECK 110: CODE '2', '3' OR '4' CIRCLED 3	CODE '1' CIRCLED	0114
113	Do you usually read a newspaper or magazine at least once a week?	YES 1 NO 2	
114	Do you usually listen to the radio every day?	YES 1 NO 2	
115	Do you usually watch television at least once a week?	YES 1 NO 2	
116	What is your religion?	HINDU 1 BUDDHIST 2 MUSLIM 3 CHRISTIAN 4 OTHER _____ (SPECIFY) 6	
117	What is your caste? WRITE CASTE IN SPACE PROVIDED. DO NOT FILL BOX. CODE WILL BE ENTERED BY FIELD EDITOR.	_____ CASTE	
118	Are you currently married or are you widowed, divorced or separated?	CURRENTLY MARRIED 1 WIDOWED 2 DIVORCED 3 SEPARATED 4	0124
119	Is your wife living with you now or is she staying elsewhere?	LIVING WITH HIM 1 STAYING ELSEWHERE 2	0121
120	How long has she been away without coming back? IF LESS THAN 1 MONTH, WRITE '00'.	MONTHS MORE THAN 2 YEARS 95 DOES NOT KNOW 98	
121	RECORD THE WIFE'S NAME AND LINE NUMBER FROM THE HOUSEHOLD QUESTIONNAIRE. IF SHE IS NOT LISTED IN THE HOUSEHOLD, RECORD '00'.	NAME _____ LINE NO.	
122	Do you have more than one wife?	YES 1 NO 2	0124
123	How many wives do you have?	NUMBER DON'T KNOW 98	0125
124	Have you been married only once, or more than once?	ONCE 1 MORE THAN ONCE 2	
125	How old were you when you (first) got married?	AGE	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
126	CHECK 122 OR 124: <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>MARRIED ONLY ONCE</p> <p>3</p> <p>In what month and year did you start living with your wife?</p> </div> <div style="text-align: center;"> <p>MARRIED MORE THAN ONCE</p> <p>3</p> <p>Now we will talk about your first wife. In what month and year did you start living with her?</p> </div> </div>	MONTH DON'T KNOW MONTH 98 YEAR..... DON'T KNOW YEAR..... 9998 HAS NOT STARTED LIVING WITH HER..... 9996	 0128 0END
127	How old were you when you started living with her? PROMPT: At gauna?	AGE	
128	Now I would like to ask about any children you have had. I am interested only in the children that are biologically yours. Have you fathered any children?	YES 1 NO 2	 0301
129	In total, how many children do you have that you have fathered?	TOTAL LIVING CHILDREN.....	
130	Have any of your children died? In total, how many children have you fathered that have died?	NUMBER THAT DIED	

THERE IS NO SECTION 2.

SECTION 3. CONTRACEPTION

<p>Now I would like to talk about family planning - the various ways or methods that a couple can use to delay or avoid a pregnancy.</p> <p>CIRCLE CODE 1 IN 301 FOR EACH METHOD MENTIONED SPONTANEOUSLY. THEN PROCEED DOWN COLUMN 301, READING THE NAME AND DESCRIPTION OF EACH METHOD NOT MENTIONED SPONTANEOUSLY. CIRCLE CODE 1 IF METHOD IS RECOGNIZED, AND CODE 2 IF NOT RECOGNIZED. THEN, FOR EACH METHOD WITH CODE 1 CIRCLED IN 301, ASK 302.</p>			
301	Which ways or methods have you heard about? FOR METHODS NOT MENTIONED SPONTANEOUSLY, ASK: Have you ever heard of (METHOD)?		302 Have you ever used (METHOD)?
01	FEMALE STERILIZATION Women can have an operation to avoid having any more children (also known as tubal ligation).	YES.....1 NO2 3	Has your wife ever had an operation to avoid having any more children? YES1 NO2
02	MALE STERILIZATION Men can have an operation to avoid having any more children (also known as vasectomy).	YES.....1 NO2 3	Have you ever had an operation to avoid having any more children? YES1 NO2
03	PILL Women can take a pill every day to avoid becoming pregnant (example: Nilocon).	YES.....1 NO2 3	YES1 NO2
04	IUD Women can have a loop or coil placed inside them by a doctor or a nurse (example: Copper-T, Loop).	YES.....1 NO2 3	YES1 NO2
05	INJECTABLES Women can have an injection by a health provider which stops them from becoming pregnant for one or more months (example: Sangini/Depo Provera).	YES.....1 NO2 3	YES1 NO2
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 (also known as NORPLANT)..	YES.....1 NO2 3	YES1 NO2
07	CONDOM Men can put a rubber sheath on their penis before sexual intercourse (example: Daal)..	YES.....1 NO2 3	YES1 NO2
08	FOAM OR JELLY Women can place a suppository, foaming tablets, jelly, or cream in their vagina before intercourse (example: Kamal).	YES.....1 NO2 3	YES1 NO2
09	RHYTHM OR PERIODIC ABSTINENCE 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 NO2 3	YES1 NO2
10	WITHDRAWAL Men can be careful and pull out before climax.	YES.....1 NO2 3	YES1 NO2
11	Have you heard of any other ways or methods that women or men can use to avoid pregnancy?	YES.....1 _____ (SPECIFY) _____ (SPECIFY) NO2 3	YES1 NO2 YES1 NO2
303	CHECK 301 (01), 301 (04) AND 301 (05):		
	KNOWS ABOUT FEMALE STER., INJECTION, OR IUD 3	DOES NOT KNOW ANY OF THE 3 METHODS	0808

304	Now I want to talk to you about contraceptive methods that women can use to delay or avoid becoming pregnant.	CHECK 301(05): KNOWS INJECTABLES YES NO 0 3 GO TO 304 IN NEXT COLUMN	CHECK 301(04): KNOWS IUD YES NO 0 3 GO TO 304 IN NEXT COLUMN	CHECK 301(01): KNOWS FEMALE STERILIZATION YES NO 0 3 GO TO 308
		INJECTABLES	IUD	FEMALE STERILIZATION
305	In your opinion, is (METHOD) a good method for a couple to use if they want to plan their family?	YES.....1 NO2 (SKIP TO 307) 1 DEPENDS/UPTO THEM ...3 DON'T KNOW.....8 (GO TO 304 IN 1 NEXT COLUMN)	YES.....1 NO.....2 (SKIP TO 307) 1 DEPENDS/UPTO THEM... 3 DON'T KNOW..... 8 (GO TO 304 IN 1 NEXT COLUMN)	YES 1 NO 2 (SKIP TO 307) 1 DEPENDS/UPTO THEM... 3 DON'T KNOW 8 (GO TO 308) 1
306	Why do you think (METHOD) is a good method for a couple to use if they want to plan their family? RECORD ALL REASONS MENTIONED.	SIMPLE TO USE A EFFECTIVE B AFFORDABLE C NO/FEW SIDE EFFECTS D CAN STOP WHEN CHILDREN DESIRED E LASTS FOR SEVERAL MONTHS F OTHER _____ X (SPECIFY) DON'T KNOW..... Y (GO TO 304 IN 1 NEXT COLUMN)	SIMPLE TO USE..... A EFFECTIVE B AFFORDABLE C NO/FEW SIDE EFFECTS D CAN BE REMOVED IF CHILDREN DESIRED... E ONCE INSERTED, NO DAILY WORRY F OTHER _____ X (SPECIFY) DON'T KNOW..... Y (GO TO 304 IN 1 NEXT COLUMN)	EFFECTIVE..... B AFFORDABLE C NO/FEW SIDE EFFECTS D NO RISK OF GETTING PREGNANT AGAIN G OTHER _____ X (SPECIFY) DON'T KNOW Y (GO TO 308) 1
307	Why do you think (METHOD) is not a good method for a couple to use if they want to plan their family? RECORD ALL REASONS MENTIONED.	TOO EXPENSIVE..... A AGAINST RELIGION B MAY HARM WOMEN'S HEALTH..... C HAS SIDE EFFECTS D INCREASES PROMISCUITY E CAN CAUSE STERILITY F METHOD CAN FAIL G NO MENSTRUATION..... H INVOLVES DOCTOR/ MED. PERSONNEL..... I OTHER _____ X (SPECIFY) DON'T KNOW..... Y (GO TO 304 IN 1 NEXT COLUMN)	TOO EXPENSIVE A AGAINST RELIGION B MAY HARM WOMEN'S HEALTH..... C HAS SIDE EFFECTS D INCREASES PROMISCUITY E CAN CAUSE STERILITY F METHOD CAN FAIL G BABY IN DANGER IF PREGNANCY OCCURS..... H INVOLVES DOCTOR/ MED. PERSONNEL..... I OTHER _____ X (SPECIFY) DON'T KNOW..... Y (GO TO 304 IN 1 NEXT COLUMN)	TOO EXPENSIVE A AGAINST RELIGION B MAY HARM WOMEN'S HEALTH C HAS SIDE EFFECTS ... D INCREASES PROMISCUITY E CANNOT HAVE CHILDREN AGAIN F METHOD CAN FAIL..... G INVOLVES DOCTOR/ MED. PERSONNEL. I CAN LEAD TO MED. COMPLICATIONS..... J OTHER _____ X (SPECIFY) DON'T KNOW Y (GO TO 308) 1

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
308	CHECK 302 (02): <div style="display: flex; justify-content: space-around;"> MAN NOT STERILIZED 3 MAN STERILIZED </div>		0310A
309	Are you or your wife currently doing something or using any method to delay or avoid getting pregnant?	YES 1 NO 2	0311
310	Which method are you using?	FEMALE STERILIZATION A MALE STERILIZATION B PILL C IUD D INJECTABLES E IMPLANTS F CONDOM G FOAM/JELLY H PERIODIC ABSTINENCE I WITHDRAWAL J OTHER _____ X (SPECIFY)	
310A	CIRCLE 'B' FOR MALE STERILIZATION. IF MORE THAN ONE METHOD MENTIONED, CIRCLE ALL METHODS MENTIONED.		
311	CHECK 301 (07) AND 302 (07): <div style="display: flex; justify-content: space-around;"> HAS HEARD OF AND USED CONDOMS 3 HAS HEARD OF CONDOMS BUT HAS NEVER USED THEM HAS NOT HEARD OF CONDOMS </div>		0318 0319
312	Now I would like to talk to you about condoms. How old were you when you used a condom for the first time?	AGE AT FIRST USE DOES NOT REMEMBER 98	
313	Why did you use a condom that first time? Any other reason? CIRCLE ALL MENTIONED.	TO AVOID PREGNANCY A TO AVOID GETTING HIV/AIDS B TO AVOID GETTING STDS C TO AVOID INFECTING WIFE/PARTNER PARTNER INSISTED E OTHER _____ X (SPECIFY)	
314	Now when you have sex, do you use a condom every time, sometimes, or not at all?	EVERY TIME 1 SOMETIMES 2 NOT AT ALL 3 NOT HAVING SEX 4	0316 0316
315	When do you use a condom? PROBE: Any other times? RECORD ALL MENTIONED.	ON PARTNER'S FERTILE DAYS A DURING PARTNER'S MENSTRUATION WHEN NOT USING SOME OTHER METHOD C WITH WIFE/REGULAR PARTNER D WITH A STRANGER E WITH A SEX WORKER F WITH ANYONE OTHER THAN WIFE G OTHER _____ X (SPECIFY)	
316	Have you ever experienced any problems with using condoms? IF YES: What problems? PROBE: Any other problems? RECORD ALL MENTIONED.	TOO EXPENSIVE A EMBARRASSING TO BUY B DIFFICULT TO DISPOSE OF C DIFFICULT TO PUT ON/TAKE OFF D SPOILS THE MOOD E REDUCES PLEASURE F WIFE/PARTNER DOES NOT LIKE G WIFE/PARTNER GOT PREGNANT H INCONVENIENT TO USE/MESSY I CONDOM BROKE J OTHER _____ X (SPECIFY) NO PROBLEM Y	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
317	<p>Where do you usually obtain condoms?</p> <p>IF SOURCE IS HOSPITAL, HEALTH CENTER, OR CLINIC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE.</p> <p>_____</p> <p>(NAME OF PLACE)</p>	<p>GOVERNMENT SECTOR</p> <p>GOVT. HOSPITAL/CLINIC..... 11</p> <p>PRIMARY HEALTH CARE CENTRE/ HEALTH CENTRE 12</p> <p>HEALTH POST 13</p> <p>SUB-HEALTH POST 14</p> <p>PHC OUTREACH CLINIC 15</p> <p>FCHV 17</p> <p>CONDOM BOX..... 18</p> <p>OTHER GOV'T _____ 16 (SPECIFY)</p> <p>NON-GOV'T (NGO) SECTOR</p> <p>FP ASSN. OF NEPAL 21</p> <p>MARIE STOPES 22</p> <p>ADRA 23</p> <p>NEPAL RED CROSS 24</p> <p>OTHER NGO _____ 26 (SPECIFY)</p> <p>PRIVATE MEDICAL SECTOR</p> <p>PRIVATE HOSPITAL/CLINIC, NURSING HOME 31</p> <p>PHARMACY 32</p> <p>OTHER PRIVATE _____ 36 (SPECIFY)</p> <p>OTHER SOURCE</p> <p>SHOP 41</p> <p>FRIEND/RELATIVE..... 42</p> <p>OTHER _____ 96 (SPECIFY)</p>	
318	<p>I am going to read you some statements about condoms. Please tell me if you agree or disagree with each statement:</p> <p>a) Condoms reduce a man's pleasure.</p> <p>b) A condom is very inconvenient to use.</p> <p>c) A condom can be re-used.</p> <p>d) A condom protects against disease.</p> <p>e) A woman has no right to tell a man to use a condom.</p>	<p style="text-align: right;">AGR DIS DK</p> <p>REDUCE PLEASURE 1 2 8</p> <p>INCONVENIENT 1 2 8</p> <p>CAN BE RE-USED 1 2 8</p> <p>PROTECTS AGAINST DIS ... 1 2 8</p> <p>WOMAN HAS NO RIGHT..... 1 2 8</p>	
319	<p>CHECK 301 (02) AND 302 (02):</p> <p>HAS HEARD OF MALE STERILIZATION BUT IS NOT STERILIZED 3</p> <p>HE IS STERILIZED</p> <p>HAS NOT HEARD OF MALE STERILIZATION</p>		<p>0321</p> <p>0327</p>
320	<p>Once you have all the children you want, would you yourself ever consider getting sterilized?</p>	<p>YES, WOULD CONSIDER 1</p> <p>NO, WOULD NOT 2</p> <p>UNSURE/DEPENDS 3</p> <p>WIFE ALREADY STERILIZED/NO NEED4</p>	<p>0325</p> <p>0326</p> <p>0325</p> <p>0327</p>
321	<p>Before your sterilization operation, were you told that you would not be able to have any more children because of the operation?</p>	<p>YES..... 1</p> <p>NO 2</p> <p>DON'T KNOW..... 8</p>	
322	<p>Do you regret that you had the operation?</p>	<p>YES..... 1</p> <p>NO 2</p>	<p>0324</p>

SECTION 5. FERTILITY PREFERENCES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
501	CHECK 118: CURRENTLY MARRIED 3 WIDOWED, DIVORCED, SEPARATED		0509
502	CHECK 302 (02): RESPONDENT IS NOT STERILIZED 3 HE IS STERILIZED		0509
503A	Is any of your wife(s) currently pregnant?	YES..... 1 NO 2 UNSURE/DON'T KNOW 8	
503	CHECK 503A: WIFE(S) NOT PREGNANT OR UNSURE 3 WIFE (S) PREGNANT 3 Now I have some questions about the future. Would you like to have (a/another) child, or would you prefer not to have any (more) children? Now I have some questions about the future. After the child you are expecting now, would you like to have another child, or would you prefer not to have any more children?	HAVE (A/ANOTHER) CHILD..... 1 NO MORE/NONE 2 WIFE(S) INFECUND/STERILIZED..... 3 UNDECIDED/DON'T KNOW 4	0505
504	CHECK 503A: WIFE(S) NOT PREGNANT OR UNSURE 3 WIFE (S) PREGNANT 3 How long would you like to wait from now before the birth of (a/another) child? After the birth of the child you are expecting now, how long would you like to wait before the birth of another child?	MONTHS 1 YEARS..... 2 SOON/NOW 993 OTHER _____ 996 (SPECIFY) DON'T KNOW..... 998	
505	CHECK 310/310A NOT USING ANY METHOD 3 CURRENTLY USING A METHOD		0509
506	Do you think you will use a method to delay or avoid pregnancy at any time in the future?	YES..... 1 NO 2 DON'T KNOW..... 8	0508
507	Which method would you prefer to use?	FEMALE STERILIZATION..... 01 MALE STERILIZATION 02 PILL 03 IUD 04 INJECTABLES 05 IMPLANTS..... 06 CONDOM 07 FOAM, JELLY..... 08 PERIODIC ABSTINENCE 09 WITHDRAWAL..... 10 OTHER _____ 96 (SPECIFY) UNSURE 98	0509

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
515	With whom? Anyone else? RECORD ALL MENTIONED.	WIFE.....A MOTHER.....B FATHER.....C SISTER(S).....D BROTHER(S).....E DAUGHTER.....F SON.....G MOTHER-IN-LAW.....H FRIENDS/NEIGHBORS.....I OTHER _____ X (SPECIFY)	
516	CHECK 118: CURRENTLY MARRIED 3 WIDOWED, DIVORCED, SEPARATED		0523
517	CHECK 310/310A: ANY CODE CIRCLED 3 NO CODE CIRCLED		0519
518	You have told me that you are currently using contraception. Would you say that using contraception is mainly your decision, mainly your wife's decision, or did you both decide together?	MAINLY RESPONDENT 1 MAINLY WIFE'S 2 JOINT DECISION 3 OTHER _____ 6 (SPECIFY)	
519	Now I want to ask you about your wife's views on family planning. Do you think that your wife approves or disapproves of couples using a method to avoid pregnancy?	APPROVES 1 DISAPPROVES 2 DON'T KNOW 8	
520	How often have you talked to your wife about family planning in the past year?	NEVER 1 ONCE OR TWICE 2 MORE OFTEN 3	
521	CHECK 310/310A: NEITHER STERILIZED 3 HE OR SHE STERILIZED		0523
522	Do you think your wife wants the same number of children that you want, or does she want more or fewer than you want?	SAME NUMBER 1 MORE CHILDREN 2 FEWER CHILDREN 3 DON'T KNOW 8	
523	Husbands and wives do not always agree on everything. Please tell me if you think a wife is justified in refusing to have sex with her husband when: She is tired or not in the mood? She has recently given birth? She knows her husband has sex with other women? She knows her husband has a sexually transmitted disease?	YES NO DK TIRE/MOOD 1 2 8 RECENT BIRTH 1 2 8 OTHER WOMEN 1 2 8 HAS STD 1 2 8	

SECTION 6. WORK

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
601	Are you currently working?	YES 1 NO 2	0604
602	Have you done any work in the last 12 months?	YES 1 NO 2	0604
603	What have you been doing most of the time during the last 12 months?	GOING TO SCHOOL/STUDYING 1 LOOKING FOR WORK 2 INACTIVE 3 COULD NOT WORK/HANDICAPPED 4 OTHER 6 (SPECIFY)	0611
604	What is your occupation, that is, what kind of work do you mainly do?	_____ _____ _____	
605	CHECK 604: WORKS IN AGRICULTURE 3 DOES NOT WORK IN AGRICULTURE		0607
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/FAMILY LAND 1 RENTED LAND/TENANCY 2 SOMEONE ELSE'S LAND 3	
607	Are you self-employed, employed by someone else, or do you do this work for a member of your family?	SELF-EMPLOYED 1 BY SOMEONE ELSE 2 FOR FAMILY MEMBER 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	0611
610	On average, how much of your household's expenditures do your earnings pay for: almost none, less than half, about half, more than half, or all?	ALMOST NONE 1 LESS THAN HALF 2 ABOUT HALF 3 MORE THAN HALF 4 ALL 5 NONE, HIS INCOME IS ALL SAVED 6	
611	Who in your family usually has the final say on the following decisions: Your wife's health care? Making large household purchases? Making household purchases for daily needs? Visits to family, friends, or relatives? What food should be cooked each day?	RESPONDENT = 1 WIFE = 2 RESPONDENT & WIFE JOINTLY = 3 SOMEONE ELSE = 4 RESPONDENT & SOMEONE ELSE JOINTLY = 5 DECISION NOT MADE/NOT APPLICABLE = 6 1 2 3 4 5 6 1 2 3 4 5 6	
612	Sometimes a husband is annoyed or angered by things which his wife does. In your opinion, is a husband justified in hitting or beating his wife in the following situations: If she goes out without telling him? If she neglects the children? If she argues with him? If she refuses to have sex with him? If she burns the food?	YES NO DK GOES OUT 1 2 8 NEGL. CHILDREN 1 2 8 ARGUES 1 2 8 REFUSES SEX 1 2 8 BURNS FOOD 1 2 8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
711	When was the last time you had sexual intercourse? RECORD 'YEARS AGO' ONLY IF LAST INTERCOURSE WAS ONE OR MORE YEARS AGO.	DAYS AGO..... 1 WEEKS AGO..... 2 MONTHS AGO..... 3 YEARS AGO 4	0733
712	The last time you had sexual intercourse, did you use a condom?	YES 1 NO 2	0714
713	What is the main reason you used a condom on that occasion?	TO AVOID PREGNANCY..... 1 TO AVOID GETTING HIV/AIDS 2 TO AVOID GETTING STDS..... 3 TO AVOID INFECTING WIFE/PARTNER 4 WIFE/PARTNER INSISTED..... 5 OTHER _____ 6 (SPECIFY)	0718
714	CHECK 302 (02): RESPONDENT NOT STERILIZED 3	RESPONDENT STERILIZED	0718
715	The last time you had sexual intercourse, did you or your wife/partner do something or use any method to avoid a pregnancy?	YES 1 NO 2 DOES NOT KNOW/UNSURE 8	0717 0718
716	What method did you or she use on that occasion?	FEMALE STERILIZATION 01 PILL 03 IUD 04 INJECTABLES 05 IMPLANTS..... 06 FOAM/JELLY..... 08 RHYTHM/PERIODIC ABSTINENCE 09 WITHDRAWAL 10 OTHER _____ 96 (SPECIFY)	0718
717	What is the main reason you did not use a method to avoid pregnancy?	FERTILITY-RELATED REASONS CASUAL SEX PARTNER..... 11 WIFE/PARTNER IS MENOPAUSAL, HAD HYSTERECTOMY 23 COUPLE SUBFECUND/INFECUND.... 24 WIFE/PARTNER WAS PREGNANT 25 WIFE/PARTNER RECENTLY DELIVERED AND NOT YET MENSTRUATING..... 26 WIFE/PARTNER WAS BREASTFEEDING 27 WANTED (MORE)CHILDREN 28 OPPOSITION TO USE RESPONDENT OPPOSED..... 31 WIFE/PARTNER OPPOSED 32 OTHERS OPPOSED..... 33 RELIGIOUS PROHIBITION 34 LACK OF KNOWLEDGE KNOWS NO METHOD..... 41 KNOWS NO SOURCE 42 METHOD-RELATED REASONS HEALTH CONCERNS..... 51 FEAR OF SIDE EFFECTS 52 LACK OF ACCESS/TOO FAR 53 COST TOO MUCH..... 54 INCONVENIENT TO USE..... 55 INTERFERES WITH BODY'S NORMAL PROCESSES..... 56 OTHER _____ 96 (SPECIFY) DOES NOT KNOW..... 98	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
718	What is your relationship to the woman with whom you last had sex?	WIFE/COHABITING PARTNER 1 WOMAN IS GIRLFRIEND/FIANCE 2 OTHER FRIEND 3 CASUAL ACQUAINTANCE 4 COMMERCIAL SEX WORKER 5 OTHER _____ 6 (SPECIFY)	0720
719	For how long have you had a sexual relationship with this woman?	DAYS 1 WEEKS 2 MONTHS 3 YEARS 4	
720	Have you had sex with any other woman in the last 12 months?	YES 1 NO 2	0730
721	The last time you had sexual intercourse with another woman, did you use a condom?	YES 1 NO 2	0723
722	What is the main reason you used a condom on that occasion?	TO AVOID PREGNANCY 1 TO AVOID GETTING HIV/AIDS 2 TO AVOID GETTING STDs 3 TO AVOID INFECTING WIFE/PARTNER 4 WIFE/PARTNER INSISTED 5 OTHER _____ 6 (SPECIFY)	0727
723	CHECK 302 (02): RESPONDENT NOT STERILIZED 3	RESPONDENT STERILIZED	0727
724	The last time you had sexual intercourse, with this other woman, did you or she do something or use any method to avoid a pregnancy?	YES 1 NO 2 DOES NOT KNOW/UNSURE 8	0726 0727
725	What method did you or she use on that occasion?	FEMALE STERILISATION 01 PILL 03 IUD 04 INJECTABLES 05 IMPLANTS 06 FOAM/JELLY 08 RHYTHM/PERIODIC ABSTINENCE 09 WITHDRAWAL 10 OTHER _____ 96 (SPECIFY)	0727

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
734	Do you know of a place where one can get condoms?	YES 1 NO 2	0736
735	<p>Where is that?</p> <p>IF SOURCE IS HOSPITAL, HEALTH CENTER, OR CLINIC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE.</p> <p>_____</p> <p>(NAME OF PLACE)</p> <p>Any other place?</p> <p>(RECORD ALL MENTIONED)</p>	<p>GOVERNMENT SECTOR</p> <p>GOVT. HOSPITAL/CLINIC.....A</p> <p>PRIMARY HEALTH CARE CENTRE/ HEALTH CENTREB</p> <p>HEALTH POST C</p> <p>SUB-HEALTH POST D</p> <p>PHC OUTREACH CLINIC.....E</p> <p>FCHV.....F</p> <p>CONDOM BOX G</p> <p>OTHER GOV'T _____ H (SPECIFY)</p> <p>NON-GOV'T (NGO) SECTOR</p> <p>FP ASSN. OF NEPAL I</p> <p>MARIE STOPES J</p> <p>ADRA K</p> <p>NEPAL RED CROSS L</p> <p>OTHER NGO _____ M (SPECIFY)</p> <p>PRIVATE MEDICAL SECTOR</p> <p>PRIVATE HOSPITAL/CLINIC, NURSING HOME N</p> <p>PHARMACY O</p> <p>OTHER PRIVATE _____ P (SPECIFY)</p> <p>OTHER SOURCE</p> <p>SHOP Q</p> <p>FRIEND/RELATIVE..... R</p> <p>OTHER _____ X (SPECIFY)</p>	
736	RECORD THE TIME.	<p>HOUR.....</p> <p>MINUTES</p>	

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: _____

SENTENCES FOR LITERACY TEST

1. Parents love their children.
2. Farming is hard work.
3. The child is reading a book.
4. Children should go to school.
5. Boys and girls are equal.