Guyana

Demographic and Health Survey

2009

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Demographic and Health Survey
2009

Ministry of Health
Georgetown, Guyana

Bureau of Statistics
Georgetown, Guyana

ICF Macro
(Technical Assistance)

October 2010

Ministry of Health

This report summarizes the results of the 2009 Guyana Demographic and Health Survey (2009 GDHS), implemented by the Ministry of Health (MOH) and the Bureau of Statistics (BOS), with technical assistance from ICF Macro. Funds for the survey were provided in their entirety by the local mission of the United States Agency for International Development (USAID/Guyana) under the MEASURE DHS program.

The 2009 GDHS is part of the worldwide MEASURE DHS program, which is designed to assist developing countries to collect, analyze, and disseminate data on fertility, family planning, and maternal and child health.

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CONTENTS

Páge

TABLES AND FIGURES ix
FOREWORD xvii
SUMMARY OF FINDINGS xix
BASIC INDICATORS xxix
MAP OF GUYANA xxx

CHAPTER 1 INTRODUCTION

1.1 Overview 1
1.2 Objectives 1
1.3 Sample Design 1
1.4 Questionnaires 2
1.5 Pretest Activities, Training, and Fieldwork 3
1.6 Data Processing 3
1.7 Response Rates 3
1.8 Contents of the Report 5

CHAPTER 2 HOUSEHOLD POPULATION AND HOUSING CHARACTERISTICS

2.1 Characteristics of the Population 9
2.1.1 Age-Sex Structure 9
2.1.2 Household Composition 11
2.1.3 Children's Living Arrangements and Orphanhood 12
2.1.4 Educational Attainment 14
2.1.5 School Attendance 17

2.2 Housing Characteristics 20
2.2.1 Drinking Water and Housing Characteristics 20
2.2.2 Sanitation Facilities 24
2.2.3 Household Possessions 25

2.3 Wealth Quintiles 26
2.4 Birth Registration 27

CHAPTER 3 CHARACTERISTICS OF SURVEY RESPONDENTS

3.1 Background Characteristics of Survey Respondents 29
3.2 Educational Attainment of Respondents 31
3.3 Literacy 33
3.4 Exposure and Access to Mass Media 36
3.5 Employment Status and Type of Occupation 38
3.6 Health Insurance Coverage 44

3.7 Knowledge and Attitudes Concerning Tuberculosis 47
3.8 Smoking 50

CHAPTER 4 FERTILITY

4.1 Current Fertility 53
4.2 Fertility Differentials 55
4.3 Fertility Trends 56
4.4 Children Ever Born and Living 57
4.5 Birth Intervals 58
4.6 Age at First Birth 60
4.7 Teenage Pregnancy and Motherhood 62

CHAPTER 5 FAMILY PLANNING

5.1 Knowledge of Contraceptive Methods 65
5.2 Knowledge of Contraception by Background Characteristics 67
5.3 Ever Use of Contraceptive Methods 67
5.4 Current Use of Contraception 69
5.5 Differentials in Current Use 71
5.6 Number of Children at First Use of Contraception 73
5.7 Use of Social Marketing of Brands of Pills and Condoms 74
5.8 Sources for Family Planning Methods and Informed Choice 75
5.9 Contraceptive Discontinuation 78
5.10 Intention to Use Family Planning Among Non-users 78
5.11 Exposure to Family Planning in the Mass Media 81
5.12 Contact of Non-users with Family Planning Providers 83
5.13 Husband/Partner's Knowledge of Women's Use of Contraception 84

CHAPTER 6 OTHER PROXIMATE DETERMINANTS OF FERTILITY

6.1 Current Marital Status 85
6.2 Age at First Union 87
6.3 Age at First Sexual Intercourse 90
6.4 Recent Sexual Activity 93
6.5 Postpartum Amenorrhea, Abstinence, and Insusceptibility 96
6.6 Termination of Exposure to Pregnancy 98

CHAPTER 7 FERTILITY PREFERENCES

7.1 Desire for More Children 101
7.2 Desire to Limit Childbearing by Background Characteristics 104
7.3 Need and Demand for Family Planning Services 106
7.4 Ideal Family Size 110
7.5 Fertility Planning Status 111
7.6 Wanted Fertility Rates 112

CHAPTER 8 INFANT AND CHILD MORTALITY

8.1 Definition, Data Quality, and Methodology 115
8.2 Current Estimates of Infant and Child Mortality 116

8.3 Differentials in Infant and Child Mortality 117
8.4 Perinatal Mortality 120
8.5 High-Risk Fertility Behavior 122

CHAPTER 9 REPRODUCTIVE HEALTH

9.1 Antenatal Care 125
9.1.1 Content of Antenatal Care 128
9.1.2 Tetanus Toxoid Injections 129

9.2 Delivery Care 131
9.3 Postnatal Care 135
9.4 Problems in Accessing Health Care 139

CHAPTER 10 CHILD HEALTH

10.1 Child's Size at Birth 141
10.2 Vaccination of Children 143
10.2.1 Vaccination at Any Time before the Survey 143
10.2.2 Trends in Vaccination Coverage 146

10.3 Acute Respiratory Infection 147
10.4 Fever 149
10.5 Diarrhea: Prevalence and Treatment 151
10.5.1 Prevalence of Diarrhea 151
10.5.2 Treatment of Diarrhea 153
10.5.3 Feeding Practices during Diarrhea 154
10.5.4 Knowledge of ORS Packets 155
10.5.5 Disposal of Stools 156

CHAPTER 11 NUTRITION OF CHILDREN AND ADULTS

11.1 Nutritional Status of Young Children 159
11.2 Breastfeeding 165
11.2.1 Initial Breastfeeding 165
11.2.2 Breastfeeding Status by Age 167
11.2.3 Duration and Frequency of Breastfeeding 169

11.3 Complementary Foods 170
11.4 Appropriate Infant and Young Child Feeding (IYCF) 172
11.5 Anemia in Children 175
11.6 Micronutrient Intake among Children 177
11.7 Presence of Iodized Salt in Households 180
11.8 Nutritional Status of Women and Men 181
11.9 Foods Consumed by Mothers 184
11.10 Anemia in Women and Men 186
11.11 Micronutrient Intake among Mothers 189

CHAPTER 12 MALARIA

12.1 Ownership of Mosquito Nets 191
12.2 Use of Mosquito Nets by Children 193
12.3 Use of Mosquito Nets by Women 195
12.4 Malaria during Pregnancy 197
12.5 Prevalence and Management of Childhood Malaria 199

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

13.1 Knowledge of AIDS 201
13.2 Knowledge of HIV Prevention Methods 203
13.3 Beliefs about AIDS 206
13.4 Knowledge of Prevention of Mother-to-Child Transmission of HIV 210
13.5 Stigma Associated with AIDS and Attitudes Related to HIV/AIDS 212
13.6 Attitudes toward Negotiating Safer Sex 215
13.7 Attitudes toward Condom Education for Youth 217
13.8 Higher-Risk Sex 218
13.8.1 Multiple Partners and Condom Use 218
13.8.2 Transactional Sex 222

13.9 Coverage of Prior HIV Testing 222
13.9.1 HIV Testing during Antenatal Care 226

13.10 Male Circumcision 228
13.11 Self-Reporting of Sexually Transmitted Infections 229
13.12 Prevalence of Medical Injections 231
13.13 HIV/AIDS-Related Knowledge and Sexual Behavior among Young Adults 234
13.13.1 HIV/AIDS-Related Knowledge among Young Adults 234
13.13.2 Age at First Sex 236
13.13.3 Condom Use at First Sex 238
13.13.4 Abstinence and Premarital Sex 240
13.13.5 Higher-Risk Sex and Condom Use among Young Adults 242
13.13.6 Age Mixing in Sexual Relationships among Women 244
13.13.7 Drunkenness during Sex among Young Adults 246
13.13.8 Recent HIV Testing among Youth 248

CHAPTER 14 WOMEN'S EMPOWERMENT AND DEMOGRAPHIC AND HEALTH OUTCOMES

14.1 Employment and Forms of Earnings 251
14.2 Control over Women's and Men's Earnings 252
14.3 Women's Participation in Household Decision-Making 257
14.4 Attitudes toward Wife Beating 262
14.5 Attitudes toward Refusing Sex with Husband 266
14.6 Women's Empowerment Indicators 271
14.7 Current Use of Contraception by Women's Status 272
14.8 Ideal Family Size and Unmet Need by Women's Status 273
14.9 Reproductive Health Care and Women's Empowerment Status 274

REFERENCES 277

APPENDIX A SAMPLE DESIGN 279

A.1 Sample Frame 279
A.2 Sample Selection 279
A.3 Sample Allocation 280
A.4 Response Rates 281

APPENDIX B ESTIMATES OF SAMPLING ERRORS 285

APPENDIX C DATA QUALITY TABLES 309

APPENDIX D SURVEY PERSONNEL 315

APPENDIX E QUESTIONNAIRES 317

TABLES AND FIGURES

Page

CHAPTER 1 INTRODUCTION

Table 1.1 Results of the household and individual interviews 4
Table 1.2 Number of women and men interviewed by residence and region....5

CHAPTER 2 HOUSEHOLD POPULATION AND HOUSING CHARACTERISTICS

Table 2.1 Household population by age, sex, and residence 10
Table 2.2 Household composition 11
Table 2.3 Children's living arrangements and orphanhood....13
Table 2.4.1 Educational attainment of the female household population....15
Table 2.4.2 Educational attainment of the male household population....16
Table 2.5 School attendance ratios 18
Table 2.6 Household drinking water....21
Table 2.7 Housing characteristics....23
Table 2.8 Sanitation facilities 24
Table 2.9 Durable goods....25
Table 2.10 Wealth quintiles....27
Table 2.11 Birth registration of children under age 5....28

Figure 2.1 Population Pyramid 10
Figure 2.2 Percentage of Female-Headed Households by Residence....12
Figure 2.3 Age-Specific School Attendance Rates, by Sex 19

CHAPTER 3 CHARACTERISTICS OF SURVEY RESPONDENTS

Table 3.1 Background characteristics of respondents....29
Table 3.2.1 Educational attainment of respondents: Women 30
Table 3.2.2 Educational attainment of respondents: Men....32
Table 3.3.1 Literacy: Women 34
Table 3.3.2 Literacy: Men 35
Table 3.4.1 Exposure to mass media: Women....36
Table 3.4.2 Exposure to mass media: Men....37
Table 3.5 Employment status 39
Table 3.6.1 Occupation: Women 42
Table 3.6.2 Occupation: Men 43
Table 3.7 Type of employment....44
Table 3.8.1 Health insurance coverage: Women 45
Table 3.8.2 Health insurance coverage: Men 46
Table 3.9.1 Knowledge and attitudes concerning tuberculosis: Women....48
Table 3.9.2 Knowledge and attitudes concerning tuberculosis: Men 49
Table 3.10.1 Use of tobacco: Women 51
Table 3.10.2 Use of tobacco: Men....52

Figure 3.1 Respondents Completing Secondary or Higher Education, by Residence and Wealth Quintile 33
Figure 3.2 Respondents Currently Employed, by Residence and Education 41

CHAPTER 4 FERTILITY

Table 4.1 Current fertility 54
Table 4.2 Fertility by background characteristics 55
Table 4.3 Trends in age-specific fertility rates 56
Table 4.4 Children ever born and living 57
Table 4.5 Birth intervals 59
Table 4.6 Age at first birth 61
Table 4.7 Median age at first birth by background characteristics 62
Table 4.8 Teenage pregnancy and motherhood 63

Figure 4.1 Total Fertility Rates for the Three Years Preceding the Survey, by Residence 54
Figure 4.2 Births with a Birth Interval of Less than 24 Months, by Residence and Wealth Quintile 60

CHAPTER 5 FAMILY PLANNING

Table 5.1 Knowledge of contraceptive methods 66
Table 5.2 Knowledge of contraceptive methods by selected background characteristics 67
Table 5.3 Ever use of contraception by age: Women 68
Table 5.4 Ever use of contraception by age: Men 69
Table 5.5 Current use of contraception by age 70
Table 5.6 Current use of contraception by background characteristics 72
Table 5.7 Number of children at first use of contraception 74
Table 5.8.1 Brand of pills 74
Table 5.8.2 Brand of condoms 75
Table 5.9 Source of modern contraception methods 76
Table 5.10 Informed choice 77
Table 5.11 First-year contraceptive discontinuation rates 78
Table 5.12 Future use of contraception among non-users 79
Table 5.13.1 Reasons for not intending to use contraception 80
Table 5.13.2 Preferred method of contraception for future use 81
Table 5.14 Exposure to family planning messages 82
Table 5.15 Contact of non-users with family planning providers 83

Figure 5.1 Contraceptive Use among Currently Married Women, by Region 73

CHAPTER 6 OTHER PROXIMATE DETERMINANTS OF FERTILITY

Table 6.1 Current marital status by age and sex 86
Table 6.2 Current marital status by background characteristics 87
Table 6.3 Age at first union 88
Table 6.4 Median age at first union by background characteristics 89
Table 6.5.1 Age at first sexual intercourse: Women 91
Table 6.5.2 Age at first sexual intercourse: Men 91
Table 6.6.1 Median age at first sexual intercourse, by background characteristics: Women 92
Table 6.6.2 Median age at first sexual intercourse, by background characteristics: Men 93
Table 6.7.1 Recent sexual activity: Women 94

Table 6.7.2 Recent sexual activity: Men....94
Table 6.8 Postpartum amenorrhea, abstinence and insusceptibility....97
Table 6.9 Median duration of postpartum insusceptibility by background characteristics....98
Table 6.10 Menopause....99

Figure 6.1 Median Age at First Sexual Intercourse by Region....92

CHAPTER 7 FERTILITY PREFERENCES

Table 7.1.1 Fertility preferences by number of living children....102
Table 7.1.2 Fertility preferences by background characteristics....103
Table 7.2 Desire to limit childbearing by background characteristics....105
Table 7.3 Need and demand for family planning....108
Table 7.4 Ideal number of children....111
Table 7.5 Fertility planning status....112
Table 7.6 Wanted fertility rates....113

Figure 7.1 Fertility Practices of Women in Union....104
Firuge 7.2 Desire for No More Children by Region....106
Figure 7.3 Components of the Unmet Need for Family Planning....109
Figure 7.4 Women with Unmet Need and Demand Satisfied, by Region....109

CHAPTER 8 INFANT AND CHILD MORTALITY

Table 8.1 Early childhood mortality rates....117
Table 8.2 Early childhood mortality rates by socioeconomic characteristics....118
Table 8.3 Early childhood mortality rates by demographic characteristics....119
Table 8.4 Perinatal mortality....121
Table 8.5 High-risk fertility behavior....123

Figure 8.1 Infant Mortality Rates for the 10-Year Period Preceding the Survey, by Residence and Wealth Quintile....119
Figure 8.2 Births in the Last Five Years and Women in Categories of High-risk Fertility Behavior....124

CHAPTER 9 REPRODUCTIVE HEALTH

Table 9.1 Antenatal care....126
Table 9.2 Number of antenatal care visits and timing of first visit....127
Table 9.3 Components of antenatal care....129
Table 9.4 Tetanus toxoid injections....130
Table 9.5 Place of delivery....133
Table 9.6 Assistance during delivery....134
Table 9.7 Timing of postnatal care....137
Table 9.8 Type of provider of first postnatal checkup....138
Table 9.9 Problems in accessing health care....140

Figure 9.1 Two Tetanus Vaccinations during Last Pregnancy and Births Protected against Neonatal Tetanus, by Residence....131

CHAPTER 10 CHILD HEALTH

Table 10.1 Child's weight and size at birth 142
Table 10.2 Vaccinations by source of information 143
Table 10.3 Vaccinations by background characteristics 144
Table 10.4 Vaccinations in the first 18 months of life 147
Table 10.5 Prevalence and treatment of symptoms of acute respiratory infection (ARI) 148
Table 10.6 Prevalence and treatment of fever 150
Table 10.7 Prevalence of diarrhea 152
Table 10.8 Diarrhea treatment 154
Table 10.9 Feeding practices during diarrhea 155
Table 10.10 Knowledge of ORS packets or pre-packaged ORS liquid 156
Table 10.11 Disposal of children's stools 157

Figure 10.1 Vaccination Coverage at Any Time before the Survey among Children 18-29 Months 145
Figure 10.2 Children Age 18-29 Months with All Vaccines at Any Time before the Survey, by Residence 145

CHAPTER 11 NUTRITION OF CHILDREN AND ADULTS

Table 11.1.1 Nutritional status of children by demographic characteristics 162
Table 11.1.2 Nutritional status of children by socioeconomic characteristics 164
Table 11.2 Initial breastfeeding 166
Table 11.3 Breastfeeding status by child's age 168
Table 11.4 Median duration and frequency of breastfeeding 170
Table 11.5 Foods consumed by children in the day or night preceding the interview 171
Table 11.6 Infant and young child feeding (IYCF) practices 174
Table 11.7 Prevalence of anemia in children 176
Table 11.8 Micronutrient intake among children 179
Table 11.9 Presence of iodized salt in the household 180
Table 11.10.1 Nutritional status by background characteristics: Women 182
Table 11.10.2 Nutritional status by background characteristics: Men 183
Table 11.11 Foods consumed by mothers in the day or night preceding the interview 185
Table 11.12.1 Prevalence of anemia: Women 187
Table 11.12.2 Prevalence of anemia: Men 188
Table 11.13 Micronutrient intake among mothers 190

Figure 11.1 Nutritional Status of Children under Age 5 153
Figure 11.2 Children under Five Stunted and Underweight, by Residence 165
Figure 11.3 Infant Feeding Practices by Age 169

CHAPTER 12 MALARIA

Table 12.1 Household possession of mosquito nets 192
Table 12.2 Use of mosquito nets by children 194
Table 12.3.1 Use of mosquito nets by women 196
Table 12.3.2 Use of mosquito nets by pregnant women 198
Table 12.4 Prevalence and prompt treatment of children with fever 200

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

Table 13.1 Knowledge of AIDS 202
Table 13.2 Knowledge of HIV prevention methods 204
Table 13.3.1 Comprehensive knowledge about AIDS: Women 208
Table 13,3,2 Comprehensive knowledge about AIDS: Men 209
Table 13.4 Knowledge of prevention of mother-to-child transmission of HIV 211
Table 13.5.1 Accepting attitudes toward those living with HIV: Women 213
Table 13.5.2 Accepting attitudes toward those living with HIV: Men 214
Table 13.6 Attitudes toward negotiating safer sex with husband 216
Table 13.7 Adult support of education about condom use to prevent AIDS 217
Table 13.8.1 Multiple sexual partners and higher-risk sexual intercourse in the past 12 months: Women 220
Table 13.8.2 Multiple sexual partners and higher-risk sexual intercourse in the past 12 months: Men 221
Table 13.9.1 Coverage of prior HIV testing: Women 224
Table 13.9.2 Coverage of prior HIV testing: Men 225
Table 13.10 Pregnant women counseled and tested for HIV 227
Table 13.11 Male circumcision 228
Table 13.12 Self-reported prevalence of sexually transmitted infections (STIs) and STI symptoms 230
Table 13.13 Prevalence of medical injections 232
Table 13.14 Comprehensive knowledge about AIDS and of a source for condoms among youth 235
Table 13.15 Age at first sexual intercourse among youth 237
Table 13.16 Condom use at first sexual intercourse among youth 239
Table 13.17 Premarital sexual intercourse in the past year and condom use during premarital sexual intercourse among youth 241
Table 13.18 Higher-risk sexual intercourse among youth and condom use at last higher-risk intercourse in the past 12 months 243
Table 13.19 Age mixing in sexual relationships among women age 15-19 245
Table 13.20 Drunkenness during sexual intercourse among youth 247
Table 13.21 Recent HIV tests among youth 249

Figure 13.1 Knowledge of Two HIV Prevention Methods (Using Condoms and Limiting Sexual Intercourse to One Uninfected Faithful Partner), by Residence and Education 206
Figure 13.2 Comprehensive Knowledge about AIDS, by Residence and Education 210
Figure 13.3 Women and Men Seeking Treatment for STIs 231
Figure 13.4 Type of Facility Where Last Medical Injection Was Received 233
Figure 13.5 Abstinence, Being Faithful, and Condom Use (ABC) among Young Women and Men Age 15-24 244

CHAPTER 14 WOMEN'S EMPOWERMENT AND DEMOGRAPHIC AND HEALTH OUTCOMES

Table 14.1 Employment and cash earnings of currently married women and men 252
Table 14.2.1 Control over women's cash earnings and relative magnitude of women's earnings: Women 253
Table 14.2.2 Control over men's cash earnings 255
Table 14.3 Women's control over her own earnings and over those of her husband 256

Table 14.4.1 Women's participation in decision making 257
Table 14.4.2 Women's participation in decision making according to men 258
Table 14.5.1 Women's participation in decision-making by background characteristics 259
Table 14.5.2 Men's attitude toward wives' participation in decision making 261
Table 14.6.1 Attitude toward wife beating: Women 264
Table 14.6.2 Attitude toward wife beating: Men 265
Table 14.7.1 Attitude toward refusing sexual intercourse with husband: Women 267
Table 14.7.2 Attitude toward refusing sexual intercourse with husband: Men 268
Table 14.7.3 Men's attitude toward a husband's rights when his wife refuses to have sexual intercourse 270
Table 14.8 Indicators of women's empowerment 272
Table 14.9 Current use of contraception by women's status 273
Table 14.10 Women's empowerment and ideal number of children and unmet need for family planning 274
Table 14.11 Reproductive health care by women's empowerment 275

Figure 14.1 Number of Decisions in Which Currently Married Women Participate 262

APPENDIX A SAMPLE DESIGN

Table A.1 Sample allocation 281
Table A.2.1 Sample implementation by residence 282
Table A.2.2 Sample implementation by region 283

APPENDIX B ESTIMATES OF SAMPLING ERRORS

Table B.1 List of selected variables for sampling errors 287
Table B.2.1 Sampling errors for the total sample 288
Table B.2.2 Sampling errors for the Urban sample 289
Table B.2.3 Sampling errors for the Georgetown urban sample 290
Table B.2.4 Sampling errors for the rest of urban sample (other than Georgetown urban) 291
Table B.2.5 Sampling errors for the Rural sample 292
Table B.2.6 Sampling errors for the Coastal total sample 293
Table B.2.7 Sampling errors for the Coastal urban sample 294
Table B.2.8 Sampling errors for the Coastal rural sample 295
Table B.2.9 Sampling errors for the Interior sample 296
Table B.2.10 Sampling errors for the Region 1 sample 297
Table B.2.11 Sampling errors for the Region 2 sample 298
Table B.2.12 Sampling errors for the Region 3 sample 299
Table B.2.13 Sampling errors for the Region 4 sample 300
Table B.2.14 Sampling errors for the Region 5 sample 301
Table B.2.15 Sampling errors for the Region 6 sample 302
Table B.2.16 Sampling errors for the Region 7 sample 303
Table B.2.17 Sampling errors for the Region 8 sample 304
Table B.2.18 Sampling errors for the Region 9 sample 305
Table B.2.19 Sampling errors for the Region 10 sample 306
Table B.3 Sampling errors for fertility rates for the three-year period before the survey 307
Table B.4.1 Sampling errors for mortality rates for the five-year period preceding the survey and for the infant mortality rates by five-year periods 307
Table B.4.2 Sampling errors for mortality for the ten-year period preceding the survey 308

APPENDIX C DATA QUALITY TABLES

Table C.1 Household age distribution 310
Table C.2.1 Age distribution of eligible and interviewed women 311
Table C.2.2 Age distribution of eligible and interviewed men 311
Table C.3 Completeness of reporting 311
Table C.4 Births by calendar years 312
Table C.5 Reporting of age at death in days 312
Table C.6 Reporting of age at death in months 312
Table C.7.1 Nutritional status of children by NCHS/CDC/WHO International Reference Population according to demographic characteristics 313
Table C.7.2 Nutritional status of children by NCHS/CDC/WHO International Reference Population according to socioeconomic characteristics 314

FOREWORD

Guyana is increasing efforts to put together a comprehensive set of tools for the monitoring and evaluation of health and the social determinants of health under a new paradigm. The Ministry of Health (MoH) is demonstrating that information and statistics are important ingredients for the strengthening of health systems and the improvement of services. I am therefore happy to introduce Guyana's first Demographic and Health Survey (GDHS), conducted in 2009 by the Ministry in collaboration with the Bureau of Statistics of Guyana and with technical assistance from ICF MACRO.

The GDHS was designed to provide nationally representative data on housing and household characteristics in areas of education; maternal and child health; nutrition; family planning; gender; and knowledge, attitudes, and behaviors concerning HIV and other risk factors.. The survey has provided valuable and timely data to go along with other indicators for the Government of Guyana (GoG) and its many partners in health care–the Pan American Health Organization/World Health Organization (PAHO/WHO), the United Nations General Assembly Special Session (UNGASS) on HIV/AIDS, the United Nations Children's Fund (UNICEF), the United Nations Population Fund (UNFPA), and the President's Emergency Plan for AIDS Relief (PEPFAR), among others.

The 2009 GDHS sampled about 6,000 households and completed interviews with 4,996 womenand 3,522 men, age 15-49. Information was also collected on all children of the women in the sample. All households successfully enrolled in the study were asked questions regarding the physical dwelling, ownership of various durable goods, and characteristics of usual residents of the household. In-depth individual interviews were used to collect information from women and men age 15-49 on smoking, diet, and sexual activity and practices, as well as knowledge of HIV/AIDS, experience with HIV testing, and attitudes regarding people living with HIV/AIDS.

It is hoped that the data collected through the GDHS will inform our efforts to develop the policies and programs to respond to the health needs of all Guyanese. The survey information can complement other survey data and national data in informing us of the health of the people.

I would like to express my gratitude to the GDHS technical and managerial staff at the Ministry of Health, whose efforts made this report possible.

I would also like to thank the Guyana Bureau of Statistics, the agency asked to conduct this survey.

Finally, I would like to thank ICF Macro for their technical assistance to the project under the MEASURE DHS program and the U.S. Agency for International Development (USAID) for their financial support.

Dr. Leslie Ramsammy
Minister of Health

SUMMARY OF FINDINGS

This document contains the main results of the 2009 Guyana Demographic and Health Survey (2009 GDHS). The 2009 GDHS is the first household-based, comprehensive survey on demographics and health (especially maternal and child health) to be carried out in Guyana.

The survey was conducted by the Bureau of Statistics (BOS) and the Ministry of Health (MOH) of Guyana. ICF Macro of Calverton, Maryland, provided technical assistance to the project through its contract with the U.S. Agency for International Development (USAID). Funding to cover technical assistance by ICF Macro and local costs was provided in its entirety by the USAID Mission in Georgetown, Guyana.

The primary objective of the 2009 GDHS was to collect information on characteristics of the households and their members, including exposure to malaria and tuberculosis; infant and child mortality; fertility and family planning; pregnancy and postnatal care; childhood immunization, health, and nutrition; marriage and sexual activity; and HIV/AIDS indicators.

Other objectives of the 2009 GDHS included (1) supporting the dissemination and utilization of the results in planning, managing, and improving family planning and health services in the country and (2) enhancing the survey capabilities of the institutions involved to facilitate surveys of this type in the future.

The 2009 GDHS sampled 5,632 households and completed interviews with 4,996 women age 15-49 and 3,522 men age 15-49. Three questionnaires were used for the 2009 GDHS: the Household Questionnaire, the Women's Questionnaire, and the Men's Questionnaire. The content of these questionnaires was based on the model questionnaires developed by the MEASURE DHS program of ICF Macro.

FERTILITY

Fertility Levels and Differentials

If fertility were to remain constant in Guyana, women would bear, on average, 2.8 children by the end of their reproductive lifespan. The total fertility rate (TFR) is close to replacement level in urban areas (2.1 children per woman), and higher in the rural areas (3.0 children per woman). The TFR in the Interior area (6.0 children) is more than twice as high as the TFR in the Coastal area (2.4 children per woman) and is three times the fertility in the Georgetown (urban) area (2.0 children). The TFRs for women in the Interior area are significantly higher for all age groups.

The TFR is extremely high in some regions of Guyana: 6.9 children per woman in Region 1, 6.1 children per woman in Region 8, and 5.7 children per woman in Region 9. Region 1 also has the highest percentage of women currently pregnant (15 percent), which is several times the national average of 4 percent.

Fertility decreases rapidly with increasing education of women and increasing socioeconomic status of the household. The TFR for women with more than secondary education (1.7 children per woman) clearly indicates very low fertility among highly educated women. On the other hand, the TFR for women with primary education (3.8 children) exceeds the fertility rate of women with higher

education by over two children. Fertility decreases with wealth; the TFR for women in the poorest quintile is very high (4.9 children), 2.5 times the level of fertility for women in the highest quintile (1.9 children).

Fertility Preferences

Fifty-six percent of currently married women reported that they don't want to have a/another child, and five percent are already sterilized. The figures for men are 51 and 1 percent, respectively. The desire to stop childbearing increases rapidly as the number of children increases. Among respondents with one child, around one in five wants no more children. Among those with three children, about eight in ten women and seven in ten men want no more children.

Among women who want to have a child or another child (32 percent), half (16 percent) want to delay the birth for two or more years. Thirty-five percent of men want to have a/another child, but less than half of them (14 percent) want to wait two or more years.

Currently married women in urban areas are somewhat less likely than those in rural areas to want to limit childbearing (58 percent versus 62 percent). Additionally, currently married women in the Coastal area (61 percent) are less likely than women in the Interior area (67 percent) to want no more children. Close to seven in ten currently married women in Regions 1, 2, 6, and 9 are either sterilized or want no more children compared with 55 percent in Region 3 and 57 percent in Region 4.

The largest differences in the desire for no more children among currently married women are observed by educational level. Seventy-six percent of women with no education or primary education want no more children compared with 48 percent of women with more than secondary education. The percentage of women who want to limit childbearing decreases as the wealth quintile increases, from 68 percent of women in the lowest quintile to 58 percent of women in the highest two wealth quintiles.

FAMILY PLANNING

Use of Contraception

Forty-three percent of women who are currently married or in union are currently using a contraceptive method, mainly a modern method (40 percent). The methods most commonly used by currently married women are the male condom (13 percent), the pill (9 percent), and the IUD (7 percent). Female sterilization and injectables are each used by 5 percent of women. The 2009 GDHS prevalence rate of 43 percent represents an increase of 8 percentage points since the 2005 GAIS (35 percent). Most of the increase was in condom use, injectables, and female sterilization.

The level of contraceptive use increases with the level of education, from 22 percent among women with no education to 46 percent among women with more than secondary education. The level of contraceptive use increases with the number of living children (up to 4 children), from 16 percent of women with no children to 51 percent of those with 3 to 4 children, after which it decreases to 46 percent for women with 5 or more children. Similarly, the percentage of women currently using contraception increases with women's age, from 30 percent among women age 15-19 to 50 percent among women age 30-34, after which it decreases to reach 33 percent among women age 45-49.

The current use of contraception is similar for women in Urban, Rural, and Coastal areas (42-44 percent), but it is much lower among women in the Interior area (31 percent). The method mix among women in the Urban and Rural areas is slightly different: Rural area women are more likely to use the condom, the pill, and the IUD, while Urban area women are more likely to use the condom, the IUD, and female sterilization.

Unmet Need for Family Planning

Twenty-nine percent of currently married women have an unmet need for family planning, mostly for limiting births (19 percent) compared with spacing (10 percent). Because 43 percent of married women are currently using a contraceptive method (met need), the total demand for family planning is estimated at 71 percent of married women (22 percent for spacing, 49 percent for limiting). As a result, only 60 percent of the total demand for family planning is met.

The unmet need for family planning is highest among youngest women age 15-19 (35 percent, mostly for spacing) and declines with age to 26 to 28 percent among women age 40-49 (mostly for limiting).

In Urban, Rural, and Coastal areas, 27 to 29 percent of women have an unmet need, compared with 37 percent in the Interior area. By region, unmet need ranges from 26 percent in Regions 3 and 10 to 46 percent in Region 1.

Unmet need for spacing increases steadily with education while unmet need for limiting declines with education. As a result, unmet need remains relatively constant among educational groups (28 to 31 percent), with the exception of women with no education who have a much higher percentage of unmet need (41 percent). Both unmet need for spacing and unmet need for limiting are highest for women in the lowest wealth quintile, and they tend to decline with increasing socioeconomic status of the household. Overall, 38 percent of women in the lowest wealth quintile have unmet need for family planning compared with 24 percent of women in the highest quintile.

MATERNAL HEALTH

Antenatal Care

Among women who had a birth in the five years preceding the survey, 92 percent received antenatal care (ANC) from a skilled health provider for their most recent birth (51 percent from a nurse/midwife and 35 percent from a doctor). Older mothers (35-49 years) are less likely to receive antenatal care by a skilled health provider than younger mothers. Eighty-six percent of women with no education received ANC from a skilled health provider compared with 95 percent of women with more than secondary education.

Urban women are more likely than Rural area women to have received antenatal care from a skilled health provider (98 and 90 percent, respectively). The lowest percentage of women who received antenatal care from a skilled health provider is in the Interior area (78 percent). Antenatal care from a skilled health provider is almost universal in Regions 3, 4, 5, 6, and 10, compared with only 35 percent of women in Region 9. Forty-two percent of women in Region 9 received ANC by a community health worker for their most recent birth. Nurses/midwives provide antenatal care for a large proportion of women in Region 6 (79 percent) and in Region 1 (70 percent). On the other hand, a large percentage, more than half (53 percent) of women in Region 4 receive ANC from a doctor.

Antenatal care is more beneficial in preventing adverse outcomes when it is sought early in the pregnancy and is continued through to delivery. Under normal circumstances, the World Health Organization (WHO) recommends that a woman without complications have at least four antenatal care visits, the first of which should take place during the first trimester. Almost eight in ten women (79 percent) with a live birth in the five years preceding the survey had four or more antenatal care visits, as recommended. Almost half of the visits (49 percent) took place during the first trimester, ranging from a low of 42 percent in the Interior area to 67 percent in the Georgetown (urban) area. The median number of months pregnant at the first visit for women who received ANC was 4 months.

Delivery Care

Overall, 92 percent of births in the five years preceding the survey were assisted by a skilled birth provider, mainly by a nurse or midwife (56 percent), followed by a doctor (31 percent). Births to mothers under age 35 and lower order births are more likely to have assistance at delivery by a skilled provider than births to older mothers and higher order births. By residence, births in Urban areas are more likely than those in Rural areas, and births in the Coastal area are more likely than births in the Interior area, to be assisted by a skilled health provider. The percentage of births assisted by a skilled provider ranges from a low of 57 percent in Region 9 to a high of 98 percent in Region 4. Births to mothers who have more education and births in the higher wealth quintiles are more likely to be assisted by a skilled provider than other births. Almost all births to mothers with more than secondary education (98 percent) are assisted by a skilled provider compared with 71 percent of births to mothers with no education.

Caesarean section

One in eight births (13 percent) in the five years preceding the survey was delivered by caesarean section. The prevalence of C-section delivery increases steadily with mother's age and decreases with birth order. Regions 1, 6, 7, and 9 have the lowest levels of deliveries by C-section (2-5 percent) and Region 3 has the highest level (23 percent). The percentage of births delivered by C-section increases with a mother's education and generally increases with her wealth.

CHILD HEALTH

Infant and Child Mortality

Childhood mortality rates in Guyana are relatively low. For every 1,000 live births, 38 children die during the first year of life (infant mortality), and 40 children die during the first five years (under-age 5 mortality). Almost two-thirds of deaths in the first five years (25 deaths per 1,000 live births) take place during the neonatal period (the first month of life). The mortality rate after the first year of life up to age 5 (child mortality) is also very low at 3 deaths per 1,000 live births. The 2009 GDHS mortality data do not show any clear trends over time. However, mortality data have to be interpreted with caution because sampling errors associated with mortality estimates are large.

All indicators of childhood mortality are higher in Urban than in Rural areas. For example, infant mortality is 45 deaths per 1,000 live births in Urban areas and 32 deaths per 1,000 live births in Rural areas. Childhood mortality is higher in the Coastal than in the Interior area for most indicators. The infant mortality rate is 37 deaths per 1,000 live births in the Coastal area compared with 27 deaths per 1,000 live births in the Interior area.

Early childhood mortality is generally lower among children in the poorer quintiles and higher among children in the wealthiest quintiles. For example, children in the wealthiest quintile are more likely to die during the first year of life (44 deaths per 1,000 live births) than children in poor households (25 deaths per 1,000 live births). The patterns in childhood mortality by mother's education are not clear due to the small number of cases under each education category. Mortality rates among children born to the oldest mothers (age 30-39) are almost twice as high as mortality rates among children born to the youngest mothers. Furthermore, higher-parity children (parity 7 or higher) have higher childhood mortality rates than children of birth orders 2 through 6. Short birth intervals (i.e., less than two years) are clearly associated with higher mortality both during and after infancy, supporting the importance of child spacing for child survival.

Almost half the children in Guyana (48 percent) are in so-called avoidable high-risk categories, although mostly in single high-risk categories, because they were born of birth order 4 or higher (13 percent); born after a short birth interval of less than 24 months (9 percent); or born to mothers less than 18 years old and, thus, considered very young (9 percent) or to mothers age 35 or older (4 percent).

Fourteen percent of children in an avoidable high-risk category are classified in the multiple high-risk category, mostly because the mother is 35 years or older and the birth order is high (6 percent); and also because of a short birth interval and a high birth order (5 percent). The latter group of children is of particular concern because they are almost five times more likely to die than children who are not in any high-risk category (the risk ratio is 4.5).

Vaccination Coverage

Overall, 63 percent of Guyanese children age 18-29 months are fully immunized, and only 5 percent of the children received no vaccinations at all. Looking at coverage for specific vaccines, 94 percent of children received the BCG vaccination, 92 percent received the first dose of pentavalent vaccine, and 78 percent received the first polio dose (Polio 1). Coverage for the pentavalent and polio vaccinations declines with subsequent doses; 85 percent of children received the recommended three doses of pentavalent vaccine, and 70 percent received three doses of polio. These figures reflect dropout rates of 8 percent for the pentavalent vaccine and 11 percent for polio; the dropout rate represents the proportion of children who received the first dose of a vaccine but who did not get the third dose. Eighty-two percent of children are vaccinated against measles, and 79 percent of children have been vaccinated against yellow fever.

Full vaccination coverage is lower for first- and sixth- or higher-order births (56 and 50 percent, respectively). Full vaccination coverage decreases with an increase in mother's education, and it is lowest for children in the lowest and highest wealth quintiles. There are no major variations in vaccination coverage by residence. However, children in the Interior area are somewhat less likely to be vaccinated than other children. This is especially true when looking at specific vaccines, indicating a need for scaling up efforts in the Interior area to reach more children and to improve the quality of vaccination services, including recording and monitoring systems.

Illnesses and Treatment

Acute Respiratory Infections (ARI)

Five percent of children under age 5 had symptoms of acute respiratory infection (ARI) in the two weeks preceding the survey. Among children with symptoms of ARI, advice or treatment was sought from a health facility or provider for 65 percent, and antibiotics were prescribed as treatment for 18 percent (data not shown).

Fever

Fever was found to be moderately frequent in children under age 5 in Guyana (20 percent), ranging from 17 percent in children under 6 months to about 26 percent in children 12–17 months.. Most of the children under age 5 with fever (59 percent) were taken to a health facility or a health provider for their most recent episode of fever. Overall, about one in five children with fever (21 percent) received antibiotics, and 6 percent received antimalarial drugs.

Diarrhea

Overall, about 10 percent of children were reported to have diarrhea in the two weeks immediately before the survey, with just 1 percent reporting bloody diarrhea. Overall, about six in ten children under age 5 with diarrhea (59 percent) were taken to a health facility or health provider for advice or treatment. Male children (55 percent) are less likely than female children (63 percent) to be taken for treatment or advice to a health facility or provider. Additionally, children living in the Coastal area are much less likely to be taken for treatment or advice (50 percent) than children in the Interior area (79 percent).

Oral rehydration therapy (ORT) was given to almost six in ten children (59 percent), half of the children (50 percent) received ORS packets or pre-packaged liquid, and one in six (16 percent) received

recommended home fluid (RHF). In total, 64 percent of children with diarrhea received ORT or increased fluids.

Antibiotics are generally not recommended to treat non-bloody diarrhea in young children. Twelve percent of children with diarrhea received antibiotics, even though only 1 percent of children under age 5 had a bloody diarrhea. Four percent of children received antimotility drugs, and 1 percent received zinc supplements. One in four children (25 percent) received home or other remedies for their diarrhea.

About one in five children with diarrhea (18 percent) did not receive any treatment at all. Urban children are more than twice as likely as rural children (36 versus 15 percent) and children living in the Coastal area are almost five times as likely as children in the Interior area (24 percent versus 5 percent) to receive no treatment at all for their diarrhea.

NUTRITION OF CHILDREN

Height and Weight

Almost one in five children (18 percent) under age 5 is short for age or stunted, and one in twenty (5 percent) is severely stunted. As expected, stunting, which reflects chronic malnutrition, rises with age during the first year. Stunting is lower among children whose mothers have more than secondary education (16 percent). Children in Rural areas are almost twice as likely to be stunted as children in Urban areas (20 and 11 percent, respectively). The highest levels of stunting are found among children in the Interior area (35 percent).

Based on the weight-for-age index, 11 percent of children (over one in ten) in Guyana are underweight, and about 2 percent are severely underweight. Boys are somewhat more likely to be underweight than girls (12 and 9 percent, respectively), and children in Rural areas are more likely to be underweight than children in Urban areas (12 and 7 percent, respectively).

Based on the weight-for-height index, 5 percent of children under age 5 are considered wasted, and just 1 percent are severely wasted.

Anemia

Overall, about four in ten (39 percent) children age 6-59 months have some level of anemia, including 23 percent of children who are mildly anemic, 15 percent who are moderately anemic, and less than 1 percent with severe anemia. Prevalence of any anemia is highest for children 9-11 months (74 percent) and lowest for those 36-59 months (25 to 28 percent). More than half of children in Region 1 are anemic (51 percent) compared with three in ten (30 percent) in Region 8. The percentage of children with anemia is lowest among children of mothers with secondary or higher education (38-40 percent) and among children of mothers in the highest wealth quintile (32 percent).

Malaria

Eighty-nine percent of households own a mosquito net, whether treated or untreated, and 66 percent of households own more than one net. Rural households are more likely to own at least one net than urban households (90 percent versus 85 percent). About nine in ten households (89 percent) in the malaria-endemic regions (Regions 1, 7, 8, and 9) have at least one mosquito net.

About three in ten households (29 percent) own at least one ever-treated net, and more than one in four (26 percent) households owns an insecticide-treated net. Rural area households are more than twice

as likely as Urban area households to own an ITN (31 percent versus 13 percent), and households in the Interior area are more likely than those in the Coastal area to own at least one ITN (34 percent versus 25 percent). About four in ten households in the malaria-endemic regions (38 percent) have at least one ITN. The percentage of households with at least one ITN is lowest for households in the highest wealth quintile (17 percent) compared with other households (25 to 29 percent).

The average number of mosquito nets per household is two.

Eight in ten children under age 5 in all households in Guyana slept under a mosquito net (treated or untreated) the night before the survey; about three in ten (29 percent) slept under an ever-treated net; and about one in four (24 percent) slept under an ITN. In households that own at least one ITN, a substantially larger proportion of children under age 5 slept under an ITN the night before the survey (81 percent).

HIV/AIDS

Knowledge of HIV Prevention Methods

Knowledge of AIDS is almost universal in Guyana—97 percent of women and men have heard of AIDS. There are minor variations in knowledge of AIDS by age, marital status, or residence. The only exception is the level of knowledge in the Interior area, which is the lowest for both women (89 percent) and men (95 percent).

More than eight in ten respondents age 15-49 know that consistent use of condoms is a means of preventing the spread of HIV (81 percent of women and 84 percent of men) and that limiting sexual intercourse to one HIV-negative and faithful partner can reduce the chances of contracting HIV (82 percent of women and 85 percent of men).

A smaller proportion of respondents (73 percent of women and 77 percent of men) reported that both methods—using condoms and limiting sexual intercourse to one HIV-negative partner who has no other partners—are ways of avoiding HIV transmission. Thus, knowledge is higher among men than women for each of the three specified prevention methods.

An equal proportion of women and men age 15-49 (78 percent, each) know that abstinence is a way to reduce risk of getting HIV.

Beliefs about AIDS

About nine in ten Guyanese adults know that a healthy-looking person can have the AIDS virus (87 percent of women and men) or that AIDS cannot be transmitted by supernatural means (87 percent of women and 88 percent of men). About three-quarters of women (73 percent) and two-thirds of men (65 percent) are aware that the AIDS virus cannot be transmitted through mosquito bites. Furthermore, 84 percent of women and 79 percent of men know that the AIDS virus cannot be contracted by sharing food with a person who has AIDS. These findings show that the two most common local misconceptions are that the HIV virus can be transmitted (1) by mosquito bites and (2) by sharing food with someone with AIDS.

Overall, more than half of women (53 percent) and more than four in ten men (46 percent) in Guyana have a comprehensive knowledge of HIV/AIDS transmission and prevention methods, i.e., they know that condom use and limiting sex to one uninfected partner are HIV prevention methods; they are aware that a healthy looking person can have the AIDS virus; and they reject the two most common local

misconceptions (that AIDS can be transmitted by mosquito bites and by sharing food with someone with AIDS).

Younger women are somewhat more likely to have a comprehensive knowledge about AIDS than older women, while among men there is no major difference by age. Respondents who have ever had sex have a much higher level of comprehensive knowledge than those who have never had sex. Currently married women (48 percent) are less likely than never married women (61 percent) or formerly married women (60 percent) to have a comprehensive knowledge of AIDS, while among men the variation is not pronounced. Urban respondents and those living in the Coastal area are much more likely to have comprehensive knowledge about AIDS than respondents in the Rural and Interior areas. For example, 70 percent of women in Urban areas have comprehensive knowledge about AIDS compared with 46 percent of women in Rural areas; and 54 percent in the Coastal area have such knowledge compared with 41 percent of women in the Interior area.

For women, the lowest percentage of comprehensive knowledge about AIDS is in Region 9 (31 percent) and the highest is in Region 10 (63 percent), while for men it ranges from 26 percent in Region 5 to 64 percent in Region 10.

Education and wealth status have a strong positive correlation with the likelihood of having a comprehensive knowledge of AIDS. The percentage with comprehensive knowledge increases from 20 percent among women and 11 percent among men with no education to 78 and 75 percent, respectively, among women and men with secondary or higher education. Similar patterns are observed in the variation of this indicator by wealth. Thirty-two percent of women and 28 percent of men in the lowest wealth quintile have a comprehensive knowledge of AIDS compared with 68 percent of women and 65 percent of men in the highest wealth quintile.

Mother-to-Child Transmission

About eight in ten women (79 percent) and seven in ten men (67 percent) know that HIV can be transmitted by breastfeeding. Sixty-eight percent of women and 54 percent of men are aware that the risk of mother-to-child transmission (MTCT) can be reduced by the mother taking drugs during pregnancy.

Overall, 60 percent of women and 43 percent of men know both facts: (1) HIV can be transmitted through breastfeeding and (2) the risk of MTCT can be reduced by the mother taking special drugs during pregnancy.

Both individual indicators, as well as the combination indicator (knowledge that HIV can be transmitted by breastfeeding and knowledge that the risk of MTCT can be reduced by the mother taking special drungs during pregnancy), have shown significant improvement over the same period. For women, knowledge of the combination indicator has increased from 39 percent in 2005 to 60 percent in 2009, and for men it has increased from 28 percent in 2005 to 43 percent in 2009.

Attitudes toward Negotiating Safer Sex

Almost nine in ten respondents (89 percent of women and 88 percent of men) feel that a wife is justified in refusing to have sexual intercourse with her husband if she knows that he has a sexually transmitted disease. Ninety-six percent of women and men agree that a woman is justified in either refusing sexual intercourse with her husband or in asking him to use a condom if she knows that he has an STI.

Attitudes toward Educating Children on Condom Use

Overall, more than eight in ten women (81 percent) and men (86 percent) age 18-49 agree that children age 12-14 should be taught to use condoms to avoid AIDS. Older respondents age 40-49 are

slightly less likely than younger respondents to support education of children age 12-14 about condom use to prevent AIDS. Women and men living in the Coastal area (82 and 86 percent, respectively) are more likely than women and men living in the Interior area (73 and 82 percent, respectively) to agree about education on condom use of children age 12-14.

Fifty-eight percent of women and 61 percent of men with no education agree on instructing children age 12-14 about condoms, compared with 85 percent of women and 86 percent of men with more than secondary education. For women, the percentage who agree that children age 12-14 should be taught about condoms increases from 72 percent among those in the lowest wealth quintile to 85 percent among women in the highest wealth quintile. Among men, there is no clear pattern in the variation of this indicator by wealth.

Higher-risk Sex

A larger proportion of men (10 percent) than women (1 percent) reported having had more than one sexual partner in the 12 months preceding the survey. Additionally, a higher percentage of men (30 percent) than women (17 percent) reported having had sex with a person who was neither their spouse nor their cohabiting partner (higher-risk sex) in the year before the survey.

Among respondents who reported having had higher-risk intercourse (with a person who was neither their husband nor who lived with them) in the past 12 months, about half of women (52 percent) and seven in ten men (72 percent) used a condom at the last higher-risk sex. The smaller proportions of women with multiple partners, higher-risk sexual intercourse, and condom use, compared with men, may accurately reflect the context, but it may also reflect a bias from some women being hesitant to report behavior that may not be widely accepted.

Condom use in the past 12 months by respondents who had higher-risk sexual intercourse is more likely among young people age 15-19, never married respondents, respondents living in an Urban area, women living in the Coastal area, and respondents in Region 10. Condom use during last higher-risk sexual intercourse is higher among men with more than secondary education. For both women and men, it is highest among those in the highest wealth quintile.

HIV/AIDS-Related Knowledge and Sexual Behavior among Young Adults

About half of respondents age 15-24 (54 percent of women and 47 percent of men) have a comprehensive knowledge of AIDS (i.e., they know that people can reduce their chances of getting the AIDS virus by having sex with only one uninfected, faithful partner and by using condoms consistently; know that a healthy-looking person can have the AIDS virus; and know that HIV cannot be transmitted by mosquito bites or by supernatural means).

Overall, about four in ten women age 15-24 (41 percent) and men age 15-24 (39 percent) in Guyana have never had sex, and an additional 6 percent of women and 9 percent of men have had sex but not in the 12 months before the survey. Furthermore, the proportion of young people who had multiple sexual partners in the past 12 months is not large—1 percent of women and 12 percent of men. Less than 1 percent of young women and 3 percent of young men who had sex with more than one partner in the past 12 months did not use a condom the last time they had sex.

One in ten women (10 percent) age 15-24 and one in five men (19 percent) age 15-24 had sex by age 15, up from 9 and 13 percent, respectively, in the 2005 GAIS. The percentage of respondents age 18-24 who had sex before exact age 18 increases rapidly to 46 percent for women and 60 percent for men, a decrease from 59 percent for women and 68 percent for men in the 2005 GAIS.

Condom use at first sex is not very common in Guyana. Among young adults age 15-24 who have ever had sexual intercourse, only 46 percent of females and 54 percent of males used a condom the first time they had sex. Never-married women and men (63 and 59 percent, respectively) are much more likely to use a condom at first sex than those who have been married (34 and 35 percent, respectively). Use is also markedly higher among respondents who know where to obtain a condom (49 percent of women and 55 percent of men) than among those who do not have such knowledge (27 percent of women and 25 percent of men). Young women and men who live in Urban areas and in the Coastal area, and those who live in Region 10, are more likely to use a condom at first sex than other young adults. As expected, young women and men with more than secondary education (68 and 58 percent, respectively) and in the highest wealth quintiles (64 and 58 percent, respectively) are the most likely to use a condom at first sex compared with those who have less or no education or are in the lowest wealth quintiles.

Among youth who had sexual intercourse in the past 12 months, higher-risk sex is more common among young men (80 percent) than among young women (42 percent). Condom use at last higher-risk sexual intercourse is also higher among young men (78 percent) than young women (56 percent). Higher-risk sex is more prevalent among younger respondents and among those who have never married. Urban respondents age 15-24 and those living in the Coastal area are more likely to have higher-risk sexual intercourse than rural respondents and those living in the Interior area. The variation is more pronounced among women than men. The proportion of youth age 15-24 who reported higher-risk sexual intercourse in the 12 months preceding the survey increases with level of education and wealth quintile. Condom use at the last higher-risk sex generally follows the same patterns.

BASIC INDICATORS

Fertility Levels and Preferences

Total fertility rate for three years preceding the survey (average number of children at end of reproductive life)	2.8
Percentage of women who want no more children (includes sterilized women)	61.2
Percentage of women who want more children soon	14.0
Percentage of women who want more children later	15.5

Mortality in the Five-Year Period Preceding the Survey (deaths per 1,000 births)

Infant mortality rate (deaths in the first year per 1,000 births)	38
Under-5 mortality rate (deaths in the first five years of life per 1,000 births)	40

Contraceptive Knowledge and Use among All Women and Currently Married Women

Percentage of currently married women using any method	42.5
Percentage of currently married women using modern methods	40.0

Antenatal and Delivery Care for Women with Births in the Five Years Preceding the Survey

Percentage of women who received an antenatal checkup from a health professional	92.1
Percentage of women whose last birth was protected against neonatal tetanus[1]	34.5
Percentage of live births in the five years preceding the survey delivered by a skilled provider	91.9
Percentage of live births in the five years preceding the survey delivered in a health facility	89.0

Vaccinations at Any Time (from health card and mother's report)

Percentage of children age 18-29 months who received BCG vaccine at any time	94.1
Percentage of children age 18-29 months who received pentavalent 3 vaccine at any time	84.7
Percentage of children age 12-29 months who received polio 3 vaccine at any time	70.0
Percentage of children age 12-29 months who received MMR vaccine at any time	66.6
Percentage of children age 12-29 months who received yellow fever vaccine at any time	79.0
Percentage of children age12-29 months who received all basic vaccines at any time[2]	63.4

Treatment for Children under Age 5 with Symptoms of Acute Respiratory Infection (ARI) and Diarrhea in Two Weeks Preceding the Survey

Percentage of children with symptoms of ARI for whom treatment was sought from a health facility or provider	65.3
Percentage of children with fever for whom treatment was sought from a health facility or provider	59.0
Percentage of children with diarrhea for whom treatment was sought from a health facility or provider	58.8
Percentage of children with diarrhea who were given a solution made from packets of oral rehydration salts (ORS)	49.8
Children with diarrhea who received oral rehydration therapy (ORT)[3]	59.0

Infant Feeding and Nutritional Status

Percentage of children under age 4 months exclusively breastfeeding	42.4
Percentage of children under age 4 months breastfeeding and consuming plain water only	1.5
Percentage of children under age 4 months using a bottle with a nipple	33.7
Percentage of children under age 5 years stunted (short for their age)	18.2
Percentage of children under age 5 years severely stunted	5.3
Percentage of children under age 5 years underweight	10.5
Percentage of children under age 5 years severely underweight	1.6
Percentage of children age 6-59 months with anemia	39.3
Percentage of households with adequately iodized salt[4]	10.5

Malaria Indicators

Percentage of households with at least one Insecticide Treated Net (ITN)	25.6
Percentage of children under 5 who slept under an ITN the night before the interview	24.4
Percentage of pregnant women age 15-49 who slept under an ITN the night before the interview	30.1
Among children under age 5 with fever in the two weeks preceding the survey, percentage who took antimalarial drugs	6.4
Among children under age 5 with fever in the two weeks preceding the survey, percentage who took antimalarial drugs the same day/next day after developing fever	4.3

AIDS-Related Knowledge and Attitudes

	Women	Men	Total
Percentage of respondents age 15-49:			
Who have heard of AIDS	97.0	97.4	97.2
With knowledge of using condoms as a specific way to avoid AIDS	81.3	83.9	82.4
With knowledge of limiting sexual intercourse to one uninfected partner who has no other partners	82.3	84.7	83.3
With knowledge of abstaining from sexual intercourse as a specific way to avoid AIDS	78.2	77.8	78.0
Who had higher-risk sexual intercourse in the last 12 months[4]	16.7	29.2	21.9
Using condoms at high-risk sexual intercourse in the last 12 months (among married respondents)[5]	52.2	71.5	62.9

[1] Includes mothers with two injections during the pregnancy of her last birth (19 percent), or two or more injections (the last within 3 years of the last live birth), or three or more injections (the last within five years of the last birth), or four or more injections (the last within ten years of the last live birth), or five or more injections prior to the last birth

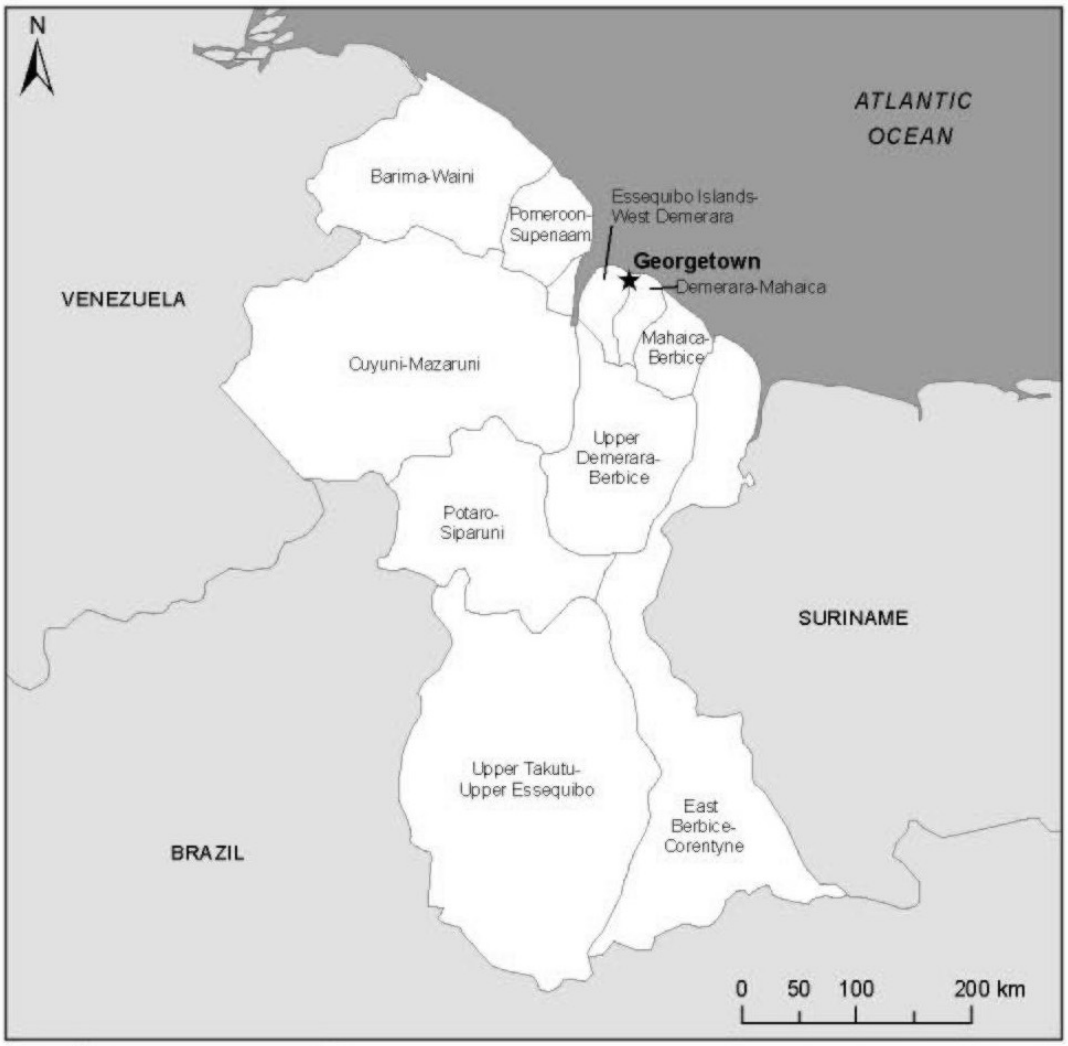
[2] Measles and three doses each of pentavalent and polio vaccines

[3] ORS packets, pre-packaged liquid, or recommended home fluids

[4] Salt containing 15 part per million (ppm) of iodine or more. Excludes households where salt was not tested.

[5] Sexual intercourse with a partner who was neither a spouse nor who lived with the respondent, among those who had sexual intercourse

GUYANA


N
ATLANTIC OCEAN
Barima-Waini
Pomeroon-Supenaam
Essequibo Islands-West Demerara
Georgetown
Demerara-Mahaica
VENEZUELA
Mahaica-Berbice
Cuyuni-Mazaruni
Upper Demerara-Berbice
Potaro-Siparuni
SURINAME
Upper Takutu-Upper Essequibo
East Berbice-Corentyne
BRAZIL
0 50 100 200 km

INTRODUCTION 1

1.1 OVERVIEW

The 2009 Guyana Demographic and Health Survey (2009 GDHS) is a nationally representative sample survey of women, men, and children. The survey is designed to obtain information on fertility and family planning, sexual activity and awareness of HIV and other infections, infant and child mortality, and the health and nutritional status of mothers and children. The survey was conducted in Guyana by the Bureau of Statistics (BOS) and the Ministry of Health (MOH). ICF Macro of Calverton, Maryland, provided technical assistance to the project through its contract with the U.S. Agency for International Development (USAID). Funding to cover technical assistance by ICF Macro and local costs was provided entirely by the USAID mission in Georgetown, Guyana.

1.2 OBJECTIVES

The primary objective of the 2009 GDHS was to collect information on the following topics:

- Characteristics of households and household members
- Fertility and reproductive preferences, infant and child mortality, and family planning
- Health-related matters, such as breastfeeding, antenatal care, children's immunizations, and childhood diseases
- Marriage, sexual activity, and awareness and behavior regarding HIV and other sexually transmitted infections (STIs)
- The nutritional status of mothers and children, including anthropometry measurements and anemia testing

Other complementary objectives of the 2009 GDHS were:

- To support dissemination and utilization of the results in planning, managing, and improving family planning and health services in the country
- To enhance the survey capabilities of the institutions involved to facilitate their use of surveys of this type in the future

1.3 SAMPLE DESIGN

The 2009 GDHS utilized a two-stage sample design. The 2002 Population and Housing Census served as the master sample for the GDHS survey. In 2000, the Guyana BOS, in collaboration with the U.S. Census Bureau, designed a sampling frame from the census master sample. In the same year, BOS updated the geographical location and household listing of each primary sampling unit included in the master sample; this work was supported in part by USAID.

In the first stage, 330 clusters, or enumeration districts (EDs), were selected from the master sample. In the second stage, 25 households were selected by systematic random sampling from the updated household listing of the selected EDs.

Administratively, Guyana is divided into 10 regions, with 71 percent of the population dispersed in rural areas. The rural areas of Regions 3, 4, and 6 are the most densely populated. Regions 1, 7, 8, and 9 each account for less than 4 percent of the rural population, and Region 5 accounts for 10 percent.

Region 4 includes almost two-thirds (64 percent) of the urban population. Because of these variations in population density, the sample was not allocated by region according to the actual distribution of the population. A minimum of 400 households were allocated to each region. The largest numbers of households were allocated to Regions 4 (1,600 households) and 6 (1,000 households). Around 600 to 650 households were allocated to each of Regions 2, 3, and 10. Table 1.1 shows the number of households and clusters allocated by region and by the main sample domains—Coastal (urban), Coastal (rural), and Interior. Additional details on how the sample was allocated by domains and procedures are included in Appendix A.

All women and men age 15-49 who were either permanent residents or visitors present in the selected households the night before the interview were eligible to be interviewed in the survey.

1.4 QUESTIONNAIRES

Three questionnaires were used for the 2009 GDHS: the Household Questionnaire, the Women's Questionnaire, and the Men's Questionnaire. The contents of these questionnaires were based on the model questionnaires developed by the MEASURE DHS program. In consultation with USAID/Guyana, technical institutions, and local and international organizations, the contents of the model questionnaires were modified to reflect relevant issues in population, family planning, and other health issues in Guyana.

The Household Questionnaire was used to list all the usual members and visitors in the selected households. The following basic information was collected:

- Characteristics of each person listed, including age, sex, education, and relationship to the head of the household. As a result, women and men who would be eligible for a subsequent individual interview could be identified.
- Characteristics of the household's dwelling unit, such as the source of water, type of toilet facilities, materials used for the floor of the house, ownership of various durable goods, and ownership and use of mosquito nets.
- Height and weight measurements of women age 15-49 and children under age 6, as well as the results of anemia testing.

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

- Background characteristics (e.g., education, residential history, media exposure)
- Birth history and childhood mortality
- Knowledge and use of family planning methods
- Fertility preferences
- Antenatal and delivery care for children born after January 2004
- Breastfeeding and infant feeding practices
- Vaccinations and illnesses for children born after January 2004
- Marriage and sexual activity
- Woman's work and husband's background characteristics
- Awareness and behavior regarding AIDS and other STIs

The Men's Questionnaire was administered to all men age 15-49 living in households included in the 2009 GDHS sample. The Men's Questionnaire collected information similar to that of the Women's Questionnaire but was shorter because it did not include a reproductive history or questions on maternal and child health and nutrition. The following topics were addressed:

- Background characteristics (e.g., education, residential history, media exposure)

- Reproductive history and basic health questions about last birth
- Knowledge and use of family planning methods
- Fertility preferences
- Marriage and sexual activity
- Employment and gender roles
- Awareness and behavior regarding AIDS and other sexually transmitted infections (STIs)

1.5 PRETEST ACTIVITIES, TRAINING, AND FIELDWORK

A training of trainers took place in early December 2008. One hundred and twelve candidates (50 men and 62 women) participated in the main survey training of interviewers, supervisors, and field editors, which took place on December 9-19, 2008, and January 12-22, 2009. Special parallel training sessions for supervisors and editors were conducted on January 19-21. All participants received training in interviewing techniques and became acquainted with the contents of the survey questionnaires. The training was conducted following standard DHS procedures and included class presentations, mock interviews, and tests in which the actual 2009 GDHS questionnaires were used. During the last week of January 2009, the editors of each team received training and instruction on how to use measuring boards and scales to conduct anthropometric measurements (height and weight) of women and young children and on how to conduct anemia testing. Because the beginning of fieldwork was delayed, a refresher training course was conducted on February 24-26, 2009.

Data collection for the 2009 GDHS took place over a five-month period from March 1 through late July 2009 and was carried out by 16 interviewing teams. Each team consisted of one team supervisor, one field editor, two female and two male interviewers, and one driver. In total, 96 fieldworkers completed work first in the Coastal enumeration districts (Regions 2, 3, 4, 5, and 10). At a later stage, 60 fieldworkers were selected to work in the Interior districts (Regions 1, 7, 8, 9, and 10). Staff from the Bureau of Statistics was responsible for coordinating and supervising fieldwork activities. Two nurses supervised the anthropometry and anemia testing. ICF Macro staff participated in the survey, assisting with questionnaire design, training for data collection, data processing and tabulation, field supervision of interviews, and training in anthropometry and anemia testing.

1.6 DATA PROCESSING

The processing of the 2009 GDHS questionnaires began on March 16, 2009, shortly after fieldwork commenced. Completed questionnaires were submitted periodically to BOS offices in Georgetown, where they were edited by data processing personnel who had been trained specifically for this task by ICF Macro staff. Data processing was done concurrently with fieldwork using CSPro, a program specially developed for use in complex surveys. The concurrent processing of the data was an advantage because field check tables were produced periodically to advise field teams of any problems that were detected during data processing. Data processing was completed in late August 2009.

1.7 RESPONSE RATES

Table 1.1 shows the number of households selected and interviewed, numbers of women and men eligible for individual interviews, and their response rates (percentage of interviews), according to residence and region.

- Of the 6,376 selected households, 6,042 households were occupied, and a total of 5,632 households were interviewed, yielding a household response rate of 93 percent. By residence, the household response rate is lowest in urban areas (91 percent), especially in Georgetown (86 percent), and highest in Interior areas of the country (96 percent). By region, the household response rate ranges from 89 percent in Region 4 to 99 percent in Region 8.

- In the households interviewed, a total of 5,547 eligible women were identified. Interviews were completed with 4,996 of these women, yielding a response rate for women of 90 percent. The women's response rates were lowest in the Interior areas (86 percent) and in Region 1 (83 percent) and highest in the Coastal areas (92 percent) and Region 2 (95 percent).
- Of the 4,553 eligible men identified in the same interviewed households, a total of 4,553 men were identified. Interviews were conducted with only 3,522 men, yielding a response rate for men of 77 percent. Men from the Interior area (70 percent) and from Region 1 (62 percent) have the lowest response rates, while men in Urban and Coastal (urban) areas (82 percent, each) have the highest response rates.
- The primary reason for non-response among eligible women and men was the failure to find individuals at home despite repeated visits to the household. The substantially lower response rate for men reflects the more frequent and longer absences of men from the household, principally related to employment and lifestyle activities (data not shown).

Table 1.1 Results of the household and individual interviews

Number of households and individual interviews, and response rates (percentage of interviews), according to residence and region, Guyana 2009

	Households				Women			Men		
Residence and region	Number of households selected	Number of households occupied	Number of households interviewed	Household response rate	Number of eligible women	Number of eligible women interviewed	Women response rate	Number of eligible men	Number of eligible men interviewed	Men response rate
Residence										
Total Urban	1,779	1,670	1,518	90.9	1,558	1,420	91.1	1,230	1,013	82.4
Georgetown (urban)	760	694	598	86.2	614	554	90.2	485	394	81.2
Other (urban)	1,019	976	920	94.3	944	866	91.7	745	619	83.1
Total Rural	4,597	4,372	4,114	94.1	3,989	3,576	89.6	3,323	2,509	75.5
Total Coastal	4,714	4,477	4,123	92.1	4,078	3,738	91.7	3,378	2,697	79.8
Coastal(urban)	1,779	1,670	1,518	90.9	1,558	1,420	91.1	1,230	1,013	82.4
Coastal (rural)	2,935	2,807	2,605	92.8	2,520	2,318	92.0	2,148	1,684	78.4
Total Interior	1,662	1,565	1,509	96.4	1,469	1,258	85.6	1,175	825	70.2
Region										
1	387	383	370	96.6	345	287	83.2	288	179	62.2
2	623	605	574	94.9	534	505	94.6	438	386	88.1
3	645	609	565	92.8	564	520	92.2	423	326	77.1
4	1,600	1,491	1,319	88.5	1,314	1,179	89.7	1,111	861	77.5
5	489	479	452	94.4	431	404	93.7	393	319	81.2
6	977	937	881	94.0	881	817	92.7	771	614	79.6
7	367	351	334	95.2	330	290	87.9	221	165	74.7
8	308	304	302	99.3	302	256	84.8	248	169	68.1
9	382	335	322	96.1	317	280	88.3	261	195	74.7
10	598	548	513	93.6	529	458	86.6	399	308	77.2
Total	6,376	6,042	5,632	93.2	5,547	4,996	90.1	4,553	3,522	77.4

The weighted and unweighted numbers of women and men in the 2009 GDHS are shown in Table 1.2. The weighted numbers are shown because weighting is necessary for the calculation of most indicators—percent distributions, percentages, and rates. This is because the sample was not allocated by region according to the actual distribution of the population. Instead, the sample was allocated to provide a sufficient number of respondents for each region to allow calculation of most survey variables at the regional level. The unweighted numbers are the actual numbers of interviews. Some subgroups shown may include comparatively small numbers of respondents (e.g., respondents with no education and those in some religious and ethnic groups). In some tables in this report, estimates for these subgroups are not shown if the unweighted number of cases is fewer than 25. Also, estimates based on 25 to 49 unweighted cases are shown enclosed in parentheses.

- Although only 1,179 women were interviewed in Region 4 (24 percent of the total unweighted number of all women), the weighted number is 2,168 women (43 percent of the total weighted

number of women). On the other hand, 280 women were interviewed in Region 9 (6 percent of the total unweighted number of all women), and the weighted number is 78 women (2 percent of the total weighted number of women).

- The regional distribution of the population shows no marked differences by sex, with around three in ten women (30 percent) and men (27 percent) living in Urban areas, with two-thirds of these living in Georgetown. Approximately nine in ten respondents of both sexes (90 percent of women and 89 percent of men) live in the Coastal areas, with the majority (60 percent of women and 62 percent of men) living in the Coastal (rural) areas. Only one-tenth of the respondents (10 percent of women and 11 percent of men) live in the Interior areas of the country.

Table 1.2 Number of women and men interviewed by residence and region

Percent distribution of women age 15-49 and men age 15-49, by residence and region, Guyana 2009

Residence and region	Women			Men		
	Weighted percent	Weighted number	Unweighted number	Weighted percent	Weighted number	Unweighted number
Residence						
Total Urban	29.5	1,475	1,420	27.0	949	1,013
Georgetown (urban)	19.4	967	554	17.6	619	394
Other (urban)	10.2	508	866	9.4	330	619
Total Rural	70.5	3,521	3,576	73.0	2,573	2,509
Total Coastal	90.0	4,495	3,738	88.7	3,126	2,697
Coastal (urban)	29.5	1,475	1,420	27.0	949	1,013
Coastal (rural)	60.4	3,019	2,318	61.8	2,176	1,684
Total Interior	10.0	501	1,258	11.3	396	825
Region						
Region 1	3.2	162	287	4.5	160	179
Region 2	5.9	293	505	5.1	179	386
Region 3	13.8	687	520	11.9	420	326
Region 4	43.4	2,168	1,179	43.7	1,540	861
Region 5	7.1	353	404	7.7	271	319
Region 6	15.6	780	817	16.7	587	614
Region 7	2.1	104	290	1.7	61	165
Region 8	1.9	95	256	1.9	68	169
Region 9	1.6	78	280	1.6	57	195
Region 10	5.6	277	458	5.1	178	308
Total	100.0	4,996	4,996	100.0	3,522	3,522

1.8 CONTENTS OF THE REPORT

Chapter 1, which is introductory, includes a description of the country and its population history, selected health and demographic characteristics, and an overview of the health care system. It also includes the 2009 GDHS objectives, a brief summary of the survey design and implementation, the sample design, and data on the numbers of households and individuals selected for interview and corresponding response rates.

Chapter 2 describes the background characteristics of the household population and its dwelling conditions.

Chapter 3 contains information on the basic characteristics of the eligible respondents, including their educational level, work status, and occupation.

Chapter 4 describes the current and past fertility of the population. The chapter also presents information on the beginning of a woman's childbearing years, including the age when she first gives birth, as well as her current level of fertility.

Chapter 5 includes information on one of the main determinants of fertility, use of family planning. Information on the current and ever use of specific methods by age and background characteristics is included here.

Chapter 6 includes factors other than contraception that regulate the level of fertility, such as marriage patterns and sexual activity.

Chapter 7 discusses fertility preferences, the desire to limit childbearing, the ideal number of children, and the unmet need for contraception**.**

Chapter 8 describes the current and past levels of infant and child mortality, as well as differentials in childhood mortality, by demographic and background characteristics. Also included is information on the extra risk in infant and child mortality incurred by certain reproductive behaviors.

Chapter 9 presents findings from areas important to reproductive and women's health (i.e., antenatal, delivery, and postnatal care), as well as general access to health services.

Chapter 10 presents the impact on child health indicators of children being born in the five years preceding the survey, including weight and size at birth, vaccination status as children, and history of childhood illnesses (acute respiratory infection, fever, and diarrhea, for example) and their treatment**.**

Chapter 11 presents data on the nutritional status of children and adults. The section on childhood nutrition covers anthropometric assessment of the nutritional status of children under age 5; infant and young child feeding practices, including breastfeeding and feeding with solid/semi-solid foods; diversity of foods being fed; frequency of feeding; micronutrient status; supplementation and fortification; and anemia. The section on adult nutrition covers the nutritional status of women and men age 15-49; the diversity of foods eaten by mothers of children under age 3; micronutrient status, supplementation and fortification; and presence of anemia.

Chapter 12 describes the availability and use of preventive measures for malaria among women and children, as well as access to early diagnosis and prompt treatment. This chapter also describes knowledge about tuberculosis (TB) and its mode of transmission, diagnosis, and treatment among men and women.

Chapter 13 presents information collected from the HIV/AIDS module, including knowledge of HIV/AIDS, attitudes about HIV/AIDS, and behavior among adults and youth at risk for HIV/AIDS.

Chapter 14 presents indicators of women's empowerment, such as receipt of cash earnings, the magnitude of a woman's earnings relative to those of her husband, and control over the use of woman's earnings and the earnings of her husband. Three separate indices of empowerment are developed that are based on the number of household decisions in which the respondent participates, her opinion on the number of reasons that justify wife beating, and her opinion on the number of circumstances for which a woman is justified in refusing to have sexual intercourse with her husband.

The sample design is described in Appendix A, and the estimates of sampling errors are covered in Appendix B. Appendix C contains several tables that may be of use in examining the quality of some data collected in the 2009 GDHS: single-year age distribution of the de facto household population by sex; age distribution of the eligible respondents; completeness of reporting of basic indicators; distribution of births by calendar years; reporting of age at death in days, and reporting of age at death in months. Appendix C also includes tables showing the percentage of children under age 5 who are classified as malnourished according to three anthropometric indices of nutritional status—height-for-age, weight-for-height, and weight-for-age—based on the former NCHS/CDC/WHO International Reference

Population. Shown for comparative purposes, is the vaccination coverage for children following the DHS program schedule, which includes neither yellow fever nor measles, mumps, rubella (MMR) vaccine (only measles). Full immunization in Guyana includes BCG, MMR, yellow fever, and three doses each of pentavalent and polio vaccines.

Finally, the survey personnel are listed in Appendix D, and the questionnaires are included in Appendix E.

HOUSEHOLD POPULATION AND HOUSING CHARACTERISTICS 2

This chapter summarizes demographic and socioeconomic characteristics of the household population, including age, sex, place of residence, educational status, and household characteristics. Information collected on the characteristics of the households and individual respondents in the survey helps one to understand and interpret the findings of the survey and also provides some indication of the representativeness of the survey.

A household is defined as a person or group of related and unrelated persons who (1) live together in the same dwelling unit(s) or in connected premises, (2) acknowledge one adult member as head of the household, and (3) have common arrangements for cooking and eating their food. The questionnaire for the 2009 GDHS distinguishes between the de jure population (persons who usually live in a selected household) and the de facto population (persons who stayed the night before the interview in the household). According to the 2009 GDHS data, the differences between these populations are small. Tabulations for the household data presented in this chapter are primarily based on the de facto population.

The number of cases in some regions may appear small. This is because they have been weighted to make the regional distribution appear nationally representative. Throughout this report, numbers in the tables reflect weighted numbers. To ensure statistical reliability, percentages based on 25 to 49 unweighted cases are shown within parentheses, and percentages based on fewer than 25 unweighted cases are suppressed.

2.1 CHARACTERISTICS OF THE POPULATION

2.1.1 Age-Sex Structure

Age and sex are important demographic variables. They serve as the primary basis for demographic classification in vital statistics, censuses, and surveys. Age and sex are also important variables in the study of mortality, fertility, and nuptiality. Table 2.1 presents the percent distribution of the de facto population by five-year age groups, according to Urban-Rural residence and sex. The data are used to construct the population pyramid shown in Figure 2.1.

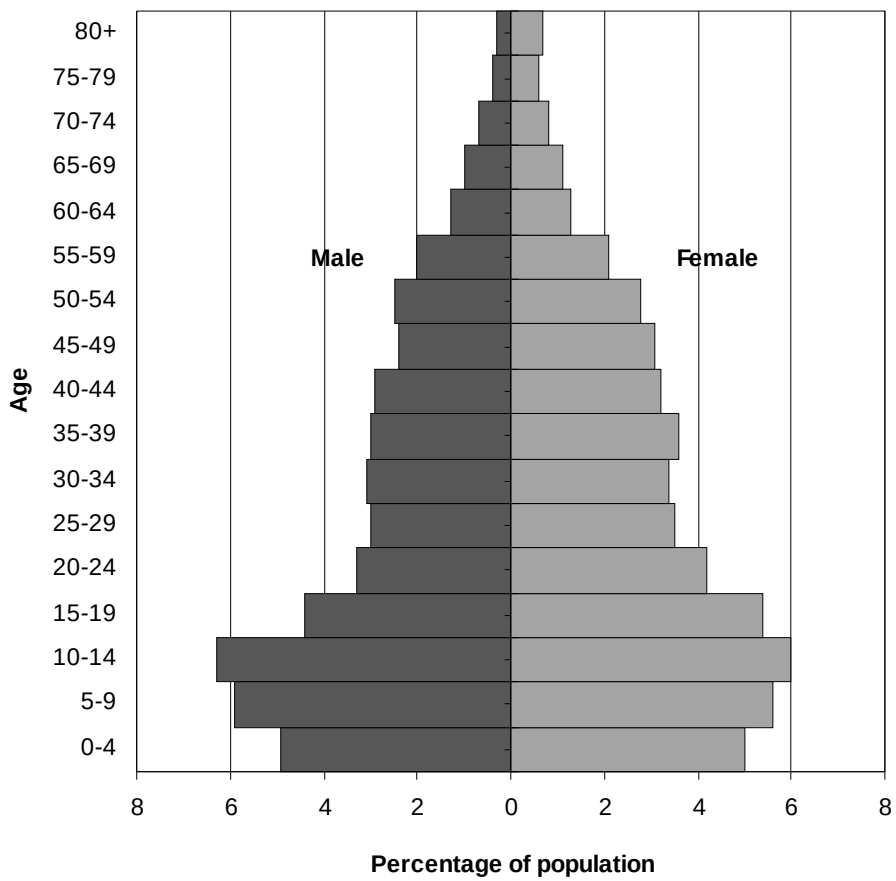
- Guyana has a larger proportion of its population in younger age groups than in older age groups (65+). One third (34 percent) of the population is under age 15 (36 percent male and 31 percent female) compared with only 5 percent of males and 6 percent of females age 65 and older.
- Sixty-one percent of the household population (59 percent of males and 62 percent of females), however, are in the economically productive age range (age 15-64).

Table 2.1 Household population by age, sex, and residence

Percent distribution of the de facto household population by five-year age group, according to sex and residence, Guyana 2009

	Urban			Rural			Total		
Age	Male	Female	Total	Male	Female	Total	Male	Female	Total
<5	8.7	7.6	8.1	11.0	10.2	10.6	10.4	9.4	9.9
5-9	10.7	9.1	9.8	13.0	11.2	12.0	12.4	10.6	11.4
10-14	13.6	9.8	11.6	13.2	12.1	12.6	13.3	11.4	12.3
15-19	10.5	10.7	10.6	8.8	10.1	9.4	9.2	10.3	9.8
20-24	7.7	7.8	7.7	6.6	8.1	7.4	6.9	8.0	7.5
25-29	7.3	6.2	6.7	6.0	6.9	6.5	6.3	6.7	6.5
30-34	5.9	6.6	6.3	6.7	6.5	6.6	6.5	6.5	6.5
35-39	5.4	7.7	6.7	6.5	6.6	6.6	6.2	6.9	6.6
40-44	6.0	6.4	6.2	6.2	5.9	6.0	6.1	6.0	6.1
45-49	4.6	6.6	5.7	5.3	5.7	5.5	5.1	6.0	5.6
50-54	5.6	5.6	5.6	5.1	5.2	5.1	5.2	5.3	5.3
55-59	4.7	4.3	4.5	4.0	3.9	4.0	4.2	4.0	4.1
60-64	3.0	3.0	3.0	2.8	2.3	2.5	2.8	2.5	2.7
65-69	2.4	2.7	2.6	2.1	1.9	2.0	2.2	2.1	2.2
70-74	1.8	1.9	1.8	1.4	1.4	1.4	1.5	1.6	1.5
75-79	1.1	1.8	1.5	0.6	1.0	0.8	0.8	1.2	1.0
80 +	1.0	2.0	1.5	0.6	1.0	0.8	0.7	1.3	1.0
Don't know/missing	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.1	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	2,647	3,143	5,790	7,277	7,849	15,126	9,924	10,992	20,916

Figure 2.1 Population Pyramid



2.1.2 Household Composition

The size and composition of the household usually affect the allocation of financial and other resources available to its members. In cases where women are heads of household, financial resources are typically limited. Similarly, the size and composition of the household affect the well-being of its members. If the household is large, crowding can lead to health problems.

Table 2.2 presents the percent distribution of households by sex of head of the household and by number of residents, according to Urban-Rural residence. The percentage of households with a female as head is presented in Figure 2.2 by residence. Table 2.2 also presents the mean number of members of the households and the percentage of households with orphans and foster children under age 18.

Table 2.2 Household composition

Percent distribution of households by sex of head of household and by household size; mean size of household, and percentage of households with orphans and foster children under 18, according to residence, Guyana 2009

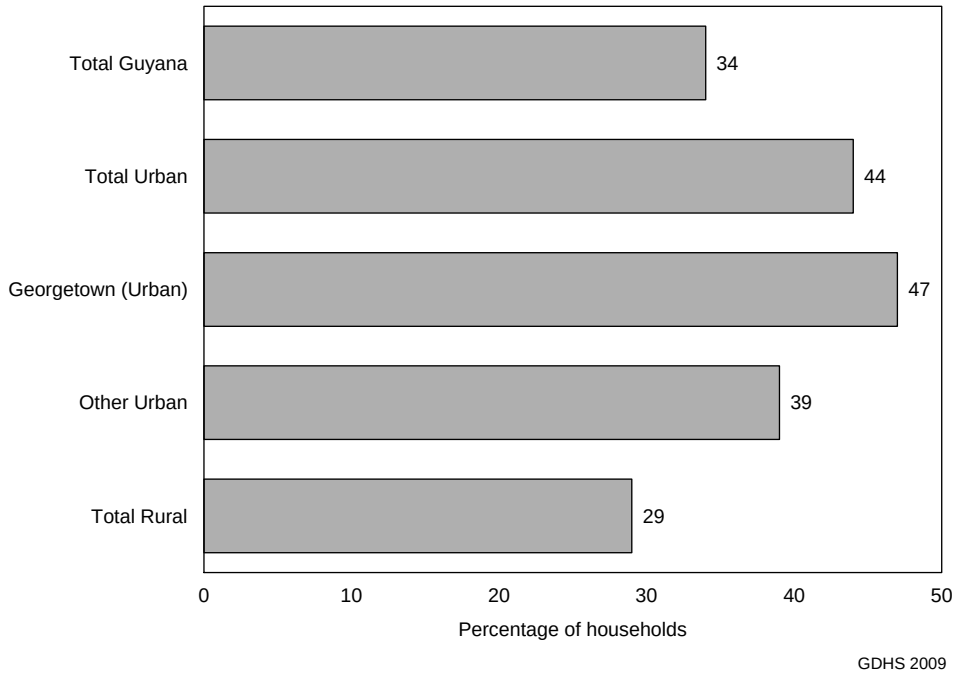
	Urban-Rural residence				Coastal-Interior residence				
	Urban				Coastal				
Characteristic	Total Urban	Georgetown (urban)	Other (urban)	Total Rural	Total Coastal	Coastal (urban)	Coastal (rural)	Total Interior	Total
Household headship									
Male	55.9	53.2	61.2	70.6	65.3	55.9	69.7	76.3	66.5
Female	44.1	46.8	38.8	29.4	34.7	44.1	30.3	23.7	33.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of usual members									
0	0.3	0.4	0.1	0.3	0.3	0.3	0.3	0.0	0.3
1	13.5	13.4	13.8	12.6	13.0	13.5	12.8	11.3	12.8
2	21.0	23.4	16.5	17.0	18.9	21.0	17.9	11.6	18.2
3	18.8	18.3	19.9	18.3	18.9	18.8	19.0	14.1	18.4
4	16.8	16.6	17.2	18.1	17.9	16.8	18.4	16.3	17.7
5	12.4	11.4	14.4	15.0	14.4	12.4	15.4	12.9	14.3
6	7.3	7.3	7.2	8.5	7.7	7.3	7.9	11.7	8.1
7	4.8	4.9	4.5	4.8	4.3	4.8	4.1	9.2	4.8
8	2.3	2.0	2.8	2.6	2.2	2.3	2.2	5.3	2.5
9+	2.8	2.4	3.6	2.9	2.3	2.8	2.1	7.5	2.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Mean size of households	3.7	3.6	3.8	3.8	3.7	3.7	3.7	4.6	3.8
Percentage of households with orphans and foster children under 18									
Foster children1	12.6	10.9	15.8	12.0	12.1	12.6	11.8	13.0	12.2
Double orphans	0.3	0.3	0.4	0.5	0.5	0.3	0.6	0.3	0.5
Single orphans	6.7	7.0	6.0	5.2	5.5	6.7	4.9	7.2	5.7
Foster and/or orphan children	16.3	14.8	19.2	14.6	14.9	16.3	14.2	17.3	15.1
Number of households	1,603	1,053	550	4,029	5,052	1,603	3,449	580	5,632

Note: Table is based on de jure household members, i.e., usual residents.
[1] Foster children are those under age 18 years of age living in households where neither their mother nor their father is a de jure resident.

- Women head one-third of Guyanese households (34 percent). Households with a female head are more common in the urban areas, with 44 percent in Total Urban, consisting of 47 percent in Georgetown (urban), and 39 percent in Other (urban). The average household size is 3.8 persons, with little difference attributable to Urban or Rural area residence or residence within the Coastal area. The average household in the Interior area is larger in comparison, however, with 4.6 members.

- More than four in five households (82 percent) have five or fewer members, and one in eight (13 percent) is a single-person household. Generally, there are no significant urban-rural differences in the household composition. The only urban-rural difference is the percentage of households with two members: 21 percent in Urban areas compared with 17 percent in Rural areas. More than one-third (34 percent) of households in the Interior area have 6 or more members compared with fewer than one in five in other areas. As a result, the mean size of a household in the Interior area is 4.6.

Figure 2.2 Percentage of Female-Headed Households, by Residence



2.1.3 Children's Living Arrangements and Orphanhood

Table 2.3 shows information relevant to living arrangements and orphanhood for children less than 18 years of age. The table also includes the percentage of children living in a household where neither parent is present (foster children) and the percentage of children who are orphans (children with the father dead, the mother dead, both parents dead, or one parent dead but with missing information on survival status of the other parent). No distinction is made between long-term and short-term fostering.

Table 2.3 Children's living arrangements and orphanhood

Percent distribution of de jure children under age 18 by living arrangements and survival status of parents, according to background characteristics, Guyana 2009

Background characteristic	Living with both parents	Living with mother but not father		Living with father but not mother		Not living with either parent				Missing information on father/ mother	Total	Percentage foster[1]	Percentage orphan[2]	Number of children
		Father alive	Father dead	Mother alive	Mother dead	Both alive	Only father alive	Only mother alive	Both dead					
Age														
0-4	65.9	25.4	0.6	1.6	0.1	4.3	0.3	0.2	0.0	1.6	100.0	4.8	1.2	2,053
<2	68.2	26.2	0.5	0.9	0.0	2.0	0.2	0.1	0.0	1.9	100.0	2.3	0.9	825
2-4	64.3	25.0	0.7	2.0	0.1	5.8	0.4	0.2	0.0	1.5	100.0	6.4	1.4	1,228
5-9	56.1	24.6	3.0	2.5	0.5	8.6	1.5	1.0	0.2	1.9	100.0	11.3	6.3	2,403
10-14	52.1	22.4	4.3	2.4	1.4	12.4	1.4	0.9	0.6	2.0	100.0	15.3	8.8	2,603
15-17	45.5	22.6	6.7	3.0	0.5	12.2	3.1	1.1	0.9	4.4	100.0	17.2	12.4	1,292
Sex														
Male	56.0	23.4	3.2	2.8	0.5	9.2	1.4	0.7	0.3	2.4	100.0	11.6	6.3	4,217
Female	55.3	24.3	3.6	1.8	0.8	9.4	1.5	0.9	0.4	2.0	100.0	12.2	7.3	4,134
Residence														
Total Urban	40.1	34.2	5.0	3.5	0.6	11.7	1.8	0.7	0.3	2.1	100.0	14.5	8.5	2,097
Urban (Georgetown)	36.7	37.6	6.1	4.2	0.8	10.3	2.3	0.5	0.2	1.3	100.0	13.3	10.1	1,257
Urban (other)	45.4	29.0	3.2	2.5	0.3	13.8	1.1	1.0	0.3	3.4	100.0	16.2	6.0	839
Total Rural	60.8	20.4	2.9	2.0	0.7	8.5	1.3	0.8	0.4	2.3	100.0	11.0	6.2	6,254
Total Coastal	54.4	24.4	3.4	2.4	0.7	9.8	1.5	0.8	0.4	2.3	100.0	12.5	6.8	6,986
Coastal (urban)	40.1	34.2	5.0	3.5	0.6	11.7	1.8	0.7	0.3	2.1	100.0	14.5	8.5	2,097
Coastal (rural)	60.5	20.2	2.7	1.9	0.7	9.1	1.3	0.8	0.5	2.4	100.0	11.7	6.1	4,889
Total Interior	62.2	21.1	3.7	2.1	0.5	6.5	1.0	0.9	0.2	1.9	100.0	8.6	6.3	1,365
Region														
Region 1	58.6	25.6	2.3	3.0	0.6	5.8	0.9	0.8	0.4	2.2	100.0	7.8	5.0	488
Region 2	64.6	16.2	3.0	1.5	0.4	9.4	0.5	0.3	0.8	3.2	100.0	11.0	5.1	541
Region 3	59.5	21.4	3.1	2.0	0.0	9.5	1.5	0.9	0.3	1.8	100.0	12.2	6.0	1,078
Region 4	47.4	28.8	3.9	3.2	1.3	9.6	2.2	0.6	0.4	2.6	100.0	12.8	8.5	3,037
Region 5	56.8	23.1	2.7	1.4	0.4	12.2	1.0	1.0	0.6	0.8	100.0	14.8	5.8	616
Region 6	65.7	16.5	2.8	2.0	0.3	8.9	0.6	1.0	0.3	1.8	100.0	10.9	5.0	1,325
Region 7	56.8	25.5	3.2	1.6	0.1	6.3	2.7	1.5	0.1	2.1	100.0	10.6	7.6	249
Region 8	65.9	16.5	5.0	0.2	0.8	8.6	0.6	0.4	0.1	2.0	100.0	9.7	6.8	230
Region 9	76.9	9.7	2.1	2.8	0.5	6.1	0.2	0.0	0.0	1.7	100.0	6.3	2.8	236
Region 10	42.6	33.7	5.0	1.6	0.2	10.9	1.2	1.4	0.2	3.3	100.0	13.6	8.1	550
Wealth quintile														
Lowest	62.0	20.1	4.0	1.8	0.3	7.6	0.8	0.8	0.4	2.2	100.0	9.6	6.3	2,036
Second	54.7	25.9	3.3	2.1	0.2	8.6	1.6	0.9	0.3	2.3	100.0	11.4	6.6	1,806
Middle	52.7	24.9	3.2	2.7	2.1	10.4	1.0	0.6	0.3	2.2	100.0	12.2	7.2	1,609
Fourth	52.8	23.3	3.2	2.7	0.5	11.3	2.7	0.8	0.4	2.5	100.0	15.2	7.6	1,522
Highest	54.0	26.1	3.2	2.8	0.2	9.2	1.2	0.9	0.6	1.9	100.0	11.9	6.2	1,378
Total <15	57.5	24.1	2.8	2.2	0.7	8.8	1.1	0.7	0.3	1.8	100.0	10.9	5.7	7,059
Total <18														
2009	**55.6**	**23.8**	**3.4**	**2.3**	**0.7**	**9.3**	**1.4**	**0.8**	**0.4**	**2.2**	**100.0**	**11.9**	**6.8**	**8,351**
2005	59.7	21.1	4.0	2.4	0.4	7.7	1.0	0.9	1.0	1.8	100.0	10.6	7.3	4,324

Note: Table is based on de jure members, i.e., usual residents.
[1] Foster children are those under age 18 living in households with neither their mother nor their father present.
[2] Includes children with father dead, mother dead, both dead, and one parent dead but information missing on survival status of the other parent.

- Twelve percent of Guyanese children under age 18 live in households with neither their mother nor their father (they are foster children), and 7 percent have lost at least one biological parent (they are orphan children). These percentages are similar to those reported in the 2005 Guyana AIS (11 percent and 7 percent, respectively).
- The percentages of both foster children and orphans increase steadily with the children's age, and they are higher in urban areas (15 percent and 9 percent, respectively) than in rural

areas (11 percent and 6 percent, respectively). The percentage of foster children ranges from 6 percent in Region 9 to 15 percent in Region 5, while the percentage of orphan children ranges from 3 percent in Region 9 to 9 percent in Region 4.

- Fifty-six percent of children under age 18 live with both parents, 27 percent live with their mothers but not with their fathers; 3 percent live with their fathers but not with their mothers; and 12 percent live with neither of their natural parents. There has been a slight decrease since the 2005 Guyana AIS (GAIS) in the percentage of children under age 18 who live with both their parents, which has dropped from 60 percent in 2005 to 56 percent to 2009.
- The proportion of children living with both parents decreases with age; younger children are more likely than older children to live with both natural parents. More than six in ten children under age 18 in Rural areas (61 percent in Coastal [rural] and 62 percent in the Interior area) live with both parents compared with four in ten children in the Urban areas.
- Region 9 has the highest percentage of children living with both parents (77 percent), and Region 10 has the lowest percentage (43 percent), mostly due to the high percentage of children (34 percent) who live with the mother despite the fact that the father is alive.

2.1.4 Educational Attainment

The educational level of household members is perhaps their most important demographic characteristic. Many phenomena—reproductive behavior, use of contraception, health of children, and proper hygienic habits— are affected by the education of the household members. Tables 2.4.1 and 2.4.2, respectively, show the percent distribution of the de facto female and male household populations, age 6 and over, by highest level of schooling attended or completed, and median number of years completed.

Schooling in Guyana starts at the nursery school level, which is available to children for two years, beginning at age four. Children begin primary school at age 6. Primary school has six grades: Preparatory A and B and Standards I through IV. Entry into secondary education is based on students' performance in a placement examination, the Secondary School Entrance Examination (SSEE) administered to 11-year-old students. For students who score poorly on the SSEE, a continuation of primary education for three to four years is also available in the senior department of the primary school, also known as the all-age school (or the primary-top). Thus, students who complete primary school and pass the SSEE placement test or students who complete all-age school are eligible to continue in secondary school.

There are three different kinds of secondary school in Guyana for students who have passed the SSEE: the general secondary school, the multilateral school, and the community high school. The *general secondary school* consists of Forms I-VI (Form VI being the equivalent of the senior year of high school in the United States). At the end of their secondary education, students can take the Secondary School Proficiency Examination to be admitted into the trade school. Or they can take the General Certificate of Education (GCE) Advanced Level examination or the Caribbean Examination Council examination to be admitted into the university. The *multilateral school*, established in 1974, consists of Forms I-V for students age 10-18 years. The *community high school* provides on-the-job training to students over age 12. Students who complete a full secondary education may enroll in the university.

Table 2.4.1 Educational attainment of the female household population

Percent distribution of the de facto female household population age 6 and over by highest level of schooling attended or completed, and median number of years completed, according to background characteristics, Guyana 2009

Background characteristic	Highest level of schooling: No education	Some primary	Completed primary[1]	Some secondary	Completed secondary[2]	More than secondary	Don't know/ missing	Total	Number of women	Median number of years of schooling[3]
Age										
6-9	11.8	86.6	0.2	0.5	0.2	0.0	0.8	100.0	985	1.2
10-14	0.9	39.8	12.2	46.2	0.3	0.2	0.5	100.0	1,258	5.5
15-19	1.4	4.6	2.7	60.6	26.7	3.4	0.6	100.0	1,127	9.1
20-24	1.1	6.3	4.8	28.9	45.9	11.7	1.2	100.0	879	10.2
25-29	1.6	10.0	6.8	34.0	35.2	11.6	0.9	100.0	736	9.8
30-34	1.9	12.0	7.4	38.3	26.7	11.2	2.6	100.0	720	9.3
35-39	1.7	9.4	11.9	41.0	26.0	7.7	2.2	100.0	761	9.1
40-44	1.7	20.0	11.5	35.6	22.8	4.8	3.8	100.0	663	8.3
45-49	2.2	18.4	12.4	33.9	20.8	7.1	5.2	100.0	658	8.0
50-54	2.6	21.6	19.4	28.0	17.0	6.0	5.4	100.0	582	6.5
55-59	2.0	31.3	18.6	20.6	15.8	6.4	5.3	100.0	440	5.7
60-64	2.8	29.7	32.0	13.0	11.5	4.5	6.6	100.0	275	5.5
65+	7.3	30.7	28.8	11.4	6.8	4.4	10.6	100.0	678	5.3
Residence										
Total Urban	1.8	17.7	9.1	31.8	24.6	10.8	4.3	100.0	2,861	8.9
Georgetown (urban)	1.3	15.8	8.7	30.3	27.1	11.7	5.2	100.0	1,874	9.3
Other (urban)	2.8	21.2	9.7	34.6	20.0	9.1	2.5	100.0	987	8.1
Total Rural	3.5	28.8	11.6	32.9	17.2	3.5	2.4	100.0	6,918	6.7
Total Coastal	2.6	24.7	10.9	32.6	20.3	6.1	2.9	100.0	8,718	7.6
Coastal (urban)	1.8	17.7	9.1	31.8	24.6	10.8	4.3	100.0	2,861	8.9
Coastal (rural)	3.0	28.1	11.8	32.9	18.2	3.8	2.3	100.0	5,857	6.9
Total Interior	6.8	32.9	10.1	33.0	11.6	2.1	3.4	100.0	1,061	5.7
Region										
Region 1	11.7	42.9	10.2	24.8	5.3	1.7	3.4	100.0	367	4.3
Region 2	4.9	30.2	16.3	29.0	13.5	3.7	2.4	100.0	608	5.7
Region 3	3.5	27.6	8.1	35.9	19.5	3.6	1.8	100.0	1,327	7.3
Region 4	2.0	21.7	9.8	31.6	23.0	7.7	4.2	100.0	4,139	8.3
Region 5	2.0	28.6	15.1	28.7	18.2	5.5	1.9	100.0	698	6.5
Region 6	2.9	28.2	13.8	33.0	17.9	3.3	1.1	100.0	1,537	6.6
Region 7	4.2	26.4	10.7	35.2	17.3	3.1	3.0	100.0	228	7.0
Region 8	2.8	22.8	10.9	41.9	14.6	2.1	4.9	100.0	166	7.5
Region 9	5.5	35.7	10.1	31.9	12.6	0.8	3.4	100.0	170	5.6
Region 10	2.8	18.9	5.6	41.9	17.6	10.5	2.6	100.0	537	8.4
Wealth quintile										
Lowest	7.2	38.2	12.8	29.2	7.7	1.0	3.9	100.0	1,726	5.2
Second	3.7	29.4	13.2	35.6	13.7	2.0	2.5	100.0	1,955	6.3
Middle	1.6	24.6	10.9	36.8	20.3	3.0	2.8	100.0	1,926	7.7
Fourth	1.8	22.7	10.5	33.4	22.7	6.2	2.9	100.0	2,086	8.0
Highest	1.6	15.3	7.2	27.9	30.3	14.8	2.8	100.0	2,086	9.6
Total 2009	**3.0**	**25.6**	**10.8**	**32.6**	**19.4**	**5.6**	**3.0**	**100.0**	**9,778**	**7.4**
Total 2005	3.5	27.1	13.3	35.1	12.8	6.2	2.1	100.0	4,446	8.6

Note: Total includes 15 females with information missing on age who are not shown separately.
[1] Completed 6th grade at the primary level
[2] Completed 5th grade at the secondary level
[3] The median number of years is the midpoint of the distribution of the population by number of years of education.

Table 2.4.2 Educational attainment of the male household population

Percent distribution of the de facto male household populations age 6 and over by highest level of education attended or completed and median number of years completed, according to background characteristics, Guyana 2009

Background characteristic	Highest level of schooling: 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 of schooling[3]
Age										
6-9	16.9	82.1	0.0	0.2	0.0	0.0	0.8	100.0	1,013	0.8
10-14	0.5	37.8	10.7	50.5	0.0	0.0	0.5	100.0	1,322	5.5
15-19	0.6	4.8	3.7	67.7	17.1	5.1	1.0	100.0	915	8.7
20-24	0.9	8.7	4.6	38.1	31.3	13.6	2.7	100.0	682	9.8
25-29	2.1	9.1	8.0	38.3	26.9	9.6	6.1	100.0	628	9.3
30-34	1.8	15.7	10.2	37.3	20.4	9.4	5.3	100.0	643	8.7
35-39	1.5	18.9	10.0	39.0	20.7	5.8	4.1	100.0	618	8.6
40-44	1.3	20.3	12.5	36.0	18.8	5.6	5.5	100.0	607	8.2
45-49	1.6	21.5	13.3	35.7	13.8	7.0	7.1	100.0	506	7.6
50-54	1.3	21.1	17.3	26.6	16.6	6.9	10.2	100.0	518	7.4
55-59	2.6	26.1	10.9	24.6	16.8	7.9	11.1	100.0	418	7.1
60-64	1.0	23.7	32.0	14.7	15.6	7.6	5.5	100.0	281	5.8
65+	4.1	27.2	29.8	12.2	10.6	7.4	8.6	100.0	510	5.5
Residence										
Total Urban	1.9	19.1	8.6	35.7	19.4	10.8	4.4	100.0	2,379	8.2
Georgetown (urban)	1.3	16.9	8.9	33.9	22.1	12.0	4.9	100.0	1,537	8.7
Other (urban)	2.9	23.2	8.1	39.1	14.3	8.7	3.5	100.0	842	7.4
Total Rural	3.8	30.3	11.1	34.3	12.4	3.7	4.4	100.0	6,301	6.2
Total Coastal	2.8	26.2	10.4	35.4	15.0	6.2	4.1	100.0	7,670	7.0
Coastal (urban)	1.9	19.1	8.6	35.7	19.4	10.8	4.4	100.0	2,379	8.2
Coastal (rural)	3.3	29.3	11.1	35.2	13.1	4.0	3.9	100.0	5,290	6.4
Total Interior	6.3	35.7	11.0	29.9	8.5	2.0	6.7	100.0	1,010	5.4
Region										
Region 1	10.4	39.6	11.3	25.0	5.6	0.7	7.5	100.0	367	4.5
Region 2	3.6	34.4	14.0	31.6	11.3	2.8	2.4	100.0	522	5.8
Region 3	4.3	31.4	7.9	36.0	11.8	3.8	4.7	100.0	1,076	6.5
Region 4	1.9	22.8	8.5	35.8	18.2	7.6	5.2	100.0	3,607	7.8
Region 5	2.4	30.8	14.1	34.1	11.6	4.8	2.2	100.0	663	6.0
Region 6	4.1	26.3	15.2	33.5	14.1	4.5	2.2	100.0	1,471	6.3
Region 7	4.1	31.1	13.7	32.4	11.8	3.5	3.4	100.0	170	6.0
Region 8	3.3	31.9	12.0	32.1	8.2	0.4	12.1	100.0	183	5.7
Region 9	5.7	37.5	7.7	33.3	9.1	2.6	4.0	100.0	165	5.5
Region 10	2.6	25.6	5.1	41.5	9.3	11.3	4.5	100.0	456	7.4
Wealth quintile										
Lowest	6.5	40.2	11.4	29.3	5.9	1.1	5.7	100.0	1,693	5.1
Second	4.1	32.3	11.9	36.9	9.4	1.9	3.5	100.0	1,708	5.8
Middle	2.1	26.0	10.9	40.4	13.3	3.6	3.7	100.0	1,784	7.1
Fourth	2.3	21.9	10.2	36.6	16.8	7.1	5.1	100.0	1,734	7.8
Highest	1.4	16.5	7.8	30.3	25.5	14.5	4.0	100.0	1,762	9.2
Total 2009	**3.2**	**27.3**	**10.4**	**34.7**	**14.3**	**5.7**	**4.4**	**100.0**	**8,680**	**6.8**
Total 2005	3.2	24.7	13.2	35.7	16.0	5.6	1.5	100.0	4,814	9.2

Note: Total includes 19 males with information missing on age who are not shown separately.
[1] Completed 6th grade at the primary level
[2] Completed 5th grade at the secondary level
[3] The median number of years is the midpoint of the distribution of the population by number of years of education.

- Over two-thirds of the household population (68 percent of females and 65 percent of males) have completed primary school or higher. Only 3 percent of the population age 6 and over have never attended school, and about one in four people (26 to 27 percent) have attended only some primary school.
- There is no significant gap in educational attainment between females and males except for the percentages who have completed secondary school (19 and 14 percent, respectively).
- The median number of years of schooling is slightly higher for females than for males: 7.4 years versus 6.8 years. The median number of years of schooling are two years higher among both Urban area females and males (8.9 years and 8.2 years, respectively) compared with their Rural area counterparts (6.7 and 6.2 years, respectively).
- The most substantial variation in educational attainment among household members is evident across wealth quintiles and regions for both females and males. Seventeen percent of females and 18 percent of males from the wealthiest households have never been to school or have just attended some primary school, compared with 45 percent of females and 47 percent of males from the poorest households.
- Regarding regions, 55 percent of females and 50 percent of males in Region 1 have never been to school or have just attended some primary school, compared with 22 percent of females in Region 10 and 25 percent of males in Region 4.

2.1.5 School Attendance

Table 2.5 provides net and gross attendance ratios by school level, sex, and residence. The net attendance ratio (NAR) is an indicator of participation in schooling among the population of official school age, while the gross attendance ratio (GAR) is an indicator of participation in schooling among those of any age between 5 and 24 years. The difference between the ratios indicates the incidence of over-age and under-age attendance. 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.[1] A NAR of 100 percent would indicate that all children in the official age range for the level are attending education at that level. The GAR can exceed 100 percent if there is significant over-age or under-age participation at a given level of schooling. Children are considered to be attending school currently if they attended at any point during the current school year.

Figure 2.3 presents the age-specific attendance ratios (ASAR) for the population age 5-24 by sex. The ASAR indicates participation in schooling at any level, from primary through higher education. The closer the ASAR is to 100 percent, the higher is the proportion of a given age attending school.

The Gender Parity Index (GPI), or the ratio of the female to the male GAR at the general basic and general secondary levels, is also included in Table 2.5. The GPI indicates the magnitude of the gender gap in attendance ratios. If there is no gender difference, the GPI will be equal to 1. The GPI will be closer to 0 if the disparity is in favor of males. If the gender gap favors females, the GPI will exceed 1.

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

Table 2.5 School attendance ratios

Net attendance ratios (NAR) and gross attendance ratios (GAR) for the de jure household population by sex and grade; and the Gender Parity Index (GPI), according to background characteristics, Guyana 2009

Background characteristic	Net attendance ratio[1]				Gross attendance ratio[2]			
	Male	Female	Total	GPI[3]	Male	Female	Total	GPI[3]
PRIMARY SCHOOL								
Residence								
Total Urban	94.9	92.8	93.9	0.98	97.7	95.3	96.5	0.98
Georgetown (urban)	96.2	95.5	95.8	0.99	99.5	97.8	98.6	0.98
Other (urban)	93.1	88.7	90.9	0.95	95.1	91.6	93.3	0.96
Total Rural	91.3	93.3	92.3	1.02	96.9	98.4	97.6	1.01
Total Coastal	93.1	93.8	93.4	1.01	96.9	96.8	96.8	1.00
Coastal (urban)	94.9	92.8	93.9	0.98	97.7	95.3	96.5	0.98
Coastal (rural)	92.3	94.2	93.2	1.02	96.5	97.4	96.9	1.01
Total Interior	88.2	90.0	89.1	1.02	98.3	101.9	100.0	1.04
Wealth quintile								
Lowest	88.3	90.4	89.3	1.02	97.2	98.7	97.9	1.02
Second	94.6	92.4	93.5	0.98	100.6	97.0	98.8	0.96
Middle	92.5	95.2	93.9	1.03	95.5	98.4	97.0	1.03
Fourth	89.8	95.6	92.9	1.07	93.1	97.3	95.3	1.05
Highest	97.6	93.3	95.5	0.96	98.3	96.3	97.3	0.98
Total 2009	**92.2**	**93.2**	**92.7**	**1.01**	**97.1**	**97.6**	**97.4**	**1.01**
Total 2005	90.1	91.2	90.6	na	100.3	101.0	100.6	1.01
SECONDARY SCHOOL								
Residence								
Total Urban	87.1	91.5	89.2	1.05	96.6	111.1	103.5	1.15
Georgetown urban	88.4	92.8	90.4	1.05	98.6	113.9	105.7	1.16
Other urban	85.2	89.7	87.4	1.05	93.5	107.0	100.2	1.14
Total Rural	76.4	77.8	77.1	1.02	86.1	87.0	86.5	1.01
Total Coastal	80.8	83.5	82.1	1.03	90.5	95.9	93.1	1.06
Coastal urban	87.1	91.5	89.2	1.05	96.6	111.1	103.5	1.15
Coastal rural	77.7	79.9	78.8	1.03	87.5	89.0	88.2	1.02
Total Interior	69.5	67.9	68.7	0.98	78.4	77.3	77.8	0.99
Wealth quintile								
Lowest	64.6	61.5	63.0	0.95	68.8	69.6	69.2	1.01
Second	72.5	77.6	75.1	1.07	82.3	88.7	85.5	1.08
Middle	77.3	86.2	81.3	1.12	85.5	96.5	90.4	1.13
Fourth	87.5	91.3	89.4	1.04	102.2	105.4	103.7	1.03
Highest	97.5	92.3	94.8	0.95	108.8	109.1	109.0	1.00
Total 2009	**79.5**	**81.6**	**80.5**	**1.03**	**89.2**	**93.6**	**91.3**	**1.05**
Total 2005	69.9	78.1	74.0	na	87.1	95.5	91.3	1.10

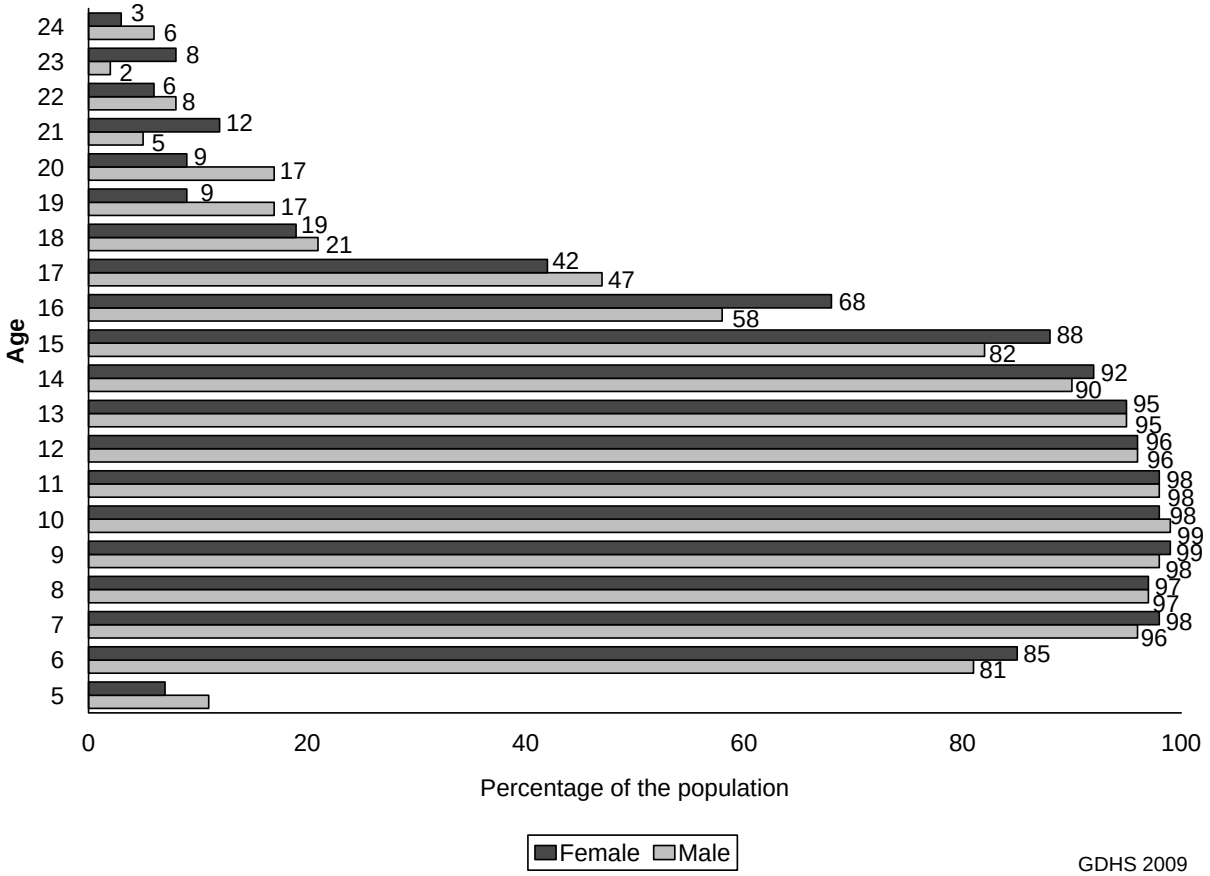
na = Not available

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

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

[3] The gender parity index (GPI) for primary school is the ratio of the primary school GAR for females to the GAR for males. The GPI for secondary school is the ratio of the secondary school GAR for females to the GAR for males.

Figure 2.3 Age-Specific School Attendance Rates, by Sex



- More than nine in ten of the primary school-age children (age 6-11) in Guyana attend primary school; males (92 percent) are about as likely as females (93 percent) to attend primary school.
- About eight in ten secondary school-age children (age 12-17) attend secondary school (80 percent of males and 82 percent of females).
- Although the urban-rural difference in primary school NAR is negligible (94 and 92 percent, respectively), there is a 12 percentage point difference in the NAR for secondary school (89 and 77 percent, respectively). The gap in the secondary school NAR between the Coastal and the Interior areas is slightly larger: 82 and 69 percent, respectively.
- Although there is little variation in the primary school NAR, according to the wealth index, secondary school-age children from the wealthiest households are significantly more likely to attend school than those in the least wealthy households (95 and 63 percent, respectively).

- An important proportion of primary school students fall outside the official age range for primary schooling: whereas the primary school NAR is 93, the GAR is 97, indicating that for every 93 students age 6-11, there are four primary school students who are either younger than age 6 or older than age 11. In secondary school, the NAR is 81, while the GAR is 91, indicating that for every 81 students age 12-17, there are 10 who are either younger than age 12 or older than age 17.
- The gross atendance ratios at the primary and secondary levels are slightly higher for females than for males, resulting in a Gender Parity Index of 1.01 for primary school and 1.05 for secondary school.
- As shown on Figure 2.3, similar proportions of female and male youth attend school between 7 and 14 years. Attendance rates peak around age 7-13 (close to 100 percent) and decrease rapidly after age 15. At age 15 and age 16, greater proportions of female than male youth attend school, while between age 17 and age 24 male youths are generally more likely to attend school.

2.2 HOUSING CHARACTERISTICS

To assess the socioeconomic conditions under which the population lives, respondents were asked to give specific information about their household environment. Type of water source, sanitation facilities, and floor material are characteristics that affect the health status of household members and, in particular, children. They also indicate the socioeconomic status of households. Table 2.6 shows the percentage of households with drinking water by Urban-Rural and Coastal-Interior residence. Major housing characteristics are presented in Table 2.7, and sanitation facilities are described in Table 2.8.

2.2.1 Drinking Water and Housing Characteristics

Table 2.6 presents several indicators relating to household access to improved drinking water. The source of drinking water is an indicator of whether or not it is suitable for drinking. Sources that are considered likely to be of suitable quality are listed under "Improved source," and sources that may not be of suitable quality are listed under "Non-improved source." The categorization by improved and non-improved sources is proposed by WHO, UNICEF, and the Joint Monitoring Program for Water and Sanitation (WHO, UNICEF, and JMP, 2004). Information is also provided on the time to obtain drinking water, the age and sex of the person who usually collects the drinking water, and the treatment given to water used for drinking. Water may be treated in several ways by a household, so water treatment is given as the percentage of households using the treatment rather than as a distribution. The results for the de jure population are also included.[2]

[2] The information for the de jure population is shown, given that UNICEF tabulates statistics by population rather than by household.

Table 2.6 Household drinking water

Percent distribution of households and de jure population by source, time to collect, and person who usually collects drinking water; and percentage by treatment of drinking water, according to residence, Guyana 2009

Characteristic	Urban-rural residence				Coastal-Interior residence				Total percentage of households	Total percentage of population
	Urban				Coastal					
	Total urban	Georgetown urban	Other urban	Total rural	Total Coastal	Coastal urban	Coastal rural	Total Interior		
Source of drinking water										
Improved source	44.7	25.8	80.8	69.5	61.7	44.7	69.6	69.4	62.5	62.8
Piped into dwelling/yard/plot	28.5	14.5	55.4	33.9	34.9	28.5	37.9	10.5	32.4	32.5
Public tap/standpipe	0.4	0.0	1.3	1.3	0.9	0.4	1.1	2.3	1.1	1.1
Tube well or borehole	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0
Protected dug well	0.0	0.0	0.1	2.0	0.7	0.0	0.9	8.6	1.5	1.7
Protected spring	0.7	0.0	2.1	0.3	0.3	0.7	0.1	1.3	0.4	0.5
Rainwater	14.9	11.3	21.9	31.9	24.9	14.9	29.5	46.5	27.1	27.0
Non-improved source	0.6	0.0	1.8	6.3	2.3	0.6	3.1	25.5	4.7	5.9
Unprotected dug well	0.0	0.0	0.0	0.7	0.0	0.0	0.0	4.3	0.5	0.7
Unprotected spring	0.4	0.0	1.3	0.6	0.3	0.4	0.2	2.8	0.5	0.6
Tanker truck/cart with small tank	0.0	0.0	0.1	0.2	0.1	0.0	0.2	0.4	0.2	0.2
Surface water	0.1	0.0	0.4	4.9	1.9	0.1	2.7	17.9	3.5	4.3
Bottled water[1]	54.2	73.6	17.1	23.4	35.3	54.2	26.6	4.7	32.1	30.6
Improved source	53.8	73.3	16.4	22.8	34.7	53.8	25.9	4.7	31.6	30.1
Non-improved source	0.4	0.3	0.7	0.6	0.6	0.4	0.7	0.0	0.5	0.5
Other sources	0.5	0.5	0.3	0.7	0.7	0.5	0.8	0.3	0.6	0.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Percentage using any improved source of drinking water	98.5	99.1	97.1	92.3	96.4	98.5	95.4	74.0	94.1	93.0
Time to obtain drinking water (round trip)										
Water on premises	97.4	99.3	93.9	90.7	94.8	97.4	93.6	73.3	92.6	91.7
Less than 30 minutes	2.1	0.6	5.1	7.1	3.5	2.1	4.2	24.5	5.7	6.7
30 minutes or longer	0.3	0.0	0.9	1.6	1.3	0.3	1.7	0.8	1.2	1.2
Don't know/missing	0.1	0.1	0.2	0.6	0.3	0.1	0.4	1.3	0.5	0.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Person who usually collects drinking water										
Adult female 15+	0.2	0.0	0.6	2.6	1.3	0.2	1.9	7.0	1.9	2.3
Adult male 15+	1.8	0.6	4.2	5.3	3.2	1.8	3.8	13.9	4.3	4.4
Female child under age 15	0.1	0.0	0.4	0.1	0.1	0.1	0.0	0.5	0.1	0.1
Male child under age 15	0.3	0.0	0.8	0.5	0.3	0.3	0.3	1.6	0.4	0.7
Other	0.0	0.0	0.1	0.7	0.2	0.0	0.2	3.3	0.5	0.7
Water on premises	97.4	99.3	93.9	90.7	94.8	97.4	93.6	73.3	92.6	91.7
Missing	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.4	0.2	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Water treatment prior to drinking[2]										
Boiled	14.3	10.9	20.9	8.0	9.9	14.3	7.8	8.7	9.8	9.8
Bleach/chlorine	32.6	27.0	43.4	39.0	38.8	32.6	41.6	23.4	37.2	38.9
Strained through cloth	0.1	0.0	0.4	0.8	0.5	0.1	0.7	1.6	0.6	0.6
Ceramic, sand or other filter	0.6	0.6	0.7	0.8	0.8	0.6	0.8	0.5	0.7	0.7
Other	1.6	0.9	2.7	1.9	1.7	1.6	1.8	2.5	1.8	1.7
No treatment	56.3	64.9	39.6	52.1	52.0	56.3	50.0	65.1	53.3	51.9
Percentage using an appropriate treatment method[3]	42.1	34.0	57.7	46.5	46.7	42.1	48.9	32.4	45.3	46.7
Number	1,603	1,053	550	4,029	5,052	1,603	3,449	580	5,632	21,317

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

- Although the majority of Guyanese households (94 percent) have access to clean water sources, 27 percent rely on rainwater and 32 percent rely on bottled water. For 33 percent of households, the water is piped into the dwelling, yard, or plot.
- Access to an improved source of drinking water is similar for Urban, Rural, and Coastal area residences (92 to 99 percent). However, for residences in the Interior area, only 74 percent of households have access to an improved source of drinking water, where the main sources of drinking water are rainwater and surface water (47 and 18 percent, respectively). The drinking water is piped into the dwelling, yard, or plot for only 11 percent of households in the Interior area.
- Overall, 93 percent of Guyanese households have drinking water on their premises. In the Interior area, however, only 73 percent of households have drinking water on their premises, with the majority of the remaining households (25 percent) reporting that it takes less than 30 minutes to obtain the water. In the Interior area, men over age 15 usually collect the water (14 percent) followed by women over age 15 (7 percent).
- More than half of the households (53 percent) reported no water treatment prior to drinking, including almost two-thirds (65 percent) in the Interior and in the Urban (Georgetown) areas. Only 45 percent of households use an appropriate treatment method (i.e., boiling, bleaching, straining through cloth, filtering, or solar disinfecting). The principal water treatment is bleach or chlorine (37 percent) followed by boiling (10 percent).

Table 2.7 shows information on basic housing characteristics by residence, including access to electricity, type of flooring material, number of rooms used for sleeping, place for cooking, and type of cooking fuel.

- As many as 78 percent of Guyanese households have electricity, 91 percent in Urban areas compared with 72 percent in Rural areas. In the Interior area, only 40 percent of households have electricity.
- Many households (38 percent) have wood or planks as flooring material, and 16 percent each have vinyl/asphalt strips or cement.
- The number of rooms used for sleeping indicates the extent of crowding in households. Overcrowding increases the risk of infectious diseases, including acute respiratory infections and skin diseases, which particularly affect children. About one-third of households in rural areas (32 percent) use only one room for sleeping, and about one-fourth (24 percent) use three or more rooms for sleeping, compared with 21 percent and 36 percent, respectively, in urban areas.
- Overall, in 86 percent of the households in Guyana cooking is done in the house. The only exception is the Interior area where 31 percent of households cook outdoors or in a separate building.
- More than half of the households (56 percent) use LPG/natural gas/biogas as cooking fuel, and more than one-third (34 percent) use kerosene. In the Urban (Georgetown) area, however, the corresponding figures are 84 and 15 percent, respectively.
- Solid fuel (coal/lignite, charcoal, wood, and straw/shrubs/grass) is used in only 8 percent of households for cooking. In the Interior area, however, more than one-third of households (35 percent) use solid fuel, compared with virtually 0 percent in the Urban (Georgetown) area. These Interior-area households use either fire-side (65 percent) or “open fire/stove without chimney or hood” (31 percent), with little difference by residence (data not shown).

Table 2.7 Housing characteristics

Percent distribution of households and de jure population by housing characteristics and percentage using solid fuel for cooking; and among those using solid fuels, percent distribution by type of fire/stove, according to residence, Guyana 2009

Characteristic	Urban-Rural residence				Coastal-Interior residence				Total percentage of households	Total percentage of population
	Urban				Coastal					
	Total Urban	Georgetown (urban)	Other (urban)	Total Rural	Total Coastal	Coastal (urban)	Coastal (rural)	Total Interior		
Electricity	90.9	91.8	89.3	72.3	81.9	90.9	77.7	40.3	77.6	75.9
Flooring material										
Earth, sand	0.1	0.2	0.0	3.1	0.8	0.1	1.1	14.9	2.3	2.9
Dung	0.0	0.0	0.0	0.4	0.1	0.0	0.2	1.4	0.3	0.3
Wood/planks	25.3	22.7	30.3	43.1	37.1	25.3	42.6	45.6	38.0	38.2
Palm/bamboo	0.0	0.0	0.1	0.4	0.2	0.0	0.3	0.8	0.3	0.2
Parquet or polished wood	16.6	19.1	11.9	9.3	11.2	16.6	8.7	13.2	11.4	10.7
Vinyl or asphalt strips	21.5	22.5	19.5	13.5	16.1	21.5	13.7	12.3	15.7	15.9
Ceramic tiles	7.7	9.1	5.1	4.1	5.6	7.7	4.6	1.3	5.2	4.9
Cement	13.1	9.2	20.5	16.9	16.7	13.1	18.4	8.1	15.8	16.2
Carpet	14.9	16.4	11.9	8.8	11.4	14.9	9.9	2.3	10.5	10.1
Other	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1
Missing	0.7	0.7	0.5	0.4	0.5	0.7	0.4	0.3	0.5	0.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Rooms used for sleeping										
One	21.0	20.1	22.7	31.7	27.4	21.0	30.3	39.6	28.6	20.9
Two	40.6	41.8	38.1	39.7	40.5	40.6	40.5	34.9	40.0	41.1
Three or more	35.9	35.6	36.3	23.9	28.8	35.9	25.5	14.4	27.3	33.8
Missing	2.6	2.4	2.9	4.7	3.3	2.6	3.6	11.2	4.1	4.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Place for cooking										
In the house	95.9	98.3	91.2	82.7	88.5	95.9	85.1	67.9	86.4	85.5
In a separate building	1.0	0.3	2.1	7.3	4.4	1.0	6.1	14.5	5.5	6.3
Outdoors	2.2	0.7	5.2	8.9	5.9	2.2	7.5	16.7	7.0	7.6
Missing	0.9	0.6	1.5	1.2	1.1	0.9	1.2	0.8	1.1	0.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Cooking fuel										
Electricity	3.8	0.1	11.0	0.6	1.4	3.8	0.3	2.3	1.5	1.5
LPG/natural gas/biogas	71.6	84.0	47.7	49.1	57.9	71.6	51.5	34.5	55.5	54.9
Kerosene	22.2	15.2	35.6	38.6	34.7	22.2	40.6	27.2	34.0	33.5
Coal/lignite	0.3	0.0	0.9	0.2	0.2	0.3	0.2	0.2	0.2	0.2
Charcoal	0.1	0.0	0.3	0.2	0.1	0.1	0.2	0.6	0.2	0.2
Wood	1.2	0.0	3.4	10.2	4.6	1.2	6.2	34.1	7.7	9.1
Straw/shrubs/grass	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
No food cooked in household	0.7	0.6	0.9	0.9	0.9	0.7	1.0	0.3	0.8	0.3
Other	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.2	0.0	0.1
Missing	0.1	0.0	0.3	0.1	0.1	0.1	0.1	0.3	0.1	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Percentage using solid fuel for cooking[1]	1.6	0.0	4.5	10.7	5.0	1.6	6.5	35.1	8.1	9.5
Number of households	1,603	1,053	550	4,029	5,052	1,603	3,449	580	5,632	21,317

LPG = Liquid petroleum gas
[1] Includes coal/lignite, charcoal, wood, and straw/shrubs/grass.

2.2.2 Sanitation Facilities

Table 2.8 shows the proportions of households and of the de jure population that have access to hygienic sanitation facilities. Hygienic status is determined on the basis of type of facility used and whether or not it is a shared facility. A household's toilet/latrine facility is classified as hygienic if it is used only by household members (i.e., not shared) and if the type of facility effectively separates human waste from human contact. The types of facilities that are most likely to accomplish this are flush or pour flush into a piped sewer system, septic tank, or pit latrine; a ventilated, improved pit (VIP) latrine; and a pit latrine with a slab. A household's sanitation facility is classified as unhygienic if it is shared with other households or if it does not effectively separate human waste from human contact.

- With regard to sanitation facilities, 48 percent of households use septic tank toilets, 24 percent use a pit latrine with slab, and 7 percent use a ventilated improved pit latrine. Only 1 percent of households have no sanitation facilities.
- In urban areas, the most common type of toilet facility is a septic tank (69 percent), while only 11 percent of households are connected to a piped sewer system. In Rural areas, 40 percent of households have septic tanks, and 31 percent have pit latrines with a slab. Sharing a toilet facility with other households is also more common in Rural areas (10 percent of households) compared with Urban areas (6 percent of households).

Table 2.8 Sanitation facilities

Percent distribution of households and de jure population by type of toilet/latrine facilities, according to residence, Guyana 2009

	Urban-Rural residence				Coastal-Interior residence					
	Urban				Coastal					
Type of toilet/latrine facility	Total Urban	Georgetown (urban)	Other (urban)	Total Rural	Total Coastal	Coastal (urban)	Coastal (rural)	Total Interior	Total percentage of households	Total percentage of population
Improved, not shared facility										
Flush/pour flush to piped sewer system	11.3	16.4	1.5	1.1	4.3	11.3	1.1	1.4	4.0	4.0
Flush/pour flush to septic tank	68.6	72.1	61.7	39.8	51.9	68.6	44.2	13.3	48.0	45.9
Flush/pour flush to pit latrine	0.1	0.2	0.0	0.3	0.2	0.1	0.2	1.0	0.2	0.4
Ventilated improved pit (VIP) latrine	3.5	2.5	5.5	9.0	6.9	3.5	8.5	11.5	7.4	8.3
Pit latrine with slab	6.6	1.6	16.2	31.2	23.1	6.6	30.8	33.8	24.2	25.4
Non-improved facility										
Any facility shared with other households	5.9	4.7	8.3	10.4	8.7	5.9	10.0	13.0	9.1	8.3
Flush/pour flush not to sewer/septic tank/pit latrine	0.1	0.2	0.0	0.3	0.2	0.1	0.3	0.3	0.2	0.2
Pit latrine without slab/open pit	3.3	1.8	6.1	5.5	3.5	3.3	3.5	17.3	4.9	5.5
Hanging toilet/hanging latrine	0.0	0.0	0.1	0.9	0.7	0.0	1.0	0.7	0.7	0.7
No facility/bush/field	0.3	0.2	0.5	1.3	0.3	0.3	0.3	7.1	1.0	1.0
Missing	0.3	0.3	0.1	0.1	0.1	0.3	0.1	0.4	0.1	0.2
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Number	1,603	1,053	550	4,029	5,052	1,603	3,449	580	5,632	21,317

2.2.3 Household Possessions

The availability of durable goods is a proximate measure of household socioeconomic status. Moreover, goods have specific benefits. Having access to a radio or a television exposes household members to innovative ideas; a refrigerator prolongs the wholesomeness of foods; and a means of transport, such as a bicycle, motorcycle, or car, allows access to many services available outside the local area.

In the 2009 GDHS, respondents were asked about ownership of particular household goods. Table 2.9 provides information on household ownership of durable goods (radios, televisions, telephones, refrigerators, and other items) and modes of transportation (bicycles, motorcycles, and automobiles).

- Nationally, the most commonly owned items among those investigated are the television (81 percent of households) and the mobile telephone (80 percent). The ownership of these two items is high in all areas, except for households in the Interior area, where ownership of television and mobile telephones is relatively low (45 and 55 percent, respectively).
- Refrigerators and radios are the next most popular household items (62 and 59 percent, respectively). Over half of Guyanese households own a land-line telephone (54 percent) and a bicycle (52 percent), but only 17 percent own a car or a truck.
- As expected, for most items ownership is much higher in Urban than in Rural areas, especially for non-mobile telephones (78 percent compared with 45 percent) and refrigerators (80 percent compared with 55 percent).

Table 2.9 Durable goods

Percentage of households and de jure population possessing various household effects, means of transportation, agricultural land, and livestock/farm animals, by residence, Guyana 2009

	Urban-Rural residence				Coastal-Interior residence					
	Urban				Coastal					
Characteristic	Total Urban	Georgetown (urban)	Other (urban)	Total Rural	Total Coastal	Coastal (urban)	Coastal (rural)	Total Interior	Total percentage of households	Total percentage of population
Radio	70.8	75.9	61.2	54.4	62.0	70.8	57.9	33.7	59.1	58.7
Television	90.4	91.2	89.1	76.5	84.6	90.4	81.8	44.8	80.5	81.8
Mobile telephone	87.2	87.3	87.0	76.8	82.6	87.2	80.5	54.9	79.7	82.9
Non-mobile telephone	77.9	86.9	60.9	44.7	59.6	77.9	51.1	6.8	54.2	53.2
Refrigerator	79.5	83.6	71.5	54.9	66.4	79.5	60.3	22.8	61.9	61.7
Bicycle	47.8	39.2	64.2	53.8	54.7	47.8	57.9	29.3	52.1	57.2
Animal-drawn cart	0.9	0.7	1.2	1.2	1.1	0.9	1.3	0.8	1.1	1.2
Motorcycle/scooter	14.6	16.0	11.7	6.6	9.4	14.6	7.0	4.6	8.9	9.8
Car/truck	22.8	26.3	16.2	15.0	18.5	22.8	16.5	5.9	17.2	17.6
Boat with a motor	0.6	0.0	1.8	5.0	3.2	0.6	4.4	8.8	3.7	4.4
Ownership of agricultural land	5.9	2.5	12.3	18.5	11.8	5.9	14.6	42.1	14.9	16.4
Ownership of farm animals[1]	11.7	6.4	21.7	27.8	22.4	11.7	27.4	30.5	23.2	26.4
Number	1,603	1,053	550	4,029	5,052	1,603	3,449	580	5,632	21,317

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

2.3 WEALTH QUINTILES

In addition to standard background characteristics, most of the results in this report are shown by wealth quintiles, an indicator of the economic status of households. Although surveys under the DHS program do not collect data on consumption or income, they do collect detailed information on dwelling and household characteristics and access to a variety of consumer goods, services, and assets. The wealth index is a measure that has been tested in a number of countries in relation to inequities in household income, use of health services, and health outcomes. The wealth index is constructed by assigning a weight or factor score to each household asset through principal components analysis. The resulting asset scores are standardized in relation to a standard normal distribution with a mean of zero and standard deviation of one. These scores are summed by household, and individuals are ranked according to the total score of the household in which they reside. The sample is then divided into population quintiles—five groups with the same number of individuals in each. At the national level, approximately 20 percent of the population is in each wealth quintile (Gwatkin et al, 2000).

Asset information was collected in the 2009 GDHS Household Questionnaire and covers information on household ownership of a number of consumer items ranging from a television to a bicycle or car, as well as dwelling characteristics, such as source of drinking water, type of sanitation facilities, and type of material used in flooring (see Tables 2.7.1 through 2.9).

Table 2.10 shows the distribution of the population across the five wealth quintiles, by areas of residence (Urban or Rural; Coastal or Interior) and by region. These distributions indicate the degree to which wealth is evenly (or unevenly) distributed by geographic areas. Also included in Table 2.10 is the Gini coefficient, which indicates the level of concentration of wealth, with 0 being an equal distribution and 1 a totally unequal distribution, although the coefficient is expressed as a percentage in the table.

- Around two-thirds of households in Urban areas are in the two highest wealth quintiles compared with about one-third in Rural areas. In contrast, households in Rural areas are five times as likely as those in Urban areas to be in the poorest wealth quintile (26 percent versus 5 percent).
- Fifty percent of the Urban (Georgetown) households are in the wealthiest quintile, compared with only 24 percent in Urban (other) areas in the country and 12 percent in Rural areas.
- Two-thirds of households (66 percent) in the Interior area are in the lowest quintile, and 83 percent are in the two poorest quintiles. Regions 1, 8, and 9 have most of their households in the lowest quintile (72, 74, and 84 percent, respectively), while Regions 4 and 10 have a significant percentage of households in the wealthiest quintile (32 and 24 percent, respectively).

Table 2.10 Wealth quintiles

Percent distribution of the de jure population by wealth quintiles, according to residence and region, Guyana 2009

Residence/region	Wealth quintile					Total	Number of de jure population	Gini coefficient
	Lowest	Second	Middle	Fourth	Highest			
Residence								
Total Urban	5.1	12.2	17.4	24.8	40.5	100.0	5,870	7.8
Urban (Georgetown)	3.4	9.7	12.9	24.3	49.7	100.0	3,774	5.6
Urban (other)	8.2	16.7	25.5	25.7	24.0	100.0	2,096	9.0
Total Rural	25.7	23.0	21.0	18.1	12.2	100.0	15,448	18.8
Total Coastal	13.5	20.4	21.7	22.0	22.4	100.0	18,649	12.1
Coastal (urban)	5.1	12.2	17.4	24.8	40.5	100.0	5,870	7.8
Coastal (rural)	17.3	24.1	23.7	20.8	14.1	100.0	12,780	12.6
Total Interior	65.6	17.4	8.1	5.6	3.4	100.0	2,668	40.1
Region								
Region 1	72.0	20.1	4.2	2.1	1.6	100.0	934	33.8
Region 2	38.0	21.6	17.7	14.2	8.5	100.0	1,312	21.5
Region 3	15.5	22.9	28.2	18.9	14.5	100.0	2,842	10.5
Region 4	9.4	17.6	18.7	22.7	31.6	100.0	8,678	10.2
Region 5	15.8	30.4	22.0	20.1	11.5	100.0	1,567	9.7
Region 6	13.9	22.5	23.6	26.0	14.0	100.0	3,357	12.5
Region 7	53.8	14.6	11.8	12.4	7.3	100.0	508	39.7
Region 8	74.0	12.9	9.6	2.6	0.9	100.0	465	43.5
Region 9	84.4	6.8	3.7	3.0	2.1	100.0	439	51.3
Region 10	10.8	17.9	25.2	22.4	23.8	100.0	1,215	12.8
Total	20.0	20.0	20.0	20.0	20.0	100.0	21,317	16.9

2.4 BIRTH REGISTRATION

The registration of births is the inscription of the facts of the birth into an official log kept at the registrar's office. A birth certificate is issued at the time of registration or later as proof of the registration of the birth. In the 2009 GDHS, for all children born since January 2004, mothers were asked if their child's birth had been registered. Table 2.11 shows the percentage of children under age 5 whose births were officially registered and the percentage that had a birth certificate at the time of the survey. Not all children who are registered may have a birth certificate since some certificates may have been lost or were never issued. However, all children with a certificate have been registered.

- A total of 88 percent of Guyanese children under age 5 have been registered with the civil authority. There are no substantial variations by background characteristics in the percentage of chidlren whose births are registered, except for regions. The total percentage of registered births ranges from 83 percent in Region 1 to 96 percent in Region 5.
- More variation is observed in the proportion of children with a birth certificate available at the time of the survey. Overall, 73 percent of children under age 5 had a birth certificate at the time of the survey. Children in Urban areas are slightly more likely than those in Rural areas to have a birth certificate available (81 and 70 percent, respectively). Only 61 percent of children under age 5 in the Interior area had a birth certificate at the time of the survey.
- The likelihood of having a birth certificate at the time of the survey is 21 percentage points lower for children in the poorest wealth quintile compared with those in the highest wealth quintile (63 percent versus 84 percent).

Table 2.11 Birth registration of children under age 5

Percentage of de jure children under age 5 whose births are registered with the civil authorities, according to background characteristics, Guyana 2009

Background characteristic	Percentage of children whose births are registered: Had a birth certificate	Didn't have a birth certificate	Total registered	Number of children
Age				
<2	58.8	28.4	87.2	825
2-4	82.1	6.3	88.4	1,228
Sex				
Male	71.6	16.7	88.2	1,023
Female	73.9	13.8	87.6	1,030
Residence				
Total Urban	81.2	9.9	91.1	464
Urban (Georgetown)	83.9	7.6	91.5	286
Urban (other)	77.0	13.5	90.4	178
Total Rural	70.2	16.8	87.0	1,589
Total Coastal	75.9	12.5	88.3	1,623
Coastal (urban)	81.2	9.9	91.1	464
Coastal (rural)	73.7	13.5	87.2	1,158
Total Interior	60.8	25.5	86.3	430
Region				
Region 1	56.1	26.8	83.0	162
Region 2	70.0	16.7	86.6	123
Region 3	73.9	15.0	88.9	269
Region 4	78.8	9.2	87.9	727
Region 5	81.2	14.6	95.8	144
Region 6	69.3	15.9	85.2	272
Region 7	73.6	15.5	89.2	73
Region 8	56.4	34.0	90.4	76
Region 9	59.4	24.5	83.9	72
Region 10	73.9	16.2	90.1	133
Wealth quintile				
Lowest	63.3	20.9	84.3	595
Second	74.5	15.4	89.8	438
Middle	72.6	15.5	88.2	374
Fourth	76.7	11.2	87.9	339
Highest	84.1	7.9	92.0	307
Total 2009	**72.7**	**15.2**	**87.9**	**2,053**
Total 2005	77.5	17.3	94.8	1,006

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

CHARACTERISTICS OF SURVEY RESPONDENTS 3

This chapter provides a brief description of demographic and socioeconomic characteristics of the survey respondents, specifically their age, sex, residence, education, economic status, employment, and marital status. Examination of these characteristics not only helps one to gauge the accuracy of the survey data but also provides a look at trends in these characteristics over time. Most important, they provide a basis for the analysis of how these characteristics relate to the other issues investigated in the survey.

3.1 BACKGROUND CHARACTERISTICS OF SURVEY RESPONDENTS

A description of the basic characteristics of the 4,996 women and 3,522 men interviewed in the 2009 GDHS is essential as background for interpreting findings presented later in the report. Table 3.1 provides the percent distribution of respondents by age, marital status, level of education, wealth quintile, religion, and ethnicity. Information on both the weighted and unweighted numbers is included.

To determine their age, respondents were asked two questions in the individual interview: “In what month and year were you born?” and “How old were you at your last birthday?” The interviewers were trained to use probing techniques for situations in which respondents did not know their age or date of birth, and as a last resort, they were instructed to record their best estimate of the respondent's age.

Highlights of basic background characteristics of the respondents are the following:

- The percentage of each age group decreases with age for both women and men, reflecting the predominantly youthful age structure of the population of Guyana. Respondents age 15-19 represent the highest percentage—20 percent— or one-fifth of the total population age 15-49.
- About one-third of women (34 percent) and men (31 percent) are currently married. An additional one in four women (25 percent) and one in five men (22 percent) are in “informal” unions. All together, 59 percent of women and 52 percent of men are currently in a union. Eleven percent of women and 9 percent of men are divorced, separated, or widowed. The proportion that has never married is higher for men (39 percent) than for women (31 percent).
- About one-fifth of women (19 percent) and men (20 percent) attended or completed primary school. Seven in ten respondents have attended or completed secondary school, and 8 percent each of women and men have more than a secondary education.
- The male population is more evenly distributed among wealth quintiles (19-21 percent each) than the female population (which increases steadily from 16 percent in the lowest quintile to 23 percent in the highest quintile).
- The majority of respondents (66 percent of women and 56 percent of men) are Christian, followed by Hindu (26 percent of women and 31 percent of men). Another 6 percent of women and 8 percent of men are Muslim.
- The largest ethnic group in Guyana is Indian: 43 percent of women and 50 percent of men are of Indian descent. More than one-quarter of respondents are in the African ethnic group (30 percent of women and 27 percent of men), and slightly less than one-tenth of respondents (9 percent of women and 8 percent of men) report that they are Amerindian.
- Eighteen percent of women and 14 percent of men say they are of mixed ethnic background.

Table 3.1 Background characteristics of respondents

Percent distribution of women and men age 15-49, by background characteristics, Guyana 2009

Background characteristic	Women			Men		
	Weighted percent	Weighted number	Unweighted number	Weighted percent	Weighted number	Unweighted number
Age						
15-19	20.3	1,016	1,016	19.6	689	720
20-24	15.4	767	775	14.5	511	497
25-29	13.2	658	658	13.1	462	460
30-34	12.9	643	661	14.8	521	487
35-39	14.0	699	697	13.3	470	482
40-44	12.5	624	624	13.0	457	463
45-49	11.8	589	565	11.7	413	413
Marital status						
Never married	30.8	1,540	1,512	39.2	1,382	1,377
Married	33.8	1,687	1,803	30.6	1,078	1,159
Living together	24.7	1,233	1,203	21.5	757	725
Divorced/separated	9.1	454	398	8.3	291	247
Widowed	1.6	82	80	0.4	14	14
Education						
No education	1.4	68	81	1.7	60	56
Primary	19.1	952	1,042	20.2	711	741
Secondary	71.4	3,568	3,500	69.8	2,459	2,451
More than secondary	8.2	409	373	8.3	292	274
Wealth quintile						
Lowest	15.6	779	1,254	18.8	663	900
Second	19.2	957	899	19.3	679	675
Middle	20.5	1,025	936	20.5	723	667
Fourth	21.7	1,084	984	21.3	751	695
Highest	23.0	1,151	923	20.0	705	585
Religion						
Christian	66.2	3,306	3,520	55.5	1,956	2,095
Hindu	26.2	1,307	1,137	31.4	1,106	981
Muslim	6.1	306	271	8.0	282	262
Rastafarian	0.2	12	7	1.2	42	38
Not religious	1.1	53	48	3.5	123	131
Other	0.1	4	6	0.3	11	12
Missing	0.1	6	7	0.1	3	3
Ethnic group						
African	29.5	1,475	1,242	26.5	933	848
Indian	43.4	2,168	1,847	49.6	1,748	1,557
Amerindian	9.0	449	932	8.2	291	561
Portuguese	0.1	5	7	1.1	38	26
Chinese	0.0	2	3	0.1	2	3
Mixed	17.9	892	959	14.3	504	520
Other	0.1	3	2	0.1	4	6
Missing	0.0	2	4	0.0	2	1
Total	100.0	4,996	4,996	100.0	3,522	3,522

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

3.2 EDUCATIONAL ATTAINMENT OF RESPONDENTS

Tables 3.2.1 and 3.2.2 show the percent distribution of women and men age 15-49, respectively, by highest level of schooling attended or completed and median number of years completed, according to background characteristics. Furthermore, Figure 3.1 shows the gender differentials in educational attainment, by place of residence and by wealth index.

Table 3.2.1 Educational attainment of respondents: Women

Percent distribution of women age 15-49 by highest level of schooling attended or completed and median number of years completed, according to background characteristics, Guyana 2009

Background characteristic	Highest level of schooling						Total	Median years of schooling[3]	Number of women
	No education	Some primary	Completed primary[1]	Some secon-dary	Completed secondary[2]	More than secon-dary			
Age									
15-24	0.8	6.2	3.5	47.8	34.3	7.5	100.0	9.6	1,783
15-19	0.8	5.5	2.4	61.5	26.4	3.5	100.0	9.1	1,016
20-24	0.8	7.0	4.9	29.7	44.8	12.8	100.0	10.2	767
25-29	1.8	9.8	8.1	35.8	32.6	11.9	100.0	9.6	658
30-34	1.9	11.8	6.9	41.8	26.4	11.2	100.0	9.2	643
35-39	1.9	11.7	10.7	46.2	22.5	7.0	100.0	8.9	699
40-44	1.1	17.9	13.1	39.6	23.3	4.9	100.0	8.4	624
45-49	1.6	20.7	12.0	37.7	20.3	7.7	100.0	8.1	589
Residence									
Total Urban	0.6	4.8	2.5	43.8	32.7	15.6	100.0	9.9	1,475
Georgetown (urban)	0.6	3.0	1.2	44.5	34.3	16.4	100.0	10.0	967
Other (urban)	0.6	8.2	4.9	42.5	29.6	14.2	100.0	9.6	508
Total Rural	1.7	14.1	9.9	42.7	26.6	5.1	100.0	8.8	3,521
Total Coastal	1.0	10.6	7.5	42.9	29.2	8.7	100.0	9.3	4,495
Coastal (urban)	0.6	4.8	2.5	43.8	32.7	15.6	100.0	9.9	1,475
Coastal (rural)	1.2	13.5	9.9	42.5	27.5	5.4	100.0	8.8	3,019
Total Interior	4.5	17.5	9.9	44.0	21.1	3.1	100.0	8.3	501
Region									
Region 1	10.8	36.7	8.7	31.0	9.9	2.8	100.0	5.4	162
Region 2	2.8	11.8	13.3	45.4	21.1	5.6	100.0	8.3	293
Region 3	1.2	15.3	7.0	40.2	29.7	6.5	100.0	8.9	687
Region 4	0.9	7.8	4.4	45.3	31.0	10.6	100.0	9.6	2,168
Region 5	1.6	12.5	16.6	34.6	29.0	5.6	100.0	9.1	353
Region 6	0.5	15.2	11.6	39.9	27.5	5.3	100.0	8.6	780
Region 7	1.3	6.5	9.1	44.7	33.7	4.6	100.0	9.5	104
Region 8	0.4	8.3	9.5	61.0	19.1	1.7	100.0	9.0	95
Region 9	2.3	11.5	15.1	41.0	28.4	1.7	100.0	8.7	78
Region 10	0.5	4.5	3.1	49.8	25.8	16.3	100.0	9.6	277
Wealth quintile									
Lowest	6.0	23.9	13.9	40.9	14.4	1.0	100.0	7.0	779
Second	0.9	13.9	9.3	52.0	21.3	2.5	100.0	8.5	957
Middle	0.5	10.2	8.1	47.7	28.7	4.8	100.0	9.2	1,025
Fourth	0.4	8.1	7.0	43.0	32.3	9.2	100.0	9.5	1,084
Highest	0.3	4.7	2.6	32.7	39.8	19.9	100.0	10.2	1,151
Total 2009	**1.4**	**11.3**	**7.7**	**43.0**	**28.4**	**8.2**	**100.0**	**9.2**	**4,996**
Total 2005	1.0	12.1	8.0	47.9	23.1	7.9	100.0	12.1	2,425

[1] Completed 6 grades at the primary level
[2] Completed 5 grades at the secondary level
[3] The median is the midpoint of the distribution of the population by number of years of education.

Table 3.2.2 Educational attainment of respondents: Men

Percent distribution of men age 15-49 by highest level of schooling attended or completed and median number of years completed, according to background characteristics, Guyana 2009

Background characteristic	Highest level of schooling						Total	Median years of schooling[3]	Number of men
	No education	Some primary	Completed primary[1]	Some secon-dary	Completed secondary[2]	More than secon-dary			
Age									
15-24	1.1	6.0	2.9	57.7	23.0	9.2	100.0	9.1	1,200
15-19	0.3	4.7	2.2	69.6	17.9	5.1	100.0	8.8	689
20-24	2.2	7.7	3.8	41.7	29.9	14.7	100.0	9.7	511
25-29	2.1	7.7	6.1	45.5	28.1	10.5	100.0	9.4	462
30-34	1.4	15.6	8.8	46.9	18.1	9.2	100.0	8.5	521
35-39	1.9	18.1	9.3	44.4	19.8	6.5	100.0	8.6	470
40-44	1.3	20.0	11.9	44.5	17.2	5.0	100.0	8.1	457
45-49	3.5	22.5	11.3	43.8	11.2	7.8	100.0	8.1	413
Residence									
Total Urban	0.4	4.7	4.1	47.0	28.8	15.1	100.0	9.6	949
Georgetown (urban)	0.3	4.0	4.2	42.4	33.0	16.2	100.0	10.0	619
Other (urban)	0.5	5.9	3.9	55.7	21.1	12.9	100.0	9.1	330
Total Rural	2.2	16.0	8.4	50.3	17.3	5.8	100.0	8.5	2,573
Total Coastal	1.2	12.9	6.7	49.2	21.1	8.8	100.0	8.9	3,126
Coastal (urban)	0.4	4.7	4.1	47.0	28.8	15.1	100.0	9.6	949
Coastal (rural)	1.6	16.5	7.9	50.2	17.8	6.1	100.0	8.6	2,176
Total Interior	5.6	13.8	11.0	50.8	14.8	4.0	100.0	8.0	396
Region									
Region 1	12.1	16.2	10.7	46.6	11.8	2.6	100.0	6.5	160
Region 2	1.3	16.4	15.5	44.6	18.5	3.8	100.0	8.1	179
Region 3	1.7	12.8	4.5	58.8	15.8	6.4	100.0	8.8	420
Region 4	0.9	13.1	4.1	46.1	25.7	10.1	100.0	9.2	1,540
Region 5	1.4	16.5	9.0	51.0	14.5	7.5	100.0	8.3	271
Region 6	1.7	12.0	12.9	47.6	18.8	7.0	100.0	8.5	587
Region 7	0.4	9.9	18.4	45.8	20.3	5.2	100.0	8.8	61
Region 8	2.7	7.0	16.0	55.8	17.7	0.8	100.0	8.5	68
Region 9	0.5	21.8	4.5	56.3	13.3	3.6	100.0	8.4	57
Region 10	0.3	4.4	1.8	62.9	12.5	18.0	100.0	9.0	178
Wealth quintile									
Lowest	4.2	23.4	12.9	49.6	7.7	2.2	100.0	6.7	663
Second	2.6	18.0	7.2	54.4	14.2	3.5	100.0	8.2	679
Middle	1.1	12.7	6.9	55.5	17.4	6.3	100.0	8.8	723
Fourth	0.7	8.5	6.2	50.7	25.4	8.6	100.0	9.2	751
Highest	0.2	3.3	3.3	36.7	36.1	20.4	100.0	10.2	705
Total 2009	**1.7**	**13.0**	**7.2**	**49.4**	**20.4**	**8.3**	**100.0**	**8.8**	**3,522**
Total 2005	1.6	11.6	10.1	49.2	19.1	8.5	100.0	11.8	1,875

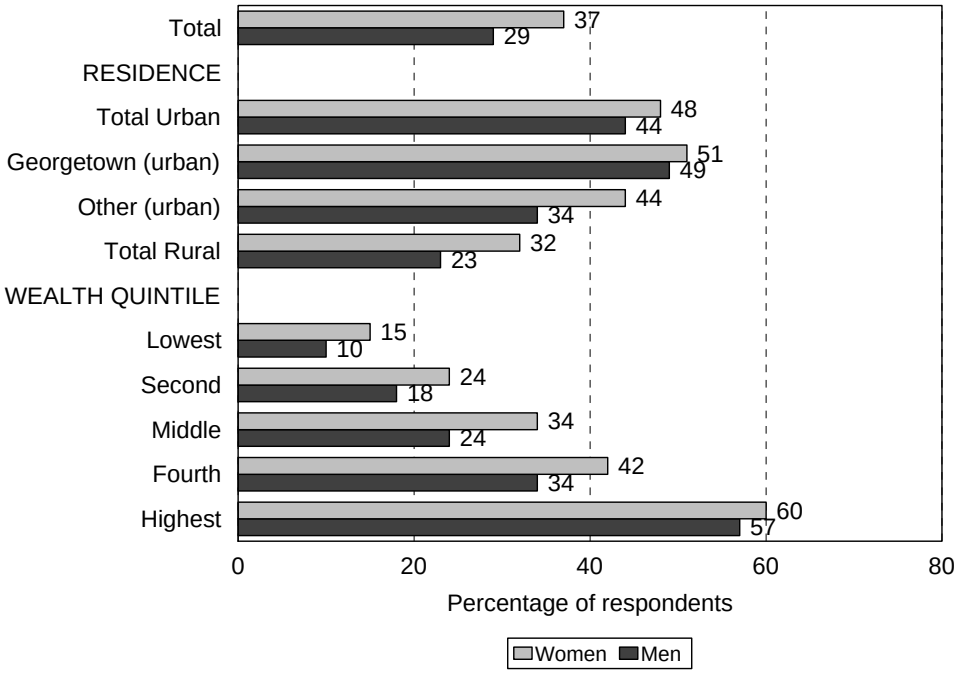
[1] Completed 6 grades at the primary level
[2] Completed 5 grades at the secondary level
[3] The median is the midpoint of the distribution of the population by number of years of education.

- Only 1 percent of women and 2 percent of men have never attended school. Respondents in the Interior area (5 percent of women and 6 percent of men) and in Region 1 (11 percent of women and 12 percent of men) are more likely than other respondents to have no education.
- Eighty percent of women and 78 percent of men have attended secondary school or higher, the percentage being significantly higher for younger age groups. An Urban-Rural differential exists, with Urban respondents being much more likely to have attended secondary or higher education than Rural respondents. Ninety-two percent of Urban

women and 91 percent of Urban men have secondary or higher education compared with 74 percent of Rural women and 73 percent of Rural men. Only 68 percent of women and 70 percent of men in the Interior area have secondary or higher education.

- Respondents in the higher wealth quintiles are much more likely to be educated than respondents in the lower wealth quintiles. The percentage of respondents who have secondary or higher education increases rapidly with wealth. For women, it increases from 56 percent in the lowest wealth quintile to 92 percent in the highest quintile, while for men it increases from 60 percent to 93 percent.
- The median years of schooling, indicating the number of years spent in school by half the population, is 9.2 years for women and 8.8 years for men. The median is about one year higher for young respondents, those age 15-24, than for those age 45-49. Respondents in the highest wealth quintile have at least three more years of schooling than those in the lowest wealth quintile (3.2 more years for women and 3.5 more years for men).

Figure 3.1 Respondents Completing Secondary or Higher Education, by Residence and Wealth Quintile



GDHS 2009

3.3 LITERACY

The ability to read and write is an important personal asset, offering individuals increased opportunities in life. Knowing the distribution of the literate population can help program managers—especially those concerned with health and family planning—reach women and men with their messages. The 2009 GDHS assessed respondents' ability to read by asking them to read a simple sentence. Only women and men who had never attended school and who had attended only primary school were asked to read the sentence; it was assumed that everyone with secondary or higher education was literate. Literacy was measured by whether the respondent could read none, part, or all of the sentence. Individuals who were blind or visually impaired were excluded.

The following sentences were included in the 2009 GDHS:

- The child is reading a book.
- The rains came late this year.
- Parents must care for their children.
- Farming is hard work.

Tables 3.3.1 and 3.3.2 show the percent distributions of women and men, respectively, by level of schooling attended, by level of literacy, and by percentage literate, according to background characteristics.

Table 3.3.1 Literacy: Women

Percent distribution of women by level of schooling attended, by level of literacy, and by percentage literate, according to background characteristics, Guyana 2009

Background characteristic	Secondary school or higher	No schooling or primary school: Can read whole sentence	Can read part of sentence	Cannot read at all	No card with required language	Blind/ visually impaired	Don't know/ missing	Total	Percentage literate[1]	Number of women
Age										
15-19	91.3	4.3	1.6	2.4	0.0	0.0	0.3	100.0	97.3	1,016
20-24	87.4	4.9	3.6	4.1	0.1	0.0	0.0	100.0	95.9	767
25-29	80.4	9.2	3.9	6.6	0.0	0.0	0.0	100.0	93.4	658
30-34	79.4	8.9	4.4	6.9	0.3	0.0	0.1	100.0	92.7	643
35-39	75.6	12.1	5.3	5.9	0.0	0.0	1.0	100.0	93.1	699
40-44	67.8	19.7	5.6	6.3	0.0	0.1	0.5	100.0	93.1	624
45-49	65.8	21.3	6.2	5.8	0.0	0.6	0.3	100.0	93.3	589
Residence										
Total Urban	92.2	4.6	1.2	1.7	0.1	0.0	0.2	100.0	97.9	1,475
Georgetown (urban)	95.2	2.9	0.7	0.8	0.2	0.0	0.2	100.0	98.8	967
Other (urban)	86.3	7.9	2.0	3.4	0.0	0.0	0.3	100.0	96.2	508
Total Rural	74.3	13.2	5.4	6.6	0.0	0.1	0.4	100.0	92.9	3,521
Total Coastal	80.9	10.1	3.8	4.7	0.0	0.1	0.3	100.0	94.8	4,495
Coastal (urban)	92.2	4.6	1.2	1.7	0.1	0.0	0.2	100.0	97.9	1,475
Coastal(rural)	75.4	12.8	5.1	6.2	0.0	0.1	0.3	100.0	93.3	3,019
Total Interior	68.2	15.2	7.0	9.0	0.1	0.0	0.6	100.0	90.4	501
Region										
Region 1	43.7	20.7	13.8	21.3	0.2	0.0	0.2	100.0	78.2	162
Region 2	72.1	12.6	4.2	10.0	0.0	0.3	0.8	100.0	88.9	293
Region 3	76.4	14.8	3.7	4.7	0.0	0.0	0.4	100.0	94.9	687
Region 4	86.9	6.9	2.6	3.2	0.1	0.1	0.3	100.0	96.4	2,168
Region 5	69.3	17.6	6.4	6.3	0.0	0.4	0.0	100.0	93.2	353
Region 6	72.7	12.4	6.8	7.7	0.0	0.0	0.4	100.0	91.9	780
Region 7	83.0	9.7	4.1	2.0	0.0	0.0	1.1	100.0	96.9	104
Region 8	81.8	10.7	4.5	1.6	0.0	0.0	1.4	100.0	97.0	95
Region 9	71.1	20.1	3.7	5.1	0.0	0.0	0.0	100.0	94.9	78
Region 10	91.9	5.8	0.9	1.4	0.0	0.0	0.0	100.0	98.6	277
Wealth quintile										
Lowest	56.2	18.6	8.5	16.4	0.0	0.0	0.3	100.0	83.2	779
Second	75.9	11.2	5.7	6.6	0.0	0.2	0.4	100.0	92.8	957
Middle	81.2	10.1	5.5	3.0	0.0	0.3	0.1	100.0	96.7	1,025
Fourth	84.6	10.6	2.0	2.4	0.0	0.0	0.4	100.0	97.2	1,084
Highest	92.4	5.4	0.7	0.9	0.2	0.0	0.4	100.0	98.5	1,151
Total	79.6	10.6	4.1	5.2	0.0	0.1	0.3	100.0	94.4	4,996

[1] Refers to respondents who attended secondary school or higher level and respondents who can read a whole sentence or part of a sentence. The calculation excludes from the denominator respondents for whom no card in the required language was available and respondents who were blind/visually impaired (their literacy could not be gauged).

Table 3.3.2 Literacy: Men

Percent distribution of men by level of schooling attended, by level of literacy, and by percentage literate, according to background characteristics, Guyana 2009

Background characteristic	Secondary school or higher	No schooling or primary school: Can read whole sentence	Can read part of sentence	Cannot read at all	No card with required language	Blind/ visually impaired	Don't know/ missing	Total	Percentage literate[1]	Number of men
Age										
15-19	92.7	1.8	1.3	4.0	0.0	0.0	0.2	100.0	95.8	689
20-24	86.3	3.9	3.5	6.0	0.0	0.0	0.3	100.0	93.6	511
25-29	84.2	4.4	3.2	8.0	0.1	0.0	0.2	100.0	91.7	462
30-34	74.2	11.6	3.5	10.1	0.0	0.0	0.6	100.0	89.3	521
35-39	70.8	9.0	7.9	10.4	0.2	0.4	1.4	100.0	87.6	470
40-44	66.7	14.7	9.1	8.2	0.0	0.0	1.2	100.0	90.5	457
45-49	62.8	19.2	6.4	10.2	0.2	0.6	0.6	100.0	88.3	413
Residence										
Total Urban	90.9	4.0	1.9	2.4	0.0	0.2	0.7	100.0	96.7	949
Georgetown (urban)	91.5	4.1	2.2	1.3	0.0	0.2	0.7	100.0	97.8	619
Other (urban)	89.7	3.7	1.3	4.4	0.0	0.2	0.7	100.0	94.7	330
Total Rural	73.4	10.3	5.7	9.9	0.1	0.1	0.6	100.0	89.3	2,573
Total Coastal	79.2	8.1	4.4	7.6	0.0	0.1	0.6	100.0	91.7	3,126
Coastal (urban)	90.9	4.0	1.9	2.4	0.0	0.2	0.7	100.0	96.7	949
Coastal (rural)	74.1	9.9	5.5	9.8	0.0	0.1	0.6	100.0	89.5	2,176
Total Interior	69.6	12.1	6.9	10.2	0.6	0.1	0.4	100.0	88.7	396
Region										
Region 1	61.1	11.8	6.9	18.6	1.3	0.0	0.3	100.0	79.8	160
Region 2	66.8	17.3	8.7	7.1	0.0	0.0	0.0	100.0	92.9	179
Region 3	81.0	8.1	4.8	5.3	0.0	0.3	0.5	100.0	94.0	420
Region 4	81.9	7.1	4.6	5.6	0.0	0.1	0.6	100.0	93.7	1,540
Region 5	73.0	11.4	1.9	13.2	0.0	0.4	0.0	100.0	86.4	271
Region 6	73.4	7.9	4.0	13.5	0.0	0.0	1.2	100.0	85.3	587
Region 7	71.3	17.8	5.5	4.0	0.0	0.0	1.2	100.0	94.7	61
Region 8	74.3	11.3	8.6	5.6	0.3	0.0	0.0	100.0	94.1	68
Region 9	73.2	16.1	4.5	5.1	0.4	0.6	0.0	100.0	93.8	57
Region 10	93.4	1.2	3.1	0.8	0.0	0.4	1.0	100.0	97.8	178
Wealth quintile										
Lowest	59.5	13.1	10.2	15.8	0.3	0.1	0.9	100.0	82.8	663
Second	72.2	9.4	6.9	10.8	0.1	0.3	0.3	100.0	88.5	679
Middle	79.2	8.9	4.0	7.2	0.0	0.0	0.8	100.0	92.0	723
Fourth	84.6	7.7	1.7	5.1	0.0	0.2	0.7	100.0	94.0	751
Highest	93.2	4.1	1.1	1.2	0.0	0.0	0.4	100.0	98.4	705
Total 15-49	78.1	8.6	4.7	7.9	0.1	0.1	0.6	100.0	91.3	3,522

[1] Refers to respondents who attended secondary school or higher and respondents who can read a whole sentence or part of a sentence. The calculation excludes from the denominator respondents for whom no card with the required language is available and respondents who are blind/visually impaired, since their literacy cannot be gauged.

- Overall, 94 percent of women and 91 percent of men age 15-49 are literate. Only 5 percent of women and 8 percent of men age 15-49 cannot read at all. The figures for respondents in Region 1 are much higher, 21 percent for women and 19 percent for men.
- Literacy levels among men have increased over the years, from 88 percent for men age 45-49 to 96 percent for those age 15-19. This pattern is less pronounced among women as literacy in all age groups is 93 percent or higher.
- As expected, literacy levels in urban areas are higher than in rural areas (98 percent versus 93 percent for women; 97 percent versus 89 percent for men). The lowest literacy levels occur in Region 1 (78 percent for women and 80 percent for men).

- Literacy among respondents in the highest wealth quintile is almost universal (99 percent for women and 98 percent for men), but only 83 percent of women and men in the lowest wealth quintile are literate.

3.4 EXPOSURE AND ACCESS TO MASS MEDIA

Respondents were asked in the 2009 GDHS how frequently they read a newspaper or watch television and how frequently they listen to a radio. This information is important to program planners seeking to reach women and men through the media with family planning and health messages. The percentages of women and men who were exposed to specific mass media on a weekly basis are presented in Tables 3.4.1 (for women) and 3.4.2 (for men), by background characteristics.

Table 3.4.1 Exposure to mass media: Women

Percentage of women age 15-49 who are exposed to specific media on a weekly basis, by background characteristics, Guyana 2009

Background characteristic	Type of mass media exposure: Reads a newspaper at least once a week	Watches television at least once a week	Listens to the radio at least once a week	All three media	No mass media	Number of women
Age						
15-19	70.6	85.4	52.4	38.3	6.1	1,016
20-24	71.0	83.6	47.0	35.9	8.2	767
25-29	66.7	83.3	43.9	32.0	8.6	658
30-34	69.8	85.4	51.2	38.5	5.3	643
35-39	67.4	84.5	47.5	35.8	8.2	699
40-44	65.4	82.5	46.1	33.7	7.6	624
45-49	62.4	83.4	44.2	28.1	8.7	589
Residence						
Total Urban	79.9	90.6	61.9	50.1	2.4	1,475
Georgetown (urban)	82.9	92.2	69.3	57.1	2.0	967
Other (urban)	74.3	87.5	47.8	36.7	3.2	508
Total Rural	63.0	81.4	42.0	28.7	9.5	3,521
Total Coastal	70.9	88.1	50.7	37.8	4.4	4,495
Coastal (urban)	79.9	90.6	61.9	50.1	2.4	1,475
Coastal (rural)	66.5	86.9	45.2	31.9	5.4	3,019
Total Interior	41.4	48.5	22.4	9.6	34.6	501
Region						
Region 1	35.3	42.9	18.2	6.4	40.7	162
Region 2	60.0	75.0	47.0	28.3	9.9	293
Region 3	70.7	90.4	46.0	34.2	4.3	687
Region 4	76.5	89.7	57.7	45.1	3.2	2,168
Region 5	58.2	82.2	40.4	25.7	6.2	353
Region 6	63.9	90.2	41.9	30.3	5.3	780
Region 7	50.0	57.1	34.0	21.8	29.5	104
Region 8	40.5	45.2	13.3	3.9	36.3	95
Region 9	31.5	30.6	20.8	3.0	45.2	78
Region 10	72.4	82.7	44.3	31.4	5.2	277
Education						
No education	5.4	37.6	16.3	0.3	50.6	68
Primary	42.7	74.0	35.4	16.5	15.7	952
Secondary	73.6	87.0	50.2	38.4	4.9	3,568
More than secondary	87.8	90.5	62.2	53.8	3.2	409
Wealth quintile						
Lowest	37.6	37.0	32.2	9.0	35.3	779
Second	59.5	86.0	41.9	25.8	5.3	957
Middle	70.9	92.6	46.5	34.2	2.2	1,025
Fourth	75.7	96.0	49.9	40.2	1.6	1,084
Highest	85.7	95.7	62.8	56.1	0.7	1,151
Total 2009	**68.0**	**84.1**	**47.9**	**35.0**	**7.4**	**4,996**
Total 2005	69.6	82.9	60.3	41.2	5.5	2,425

Table 3.4.2 Exposure to mass media: Men

Percentage of men age 15-49 who are exposed to specific media on a weekly basis, by background characteristics, Guyana 2009

Background characteristic	Type of mass media exposure: Reads a newspaper at least once a week	Watches television at least once a week	Listens to the radio at least once a week	All three media	No mass media	Number of men
Age						
15-19	62.9	88.2	50.9	33.6	6.2	689
20-24	60.4	82.5	54.5	36.1	10.6	511
25-29	65.7	86.5	58.9	44.9	8.4	462
30-34	58.9	83.7	55.5	37.2	9.2	521
35-39	58.4	80.9	53.1	33.7	7.7	470
40-44	66.2	79.1	54.0	39.5	11.6	457
45-49	58.1	77.3	57.9	35.2	11.3	413
Residence						
Total Urban	75.6	92.4	63.4	49.6	2.5	949
Georgetown (urban)	78.6	93.0	68.9	56.1	2.4	619
Other (urban)	69.8	91.3	53.0	37.5	2.5	330
Total Rural	56.4	79.6	51.4	32.3	11.5	2,573
Total Coastal	65.0	87.5	57.5	40.0	5.6	3,126
Coastal (urban)	75.6	92.4	63.4	49.6	2.5	949
Coastal (rural)	60.3	85.3	54.9	35.8	7.0	2,176
Total Interior	34.8	48.3	32.4	12.8	36.3	396
Region						
Region 1	27.7	47.8	31.6	11.6	41.2	160
Region 2	60.1	84.5	64.6	38.4	6.5	179
Region 3	60.8	89.2	46.4	28.9	5.0	420
Region 4	70.7	88.2	62.4	48.0	5.5	1,540
Region 5	51.8	77.5	47.7	26.6	8.7	271
Region 6	58.4	89.0	56.2	34.1	5.1	587
Region 7	52.5	61.1	47.5	32.0	29.0	61
Region 8	34.4	37.7	18.1	2.1	40.8	68
Region 9	35.4	34.0	36.8	9.5	36.8	57
Region 10	63.5	83.3	45.4	30.4	8.5	178
Education						
No education	3.2	64.4	29.2	1.4	32.1	60
Primary	33.3	72.0	47.6	19.0	18.6	711
Secondary	67.9	85.6	56.7	41.3	6.6	2,459
More than secondary	88.6	92.0	59.7	51.1	1.6	292
Wealth quintile						
Lowest	34.9	43.1	42.3	13.6	33.4	663
Second	48.7	84.1	50.2	25.6	6.3	679
Middle	64.3	93.3	56.1	39.1	3.9	723
Fourth	73.0	95.6	59.4	48.6	1.9	751
Highest	84.0	95.8	64.0	55.3	1.7	705
Total 2009	**61.6**	**83.0**	**54.7**	**36.9**	**9.1**	**3,522**
Total 2005	64.1	85.5	67.0	44.0	4.8	1,875

- Only 7 percent of women and 9 percent of men are not exposed to any of the specified media.
- More than eight in ten respondents (84 percent of women and 83 percent of men) watch television, the most common type of mass media in Guyana, at least once a week. More than two-thirds of women (68 percent) and six in ten men (62 percent) read a newspaper. About half (48 percent of women and 55 percent of men) listen to the radio at least once a

week. Slightly over one-third of women and men (35 and 37 percent, respectively) have exposure to all three media on a weekly basis.

- As expected, women and men living in urban areas are more likely than those living in rural areas to be exposed to mass media. Half of urban women and men are exposed to all three forms of media. On the other hand, only 29 percent of rural women and 32 percent of rural men are exposed to all three media weekly.
- The exposure to all three forms of mass media is relatively low in Region 8 (4 percent of women and 2 percent of men), Region 9 (3 percent of women and 10 percent of men), and Region 1 (6 percent of women and 12 percent of men). Additionally, the likelihood of having exposure to any mass media strongly correlates with the person's education and wealth status.

3.5 EMPLOYMENT STATUS AND TYPE OF OCCUPATION

Male and female respondents age 15 and older were asked if they were employed at the time of the survey and, if not, if they were employed in the 12 months preceding the survey. The measurement of employment, however, is difficult because some work, especially work on family farms, in family businesses, or in the informal sector, is often not perceived as employment and hence not reported as such. To avoid underestimating respondent's employment, the DHS questionnaire asks respondents several questions to probe for their employment status and to ensure complete coverage of employment in both the formal and informal sectors. Respondents are considered "employed" if they are currently working (i.e., worked in the past seven days) or if they worked at any time during the 12 months preceding the survey.

Table 3.5 shows the percent distribution of respondents by employment status, according to background characteristics, while Figure 3.2 presents the percentage of currently employed respondents by residence and education. Tables 3.6.1 and 3.6.2 present the distribution of currently employed women and men, respectively, by type of occupation, according to background characteristics. Table 3.7 shows the percentage 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).

Table 3.5 Employment status

Percent distribution of women and men by employment status, according to background characteristics, Guyana 2009

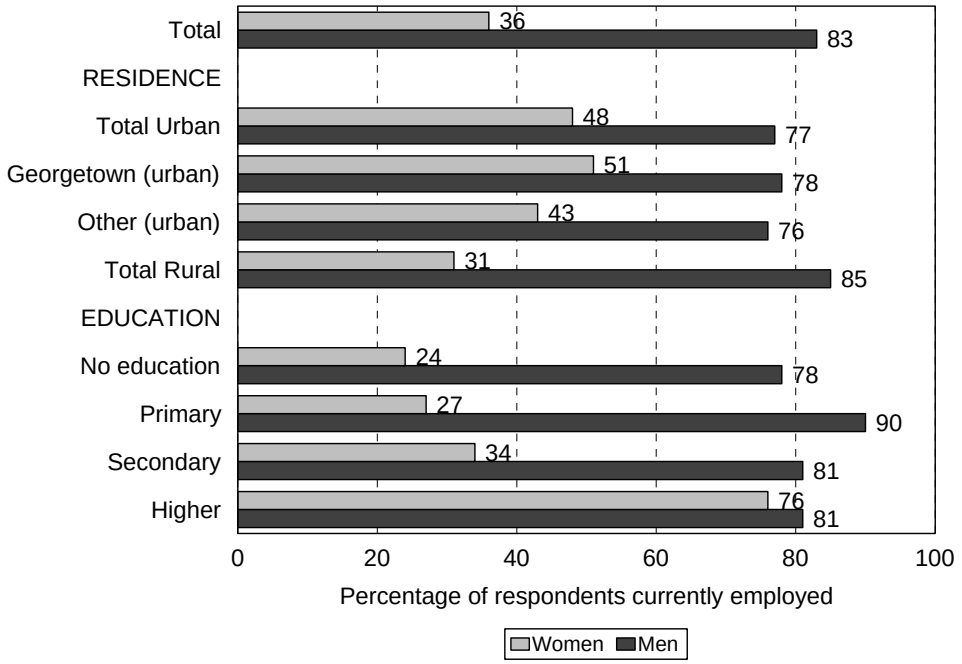
Background characteristic	Women: Employed in the 12 months preceding the survey: Currently employed[1]	Women: Employed in the 12 months preceding the survey: Not currently employed	Women: Not employed in the last 12 months	Women: Total	Women: Number of women	Men: Employed in the 12 months preceding the survey: Currently employed[1]	Men: Employed in the 12 months preceding the survey: Not currently employed	Men: Not employed in the last 12 months	Men: Total	Men: Number of men
Age										
15-19	13.9	3.9	82.2	100.0	1,016	44.7	6.1	49.0	100.0	689
20-24	38.6	3.8	57.6	100.0	767	85.2	6.9	7.9	100.0	511
25-29	41.4	5.1	53.1	100.0	658	93.6	3.9	2.5	100.0	462
30-34	40.2	3.3	56.3	100.0	643	96.1	2.4	1.4	100.0	521
35-39	43.3	2.9	53.6	100.0	699	92.7	4.9	2.2	100.0	470
40-44	45.5	3.3	50.9	100.0	624	93.9	3.5	2.5	100.0	457
45-49	43.6	2.6	52.9	100.0	589	89.4	4.7	5.7	100.0	413
Marital status										
Never married	35.4	4.6	59.7	100.0	1,540	64.0	6.8	29.0	100.0	1,382
Married or living together	32.5	3.0	64.2	100.0	2,920	95.3	3.1	1.6	100.0	1,835
Formerly married	59.2	3.9	36.9	100.0	536	90.7	5.0	4.2	100.0	305
Number of living children										
0	31.1	4.3	64.6	100.0	1,598	68.9	5.9	25.1	100.0	1,621
1-2	40.6	2.6	56.4	100.0	1,773	93.1	4.8	2.1	100.0	978
3-4	34.8	3.9	61.2	100.0	1,147	95.8	2.6	1.5	100.0	662
5+	41.2	4.5	54.0	100.0	478	95.5	2.6	1.9	100.0	260
Residence										
Total Urban	48.0	4.1	47.7	100.0	1,475	77.1	5.9	17.1	100.0	949
Georgetown (urban)	50.5	4.1	45.4	100.0	967	77.8	4.3	17.8	100.0	619
Other (urban)	43.3	4.1	52.0	100.0	508	75.7	8.7	15.6	100.0	330
Total Rural	31.4	3.4	65.0	100.0	3,521	84.7	4.3	10.9	100.0	2,573
Total Coastal	36.6	3.5	59.6	100.0	4,495	82.3	4.8	12.8	100.0	3,126
Coastal (urban)	48.0	4.1	47.7	100.0	1,475	77.1	5.9	17.1	100.0	949
Coastal (rural)	31.0	3.3	65.4	100.0	3,019	84.6	4.4	11.0	100.0	2,176
Total Interior	33.4	4.1	62.4	100.0	501	85.3	4.0	10.6	100.0	396
Region										
Region 1	23.9	6.9	69.2	100.0	162	84.4	3.1	12.5	100.0	160
Region 2	28.5	2.0	69.3	100.0	293	88.0	3.2	8.8	100.0	179
Region 3	36.7	1.5	61.8	100.0	687	85.9	4.7	9.3	100.0	420
Region 4	41.5	5.1	53.1	100.0	2,168	82.6	3.5	13.9	100.0	1,540
Region 5	31.4	2.0	66.6	100.0	353	82.9	7.4	9.4	100.0	271
Region 6	24.0	1.3	74.2	100.0	780	80.6	5.9	13.6	100.0	587
Region 7	37.5	1.3	61.3	100.0	104	90.5	3.4	6.0	100.0	61
Region 8	38.5	3.0	58.3	100.0	95	85.0	4.9	10.0	100.0	68
Region 9	37.4	1.1	60.7	100.0	78	79.9	6.2	13.4	100.0	57
Region 10	49.1	6.7	44.1	100.0	277	72.0	10.8	17.2	100.0	178
Education										
No education	23.8	0.0	76.2	100.0	68	77.9	3.7	18.4	100.0	60
Primary	26.9	2.3	70.5	100.0	952	90.1	5.4	4.5	100.0	711
Secondary	34.4	4.0	61.3	100.0	3,568	80.7	4.5	14.7	100.0	2,459
More than secondary	76.3	3.5	20.0	100.0	409	81.4	5.2	12.9	100.0	292
Wealth quintile										
Lowest	27.9	3.6	68.0	100.0	779	86.0	4.9	9.0	100.0	663
Second	31.4	4.3	64.2	100.0	957	83.4	5.9	10.5	100.0	679
Middle	34.8	3.9	61.0	100.0	1,025	81.7	4.3	14.0	100.0	723
Fourth	35.3	3.5	60.9	100.0	1,084	80.9	5.0	13.9	100.0	751
Highest	48.2	2.9	48.9	100.0	1,151	81.5	3.6	14.9	100.0	705
Total	36.3	3.6	59.9	100.0	4,996	82.6	4.7	12.6	100.0	3,522

Note: The total includes cases with missing data on employment (0.1 percent for women and 0.2 percent for men), which are not shown separately.

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

- The level of current employment for women stands at 36 percent, with an additional 4 percent who worked in the 12 months preceding the survey. As a result, a total of four in ten women were employed in the 12 months preceding the survey. The corresponding proportions for men are twice as high: 83 percent of men are currently employed and 5 percent were employed in the last 12 months, putting the total level of employment for men in the last 12 months at 88 percent.
- The proportion of women and men who are currently employed is lowest in the age 15-19 group (14 percent for women and 45 percent for men), compared with 39-46 percent of women and 85-96 percent of men age 20 or older.
- There are some variations in employment by residence. Current employment for women in urban areas is higher than in rural areas (48 and 31 percent, respectively), while for men the reverse is true: 77 percent of men are currently employed in urban areas compared with 85 percent in rural areas. By region, currently employment for women varies from 24 percent in Regions 1 and 6 to 49 percent in Region 10. Among men, the lowest level of current employment is in Region 10 (72 percent), and the highest is in Region 7 (91 percent).
- Women with the most education and in the highest wealth quintile are most likely to be currently employed, while there is little variation among men.
- Among women, the two most common occupations are sales and services (36 percent) and professional/technical/managerial occupations (22 percent). Among men, the most common occupations are skilled/manual jobs (42 percent), agriculture (17 percent), and unskilled manual jobs (14 percent).
- Analysis by age does not suggest an important variation by occupational categories, with few exceptions. For both men and women, the proportions working in most occupations decrease with age, except for agricultural employment for both women and men, domestic services for women, and professional, technical, or managerial jobs for women.
- Region 9 has the highest percentage of both women and men working in agriculture: 39 percent of women and 47 percent of men.
- As expected, women and men with higher education are most likely to be employed in a professional, technical, or managerial job.
- Ninety-two percent of women receive cash only for their work. As expected, women working in nonagricultural jobs are much more likely to be paid in cash (95 percent) than women who do agricultural work (60 percent). It is noteworthy that about three in ten women who work in agriculture (29 percent) are not paid at all.
- Sixty-three percent of women are employed by a nonfamily member, 25 percent are self-employed, and 12 percent work for a family member.

Figure 3.2 Respondents Currently Employed, by Residence and Education



GDHS 2009

Table 3.6.1 Occupation: Women

Percent distribution of women age 15-49 employed in the 12 months preceding the survey by occupation, according to background characteristics, Guyana 2009

Background characteristic	Professional/ technical/ managerial	Clerical	Sales and services	Skilled manual	Un-skilled manual	Domestic service	Agriculture	Don't know/ missing	Total	Number of women
Age										
15-19	13.2	26.2	44.1	3.8	0.4	3.9	5.3	3.1	100.0	181
20-24	27.1	25.3	34.3	3.6	0.5	1.3	3.2	4.6	100.0	325
25-29	27.8	16.4	31.3	6.0	2.4	6.3	6.7	3.1	100.0	306
30-34	24.2	11.9	35.2	3.6	2.7	9.1	6.7	6.6	100.0	280
35-39	21.1	11.8	37.3	5.9	2.1	9.5	7.6	4.7	100.0	323
40-44	14.7	4.5	39.4	8.2	4.4	18.0	6.9	4.0	100.0	304
45-49	21.3	6.5	30.7	5.7	4.1	17.9	10.3	3.5	100.0	272
Marital status										
Never married	27.9	24.2	33.3	4.5	0.7	5.1	1.6	2.8	100.0	616
Currently in union	18.8	10.6	33.9	6.6	2.7	11.5	11.0	4.9	100.0	1,038
Formerly in union	20.4	7.2	45.2	3.3	4.7	11.8	2.5	5.0	100.0	338
Number of living children										
0	29.7	25.7	31.9	4.0	0.4	3.7	1.0	3.5	100.0	565
1-2	23.9	14.7	33.7	6.0	1.8	9.2	6.0	4.6	100.0	765
3-4	14.2	4.1	45.5	4.0	4.0	12.8	9.5	5.9	100.0	444
5+	10.1	3.0	31.7	9.2	6.6	19.2	18.1	2.1	100.0	219
Residence										
Total Urban	25.9	16.9	38.0	5.2	1.5	8.4	0.4	3.7	100.0	769
Georgetown (urban)	26.0	19.6	35.3	4.6	1.8	9.2	0.0	3.5	100.0	528
Other (urban)	25.6	10.8	43.9	6.5	0.7	6.8	1.2	4.3	100.0	241
Rural	19.3	12.5	34.1	5.5	3.0	10.3	10.6	4.6	100.0	1,223
Total Coastal	22.0	15.3	35.2	5.6	2.5	9.8	5.1	4.4	100.0	1,804
Coastal (urban)	25.9	16.9	38.0	5.2	1.5	8.4	0.4	3.7	100.0	769
Coastal (rural)	19.2	14.1	33.1	5.9	3.3	10.8	8.7	4.9	100.0	1,036
Total Interior	20.2	3.9	39.5	3.3	1.3	7.5	21.3	3.0	100.0	188
Region										
Region 1	18.6	0.7	43.9	0.1	0.5	8.7	24.4	3.1	100.0	50
Region 2	20.1	10.6	23.6	8.4	4.3	11.1	20.9	1.0	100.0	89
Region 3	24.2	13.0	32.6	5.9	3.6	10.9	5.2	4.6	100.0	263
Region 4	21.7	19.5	34.2	5.2	2.9	10.6	2.7	3.2	100.0	1,011
Region 5	19.3	7.2	30.9	4.4	0.9	5.4	18.0	13.9	100.0	118
Region 6	19.9	5.2	45.5	7.5	0.6	9.4	6.1	5.8	100.0	197
Region 7	20.3	7.1	52.5	1.5	0.5	7.4	9.3	1.3	100.0	40
Region 8	21.7	5.5	30.7	8.9	1.0	6.1	21.5	4.5	100.0	39
Region 9	24.4	4.4	16.0	5.7	0.0	6.1	38.5	4.9	100.0	30
Region 10	25.5	10.7	45.7	3.3	1.9	5.5	2.7	4.6	100.0	155
Education										
No education	*	*	*	*	*	*	*	*	*	16
Primary	2.4	2.1	42.6	6.4	4.0	19.0	17.9	5.6	100.0	278
Secondary	16.8	16.1	40.4	5.5	2.6	9.5	5.3	3.7	100.0	1,372
More than secondary	61.1	17.0	10.1	4.4	0.0	1.4	0.4	5.7	100.0	326
Wealth quintile										
Lowest	12.1	3.7	30.0	4.0	6.4	13.6	27.2	3.0	100.0	245
Second	9.7	8.7	41.8	8.9	3.3	14.4	9.4	3.9	100.0	343
Middle	15.2	14.7	38.3	6.4	2.7	13.0	3.7	6.1	100.0	396
Fourth	23.2	17.1	39.1	3.9	2.2	7.1	3.6	3.7	100.0	421
Highest	36.6	19.3	30.0	4.3	0.3	4.5	0.7	4.3	100.0	588
Total	21.9	14.2	35.6	5.4	2.4	9.6	6.7	4.3	100.0	1,992

Note: Currently in union includes respondents in consensual union (living together). Formerly in union includes divorced/separated/widowed. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

Table 3.6.2 Occupation: Men

Percent distribution of men age 15-49 employed in the 12 months preceding the survey by occupation, according to background characteristics, Guyana 2009

Background characteristic	Professional/ technical/ managerial	Clerical	Sales and services	Skilled manual	Un-skilled manual	Domestic service	Agriculture	Don't know/ missing	Total	Number of men
Age										
15-19	6.9	4.4	10.9	43.5	17.8	0.7	11.2	4.6	100.0	350
20-24	11.0	6.0	11.8	43.4	14.0	0.0	11.1	2.8	100.0	471
25-29	10.3	4.3	12.0	47.1	9.9	0.0	14.6	1.7	100.0	450
30-34	10.1	0.9	9.3	45.4	13.6	0.2	17.3	3.2	100.0	513
35-39	8.3	1.3	9.4	41.5	15.4	0.2	20.4	3.5	100.0	458
40-44	8.7	0.8	12.9	37.7	15.3	0.6	21.9	2.2	100.0	446
45-49	6.7	0.2	16.1	35.5	11.7	0.9	25.3	3.6	100.0	389
Marital status										
Never married	10.0	5.7	13.8	41.0	15.2	0.3	10.3	3.8	100.0	979
Currently in union	9.0	1.1	10.1	42.4	12.4	0.4	22.0	2.5	100.0	1,806
Formerly in union	5.4	0.9	14.3	44.5	18.9	0.0	12.5	3.5	100.0	292
Number of living children										
0	9.1	4.8	12.8	42.7	14.6	0.3	12.3	3.3	100.0	1,212
1-2	10.5	1.2	12.1	42.6	13.1	0.1	17.5	2.8	100.0	958
3-4	7.2	1.2	8.6	42.0	12.7	0.2	24.5	3.5	100.0	652
5+	7.0	0.1	12.2	38.4	16.3	2.0	22.6	1.3	100.0	255
Residence										
Total Urban	14.0	6.2	15.9	46.0	9.5	0.3	3.9	4.3	100.0	787
Georgetown (urban)	16.1	8.2	16.9	45.5	8.4	0.2	0.6	4.2	100.0	508
Other (urban)	10.2	2.7	14.2	47.0	11.4	0.4	9.9	4.3	100.0	279
Total Rural	7.3	1.3	10.2	40.9	15.4	0.4	22.0	2.6	100.0	2,290
Total Coastal	9.5	2.8	12.0	43.2	12.8	0.4	16.0	3.3	100.0	2,723
Coastal (urban)	14.0	6.2	15.9	46.0	9.5	0.3	3.9	4.3	100.0	787
Coastal (rural)	7.6	1.4	10.4	42.1	14.2	0.4	21.0	2.9	100.0	1,936
Total Interior	5.3	0.4	8.7	34.3	22.0	0.1	28.0	1.2	100.0	354
Region										
Region 1	5.5	0.2	11.2	33.0	21.1	0.0	28.2	0.8	100.0	140
Region 2	8.7	0.6	10.2	36.9	24.7	0.0	15.9	3.1	100.0	163
Region 3	6.8	2.0	10.2	41.8	16.5	0.0	19.2	3.4	100.0	381
Region 4	13.0	4.5	13.9	47.9	9.0	0.6	8.1	2.9	100.0	1,325
Region 5	3.6	0.3	6.5	32.6	16.2	0.3	35.0	5.4	100.0	245
Region 6	4.9	0.6	12.0	36.9	14.8	0.0	27.9	2.9	100.0	508
Region 7	4.3	0.0	11.0	38.5	24.9	0.0	19.3	2.0	100.0	57
Region 8	2.5	0.0	5.3	30.5	31.8	0.0	29.9	0.0	100.0	61
Region 9	7.9	0.8	4.5	25.7	9.9	0.0	47.4	3.8	100.0	49
Region 10	10.0	3.6	10.0	52.0	14.2	0.9	6.2	3.2	100.0	148
Education										
No education	0.0	0.0	4.5	13.7	27.2	0.0	54.5	0.0	100.0	49
Primary	2.5	0.0	8.4	39.7	19.3	0.0	27.9	2.2	100.0	679
Secondary	7.9	3.1	12.9	44.5	13.2	0.5	14.8	3.0	100.0	2,096
More than secondary	37.0	4.8	11.3	35.1	2.1	0.0	3.5	6.2	100.0	253
Wealth quintile										
Lowest	2.9	0.1	7.1	34.6	25.1	0.1	28.7	1.5	100.0	603
Second	5.0	0.8	8.2	43.1	18.6	1.0	21.6	1.8	100.0	607
Middle	6.5	2.7	12.0	43.6	12.6	0.2	19.1	3.4	100.0	622
Fourth	9.5	2.9	14.3	45.9	9.3	0.0	14.2	3.9	100.0	644
Highest	21.2	6.2	16.6	43.4	4.0	0.6	3.5	4.5	100.0	600
Total	9.0	2.5	11.7	42.2	13.9	0.3	17.4	3.0	100.0	3,077

Note: Currently in union includes respondents in consensual union (living together). Formerly in union includes divorced/separated/widowed.

Table 3.7 Type of employment

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), Guyana 2009

Employment characteristic	Agri-cultural work	Non agri-cultural work	Total
Type of earnings			
Cash only	59.9	95.2	92.2
Cash and in-kind	10.0	2.2	2.7
In-kind only	0.8	0.5	0.5
Not paid	29.2	1.8	4.1
Missing	0.0	0.4	0.4
Total	100.0	100.0	100.0
Type of employer			
Employed by family member	20.4	11.0	11.6
Employed by nonfamily member	13.4	67.6	63.0
Self-employed	66.3	21.3	25.2
Missing	0.0	0.2	0.2
Total	100.0	100.0	100.0
Continuity of employment			
All year	62.6	84.3	82.8
Seasonal	29.2	9.5	10.7
Occasional	8.2	6.2	6.4
Missing	0.0	0.1	0.1
Total	100.0	100.0	100.0
Number of women employed during the past 12 months	133	1,774	1,992

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

3.6 HEALTH INSURANCE COVERAGE

Tables 3.8.1 and 3.8.2 show the percentages of women and men age 15-49, respectively, with specific types of health insurance coverage, according to background characteristics. The main types of health insurance coverage in Guyana are national insurance, privately purchased insurance, employer-purchased insurance, and foreign insurance.

- Eighty-two percent of women and 68 percent of men in Guyana do not have any health insurance coverage. Most of those with insurance are covered by national insurance plan (14 percent of women and 28 percent of men). Only 4 percent of women and 5 percent of men are covered by privately purchased insurance.
- The levels of insurance coverage vary greatly by respondents' background characteristics. Eighty-six percent of rural women have no health insurance coverage compared with 71 percent of urban women. Among men, the difference is not as prounounced (69 percent of men in rural areas have no coverage versus 67 percent in urban areas).
- As many as 94 percent of the women in Region 1 have no health insurance coverage compared with 71 percent in Region 10.

- Among men, the highest percentage with no health insurance coverage is in Region 8 (96 percent), and the lowest percentages are in Regions 3 and 6 (61 percent each).
- High levels of privately purchased insurance result in a much higher level of coverage for women and men with more than secondary education and also for those in the highest wealth quintile.

Table 3.8.1 Health insurance coverage: Women

Percentage of women age 15-49 with specific types of health insurance coverage, according to background characteristics, Guyana 2009

	Type of health insurance							
Background characteristic	National insurance plan	Privately purchased insurance	Employer purchased insurance	Foreign insurance	Other	Missing	None	Number of women
Age								
15-19	4.6	2.0	0.3	0.1	0.3	0.2	92.5	1,016
20-24	19.0	2.3	1.1	0.4	0.3	0.1	78.7	767
25-29	16.1	4.7	1.3	0.5	0.6	0.8	79.3	658
30-34	16.4	4.1	1.9	0.8	0.2	0.0	78.7	643
35-39	17.7	3.5	2.1	0.6	0.6	0.8	77.5	699
40-44	15.2	3.8	1.6	0.4	0.3	0.0	81.5	624
45-49	16.1	5.1	0.7	0.0	0.0	0.2	80.1	589
Residence								
Total Urban	23.9	5.5	2.1	0.2	0.3	0.2	71.3	1,475
Georgetown (urban)	26.1	6.3	2.2	0.2	0.3	0.0	69.1	967
Other (urban)	19.8	4.2	1.9	0.2	0.2	0.7	75.5	508
Total Rural	10.3	2.6	0.9	0.5	0.3	0.3	86.4	3,521
Total Coastal	14.9	3.6	1.3	0.4	0.3	0.3	81.2	4,495
Coastal (urban)	23.9	5.5	2.1	0.2	0.3	0.2	71.3	1,475
Coastal (rural)	10.5	2.7	0.9	0.5	0.4	0.3	86.1	3,019
Total Interior	9.5	2.0	0.4	0.0	0.2	0.1	88.2	501
Region								
Region 1	5.8	0.4	0.0	0.0	0.0	0.0	93.8	162
Region 2	10.2	0.9	0.1	0.5	0.4	0.2	88.0	293
Region 3	13.9	2.7	0.8	1.8	0.6	0.2	81.9	687
Region 4	18.2	4.8	1.9	0.2	0.4	0.3	77.4	2,168
Region 5	6.5	2.5	0.5	0.0	0.2	0.0	90.4	353
Region 6	9.3	2.3	0.3	0.2	0.1	0.5	87.9	780
Region 7	12.6	1.1	0.0	0.0	0.8	0.1	86.0	104
Region 8	12.3	2.5	0.0	0.0	0.0	0.4	85.9	95
Region 9	6.3	1.6	0.6	0.0	0.2	0.3	90.9	78
Region 10	23.0	5.9	3.4	0.0	0.2	0.2	70.9	277
Education								
No education	0.6	0.0	0.0	0.0	0.9	0.0	98.6	68
Primary	5.0	1.0	0.0	0.1	0.1	0.2	93.9	952
Secondary	13.4	3.2	1.1	0.3	0.3	0.3	82.9	3,568
More than secondary	46.6	12.4	5.4	1.5	0.8	0.2	43.1	409
Wealth quintile								
Lowest	5.3	0.4	0.1	0.1	0.1	0.5	93.6	779
Second	9.9	1.1	0.5	0.0	0.3	0.2	88.6	957
Middle	12.9	1.6	1.5	0.7	0.6	0.1	84.0	1,025
Fourth	14.5	5.5	0.6	0.6	0.1	0.5	80.0	1,084
Highest	25.3	7.4	2.9	0.4	0.5	0.1	68.4	1,151
Total	14.4	3.5	1.2	0.4	0.3	0.3	81.9	4,996

Table 3.8.2 Health insurance coverage: Men

Percentage of men age 15-49 with specific types of health insurance coverage, according to background characteristics, Guyana 2009

Background characteristic	Type of health insurance							
	National insurance plan	Privately purchased insurance	Employer purchased insurance	Foreign insurance	Other	Missing	None	Number of men
Age								
15-19	12.4	1.9	1.0	0.1	0.2	0.2	85.1	689
20-24	29.1	3.3	2.3	1.1	0.4	0.1	66.2	511
25-29	33.2	6.9	2.3	0.4	0.5	0.2	60.9	462
30-34	31.3	7.0	1.8	0.0	0.4	0.4	64.4	521
35-39	31.3	4.7	1.8	0.0	0.6	0.4	64.2	470
40-44	30.0	5.3	2.4	0.7	0.7	0.4	64.1	457
45-49	32.5	4.7	2.8	0.1	1.6	0.3	63.0	413
Residence								
Total Urban	24.9	9.9	5.2	0.6	0.2	0.1	66.8	949
Georgetown (urban)	22.7	12.6	6.5	0.8	0.0	0.0	67.0	619
Other (urban)	28.9	4.8	2.7	0.1	0.7	0.3	66.5	330
Total Rural	28.5	2.7	0.8	0.2	0.7	0.3	68.5	2,573
Total Coastal	29.4	5.0	2.2	0.4	0.6	0.3	65.7	3,126
Coastal (urban)	24.9	9.9	5.2	0.6	0.2	0.1	66.8	949
Coastal (rural)	31.4	2.9	0.9	0.3	0.8	0.4	65.2	2,176
Total Interior	12.5	1.8	0.2	0.0	0.4	0.2	86.6	396
Region								
Region 1	10.9	1.0	0.0	0.0	0.2	0.2	88.4	160
Region 2	23.9	2.4	0.6	0.2	0.5	0.0	74.7	179
Region 3	35.9	3.1	0.3	0.3	0.3	0.0	61.4	420
Region 4	27.8	7.7	3.4	0.5	0.6	0.4	65.4	1,540
Region 5	22.2	1.9	0.5	1.2	0.6	0.6	74.4	271
Region 6	36.7	1.3	0.9	0.0	1.0	0.2	61.2	587
Region 7	16.4	2.5	0.0	0.0	0.0	0.0	82.5	61
Region 8	3.5	0.0	0.0	0.0	0.3	0.0	96.2	68
Region 9	7.4	1.2	0.4	0.0	0.5	0.5	91.3	57
Region 10	21.5	7.0	4.4	0.0	0.8	0.5	71.2	178
Education								
No education	16.8	2.5	0.0	0.0	0.3	0.0	80.4	60
Primary	24.2	1.5	0.5	0.0	0.5	0.3	73.9	711
Secondary	27.5	3.9	2.1	0.3	0.6	0.3	68.1	2,459
More than secondary	38.2	19.6	4.4	1.2	0.9	0.5	50.5	292
Wealth quintile								
Lowest	16.3	0.6	0.3	0.0	1.6	0.4	81.9	663
Second	30.3	0.9	0.1	0.3	0.3	0.2	68.4	679
Middle	30.0	2.5	0.9	0.5	0.3	0.1	66.7	723
Fourth	31.2	7.2	2.6	0.0	0.7	0.6	62.9	751
Highest	28.8	11.6	5.7	0.9	0.1	0.1	61.4	705
Total 15-49	27.5	4.7	2.0	0.3	0.6	0.3	68.0	3,522

3.7 KNOWLEDGE AND ATTITUDES CONCERNING TUBERCULOSIS

Over the last ten years tuberculosis (TB) rates have increased almost three-fold in Guyana. This increase is observed mainly among young adults in the most populated regions of the country and mirrors closely the patterns seen for HIV and AIDS. The current incidence of TB is 80 cases per 100,000 persons. WHO estimates that about 800 new cases occur annually in Guyana.

Diagnostic and treatment services are available through the MoH TB Control Program, which is now implementing the WHO-recommended, directly observed treatment, short-course (DOTS) strategy in all 10 administrative regions at 15 treatment centers. The rate of positive diagnosis of TB using sputum smear microscopy is about 56 percent, with diagnoses being made by x-ray and clinical features less frequently. Cure rates are between 70 and 80 percent—the WHO target—in the regions where DOTS is implemented, but the rates fall to about 50 percent in other regions (MOH, GRPA, and ORC Macro, 2006).

Knowledge among the general public about TB and its clinical manifestations delays the seeking of early treatment for the disease. Attitudes and common beliefs, especially about treatment and cure, lead to stigmatization. Even when a correct diagnosis is made, a cure may not be achieved. Tables 3.9.1 and 3.9.2 present the attitudes and knowledge of TB among women and men, respectively, by background characteristics.

Knowledge and attitudes among women

- Nearly nine in ten women (87 percent) have heard of tuberculosis. Their knowledge of TB increases with age, and ranges from 81 percent of women age 15-19 to 93 percent of those age 45-49. Knowledge also increases steadily with education, from 53 percent of women with no education to as many as 98 percent of those with more than secondary education, and with wealth, from 76 percent of women in the lowest wealth quintile to 95 percent of women in the highest wealth quintile. Knowledge of TB among women living in urban areas is higher than among women living in rural areas (94 and 84 percent respectively).
- Among women with knowledge of TB, 55 percent correctly believe that TB is spread through the air (by coughing). This knowledge is less common among younger women age 15-19 (45 percent), those in rural areas (46 percent), women in Regions 2 and 5 (41 percent each), women with no education or primary education (43-44 percent), and women in the lower three wealth quintiles (48-49 percent).
- More than half of the women (51 percent) believe that TB can be cured. This knowledge increases slightly with age but more rapidly with education. There is little variation by wealth quintile. Knowledge that TB can be cured varies greatly by region, from a low of 41 percent of women in Region 6 to a high of 72 percent of women in Region 9.
- Twenty-two percent of women would want a family member's TB to be kept a secret, an indicator that reveals the degree of stigma attached to TB. Some variations are observed in this indicator by background characteristics: younger women age 15-19 are more likely to want to keep secret a family member's TB (29 percent) than older women (18-22 percent). Although in most regions the percentage of women who would want to keep secret a family member's TB is similar to the national average (22 percent), in Region 9 only 6 percent of women would want to keep secret a family member's TB status. There is no clear pattern by education or wealth in the variation of this indicator.

Knowledge and attitudes among men

- Patterns among men are similar to those among women, with almost nine out of ten men (87 percent) having heard of TB. Knowledge about TB among men increases markedly with age (from 71 percent in the age 15–19 group to 96 percent in the age 45–49 group. It also increases with education (from 63 percent of men with no education to 98 percent of

those with more than secondary education). Knowledge increases moderately with an increase in wealth, from 84 percent of men in the lowest wealth quintile to 93 percent of those in the highest quintile. Knowledge of TB among men living in urban areas (93 percent) is higher than among men living in rural areas (85 percent).

- Among men with knowledge of TB, 53 percent correctly believe that TB is spread through the air by coughing, 54 percent believe that TB can be cured, and 18 percent would want a family member's TB to be kept a secret. There are variations in these indicators by age, education, residence, and wealth that are similar to those observed for women.

Table 3.9.1 Knowledge and attitudes concerning tuberculosis: Women

Percentage of women age 15-49 who have heard of tuberculosis (TB); and among women who have heard of TB, the percentage who know that TB is spread through the air by coughing, the percentage who believe that TB can be cured, and the percentage who would want to keep secret that a family member has TB, by background characteristics, Guyana 2009

	All women		Among women who have heard of TB:			
Background characteristic	Percentage who have heard of TB	Number of women	Percentage who report that TB is spread through the air by coughing	Percentage who believe that TB can be cured	Percentage who would want a family member's TB kept secret	Number of women
Age						
15-19	80.8	1,016	45.0	47.4	28.7	821
20-24	86.9	767	51.1	49.8	21.8	667
25-29	85.1	658	57.2	47.6	18.4	560
30-34	88.4	643	63.3	49.1	18.1	569
35-39	89.3	699	58.2	52.4	21.7	624
40-44	89.9	624	56.7	51.3	19.5	561
45-49	92.8	589	59.0	57.3	19.3	547
Residence						
Total Urban	93.8	1,475	74.5	60.0	23.4	1,384
Georgetown (urban)	95.4	967	81.1	62.4	23.8	923
Other (urban)	90.9	508	61.4	55.2	22.6	461
Total Rural	84.2	3,521	46.0	46.1	20.7	2,963
Total Coastal	87.2	4,495	54.5	49.2	22.0	3,919
Coastal (urban)	93.8	1,475	74.5	60.0	23.4	1,384
Coastal (rural)	83.9	3,019	43.5	43.3	21.3	2,535
Total Interior	85.4	501	60.9	62.7	17.4	428
Region						
Region 1	84.3	162	58.0	61.6	17.6	137
Region 2	85.1	293	40.9	46.4	19.1	249
Region 3	90.7	687	44.0	48.2	22.9	623
Region 4	89.5	2,168	61.7	50.5	20.9	1,940
Region 5	79.5	353	41.1	48.4	23.7	281
Region 6	79.1	780	47.3	41.1	25.4	617
Region 7	92.7	104	60.0	59.1	19.2	96
Region 8	83.2	95	72.7	63.3	20.9	79
Region 9	72.2	78	57.3	71.6	5.9	56
Region 10	97.1	277	69.9	66.3	20.6	269
Education						
No education	53.3	68	(43.2)	(30.9)	(11.8)	36
Primary	79.6	952	43.5	42.2	21.9	758
Secondary	88.4	3,568	54.5	51.3	22.3	3,155
More than secondary	97.5	409	83.1	62.0	16.0	398
Wealth quintile						
Lowest	75.5	779	49.3	51.7	21.2	588
Second	84.1	957	47.6	46.2	22.3	805
Middle	87.1	1,025	48.3	49.5	22.6	893
Fourth	89.4	1,084	57.1	50.1	21.1	969
Highest	94.9	1,151	67.6	54.1	20.7	1,092
Total 2009	**87.0**	**4,996**	**55.1**	**50.5**	**21.6**	**4,347**
Total 2005	78.7	2,425	41.4	43.3	12.5	1,908

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

Table 3.9.2 Knowledge and attitudes concerning tuberculosis: Men

Percentage of men age 15-49 who have heard of tuberculosis (TB); and among men who have heard of TB, the percentage who know that TB is spread through the air by coughing, the percentage who believe that TB can be cured, and the percentage who would want to keep secret that a family member has TB, by background characteristics, Guyana 2009

	All men		Among men who have heard of TB:			
Background characteristic	Percentage who have heard of TB	Number of men	Percentage who report that TB is spread through the air by coughing	Percentage who believe that TB can be cured	Percentage who would want a family member's TB kept secret	Number of men
Age						
15-19	71.2	689	46.3	44.7	35.6	490
20-24	89.9	511	51.0	49.0	20.5	459
25-29	89.5	462	54.7	52.1	15.6	413
30-34	87.2	521	47.9	53.2	13.7	454
35-39	91.9	470	58.4	55.7	13.7	432
40-44	95.1	457	56.7	59.6	12.5	435
45-49	95.6	413	59.2	63.5	13.0	395
Residence						
Total Urban	93.0	949	65.3	54.7	17.4	883
Georgetown (urban)	94.6	619	67.8	56.1	14.6	586
Other (urban)	90.0	330	60.5	51.9	23.1	297
Total Rural	85.3	2,573	48.3	53.3	18.5	2,195
Total Coastal	86.8	3,126	53.2	52.8	18.9	2,713
Coastal (urban)	93.0	949	65.3	54.7	17.4	883
Coastal (rural)	84.1	2,176	47.4	51.9	19.6	1,830
Total Interior	92.1	396	52.8	60.0	13.0	365
Region						
Region 1	97.5	160	44.1	52.2	11.1	156
Region 2	86.1	179	60.8	55.5	11.4	154
Region 3	84.0	420	49.3	56.7	22.9	353
Region 4	89.9	1,540	58.9	54.8	16.6	1,384
Region 5	77.6	271	32.8	43.1	22.3	210
Region 6	83.3	587	44.9	48.2	21.7	489
Region 7	91.4	61	67.1	63.3	10.7	56
Region 8	86.7	68	65.1	61.6	15.1	59
Region 9	81.3	57	56.6	80.2	10.9	46
Region 10	95.3	178	56.2	53.5	24.3	170
Education						
No education	62.6	60	(26.1)	(39.3)	(4.2)	38
Primary	84.1	711	48.7	51.5	15.1	598
Secondary	87.6	2,459	52.2	53.2	20.1	2,155
More than secondary	98.4	292	73.8	63.6	12.0	288
Wealth quintile						
Lowest	84.3	663	49.2	52.2	16.7	559
Second	83.9	679	47.3	48.2	15.9	570
Middle	85.6	723	49.7	53.8	25.2	619
Fourth	89.7	751	54.6	54.6	19.3	673
Highest	93.1	705	63.5	58.6	13.8	657
Total 2009	**87.4**	**3,522**	**53.2**	**53.7**	**18.2**	**3,078**
Total 2005	74.1	1,875	43.8	40.4	13.2	1,389

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

3.8 SMOKING

Smoking is a known risk factor for cardiovascular disease. It also causes lung and other forms of cancer, and it contributes to the severity of pneumonia, emphysema, and chronic bronchitis. Smoking may also have an impact on individuals who are exposed to the smoke second-hand. For example, inhaling second-hand smoke may adversely affect children's growth and cause childhood illness, especially respiratory diseases. Because smoking is an acquired behavior that is chosen by individuals, all morbidity and mortality caused by smoking is preventable.

To measure the extent of smoking among Guyanese, women and men who were interviewed in the 2009 GDHS were asked if they currently smoke cigarettes or use other forms of tobacco. The distribution of respondents who smoke cigarettes, or a pipe, or use other tobacco products is shown in Tables 3.10.1 and 3.10.2 for women and men, respectively. Table 3.10.2, which shows use among men, includes the percent distribution of cigarette smokers by number of cigarettes smoked in the preceding 24 hours (not shown for women because of the small number of smokers).

- Three percent of women age 15-49 reported that they used cigarettes, and less than 1 percent said that they smoke other tobacco products. By contrast, around one-third of men age 15-49 use tobacco products: 29 percent smoke cigarettes, 3 percent use other tobacco products, and less than 1 percent use a pipe.
- Among women, consumption of cigarettes increases somewhat with age, from 1 percent among women age 15-19 to 7 percent among women age 40-44. Looking at residence, smoking among women is higher in urban areas (5 percent), particularly in Georgetown (6 percent), than in rural areas (2 percent). By region, it ranges from 2 percent in Regions 1, 2, and 5, to 7 percent in Region 8. There is little very little variation by education and wealth quintile in the percentage of women who smoke cigarettes.
- Forty-five percent of men age 40-44 smoke cigarettes, compared with 8 percent of men age 15-19. Men in rural areas are more likely to smoke than men in urban areas (32 percent versus 23 percent); this percentage is as high as 43 percent among men in the Interior area. Smoking cigarettes among men is lowest in Region 10 (16 percent) and highest in Region 1 (52 percent). Men with secondary (27 percent) and higher education (13 percent) and those in the highest wealth quintile (17 percent) are the least likely to smoke cigarettes when compared with other subgroups.
- Among male smokers, 38 percent reportedly smoked 10 or more cigarettes in the 24 hours preceding the survey. The percentage of men who smoked 10 or more cigarettes in the preceding 24 hours increases with age, from 7 percent of men age 15-19 to 50 percent among those age 35-44. Although there are no Urban-Rural area differences, men in the Interior area (22 percent) are much less likely to have smoked 10 or more cigarettes in the preceding 24 hours than other men. There are large differences among regions in the percentages of heavy smokers, ranging from 12 percent in Region 9 to 50 percent in Region 6.

Table 3.10.1 Use of tobacco: Women

Percentage of women age 15-49 who smoke cigarettes or use other tobacco products, according to background characteristics, Guyana 2009

Background characteristic	Uses tobacco		Does not use tobacco	Number of women
	Cigarettes	Other tobacco		
Age				
15-19	1.0	0.1	98.8	1,016
20-24	2.2	0.6	97.6	767
25-29	2.2	0.0	96.9	658
30-34	2.0	0.2	98.0	643
35-39	4.8	0.2	94.4	699
40-44	6.6	0.4	93.4	624
45-49	5.4	0.2	94.2	589
Residence				
Total Urban	5.4	0.1	94.3	1,475
Georgetown (urban)	6.4	0.2	93.4	967
Other (urban)	3.4	0.0	95.9	508
Total Rural	2.3	0.3	97.3	3,521
Total Coastal	3.1	0.2	96.5	4,495
Coastal (urban)	5.4	0.1	94.3	1,475
Coastal (rural)	2.1	0.2	97.6	3,019
Total Interior	3.8	0.7	95.5	501
Region				
Region 1	1.7	0.0	98.3	162
Region 2	1.7	0.2	97.8	293
Region 3	2.5	0.5	97.1	687
Region 4	4.2	0.1	95.4	2,168
Region 5	1.9	0.2	98.1	353
Region 6	1.8	0.1	97.8	780
Region 7	4.5	0.0	95.4	104
Region 8	7.3	3.4	89.9	95
Region 9	3.4	0.0	96.3	78
Region 10	3.3	0.1	96.4	277
Education				
No education	2.6	0.0	97.4	68
Primary	3.1	0.3	96.6	952
Secondary	3.3	0.3	96.3	3,568
More than secondary	2.6	0.0	96.7	409
Wealth quintile				
Lowest	3.5	0.5	96.0	779
Second	4.2	0.5	95.5	957
Middle	2.4	0.1	97.4	1,025
Fourth	2.4	0.3	97.0	1,084
Highest	3.6	0.0	96.1	1,151
Total	3.2	0.2	96.4	4,996

Table 3.10.2 Use of tobacco: Men

Percentage of men age 15-49 who smoke cigarettes or a pipe or use other tobacco products and the percent distribution of cigarette smokers by number of cigarettes smoked in preceding 24 hours, according to background characteristics, Guyana 2009

Background characteristic	Uses tobacco			Does not use tobacco	Number of men	Number of cigarettes in the last 24 hours						Total	Number of smokers
	Cigarettes	Pipe	Other tobacco			0	1-2	3-5	6-9	10+	Don't know/ missing		
Age													
15-19	7.5	0.0	1.2	91.9	689	29.8	31.8	24.3	0.0	7.3	6.8	100.0	51
20-24	29.1	0.0	4.9	70.1	511	14.6	24.8	27.6	11.6	19.9	1.5	100.0	149
25-29	25.1	0.3	4.8	72.2	462	23.9	13.6	18.4	13.0	29.7	1.4	100.0	116
30-34	33.2	0.0	2.9	64.8	521	7.7	14.4	25.8	15.3	35.5	1.2	100.0	173
35-39	38.1	0.1	4.0	61.1	470	3.5	15.3	15.1	14.5	49.5	2.1	100.0	179
40-44	44.6	0.0	1.5	54.4	457	5.2	11.7	17.8	12.5	49.8	3.0	100.0	204
45-49	39.8	0.2	2.1	58.8	413	10.0	11.6	20.5	14.4	43.1	0.3	100.0	164
Residence													
Total Urban	22.6	0.0	3.8	75.7	949	8.4	12.3	20.5	19.6	37.8	1.4	100.0	214
Georgetown(urban)	24.3	0.0	3.5	74.3	619	8.3	9.8	19.4	24.3	38.3	0.0	100.0	150
Other (urban)	19.3	0.1	4.3	78.3	330	8.8	18.0	23.3	8.7	36.6	4.6	100.0	64
Total Rural	32.0	0.1	2.7	66.9	2,573	11.4	16.8	21.0	11.2	37.6	2.1	100.0	822
Total Coastal	27.7	0.1	2.7	70.9	3,126	10.3	12.9	20.2	14.0	40.7	1.9	100.0	867
Coastal (urban)	22.6	0.0	3.8	75.7	949	8.4	12.3	20.5	19.6	37.8	1.4	100.0	214
Coastal (rural)	30.0	0.1	2.3	68.9	2,176	10.9	13.0	20.1	12.2	41.7	2.1	100.0	653
Total Interior	42.8	0.3	4.8	56.3	396	13.0	31.0	24.4	7.6	21.8	2.1	100.0	170
Region													
Region 1	51.8	0.0	4.0	48.2	160	12.9	33.0	29.0	3.3	21.2	0.6	100.0	83
Region 2	21.8	0.2	0.9	78.2	179	9.8	22.2	28.3	11.0	28.2	0.5	100.0	39
Region 3	28.9	0.0	1.0	71.1	420	10.7	9.6	22.5	13.2	40.0	4.0	100.0	121
Region 4	28.6	0.1	3.1	69.7	1,540	9.7	12.9	18.4	17.6	40.7	0.7	100.0	440
Region 5	30.1	0.0	3.6	68.8	271	16.5	15.6	22.1	8.4	33.6	3.8	100.0	82
Region 6	28.7	0.0	2.7	70.1	587	8.5	10.1	18.6	9.8	50.3	2.6	100.0	169
Region 7	30.3	0.0	4.7	68.0	61	15.5	42.8	11.2	8.9	21.5	0.0	100.0	18
Region 8	46.9	0.0	7.9	50.0	68	5.8	21.5	19.4	20.1	29.4	3.8	100.0	32
Region 9	40.0	2.1	4.6	59.5	57	14.0	37.6	23.5	4.8	11.7	8.3	100.0	23
Region 10	16.4	0.0	5.1	80.5	178	19.4	22.2	34.4	3.1	18.9	2.1	100.0	29
Education													
No education	49.1	0.1	1.6	50.9	60	(20.2)	(3.0)	(22.2)	(9.3)	(45.3)	(0.0)	(100.0)	29
Primary	42.5	0.1	2.7	56.3	711	6.2	18.4	20.4	10.9	43.1	1.1	100.0	302
Secondary	27.2	0.1	3.2	71.5	2,459	11.9	15.8	20.6	14.0	35.3	2.4	100.0	668
More than secondary	12.6	0.0	2.4	86.1	292	(20.9)	(5.2)	(29.4)	(13.4)	(30.2)	(0.9)	(100.0)	37
Wealth quintile													
Lowest	51.0	0.1	5.8	47.1	663	12.7	23.2	22.5	10.8	29.3	1.6	100.0	339
Second	33.1	0.0	3.1	65.8	679	7.8	16.1	16.8	13.0	45.1	1.2	100.0	225
Middle	24.6	0.0	3.0	73.7	723	11.8	12.4	20.5	7.7	43.1	4.4	100.0	178
Fourth	23.5	0.3	2.6	75.1	751	9.9	9.6	19.0	18.4	41.6	1.6	100.0	176
Highest	16.9	0.0	0.6	83.0	705	10.9	8.8	27.1	18.8	33.3	1.1	100.0	119
Total men	29.4	0.1	3.0	69.3	3,522	10.8	15.8	20.9	12.9	37.6	1.9	100.0	1,036
Total women	3.2	0.0	0.2	96.4	4,996	17.6	18.3	27.9	13.7	18.4	4.1	100.0	160

FERTILITY 4

This chapter looks at a number of fertility indicators, including current fertility levels, trends, and differentials; age at first birth; and teenage pregnancy and motherhood. The analysis is based on the birth histories collected from women age 15-49 who were interviewed during the survey. As part of the birth history, women were first asked a series of questions to determine the total number of live births they had in their lifetime. Then, for each live birth, information was collected on the age, sex, and survival status of the child. For dead children, age at death was recorded.

The following measures of current fertility are derived from birth history data:

- **Age-specific fertility rate** (ASFR) is the number of births per thousand women in a specified age group and represents a valuable measure for assessing the current age pattern of childbearing. ASFRs are calculated by dividing the number of live births to women in a specific age group by the number of woman-years lived in that age group.
- **Total fertility rate** (TFR) is defined as the total number of births a woman would have by the end of her childbearing years if she were to pass through those years bearing children at the currently observed age-specific fertility rates. The TFR is obtained by summing the age-specific fertility rates and multiplying by five, which is the number of years for each age-group.
- **General fertility rate** (GFR) is the number of live births during a specified period per 1,000 women.
- **Crude birth rate** (CBR) is the number of live births during a specified period per 1,000 population.

The various measures of current fertility are calculated for the three-year period preceding the survey, which roughly corresponds to the calendar period 2007-2009. A three-year period was chosen because it reflects the current fertility level in Guyana and also provides a sufficient number of cases for statistical precision.

Tables included in the report show all children born by the current ages of the women and by the ages of the women at marriage as well as the distribution of birth intervals. The chapter concludes with the analysis of information on the ages of the women at the time of their first birth (as an indicator of the beginning of the women's reproductive life) and on teenage pregnancy and motherhood.

4.1 CURRENT FERTILITY

Table 4.1 and Figure 4.1 show the age-specific fertility rates, total fertility rates, general fertility rates, and crude birth rates for Guyana as a whole by residence (Urban or Rural and Coastal or Interior).

- According to Table 4.1, if fertility were to remain constant in Guyana, women would bear, on average, 2.8 children by the end of their reproductive years.
- Fertility is close to replacement level in urban areas (2.1 children per woman), higher in the rural areas (3.0 children per woman), and substantially higher in the Interior area (6.0 children per woman). Fertility rates for women in the Interior area are higher for all age groups.

- The general fertility rate (GFR) for Guyana is 94 live births per 1,000 women.. The crude birth rate (CBR) is 23 live births per 1,000 population for the period under review. Both measures are based on the birth history for the three-year period preceding the survey.

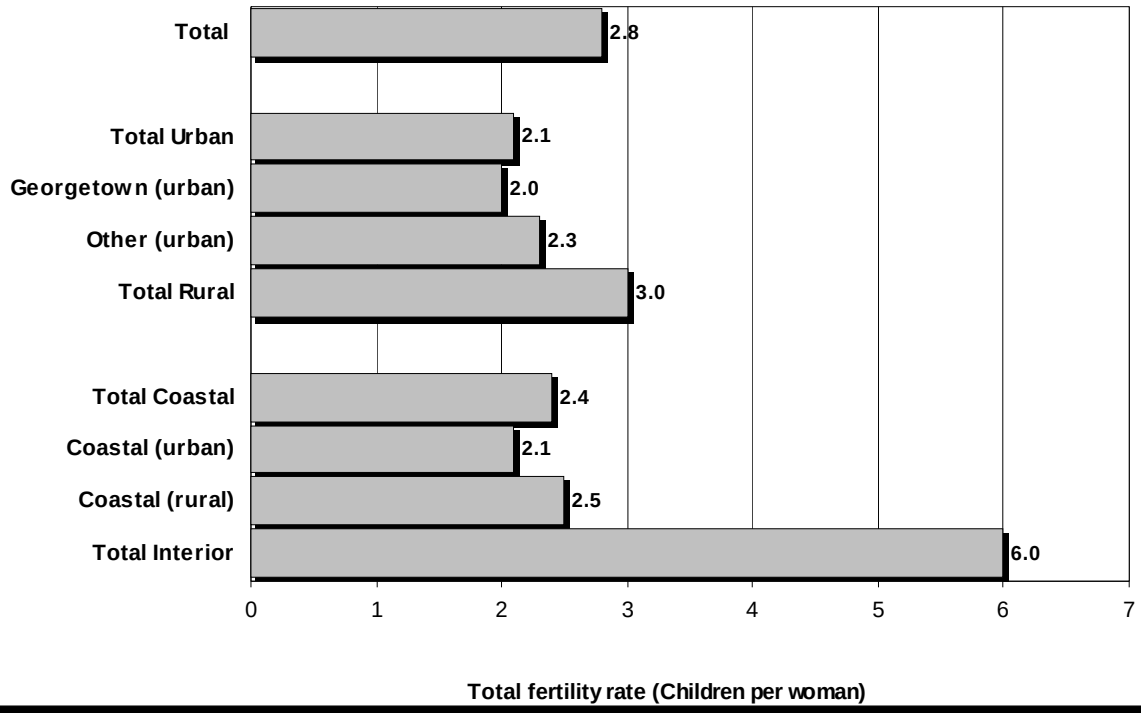
Table 4.1 Current fertility

Age-specific and total fertility rates, the general fertility rate, and the crude birth rate for the three years preceding the survey, by residence, Guyana 2009

	Urban-Rural residence				Coastal-Interior residence				
	Urban				Coastal				
Age group/rate	Total Urban	Georgetown (urban)	Other (urban)	Total Rural	Total Coastal	Coastal (urban)	Coastal (rural)	Total Interior	Total
15-19	50	53	41	123	83	50	99	238	101
20-24	119	106	147	180	149	119	162	282	163
25-29	94	67	133	125	102	94	105	228	116
30-34	96	105	78	104	87	96	83	246	102
35-39	60	62	56	53	48	60	42	129	55
40-44	7	9	4	16	9	7	10	58	13
45-49	0	0	0	6	3	0	5	18	4
Total fertility rate[1]	2.1	2.0	2.3	3.0	2.4	2.1	2.5	6.0	2.8
General fertility rate[2]	69	66	74	105	81	69	87	210	94
Crude birth rate[3]	17	17	18	24	20	17	21	42	23

Note: Rates are for the period 1-36 months preceding the survey. Rates for age group 45-49 may be slightly biased due to truncation.
[1] Total fertility rate for ages 15-49, expressed per woman
[2] General fertility rate for ages 15-44, expressed per 1,000 women
[3] Crude birth rate, expressed per 1,000 population

Figure 4.1 Total Fertility Rates for the Three Years Preceding the Survey, by Residence



4.2 FERTILITY DIFFERENTIALS

Table 4.2 presents differentials in the total fertility rate and the percentage of women who are currently pregnant by background characteristics. The percentage currently pregnant provides a useful measure of current fertility. However, it may not capture all pregnant women because some women may be unaware of their pregnancy or reluctant to disclose a pregnancy in its early stages. The table also shows differentials in the mean number of children ever born to women age 40-49, that is, to women who are at the end of their childbearing years, which is a measure of completed or past fertility. The total fertility rate and the mean number of children ever born can be compared to assess the extent of fertility change over the past two decades in Guyana.

Table 4.2 Fertility by background characteristics

Total fertility rate for the five years preceding the survey, mean number of children ever born to women age 40-49, and percentage currently pregnant, by background characteristics, Guyana 2009

Background characteristic	Total fertility rate women age 15-49	Mean number of children ever born to women age 40-49	Percentage currently pregnant women age 15-49
Residence			
Total Urban	2.1	2.8	3.0
Georgetown (urban)	2.0	2.6	2.4
Other (urban)	2.3	3.3	4.1
Total Rural	3.0	3.7	4.8
Total Coastal	2.4	3.2	3.7
Coastal (urban)	2.1	2.8	3.0
Coastal (rural)	2.5	3.5	4.0
Total Interior	6.0	5.6	10.0
Region			
Region 1	6.9	5.7	15.2
Region 2	2.7	3.7	3.7
Region 3	2.4	3.7	2.8
Region 4	2.3	3.0	3.8
Region 5	3.0	3.4	5.1
Region 6	2.3	3.2	3.0
Region 7	4.9	5.4	8.9
Region 8	6.1	(6.4)	8.8
Region 9	5.7	5.3	6.0
Region 10	3.0	4.0	4.6
Education			
No education	(5.9)	*	12.3
Primary	3.8	3.7	5.2
Secondary	2.7	3.4	3.9
More than secondary	1.7	2.7	4.0
Wealth quintile			
Lowest	4.9	5.0	7.7
Second	2.8	4.1	4.3
Middle	2.7	3.4	4.3
Fourth	2.1	2.8	3.6
Highest	1.9	2.7	2.6
Total **2009**	**2.8**	**3.4**	**4.3**
Total 2005	2.6	3.4	4.2

Note: Total fertility rates are for the period 1-36 months preceding the interview. Fertility rates in parentheses are based on 125-249 unweighted person-years of exposure. Mean number of children 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.

- The TFR among women in the rural areas (3.0 children) exceeds the fertility rate of women in urban areas (2.1 children) by almost one child. On the other hand, the TFR in the Interior area (6.0 children) is twice as high as the TFR in rural areas and three times the TFR in Georgetown (urban) (2.0 children).
- The TFR is still extremely high in some regions of Guyana: 6.9 children in Region 1, 6.1 children in Region 8, and 5.7 children in Region 9.
- Fertility decreases rapidly with an increase in women's education and household wealth. The TFR for women with more than secondary education is 1.7 children compared with 5.9 children for women with no education and 3.8 children for women with primary education. The TFR for women in the poorest households is more than two and a half times as high as the TFR for women in the richest households (4.9 children versus 1.9 children).
- The observed gap between the TFR (2.8 children) and the mean number of children ever born to women age 40-49 (3.4) indicates that fertility in Guyana has decreased over time.
- Only 4 percent of women are currently pregnant. Region 1 has the highest percentage of women currently pregnant (15 percent), which is several times the national average. Uneducated women (12 percent) and those in the poorest households (8 percent) are also much more likely than other groups to be currently pregnant.

4.3 FERTILITY TRENDS

Fertility trends can be analyzed in two ways. One is to compare the 2009 GDHS data with previous surveys. Fertility trends can be also estimated based on the 2009 GDHS birth histories alone. Table 4.3 uses information from the retrospective birth histories obtained from GDHS respondents to examine the trends in age-specific fertility rates for successive five-year periods preceding the survey. To calculate these rates, births were classified according to the period of time in which the birth occurred and the mother's age at the time of birth. The age-specific rates are progressively truncated with increasing time before the survey. Because women over age 50 were not interviewed in the 2009 GDHS, the rates for older age groups become progressively more truncated for periods increasingly distant from the survey date. For example, rates cannot be calculated for women age 45-49 for the period 5-9 years and earlier prior to the survey, because women in that age group would have been 50 years or older at the time of the survey. Partially truncated rates are enclosed in brackets in the table.

Table 4.3 Trends in age-specific fertility rates

Age-specific fertility rates for five-year periods preceding the survey, by mother's age at the time of the birth, Guyana 2009

Mother's age at birth	Number of years preceding the survey			
	0-4	5-9	10-14	15-19
15-19	97	102	128	115
20-24	160	192	209	196
25-29	112	159	161	166
30-34	91	102	113	[122]
35-39	53	61	[91]	
40-44	11	[29]		
45-49	[4]			
TFR 15-30	1.8	2.3	2.5	2.4

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

- Over time, a significant reduction in age-specific fertility rates is observed for all age groups.
- The reduction in ASFR seems particularly pronounced in the last five years, but additional analysis and evaluation of the birth histories is required for a better assessment.

4.4 CHILDREN EVER BORN AND LIVING

Table 4.4 presents the distribution of all women and currently married women by the mean number of children ever born and the mean number of children surviving, according to five-year age groups. Lifetime fertility reflects the accumulation of births over the past 30 years, so 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.

Table 4.4 Children ever born and living

Percent distribution of all women and currently married women by number of children ever born, mean number of children ever born, and mean number of living children, according to age group, Guyana 2009

	Number of children ever born														
Age	0	1	2	3	4	5	6	7	8	9	10+	Total	Number of women	Mean number of children ever born	Mean number of living children
ALL WOMEN															
15-19	83.9	11.0	4.1	0.6	0.4	0.0	0.0	0.0	0.0	0.0	0.0	100.0	1,016	0.23	0.22
20-24	47.6	30.1	13.8	6.9	1.3	0.2	0.1	0.0	0.0	0.0	0.0	100.0	767	0.85	0.83
25-29	20.6	26.4	22.1	18.0	8.4	3.1	0.8	0.5	0.1	0.0	0.0	100.0	658	1.83	1.77
30-34	11.9	14.0	29.3	21.7	10.3	6.8	3.0	1.9	0.4	0.0	0.6	100.0	643	2.54	2.45
35-39	8.1	13.3	23.1	23.1	12.7	9.4	4.8	2.8	1.4	0.4	0.8	100.0	699	3.00	2.86
40-44	8.6	10.1	17.8	23.3	14.8	11.4	5.4	4.4	1.4	0.8	2.1	100.0	624	3.35	3.15
45-49	5.6	7.4	21.2	25.1	16.3	8.4	5.3	3.2	4.3	1.1	2.1	100.0	589	3.53	3.23
Total	31.5	16.1	17.6	15.4	8.3	5.0	2.5	1.6	0.9	0.3	0.7	100.0	4,996	2.00	1.89
CURRENTLY MARRIED WOMEN															
15-19	34.1	39.5	20.4	3.8	2.2	0.0	0.0	0.0	0.0	0.0	0.0	100.0	166	1.00	0.96
20-24	24.3	36.6	23.1	12.8	2.5	0.4	0.2	0.0	0.0	0.0	0.0	100.0	398	1.35	1.31
25-29	11.3	24.9	25.3	21.7	10.5	4.2	1.1	0.7	0.1	0.0	0.0	100.0	458	2.17	2.10
30-34	7.1	11.5	30.5	24.1	10.7	8.5	3.8	2.4	0.5	0.0	0.8	100.0	492	2.83	2.71
35-39	3.8	11.0	23.6	24.2	14.8	10.3	5.6	3.3	1.9	0.5	1.1	100.0	517	3.31	3.17
40-44	4.9	9.6	16.7	24.4	16.0	12.0	6.4	5.0	1.6	0.9	2.5	100.0	460	3.61	3.42
45-49	3.2	6.6	19.8	24.6	18.8	8.4	6.0	4.1	4.5	1.4	2.6	100.0	429	3.79	3.43
Total	10.1	17.5	23.1	21.2	11.8	7.1	3.7	2.5	1.4	0.4	1.1	100.0	2,920	2.77	2.62

- The distribution of children ever born by age shows that early childbearing is not common in Guyana; 84 percent of all women age 15-19 have never given birth. This proportion declines to 21 percent for women age 25-29, and to 9 percent or less among women age 35 and older.
- The pattern for currently married women is similar to that for all women, with the proportion childless declining rapidly with age. Just over one-third (34 percent) of currently married women age 15-19 have not borne a child. This is less than half the level observed among all women. The difference in the proportion childless between all women and currently married women is attributable to the sizeable proportion of young, unmarried women in the former category who exhibit lower fertility.
- Currently married women reported slightly higher fertility at all ages; they have had an average of 2.8 children compared with 2.0 children among all women.
- Voluntary childlessness is uncommon, and currently married women with no live births are likely to be those who either themselves or whose partner is unable to bear children. The level of childlessness among married women at the end of their reproductive lives (age 45-49) can be used as an indicator of the level of primary sterility. In Guyana, primary sterility among older, currently married women is 3 percent.

4.5 BIRTH INTERVALS

A birth interval is defined as the length of time between two live births. The study of birth intervals is important in understanding the health status of young children. Research has shown that short birth intervals are closely associated with poor health of children, especially during infancy. Children born too close to a previous birth, especially if the interval between the births is less than two years, are at increased risk of health problems and dying at an early age. Longer birth intervals, on the other hand, contribute to the improved health status of both mother and child. The study of birth intervals is done using two measures: median birth interval and proportion of non-first births that occur 24 months or more after the previous birth.

Table 4.5 presents the distribution of second and higher-order births in the five years preceding the survey by the number of months since the previous birth, according to background characteristics. First births are omitted from the table because there is no prior birth with which to measure an interval. The table also shows the median number of months since the preceding birth. The prevalence of birth intervals of 24 months or fewer is presented in Figure 4.2 by residence and wealth quintile.

- In Guyana, the median length of time between two successive live births is three years (36 months). The median birth interval increases rapidly with the age of the mother, reaching four years among women age 30 years and older (49 months). The median number of months between births is shorter when the preceding birth is dead (23 months) than alive (37 months), and it is longer for births in urban than in rural areas (45 months versus 34 months). The longest birth interval is observed in Region 4 (43 months, and the shortest is in Region 1 (29 months).
- A significant proportion of births (25 percent) occur within short intervals from preceding births (24 months or less). The proportion of births with a short interval from the preceding birth is greater in rural (27 percent) than in urban areas (18 percent) and it is highest for births in Region 8 (32 percent) and Region 1 (35 percent).
- The proportion of births with a birth interval of 24 months or less is also significantly higher for births to women with no education (36 percent) compared with births to other women, especially those with more than secondary education (17 percent).

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Table 4.5 Birth intervals

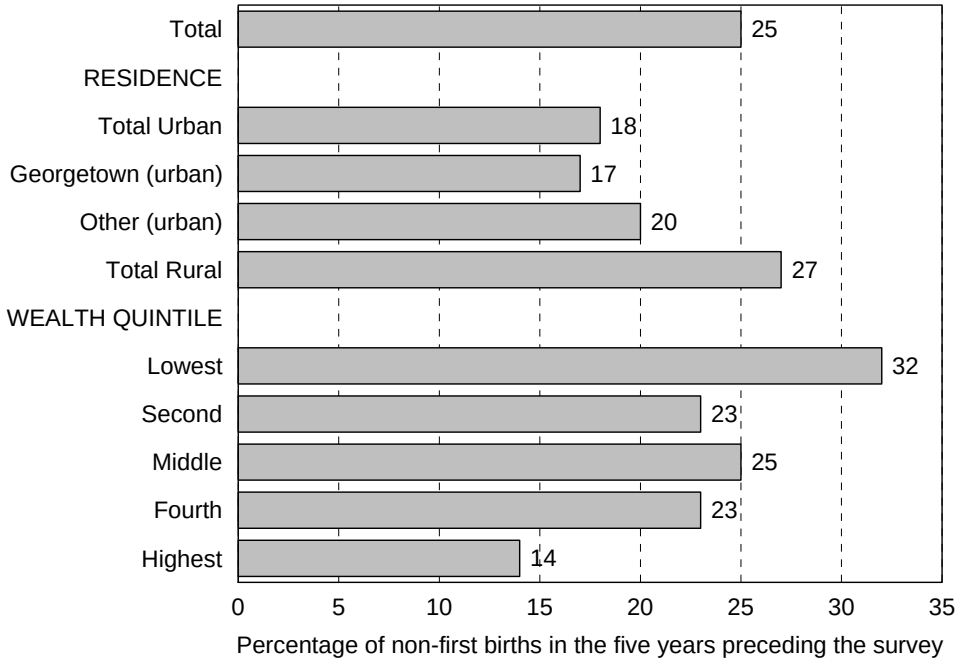
Percent distribution of non-first births in the five years preceding the survey by number of months since preceding birth, and by median number of months since preceding birth, according to background characteristics, Guyana 2009

Background characteristic	Number of months since preceding birth						Total	Median number of months since preceding birth[1]	Number of non-first births
	7-17	18-23	24-35	36-47	48-59	60+			
Age									
15-19	24.8	42.7	30.1	2.5	0.0	0.0	100.0	22.5	66
20-29	11.9	18.6	31.5	15.5	9.3	13.1	100.0	31.0	573
30-39	5.4	9.8	18.9	14.5	12.4	39.1	100.0	49.3	530
40-49	4.0	10.2	20.0	13.0	6.6	46.2	100.0	48.9	93
Birth order									
2-3	9.2	16.1	25.2	13.0	9.5	27.0	100.0	35.4	790
4-6	9.6	12.1	25.4	15.7	9.8	27.5	100.0	38.3	370
7+	8.8	23.6	25.9	18.5	13.3	10.0	100.0	31.7	102
Sex of preceding birth									
Male	7.8	18.2	23.8	14.3	9.3	26.6	100.0	36.2	632
Female	10.8	12.9	26.8	14.1	10.5	25.0	100.0	35.5	630
Survival of preceding birth									
Living	8.5	14.9	25.5	14.7	9.7	26.7	100.0	37.0	1,206
Dead	25.1	29.7	20.9	4.3	13.5	6.4	100.0	22.8	56
Residence									
Total Urban	8.4	9.6	21.0	17.3	8.3	35.4	100.0	44.5	271
Georgetown (urban)	8.9	7.9	18.6	20.2	6.9	37.5	100.0	45.7	166
Other (urban)	7.6	12.2	24.8	12.8	10.5	32.1	100.0	41.9	105
Total Rural	9.5	17.2	26.5	13.4	10.3	23.1	100.0	33.7	990
Total Coastal	9.2	13.7	24.1	13.8	9.9	29.3	100.0	39.0	957
Coastal (urban)	8.4	9.6	21.0	17.3	8.3	35.4	100.0	44.5	271
Coastal (rural)	9.6	15.3	25.3	12.4	10.5	26.9	100.0	35.7	686
Total Interior	9.4	21.3	29.0	15.7	9.9	14.8	100.0	31.2	305
Region									
Region 1	7.7	27.6	27.9	17.3	8.9	10.7	100.0	29.1	122
Region 2	8.3	16.4	37.9	11.3	9.7	16.4	100.0	29.6	71
Region 3	8.1	12.8	29.2	15.2	7.7	27.1	100.0	35.0	143
Region 4	8.6	12.2	21.4	16.2	10.2	31.4	100.0	43.3	419
Region 5	11.9	14.4	26.5	9.6	11.2	26.3	100.0	34.4	93
Region 6	11.4	17.5	18.3	10.4	11.0	31.3	100.0	40.1	178
Region 7	6.5	11.9	29.6	17.1	12.8	22.2	100.0	37.5	45
Region 8	17.2	14.6	23.2	12.1	13.5	19.4	100.0	31.2	54
Region 9	6.0	20.0	40.1	16.3	7.6	10.0	100.0	30.2	49
Region 10	8.9	15.5	27.3	12.6	7.5	28.2	100.0	35.3	87
Education									
No education	16.1	19.6	32.8	11.7	10.8	9.0	100.0	27.0	48
Primary	6.8	17.8	33.3	12.4	10.0	19.7	100.0	33.0	332
Secondary	10.1	14.9	22.8	14.9	8.9	28.4	100.0	37.7	805
More than secondary	6.6	9.9	13.0	16.5	19.2	34.8	100.0	49.4	78
Wealth quintile									
Lowest	10.3	21.5	33.5	12.5	7.8	14.3	100.0	28.9	415
Second	8.4	14.6	30.9	15.4	9.2	21.6	100.0	33.2	260
Middle	10.3	14.3	14.9	11.2	13.7	35.5	100.0	47.5	218
Fourth	8.7	14.6	16.6	17.2	11.1	31.8	100.0	43.8	171
Highest	7.5	6.3	19.7	17.1	9.9	39.5	100.0	47.8	197
Total 2009	**9.3**	**15.5**	**25.3**	**14.2**	**9.9**	**25.8**	**100.0**	**35.9**	**1,262**
Total 2005	14.2	15.0	23.2	15.5	[.....32.2.....]		100.0	33.8	659

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

[1] The median is the midpoint of the distribution of births by number of months since preceding birth.

Figure 4.2 Births with a Birth Interval of Less than 24 Months, by Residence and Wealth Quintile



4.6 AGE AT FIRST BIRTH

The age at which childbearing begins has important demographic implications as well as important consequences for the mother and child. In many countries, postponement of first births, reflecting an increase in the age of a woman at marriage, has contributed greatly to overall fertility declines.

Table 4.6 shows the percentage of women who have given birth by exact ages, according to age at the time of the survey. Table 4.7 summarizes the median age at first birth for different age cohorts and compares the entry age into motherhood for different subgroups of the population. Medians for cohorts 15-19 and 20-24 could not be determined because half the women had not yet had a birth.

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

- Twenty-one percent of women age 25-49 have given birth by exact age 18, and 75 percent have given birth by exact age 25. Data across age groups indicate that these percentages have changed very little over time.
- The findings indicate that childbearing begins relatively late in Guyana. The median age at first birth for women in Guyana is almost 21 years, and it seems to have changed little in the last two decades.

- The median age at first birth for women age 25-49 is 21.8 years in urban areas compared with 20.4 years in rural areas and 19.4 years in the Interior area. Among regions, it is lowest in Region 8 (18.9 years) and highest in Region 4 (21.2 years).
- The median age at first birth increases with education, from 19.6 years for women with no education to 24.3 years for women with more than secondary education.
- There are also important differences depending on the wealth of the household. The median age at first birth is 19.6 years for women in the poorest households and increases steadily to 22.7 years for women in the wealthiest households.

Table 4.6 Age at first birth

Percentage of women who have given birth by specific exact ages, percentage who have never given birth, and median age at first birth, according to current age, Guyana 2009

	Percentage of women who have given birth by exact age:					Percentage who have never given birth	Number of women	Median age at first birth[1]
Current age	15	18	20	22	25			
15-19	1.9	na	na	na	na	83.9	1,016	a
20-24	1.9	15.9	34.7	na	na	47.6	767	a
25-29	2.1	22.6	41.8	59.1	74.7	20.6	658	20.8
30-34	1.6	22.6	43.5	60.9	74.9	11.9	643	20.7
35-39	1.1	20.1	42.5	58.5	74.5	8.1	699	20.9
40-44	2.3	17.4	40.7	61.1	74.3	8.6	624	20.9
45-49	1.6	24.6	46.2	64.0	78.8	5.6	589	20.4
2009								
20-49	1.8	20.3	41.3	na	na	18.1	3,980	a
25-49	1.7	21.4	42.9	60.6	75.4	11.1	3,213	20.7
2005								
20-49	1.7	21.4	42.3	na	na	17.7	1,969	20.8
25-49	1.6	21.3	43.2	62.3	77.4	11.2	1,583	20.7

na = Not applicable because of censoring
a = Omitted because less than 50 percent of women had a birth before reaching the beginning of the age group
[1] The median is the midpoint of the distribution of women by exact age at first birth.

Table 4.7 Median age at first birth by background characteristics

Median age at first birth among women 25-49, by current age, according to background characteristics, Guyana 2009

Background characteristic	Current age					Women age 25-49
	25-29	30-34	35-39	40-44	45-49	
Residence						
Total Urban	22.8	22.1	21.2	22.4	20.9	21.8
Georgetown (urban)	23.2	22.1	21.2	23.0	21.2	22.2
Other (urban)	21.6	22.2	21.3	21.1	20.6	21.3
Total Rural	20.3	20.1	20.8	20.4	20.2	20.4
Total Coastal	21.0	20.8	21.1	21.1	20.5	20.9
Coastal (urban)	22.8	22.1	21.2	22.4	20.9	21.8
Coastal (rural)	20.4	20.2	21.0	20.6	20.4	20.5
Total Interior	19.4	19.7	19.3	19.1	19.4	19.4
Region						
Region 1	(20.0)	(18.6)	(21.2)	(19.4)	(19.3)	19.3
Region 2	20.0	20.6	20.9	20.5	20.8	20.6
Region 3	20.8	20.7	21.9	20.4	20.3	20.8
Region 4	21.9	21.4	20.4	21.6	20.5	21.2
Region 5	(20.5)	19.9	22.6	20.4	21.2	20.8
Region 6	19.7	19.9	21.3	21.2	20.4	20.4
Region 7	(20.5)	(20.1)	(19.2)	(19.7)	(19.5)	19.8
Region 8	(18.0)	(21.9)	(18.8)	*	(17.7)	18.9
Region 9	19.1	(19.9)	(19.0)	(19.2)	(20.5)	19.6
Region 10	20.2	22.4	20.4	20.7	(20.5)	20.9
Education						
No education	*	*	*	*	*	19.6
Primary	18.7	19.3	20.9	20.5	20.1	20.1
Secondary	20.9	20.7	20.6	21.1	20.2	20.7
More than secondary	a	25.1	23.2	21.4	24.9	24.3
Wealth quintile						
Lowest	18.7	19.5	19.6	19.7	20.7	19.6
Second	19.7	19.5	19.7	20.4	19.5	19.8
Middle	19.9	19.7	21.2	20.0	20.2	20.2
Fourth	21.5	21.6	20.9	22.1	20.7	21.4
Highest	23.9	23.2	23.3	22.2	20.5	22.7
Total	20.8	20.7	20.9	20.9	20.4	20.7

Note: The median is the midpoint of the distribution of women by exact age at first birth. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
a = Omitted because less than 50 percent of the women had a birth before the beginning of the age group

4.7 TEENAGE PREGNANCY AND MOTHERHOOD

Table 4.8 shows the percentage of women age 15-19 who have begun childbearing, either because they are already mothers or because they are pregnant with their first child, by background characteristics.

Early childbearing, particularly among teenagers (those under 20 years of age) has negative demographic, socioeconomic, and sociocultural consequences. Teenage mothers are more likely to suffer from severe complications during delivery, which results in higher morbidity and mortality for both themselves and their children. In addition, the socioeconomic advancement of teenage mothers in the areas of educational attainment and accessibility to job opportunities may be curtailed.

- At the time of the survey, 18 percent of women age 15-19 had begun childbearing; 16 percent were already mothers, and 2 percent were pregnant with their first child.
- Among women age 18-19, about one-third had already begun childbearing (i.e., were mothers or were pregnant with their first child).

- There are important differences by place of residence. Teenagers in rural areas are more than twice as likely (22 percent) and those in the Interior area are four times as likely (43 percent) as teenagers in urban areas (10 percent) to have begun childbearing.
- The differences by region are also striking. Only 10 percent of teenagers in Region 10 have begun childbearing compared with 63 percent in Region 1.
- The percentage of teenagers who have begun childbearing decreases steadily with education and wealth.

Table 4.8 Teenage pregnancy and motherhood

Percentage of women age 15-19 who are mothers or pregnant with their first child and percentage who have begun childbearing, by background characteristics, Guyana 2009

Background characteristic	Percentage who are: Mothers	Percentage who are: Pregnant with first child	Percentage who have begun child-bearing	Number of women
Age				
15	1.1	0.8	1.9	210
16	5.3	2.0	7.3	206
17	11.3	1.3	12.6	180
18	29.1	3.4	32.5	179
19	32.3	2.3	34.6	240
Residence				
Total Urban	8.3	1.4	9.7	307
Georgetown (urban)	9.1	0.7	9.8	199
Other (urban)	6.8	2.6	9.4	108
Total Rural	19.5	2.2	21.6	709
Total Coastal	13.3	1.8	15.1	912
Coastal (urban)	8.3	1.4	9.7	307
Coastal (rural)	15.9	2.0	17.9	605
Total Interior	40.2	3.1	43.3	104
Region				
Region 1	58.9	3.9	62.7	39
Region 2	20.2	2.8	23.0	70
Region 3	11.4	1.8	13.2	141
Region 4	13.7	1.6	15.3	443
Region 5	10.7	4.4	15.1	66
Region 6	14.7	1.4	16.1	144
Region 7	20.1	2.2	22.3	23
Region 8	43.2	4.7	47.9	19
Region 9	26.8	2.7	29.5	12
Region 10	9.5	0.0	9.5	59
Education				
No education	*	*	*	8
Primary	32.1	6.0	38.1	80
Secondary	14.6	1.6	16.2	893
More than secondary	(2.1)	(1.4)	(3.6)	35
Wealth quintile				
Lowest	34.0	4.3	38.3	184
Second	20.6	0.7	21.4	209
Middle	17.3	2.6	19.9	203
Fourth	7.8	0.9	8.6	211
Highest	2.9	1.4	4.4	209
Total 2009	**16.1**	**1.9**	**18.0**	**1,016**
Total 2005	11.3	2.5	13.8	456

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.

FAMILY PLANNING 5

This chapter appraises current knowledge of contraceptive methods and then considers past and current practices of contraceptive use. Special attention is given to those who do not use contraception now but who intend to use it sometime in the future. The chapter concludes with an analysis of how family planning programs use the media to convey information about contraception and to what extent women and men are exposed to this media coverage.

Information about family planning is of practical use to policymakers and program managers. The early sections of this chapter concern conditions that precede the adoption of contraception, such as knowledge of methods and supply sources. The levels of use of contraceptives provide the most obvious and widely accepted criterion of success of the program, especially when results from earlier surveys are available so that progress can be charted. Examination of contraceptive use in relation to need pinpoints segments of the population for whom intensified efforts at service provision are most needed.

An analytical framework is used to assist in data interpretation. The framework divides the determinants of contraceptive use into two types: those that promote use and those that prevent use. Use-promoting factors include the desire of couples to postpone or terminate childbearing. Obstacles to use, as perceived by potential users, include lack of knowledge of methods; disapproval of contraception; ignorance of sources of advice and supply; and the belief that at least some methods present major barriers to use. Also likely to influence whether initial, and often tentative, adoption of a method is sustained or discontinued is an unsatisfactory experience with the method or source of supply and an inability to use the method effectively.

The relative importance of use-promoting and use-discouraging factors in determining actual use has long been the subject of dispute. In reality, the two may not be independent of each other. The reduction or elimination of perceived obstacles may well strengthen use-promoting attitudes and vice versa.

5.1 KNOWLEDGE OF CONTRACEPTIVE METHODS

Acquiring knowledge about contraceptive methods is an important step towards access and then adoption of a suitable contraceptive method. Information on knowledge of contraception was collected in two ways. Respondents were asked to mention all ways or methods that couples can use to avoid or delay pregnancy. When a respondent failed to mention a particular method spontaneously, the interviewer described the method and asked whether the respondent knew of it. Using this approach, information was collected for 12 modern family planning methods: female and male sterilization, the pill, the IUD/coil, injectables, implants, male and female condoms, diaphragm, foam tablets and jelly, the lactational amenorrhea method (LAM), and emergency contraception. Information was also collected on two traditional methods: rhythm, or periodic abstinence, and withdrawal. Provision was made in the questionnaire to record any other methods named spontaneously by respondents, and these were coded as ”folk methods.” This report combines both prompted and unprompted knowledge. Thus, knowledge of a family planning method in the 2009 GDHS is defined simply as having heard of a method.

Table 5.1 shows the percentage of all women and men, currently married women and men, and sexually active unmarried women and men, age 15-49, who have heard of specific contraceptive methods. The mean number of methods known is also shown. Knowledge of *any modern method* of contraception

should be chosen as a summary indicator of knowledge in preference to knowledge of *any method*, because of its greater relevance for program promotion, which is usually confined to modern methods.

- Knowledge of any contraceptive method is almost universal in Guyana, with 98 percent of all women and 99 percent of all men knowing at least one method of contraception.
- Modern methods are more widely known than traditional methods. Ninety-eight percent of all women and men know of a modern method, compared with 54 percent of all women and 65 percent of all men who know of a traditional method.
- Among women, the male condom is the most commonly known method (96 percent), followed by the pill (89 percent), injectables (81 percent), and the female condom (78 percent). The lactational amenorrhea method (LAM) is the least known method (14 percent).
- Among the traditional methods, withdrawal is known by 49 percent and rhythm by 30 percent of women. Only 5 percent of women mentioned folk methods.
- Knowledge of contraceptive methods among currently married women is similar to that among all women. Among sexually active, unmarried women, knowledge of male sterilization, the female condom and vaginal methods, as well as traditional methods, tends to be higher than among other women.
- Knowledge of any modern method is as high among men as among women, with knowledge of certain "female-oriented" methods, such as female sterilization, IUD, and injectables, being substantially lower among men than among women. Of the traditional methods, knowledge of rhythm is somewhat less common among men than women, but knowledge of withdrawal is significantly more common among men than among women.

Table 5.1 Knowledge of contraceptive methods

Percentage of all respondents, currently married respondents, and sexually active unmarried respondents age 15-49 who know any contraceptive method, by specific method, Guyana 2009

	Women			Men		
Method	All women	Currently married women	Sexually active unmarried women[1]	All men	Currently married men	Sexually active unmarried men[1]
Any method	**98.3**	**98.8**	**99.4**	**98.5**	**99.2**	**99.8**
Any modern method	**98.3**	**98.8**	**99.4**	**98.4**	**98.9**	**99.8**
Female sterilization	65.8	69.4	71.6	47.2	55.1	47.7
Male sterilization	31.6	29.9	35.6	29.7	30.7	36.4
Pill	89.3	91.3	94.7	74.3	80.1	76.5
IUD	71.1	77.5	74.6	37.3	45.0	40.4
Injectables	81.4	87.3	87.4	49.4	57.9	50.5
Implants	25.0	23.2	28.9	22.1	23.8	26.8
Male condom	96.2	96.3	98.5	98.1	98.7	99.5
Female condom	78.4	75.2	89.0	69.9	70.4	77.8
Diaphragm	24.8	20.8	32.8	18.7	20.2	24.2
Foam/jelly	33.0	32.1	41.1	26.9	28.4	32.3
Lactational amenorrhea method (LAM)	13.9	13.4	18.2	5.7	7.2	4.5
Emergency contraception	29.7	26.6	40.1	26.6	28.5	33.5
Any traditional method	**54.4**	**54.8**	**63.7**	**64.8**	**69.3**	**75.3**
Rhythm	30.2	28.2	35.9	24.0	28.3	25.4
Withdrawal	49.1	49.7	59.7	62.3	66.5	73.7
Folk method	5.4	4.9	6.0	3.8	3.6	6.0
Mean number of methods known by respondents 15-49	7.2	7.3	8.1	6.0	6.4	6.6
Number of respondents	4,996	2,920	408	3,522	1,835	540

[1] Had last sexual intercourse within 30 days preceding the survey

5.2 KNOWLEDGE OF CONTRACEPTION BY BACKGROUND CHARACTERISTICS

Because knowledge of methods of contraception and of modern methods of contraception is almost universal in Guyana for most of the population groups used in this report, a detailed table by background characteristics is not shown. Table 5.2 presents information on knowledge of contraception methods among currently married women and men for only a few selected background characteristics for which knowledge is not universal: the Interior area, Regions 8 and 9, and the lowest wealth quintile.

- The lowest levels of knowledge of contraceptive methods in Guyana are found in Region 9, where three-quarters of currently married women know of a method or a modern method of contraception. About nine in ten men in Region 9 know of a method and of a modern method of contraception.
- In the Interior area, 94 percent of currently married women know a method or a modern method of contraception. The corresponding figures for men are 97 percent (any method) and 96 percent (modern methods).
- Even in the lowest quintile, the level of knowledge is high. Ninety-five percent of currently married women and 97 percent of currently married men know a method or a modern method.

Table 5.2 Knowledge of contraceptive methods by selected background characteristics

Percentage of currently married women and currently married men age 15-49 who know at least one contraceptive method and percentage who know at least one modern method, by selected background characteristics, Guyana 2009

	Women			Men		
Background characteristic	Knows any method	Knows any modern method[1]	Number of women	Knows any method	Knows any modern method[1]	Number of men
Interior	93.7	93.6	357	96.8	95.9	232
Region 8	90.6	90.6	71	93.0	92.4	40
Region 9	75.6	74.9	57	89.0	88.7	40
Lowest wealth quintile	95.1	94.8	554	97.4	96.8	372
Total	98.8	98.8	2,920	99.2	98.9	1,835

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

5.3 EVER USE OF CONTRACEPTIVE METHODS

All women interviewed in the survey who said they had heard of a method of family planning were asked whether they had ever used that method. Men were asked if they had ever used "male-oriented" methods, i.e., male sterilization, condoms, rhythm, and withdrawal. Table 5.3 shows the percentages of all women, currently married women, and sexually active unmarried women who have ever used specific methods of family planning, by age, and Table 5.4 shows comparable information for men.

- Ever use of contraception is significantly higher among sexually active unmarried women (91 percent) than either currently married women (75 percent) or all women (64 percent). The condom is the most common ever used method (83 percent of sexually active unmarried women and 42 percent, each, of married women and all women), followed by the pill (30-39 percent) and injectables (15-21 percent).

- Ever use of contraception is also higher among sexually active unmarried men (95 percent) than either currently married men (81 percent) or all men (72 percent). The male condom has been used by 68 percent of all men, 74 percent of currently married men, and 93 percent of sexually active unmarried men. Among the traditional methods, withdrawal has been used by 35 percent of all men, 41 percent of married men and 52 percent of sexually active unmarried men.

Table 5.3 Ever use of contraception by age: Women

Percentage of all women, currently married women, and sexually active unmarried women age 15-49 who have ever used any contraceptive method by method, according to age, Guyana 2009

		Modern method											Traditional method					
Age	Any method	Any modern method	Female sterilization	Pill	IUD	Injectables	Implants	Condom	Diaphragm	Foam/jelly	LAM	Emergency contraception	Any traditional method	Periodic abstinence	Withdrawal	Folk method	Never used a method	Number of women
ALL WOMEN																		
15-19	26.4	25.2	0.4	3.2	0.6	1.9	0.3	22.8	0.8	0.0	0.0	0.0	0.6	4.4	0.6	2.4	1.5	1,016
20-24	66.4	65.1	0.3	18.2	3.9	10.9	0.2	52.2	2.1	0.0	0.0	0.7	1.3	16.1	3.6	13.5	2.7	767
25-29	75.5	74.5	1.9	36.7	11.2	17.6	0.5	54.8	1.3	0.0	2.0	1.8	1.5	16.5	3.2	13.9	2.2	658
30-34	79.3	78.1	2.2	38.5	18.7	21.2	0.2	51.1	2.0	0.0	1.6	0.5	1.3	15.1	3.4	13.1	1.8	643
35-39	79.0	77.5	5.0	44.8	19.4	24.1	0.6	48.8	2.3	0.8	2.8	1.7	2.3	14.0	3.7	11.2	2.4	699
40-44	73.7	72.6	9.0	44.6	24.1	21.5	0.5	37.3	0.8	0.4	6.6	1.3	2.8	13.6	5.1	9.9	1.6	624
45-49	69.8	67.8	10.1	38.9	26.0	18.2	0.6	30.7	1.1	0.9	7.1	0.4	2.3	11.9	4.5	8.3	2.2	589
Total	64.2	62.9	3.7	29.7	13.4	15.3	0.4	41.6	1.5	0.3	2.5	0.9	1.6	12.5	3.2	9.8	2.0	4,996
CURRENTLY MARRIED WOMEN[1]																		
15-19	47.8	47.8	2.8	14.2	1.8	7.7	0.1	34.9	0.9	0.0	0.0	0.0	0.0	4.1	0.0	4.1	0.0	166
20-24	71.4	70.0	0.6	25.7	6.9	18.0	0.3	48.3	1.2	0.0	0.0	1.4	0.7	16.0	3.0	13.8	2.1	398
25-29	76.1	74.7	2.6	40.1	14.1	19.4	0.8	51.0	1.0	0.0	1.9	2.1	1.5	16.4	3.7	13.4	2.1	458
30-34	81.0	79.8	2.3	42.2	21.2	24.3	0.3	47.6	2.2	0.0	1.6	0.3	1.6	15.7	3.6	13.8	1.8	492
35-39	80.2	78.2	5.8	46.3	23.1	24.1	0.5	44.4	1.9	0.4	2.7	2.1	2.6	13.2	2.7	10.9	1.7	517
40-44	76.9	75.5	10.4	47.6	26.3	21.9	0.7	36.9	0.7	0.3	7.1	0.9	3.3	15.2	5.7	11.0	1.8	460
45-49	71.8	69.4	10.8	40.6	28.6	19.2	0.5	26.9	1.5	0.4	8.7	0.5	2.6	10.5	3.8	7.4	1.6	429
Total	74.9	73.4	5.3	39.4	19.3	20.6	0.5	42.2	1.4	0.2	3.4	1.2	1.9	13.9	3.5	11.3	1.8	2,920
SEXUALLY ACTIVE UNMARRIED WOMEN[2]																		
15-19	90.6	90.6	0.0	5.5	1.8	7.6	1.7	90.6	3.8	0.0	0.0	0.0	1.9	7.6	2.5	6.2	0.0	76
20-24	84.5	83.3	0.0	15.8	2.1	6.0	0.0	79.9	6.3	0.0	0.0	0.0	1.1	24.2	6.3	21.3	2.8	109
25-29	92.5	92.0	1.0	41.1	2.8	22.5	0.0	82.5	0.6	0.0	4.0	1.4	0.0	26.3	0.7	25.8	0.6	79
30-34	84.7	84.7	1.9	32.7	5.0	15.2	0.0	76.5	3.0	0.0	1.3	0.0	1.3	11.4	5.6	6.0	2.9	39
35-39	100.0	100.0	4.8	58.4	8.9	30.7	0.0	91.1	1.4	0.0	3.9	0.0	1.1	23.9	9.3	15.8	6.8	50
40-49	53.9	53.9	6.6	37.5	12.6	20.6	1.1	43.0	0.8	0.0	5.6	0.0	1.4	11.0	6.4	7.2	2.0	56
Total	90.7	90.3	2.6	32.5	6.0	17.6	0.6	83.0	3.1	0.0	2.8	0.3	1.2	19.6	5.5	16.1	2.5	408

Note: For all women and sexually active unmarried women, the use of any method and any modern method includes male sterilization, which is not shown separately.
LAM = Lactational amenorrhea method
[1] "Currently married" includes respondents in consensual union (living together).
[2] Unmarried women who last had sexual intercourse less than one month preceding the survey. The information for sexually active women age 30-34 and age 35-39 is based on 25 to 49 unweighted cases each.

Table 5.4 Ever use of contraception by age: Men

Percentage of all men, currently married men, and sexually active unmarried men who have ever used any contraceptive method, by specific method and age, Guyana 2009

Age	Any method	Modern method			Traditional method			Number of men
		Any modern method	Male sterili-zation	Male condom	Any traditional method	Rhythm	With-drawal	
ALL MEN								
15-19	38.6	37.8	0.4	37.7	11.7	1.0	11.5	689
20-24	82.1	79.6	0.8	79.6	40.0	4.4	38.5	511
25-29	83.7	79.9	0.4	79.7	47.9	9.2	46.7	462
30-34	88.3	84.9	1.2	84.6	43.4	7.2	41.3	521
35-39	78.1	72.1	0.1	72.0	40.8	8.3	38.4	470
40-44	76.2	69.0	0.0	69.0	46.6	8.1	44.9	457
45-49	72.6	64.7	0.1	64.6	40.7	10.5	37.0	413
Total	72.3	68.1	0.4	68.0	37.0	6.5	35.3	3,522
CURRENTLY MARRIED MEN								
15-19	*	*	*	*	*	*	*	8
20-24	83.9	81.8	1.3	81.8	34.6	2.1	34.4	143
25-29	84.9	80.4	0.7	80.1	48.2	9.0	46.8	269
30-34	87.4	83.3	1.2	83.3	45.4	7.5	44.0	366
35-39	77.9	72.0	0.1	71.9	40.0	9.0	37.3	354
40-44	76.3	68.5	0.0	68.5	46.2	9.4	44.5	352
45-49	74.9	65.7	0.1	65.6	41.1	12.0	36.6	343
Total	80.5	74.4	0.5	74.3	43.2	8.8	41.0	1,835
SEXUALLY ACTIVE UNMARRIED MEN[1]								
15-19	95.0	93.1	1.6	93.1	41.6	3.0	41.6	101
20-24	96.9	94.9	1.4	94.9	55.5	4.8	54.8	168
25-29	96.8	94.6	0.0	94.6	60.1	17.8	59.0	87
30-34	98.7	97.4	0.0	97.4	61.1	7.8	56.9	71
35-39	88.7	87.5	0.0	87.5	46.3	8.0	43.1	50
40-49	88.4	87.1	0.0	87.1	54.8	4.0	54.3	63
Total	95.0	93.3	0.7	93.3	53.4	7.1	52.1	540

Note: Male respondents were not asked about methods that are female controlled, such as the pill or the IUD. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. The information for sexually active men age 35-39 is based on 49 unweighted cases.
[1] Men who had sexual intercourse in the month preceding the survey

5.4 CURRENT USE OF CONTRACEPTION

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

Table 5.5 presents the percentage of all women, currently married women, and sexually active unmarried women by contraceptive method currently used, according to age. However, the data interpretation will focus on the findings for currently married women because they are the more meaningful and telling data on current contraceptive use. An inverted-U pattern of contraceptive prevalence rate by age is expected for the currently married women. Current use is usually lower among younger women (because they are in the stage of family building) and among older women (some of whom are no longer fecund) than among those at intermediate ages.

Table 5.5 Current use of contraception by age

Percentage of all women, currently married women, and sexually active unmarried women age 15-49 by contraceptive method currently used, according to age, Guyana 2009

		Modern method									Traditional method					
Age	Using any method	Any modern method	Female sterilization	Pill	IUD	Injectables	Implants	Male condom	Female condom	LAM	Any traditional method	Rhythm	Withdrawal	Folk method	Not using a method	Number of women
ALL WOMEN																
15-19	14.2	13.9	0.4	1.3	0.1	0.9	0.1	10.9	0.1	0.0	0.3	0.0	0.2	0.1	85.8	1,016
20-24	36.6	33.4	0.3	5.2	2.0	4.2	0.0	21.0	0.0	0.7	3.2	0.8	1.7	0.7	63.4	767
25-29	41.2	39.1	1.9	9.0	6.1	5.4	0.2	16.3	0.0	0.0	2.2	0.4	1.4	0.4	58.8	658
30-34	47.7	45.6	2.2	9.6	8.0	5.9	0.0	19.8	0.1	0.1	2.1	0.4	1.0	0.6	52.3	643
35-39	43.0	40.2	5.0	8.5	7.9	4.0	0.2	14.6	0.0	0.0	2.8	0.3	1.3	1.2	57.0	699
40-44	40.6	37.6	9.0	7.9	5.9	2.8	0.3	11.4	0.0	0.0	3.0	1.2	0.8	1.1	59.4	624
45-49	29.4	27.4	10.1	2.2	6.8	0.7	0.2	7.4	0.0	0.0	1.9	1.1	0.7	0.1	70.6	589
Total	34.6	32.5	3.7	5.9	4.8	3.3	0.1	14.5	0.0	0.1	2.1	0.5	1.0	0.6	65.4	4,996
CURRENTLY MARRIED WOMEN[1]																
15-19	29.8	29.8	2.8	6.1	0.6	3.5	0.0	16.6	0.2	0.0	0.0	0.0	0.0	0.0	70.2	166
20-24	38.7	36.2	0.6	8.9	3.3	6.9	0.0	15.2	0.0	1.4	2.5	0.8	1.6	0.1	61.3	398
25-29	42.8	40.3	2.6	10.8	8.1	6.8	0.2	11.7	0.0	0.0	2.5	0.5	2.0	0.0	57.2	458
30-34	50.4	48.3	2.3	11.7	9.1	7.2	0.0	17.8	0.1	0.1	2.1	0.3	1.3	0.5	49.6	492
35-39	46.9	44.3	5.8	10.9	9.9	4.9	0.3	12.5	0.0	0.0	2.6	0.2	1.7	0.7	53.1	517
40-44	45.7	41.9	10.4	9.9	7.1	2.2	0.4	11.5	0.0	0.0	3.8	1.6	1.1	1.1	54.3	460
45-49	32.7	30.0	10.8	3.1	8.0	0.9	0.3	7.0	0.0	0.0	2.7	1.5	1.0	0.2	67.3	429
Total	42.5	40.0	5.3	9.2	7.3	4.8	0.2	12.9	0.0	0.2	2.5	0.7	1.4	0.4	57.5	2,920
SEXUALLY ACTIVE UNMARRIED WOMEN[2]																
15-19	60.9	60.9	0.0	2.7	0.0	3.8	0.0	53.5	0.8	0.0	0.0	0.0	0.0	0.0	39.1	76
20-24	70.7	64.8	0.0	3.1	2.1	2.6	0.0	57.0	0.0	0.0	5.9	2.9	3.0	0.0	29.3	109
25-29	61.3	60.8	1.0	12.0	0.0	1.5	0.0	46.2	0.0	0.0	0.5	0.0	0.5	0.0	38.7	79
30-39	68.2	63.0	3.5	2.5	4.3	1.5	0.0	51.2	0.0	0.0	5.2	1.7	0.0	3.5	31.8	89
40-49	49.4	49.4	11.7	4.4	4.3	3.8	0.0	25.2	0.0	0.0	0.0	0.0	0.0	0.0	50.6	56
Total	63.6	60.8	2.6	4.8	2.1	2.5	0.0	48.7	0.1	0.0	2.8	1.1	0.9	0.8	36.4	408

Note: If more than one method is used, only the most effective method is considered in this tabulation.
LAM= Lactational amenorrhea method
[1] 'Currently married" includes respondents in consensual union (living together).
[2] Unmarried women who last had sexual intercourse less than one month preceding the survey.

- Forty-three percent of married women are currently using a contraceptive method; most of them (40 percent) are using a modern method. The most commonly used methods are the male condom (13 percent), the pill (9 percent), and the IUD (7 percent). Female sterilization and injectables are each used by 5 percent of women.

- Overall, the percentage of currently married women using any contraceptive method increases steadily with women's age, from 30 percent among women age 15-19 to 50 percent among those age 30-34, after which it drops to 33 percent among women 45-49.
- The use of condoms tends to drop for women age 35 and older, reaching a low of 7 percent for women age 45-49. As expected, the use of the IUD is relatively low (1 to 3 percent) among younger women age 15-24, after which its use increases and stays at 7 to 10 percent for older women. The highest percentage of current users of the pill is observed among women age 25-39 (11 to 12 percent).
- Table 5.5 also shows that current use of any method is higher among currently married women than among all women. However, use is far higher among sexually active unmarried women (64 percent) than among married women (43 percent) or all women (35 percent).

5.5 DIFFERENTIALS IN CURRENT USE

Table 5.6 shows the percentage of currently married women by current use of family planning methods, according to background characteristics. Figure 5.1 shows use of contraception among currently married women by region.

Current use of contraception varies with number of living children, urban-rural residence, region, education, and wealth.

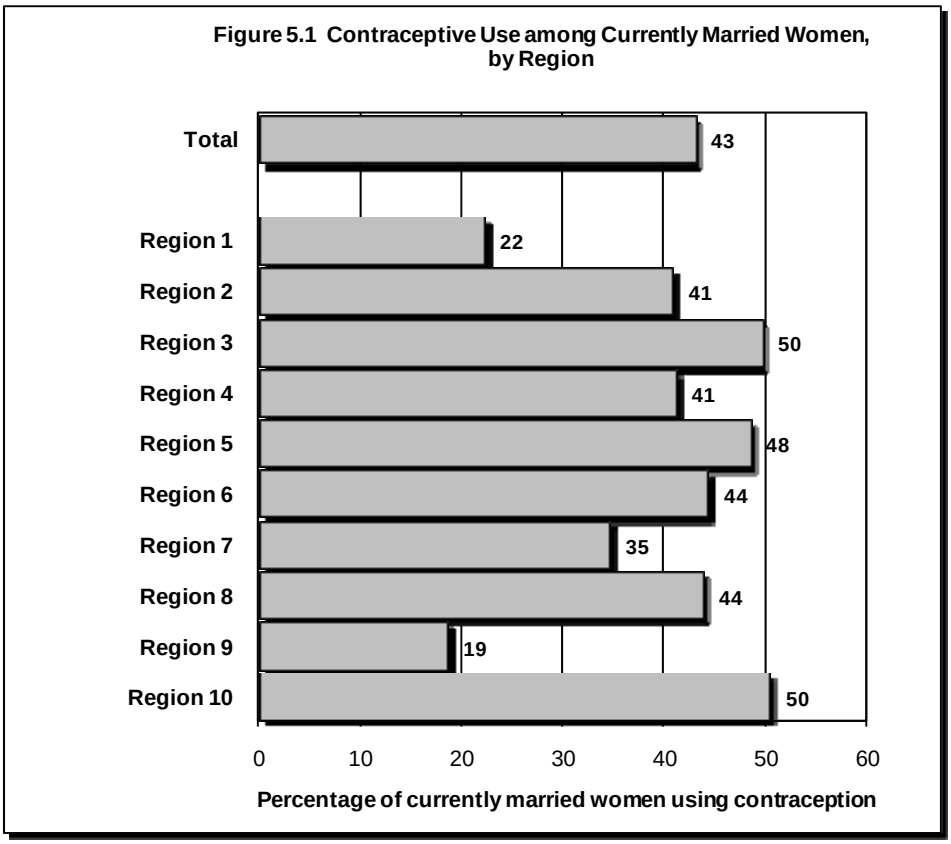
- As mentioned previously, 43 percent of currently married women are using a contraceptive method, and 40 percent are using a modern method. The CPR has increased from 35 percent as reported in the 2005 GAIS to 43 percent as reported in the 2009 GDHS. Most of the increase is observed in condom use, injectables, and female sterilization. Pill use, on the other hand, has declined over the same period, from 12 to 9 percent.
- The percentage of currently married women using contraception increases with the level of education, from 22 percent among women with no education to 46 percent among women with more than secondary education. The level of use increases with the number of living children up to 4 children, after which it drops somewhat.
- The prevalence of contraceptive use is similar in urban and rural populations in the Coastal area (43 and 44 percent, respectively), but it is much lower in the Interior area (31 percent). The method mix among urban and rural women is slightly different. Rural women are more likely to use the male condom, the pill (11 percent each), and the IUD (7 percent), while urban women are more likely to use the male condom (18 percent), IUD (8 percent), and female sterilization (7 percent).
- Condoms are the contraceptive method preferred by the most educated women (18 percent), while women with five or more children prefer sterilization (13 percent).

Table 5.6 Current use of contraception by background characteristics

Percentage of currently married women age 15-49 by contraceptive method currently used, according to background characteristics, Guyana 2009

		Modern method									Traditional method					
Background characteristic	Using any method	Any modern method	Female sterilization	Pill	IUD	Injectables	Implants	Male condom	Female condom	LAM	Any traditional method	Rhythm	Withdrawal	Folk method	Not using a method	Number of women
Residence																
Total Urban	43.0	40.4	7.0	4.5	7.9	2.7	0.0	18.0	0.1	0.0	2.6	0.8	1.8	0.1	57.0	649
Georgetown (urban)	43.5	40.8	5.5	2.6	9.8	2.7	0.0	20.3	0.0	0.0	2.7	0.8	1.9	0.0	56.5	392
Other (urban)	42.2	39.6	9.3	7.4	5.1	2.7	0.0	14.6	0.3	0.0	2.6	0.8	1.6	0.2	57.8	257
Total Rural	42.3	39.8	4.8	10.5	7.2	5.4	0.3	11.4	0.0	0.3	2.5	0.7	1.3	0.5	57.7	2,271
Total Coastal	44.0	41.4	5.5	9.7	8.1	3.7	0.2	13.9	0.0	0.2	2.6	0.7	1.5	0.4	56.0	2,562
Coastal (urban)	43.0	40.4	7.0	4.5	7.9	2.7	0.0	18.0	0.1	0.0	2.6	0.8	1.8	0.1	57.0	649
Coastal (rural)	44.4	41.8	5.0	11.5	8.2	4.0	0.3	12.5	0.0	0.3	2.6	0.7	1.3	0.5	55.6	1,913
Total Interior	31.4	29.3	3.6	5.0	1.8	12.8	0.1	5.8	0.0	0.1	2.1	0.8	0.8	0.5	68.6	357
Region																
Region 1	22.2	20.7	2.2	8.0	1.1	5.5	0.3	3.4	0.0	0.3	1.6	0.3	0.9	0.4	77.8	128
Region 2	40.8	38.2	8.6	5.7	9.6	5.6	0.0	8.7	0.0	0.0	2.6	0.7	1.7	0.2	59.2	192
Region 3	49.6	46.3	3.5	13.4	9.9	3.5	0.8	14.8	0.0	0.0	3.3	1.8	0.7	0.9	50.4	424
Region 4	41.1	38.7	4.6	6.8	7.5	2.8	0.2	16.5	0.0	0.3	2.4	0.5	1.7	0.2	58.9	1,121
Region 5	48.4	46.4	5.0	13.8	10.9	5.8	0.0	10.9	0.0	0.0	2.0	0.0	2.0	0.0	51.6	218
Region 6	44.3	41.7	7.0	13.5	7.1	3.7	0.0	9.8	0.2	0.3	2.7	0.5	1.3	0.8	55.7	523
Region 7	34.6	29.8	1.6	2.2	5.2	12.1	0.0	8.7	0.0	0.0	4.8	3.2	1.1	0.5	65.4	65
Region 8	43.8	43.8	6.8	3.1	1.5	26.0	0.0	6.4	0.0	0.0	0.0	0.0	0.0	0.0	56.2	71
Region 9	18.6	15.0	1.6	2.3	0.5	5.6	0.3	4.6	0.0	0.0	3.6	0.6	1.1	1.9	81.4	57
Region 10	50.4	48.2	11.9	6.4	2.3	11.1	0.0	16.4	0.0	0.0	2.2	1.2	1.1	0.0	49.6	121
Education																
No education	21.9	20.5	1.7	1.2	2.8	4.9	0.0	9.9	0.0	0.0	1.4	0.0	0.0	1.4	78.1	62
Primary	40.4	38.3	7.0	8.3	6.5	4.5	0.3	11.3	0.0	0.3	2.2	0.3	1.5	0.4	59.6	746
Secondary	43.6	41.2	4.9	10.3	7.5	4.9	0.2	13.1	0.0	0.2	2.4	0.8	1.2	0.4	56.4	1,938
More than secondary	46.3	39.9	3.5	2.6	10.8	4.7	0.0	18.3	0.0	0.0	6.4	2.5	3.9	0.0	53.7	173
Number of living children																
0	15.9	12.4	0.0	2.6	0.0	0.7	0.0	9.1	0.0	0.0	3.5	1.0	2.4	0.0	84.1	311
1-2	42.1	39.9	1.7	9.6	7.0	4.4	0.0	16.8	0.0	0.3	2.2	0.5	1.2	0.5	57.9	1,260
3-4	50.5	47.6	8.7	11.3	10.5	5.2	0.5	11.0	0.0	0.2	2.9	1.0	1.4	0.5	49.5	935
5+	45.5	43.6	12.6	7.9	6.6	8.1	0.3	8.0	0.1	0.0	1.9	0.7	0.9	0.3	54.5	414
Wealth quintile																
Lowest	32.8	31.2	4.9	7.1	2.5	8.3	0.1	8.2	0.0	0.1	1.6	0.6	0.7	0.3	67.2	554
Second	41.2	39.0	5.2	8.7	6.3	7.5	0.4	10.8	0.1	0.0	2.2	0.4	1.4	0.4	58.8	576
Middle	45.0	43.1	5.3	10.8	9.1	3.6	0.2	13.9	0.0	0.3	1.8	0.4	1.0	0.4	55.0	592
Fourth	43.7	40.6	5.6	11.1	7.7	2.7	0.3	12.5	0.1	0.6	3.1	1.1	2.0	0.1	56.3	610
Highest	49.1	45.3	5.4	7.8	10.8	2.1	0.0	18.8	0.0	0.0	3.9	1.2	1.7	1.0	50.9	589
Total 2009	**42.5**	**40.0**	**5.3**	**9.2**	**7.3**	**4.8**	**0.2**	**12.9**	**0.0**	**0.2**	**2.5**	**0.7**	**1.4**	**0.4**	**57.5**	**2,920**
Total 2005	34.6	33.6	3.0	12.2	7.6	3.8	0.1	6.1	0.0	0.1	1.0	0.7	0.1	0.1	65.4	1,414

Note: If more than one method is used, only the most effective method is considered in this tabulation. "Currently married" includes respondents in consensual union (living together).
LAM = Lactational amenorrhea method.



5.6 NUMBER OF CHILDREN AT FIRST USE OF CONTRACEPTION

Couples use family planning methods to either limit their family size or delay the next birth. The decision to initiate family planning differs according to the circumstances of the couples and the individuals concerned. Couples who use family planning to control family size (i.e., to stop having children) adopt contraception when they have had the number of children they want. When contraception is used to space births, couples may start to use family planning earlier, with the intention of delaying a possible pregnancy. Using contraception for birth spacing may also be done before a couple has had their desired number of children.

In the 2009 GDHS, women were asked how many children they had at the time they first used a method of family planning. The number of living children at the time of first use of contraception is both a measure of the willingness to postpone the first birth (i.e., women who have no children) and of the desire of women with children to space subsequent births. Thus, differences in fertility-control behavior among cohorts of women can be observed by examining the parity and number of living children at first use of contraception.

Table 5.7 shows the percent distribution of women by number of living children at the time of first use of contraception, according to current age.

- Overall, 23 percent of women started using contraception before they had any children. Only 10 percent of women currently age 45-49 adopted contraception before having any children compared with 40 percent of women age 20-24, an indication of a trend towards early adoption of contraception.
- A relatively high percentage (18 to 25 percent), of women age 20-49 started using contraception after their first child.

Table 5.7 Number of children at first use of contraception

Percent distribution of women age 15-49 by number of living children at the time of first use of contraception, according to current age, Guyana 2009

Current age	Never used	Number of living children at time of first use of contraception: 0	1	2	3	4+	Missing	Total	Number of women
15-19	73.6	21.4	3.7	0.8	0.3	0.0	0.2	100.0	1,016
20-24	33.6	40.1	18.4	4.7	2.2	0.4	0.8	100.0	767
25-29	24.5	30.9	23.5	13.5	4.2	2.6	0.8	100.0	658
30-34	20.7	23.9	24.5	14.0	9.3	7.5	0.2	100.0	643
35-39	21.0	18.4	23.9	15.1	12.3	9.0	0.4	100.0	699
40-44	26.3	14.4	22.0	15.0	10.3	11.1	0.9	100.0	624
45-49	30.2	9.8	18.4	16.3	13.9	10.7	0.7	100.0	589
Total	35.8	23.2	18.1	10.3	6.8	5.3	0.6	100.0	4,996

5.7 USE OF SOCIAL MARKETING OF BRANDS OF PILLS AND CONDOMS

The proportion of clients using socially marketed brands of contraceptives and private commercial sector contraceptives provides information on market segmentation and guidance on preferred brands and sources of contraceptives. This is critical to ensure sustainable supplies of contraceptives for clients, according to their preferences. Information on the use of social marketing of brands is also important for tracking the success of social marketing programs and the private commercial sector. Social marketing has been an important strategy in Guyana. New programs and partners are continually being engaged. The pill and condom are the most commonly used methods of contraception available through social marketing programs. To assess the use of socially marketed brands, pill and condom users in Guyana were asked for the brand name and the cost of their method. Tables 5.8.1 and 5.8.2 present the percentages of pill users and condom users, respectively, by brand names.

Table 5.8.1 Brand of pills

Percentage of pill users age 15-49 by brand of pills, according to background characteristics, Guyana 2009

Background characteristic	Brand of pill: Lo-Fomenol	Microgymon	Nordette	Yasmin	Other	Don't know/ missing	Total	Number of women
Residence								
Total Urban	0.0	35.1	15.0	17.7	16.3	15.9	100.0	41
Total Rural	3.0	26.4	6.9	1.8	23.2	38.8	100.0	255
Total Coastal	2.8	27.1	8.3	4.2	22.6	35.1	100.0	275
Coastal (urban)	0.0	35.1	15.0	17.7	16.3	15.9	100.0	41
Coastal (rural)	3.3	25.7	7.1	1.8	23.7	38.4	100.0	233
Total Interior	0.0	33.1	4.7	1.4	18.2	42.6	100.0	21
Education								
No education	*	*	*	*	*	*	*	1
Primary	0.0	20.9	4.6	1.5	30.1	42.9	100.0	63
Secondary	3.5	28.8	8.5	3.5	21.3	34.4	100.0	220
More than secondary	*	*	*	*	*	*	*	12
Wealth quintile								
Lowest	(0.0)	(16.2)	(0.0)	(2.3)	(22.8)	(58.7)	(100.0)	41
Second	3.0	28.8	6.7	0.6	27.8	33.1	100.0	53
Middle	0.0	51.7	6.2	0.0	18.6	23.5	100.0	68
Fourth	5.9	16.8	8.6	4.1	26.2	38.3	100.0	75
Highest	2.8	20.4	16.0	12.6	16.0	32.2	100.0	59
Total	2.6	27.6	8.0	4.0	22.2	35.6	100.0	296

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.

- More than one-third of pill users (36 percent) were not able to identify the brand name. Twenty-eight percent of users reported using the pill brand Microgymon.
- Eight percent of users reported using Nordette and 4 percent reported using Yasmin; in both cases the highest percentages of users were from the Coastal (urban) areas and from the highest wealth quintile.
- A large proportion of male condom users (57 percent) did not identify a brand name. The most commonly used condom brand was Rough Rider, reported by 19 percent of all male condom users, the highest percentages being from urban areas (23 percent), among women with higher education (22 percent), and living in the wealthiest households (24 percent).

Table 5.8.2 Brand of condoms

Percentages of condom users age 15-49 by brand of condoms, according to background characteristics, Guyana 2009

Background characteristic	Brand of condom					Total	Number of women
	IDA	INNO	Rough Rider	Other	Don't know/ missing		
Residence							
Total Urban	1.7	3.8	23.2	22.4	49.0	100.0	314
Georgetown (urban)	1.7	4.1	24.8	23.3	46.1	100.0	236
Other (urban)	1.5	2.7	18.5	19.6	57.7	100.0	78
Total Rural	2.3	4.0	15.7	15.2	62.7	100.0	410
Total Coastal	2.1	3.9	19.4	18.1	56.5	100.0	682
Coastal (urban)	1.7	3.8	23.2	22.4	49.0	100.0	314
Coastal (rural)	2.4	4.0	16.2	14.5	62.9	100.0	368
Total Interior	1.7	3.9	11.9	21.9	60.6	100.0	42
Region							
Region 2	12.5	7.1	19.5	8.2	52.6	100.0	29
Region 3	0.0	2.7	9.5	16.1	71.7	100.0	96
Region 4	1.0	3.8	24.7	19.7	50.9	100.0	414
Region 6	4.3	6.4	11.3	13.8	64.3	100.0	67
Region 10	0.6	2.6	15.9	24.4	56.5	100.0	53
Education							
No education	*	*	*	*	*	*	8
Primary	3.9	1.5	15.5	11.8	67.2	100.0	105
Secondary	1.4	4.6	19.4	18.2	56.4	100.0	522
More than secondary	2.9	2.8	21.7	28.4	44.2	100.0	89
Wealth quintile							
Lowest	2.4	2.9	9.2	18.4	67.0	100.0	72
Second	4.2	11.1	8.1	5.0	71.7	100.0	120
Middle	1.6	3.3	12.5	22.2	60.4	100.0	147
Fourth	2.0	3.2	31.5	12.0	51.3	100.0	145
Highest	1.2	1.5	23.7	26.3	47.3	100.0	240
Total	2.0	3.9	19.0	18.3	56.8	100.0	724

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

5.8 SOURCES FOR FAMILY PLANNING METHODS AND INFORMED CHOICE

Information on sources of modern contraceptive methods is important to family planning program management. In the 2009 GDHS, all current users of modern contraceptive methods were asked the most recent source of their methods. Interviewers were instructed to record the name of the source or facility, because respondents may not always be able to accurately categorize a source as public or private. Supervisors and editors then verified and coded this information to improve its accuracy. Results are presented in Table 5.9.

- Almost half (49 percent) of users obtain their contraceptive methods from the public sector. Government health centers (23 percent) are the most common public source, followed by government hospitals (18 percent). In addition, 5 percent of current users obtain their methods from family planning clinics.
- The type of source differs by method. Whereas the majority of users of female sterilization (78 percent) and injectables (93 percent) obtain their methods from a public sector source, pill and IUD users are more likely to use private medical sector sources (53 percent, each) than public sector sources (41 and 46 percent, respectively).
- One-third (33 percent) of users obtain their methods from the private medical sector, mostly pharmacies (21 percent), followed by private hospitals or clinics (8 percent).
- About one in six users (16 percent) obtain their method from other sources, such as a friend or relative (10 percent) or a shop, market, or gas station (6 percent). A friend or a relative is the source for more than one-fifth (21 percent) of male condom users.

Table 5.9 Source of modern contraception methods

Percent distribution of users of modern contraceptive methods age 15-49 by most recent source of method, according to method, Guyana 2009

Source	Female sterilization	Pill	IUD	Injectables	Male condom	Total
Public sector	**78.3**	**41.0**	**45.5**	**92.5**	**35.2**	**48.6**
Government hospital	77.6	5.9	20.9	16.4	7.6	18.2
Government health center	0.7	30.5	13.3	66.3	20.0	23.4
Government health post	0.0	0.7	0.4	4.9	1.2	1.2
Family planning clinic	0.0	3.9	10.2	4.8	4.2	4.6
Public mobile clinic	0.0	0.0	0.7	0.0	0.7	0.4
Community health worker	0.0	0.0	0.0	0.1	0.8	0.5
Other public source	0.0	0.0	0.0	0.0	0.7	0.3
Private medical sector	**20.9**	**53.4**	**52.8**	**6.8**	**27.3**	**33.1**
Private hospital or clinic	20.5	3.0	31.7	1.4	1.2	8.4
Pharmacy	0.0	50.0	0.4	1.4	25.3	20.7
Private doctor	0.4	0.3	20.1	4.0	0.0	3.5
Private mobile clinic	0.0	0.0	0.0	0.0	0.4	0.2
Maternity home	0.0	0.0	0.5	0.0	0.0	0.1
Other private source	0.0	0.0	0.0	0.0	0.4	0.2
Other source	**0.0**	**4.1**	**0.3**	**0.5**	**33.7**	**16.0**
Shop, market or gas station	0.0	3.6	0.0	0.0	10.8	5.5
Church	0.0	0.0	0.0	0.0	0.1	0.1
Friend or relative	0.0	0.5	0.0	0.5	21.1	9.6
NGO	0.0	0.0	0.3	0.0	1.5	0.7
Vending machine	0.0	0.0	0.0	0.0	0.2	0.1
Other	0.0	0.5	0.3	0.1	1.7	1.0
Missing	0.7	1.1	1.0	0.0	2.2	1.4
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	184	296	240	164	724	1,619

Note: Users of implants, the female condom, male sterilization, and LAM are included in the total but not listed separately.

Informed choice is an important aspect of the delivery of family planning services. Family planning clients have a right to information about their contraceptive method. Providers are required to inform all users of contraceptive methods about (1) the potential side effects of their method, (2) what they should do if they encounter side effects or signs of a problem, and (3) alternate methods of family planning they can use. Current users of modern methods who are well informed about the side effects and problems associated with methods and know of a range of method options are better placed to make an informed choice about the method they would like to use. This information improves the quality of care and compliance by helping users cope with side effects, thereby decreasing unnecessary discontinuation of temporary methods.

Current users of selected modern contraceptive methods were asked whether, at the time they adopted the particular method, they were informed about the possible side effects or problems that might be encountered with the method. Table 5.10 shows the percentages of current users of modern methods who were either informed about possible side effects or problems with the method used or informed of other methods they could use; these are broken down by method type and source of the method.

Table 5.10 Informed choice

Among current users of modern methods age 15-49 who started the last episode of use within the five years preceding the survey, percentage who were informed about possible side effects or problems of that method, the percentage who were informed about what to do if they experienced side effects, and the percentage who were informed about other methods that they could use, by method and source, Guyana 2009

	Type of information			
Method and source	Informed about side effects or problems of method used[1]	Informed what to do if experienced side effects[1]	Informed of other methods that could be used[2]	Number of women
Method				
Female sterilization	40.7	35.0	56.6	62
Pill	42.5	32.7	56.4	204
IUD	54.6	46.0	57.6	119
Injectables	62.2	43.7	75.7	138
Implants	*	*	*	2
Initial source of method[1]				
Public sector	53.3	39.0	69.1	320
Government hospital	52.5	39.9	64.2	109
Government health center	55.6	38.9	74.3	189
Government health post	*	*	*	6
Family planning clinic	*	*	*	15
Private medical sector	46.7	39.3	53.1	188
Private hospital or clinic	52.3	41.3	65.3	59
Pharmacy	43.0	35.2	45.1	96
Private doctor	(49.4)	(49.8)	(57.1)	31
Maternity home	*	*	*	1
Other private sector	*	*	*	6
Total	50.2	39.0	61.7	525

Note: Table excludes users who obtained the method from friends/relatives. Figures in parentheses are based on 25 to 49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Source at start of current episode of use

- Fifty percent of users of modern contraceptive methods were informed about possible side effects or problems of the method they selected. However, a smaller proportion, 39 percent, was informed about what to do if they experienced side effects or problems. Sixty-two percent of current users were informed of other methods they could use.
- Among women who were sterilized in the five years preceding the survey, 85 percent were informed that sterilization is permanent (data not shown separately due to the small number

of cases). Additionally, the small number of sterilized women does not allow for a breakdown by source.

- Users of injectables are more likely to be informed about side effects or problems with their method (62 percent) than users of the IUD (55 percent), the pill (43 percent), and female sterilization (41 percent). They are also more likely to be informed of other methods (76 percent) than users of the other methods (56 to 58 percent).
- Users whose initial source for their method was the public sector (53 percent) were more likely to have been informed about side effects or problems of the method used than users whose source was the private medical sector (47 percent). They were also more likely to have been informed about other methods that could be used (69 and 53 percent, respectively).

5.9 CONTRACEPTIVE DISCONTINUATION

Table 5.11 shows one-year discontinuation rates representing the proportion of users discontinuing a method within 12 months after the start of use. The rates are calculated from information collected in the calendar portion of the questionnaire. For each respondent, all episodes of contraceptive use between January 2004 and the date of interview are recorded in the calendar. Specifically, the rates presented in Table 5.11 refer to the period 3-59 months prior to the survey—the month of interview and the 2 months prior are ignored in order to avoid the bias that may be introduced by unrecognized pregnancies.

Table 5.11 shows, by type of method, the percentage of episodes discontinued within 12 months among women age 15-49 who started an episode of contraceptive use in the last five years.

Table 5.11 First-year contraceptive discontinuation rates

Among women age 15-49 who started an episode of contraceptive use in the last five years, the percentage of episodes discontinued within 12 months, by type of method, Guyana 2009

Method	Total
Pill	31.5
IUD	14.5
Injectables	35.5
Male condom	29.2
All methods	28.4
Number of episodes of use	454

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

- Twenty-eight percent of users of family planning in Guyana discontinue using a contraceptive method within 12 months of starting its use.
- Discontinuation rates are higher for injectables (36 percent) and the pill (32 percent) and lower for users of the male condom (29 percent) and the IUD (15 percent).

5.10 INTENTION TO USE FAMILY PLANNING AMONG NON-USERS

Intention to use family planning is an important indicator of the potential demand for services. Currently married women who were not using contraceptives at the time of the survey were asked about their intention to use family planning in the future. Table 5.12 shows the percent distribution of currently married women who are not using a contraceptive method by intention to use in the future and according to number of living children, residence, and education.

- Thirty-nine percent of currently married women who are not using a contraceptive method intend to use in the future, while almost half (48 percent) do not intend to do so. More than one-tenth of women (12 percent) are unsure about their intention to use or not use in the future.
- Intention to use contraception in the future is higher among women with lower parities: 46 percent of women with one child and 43 percent of women with two children intend to use compared with 34 percent among women with 3 children. Intention to use is also higher among women with higher education: 56 percent among women with more than secondary versus 39 percent among women with no education and 32 percent of those with primary education. There is little variation by place of residence.

- Women with no education (34 percent) are three times more likely to be unsure about their intention to use contraception in the future than women with any education (9 to 12 percent). Furthermore, women in the Rural (13 percent) and in the Interior (22 percent) areas are more likely than other women to be unsure about their intention to use.
- The percentage of women who do not intend to use contraception in the future is higher among women with no children (55 percent) and those with 3 or more children (52 to 53 percent) than women with one or two children (41 to 44 percent). Urban women (57 percent) are more likely than rural women (46 percent) to not intend to use in the future. The lowest percentage of non-users who do not intend to use in the future is in the Interior area (40 percent) and the highest is in the Coastal (urban) area (57 percent). There is no clear pattern by education.

Table 5.12 Future use of contraception among non-users

Percent distribution of currently married women who are not using a contraceptive method by intention to use in the future, according to selected characteristics, Guyana 2009

Characteristic	Intend to use	Unsure	Does not intend to use	Missing	Total	Number of women
Number of living children[1]						
0	30.0	15.0	54.9	0.1	100.0	216
1	45.6	12.3	40.5	1.6	100.0	339
2	43.2	11.4	44.0	1.3	100.0	401
3	33.6	13.2	51.6	1.6	100.0	327
4+	38.5	8.0	53.4	0.2	100.0	397
Residence						
Total Urban	37.0	5.1	57.1	0.9	100.0	370
Georgetown (urban)	34.6	5.1	59.7	0.6	100.0	221
Other (urban)	40.5	5.1	53.1	1.3	100.0	148
Total Rural	39.6	13.4	45.9	1.0	100.0	1,309
Total Coastal	39.2	9.9	49.8	1.1	100.0	1,434
Coastal (urban)	37.0	5.1	57.1	0.9	100.0	370
Coastal (rural)	40.0	11.6	47.2	1.2	100.0	1,064
Total Interior	37.8	21.6	40.1	0.5	100.0	245
Education						
No education	38.5	34.3	27.2	0.0	100.0	48
Primary	32.3	8.9	58.5	0.3	100.0	445
Secondary	40.3	11.9	46.3	1.4	100.0	1,094
More than secondary	56.1	9.3	34.5	0.0	100.0	93
Total	39.0	11.6	48.4	1.0	100.0	1,679

[1] Includes current pregnancy

An understanding of the reasons non-users of contraception have for intending not to use a contraceptive method in the future is crucial to identifying strategies to improve the access, acceptability, and quality of care of family planning services. Table 5.13.1 presents the main reasons for not intending to use contraception reported by currently married women who are not using a contraceptive method and who do not intend to use contraception in the future, according to age and urban-rural residence.

Of particular interest to program managers are the preferred methods of non-users who report that they intend to use a family planning method in the future. This information is useful in assessing the potential demand for specific methods of family planning. Non-users who said that they did intend to use family planning in the future were asked which method they preferred to use. Table 5.13.2 shows the results by age and urban-rural residence.

Table 5.13.1 Reasons for not intending to use contraception

Percent distribution of currently married women who are not using a contraceptive method and who do not intend to use in the future by main reason for not intending to use, according to age and residence, Guyana 2009

	Age		Residence		
Reason	15-29	30-49	Urban	Rural	Total
Fertility-related reasons	**22.8**	**35.4**	**28.7**	**34.3**	**32.8**
Infrequent sex/no sex	1.4	9.0	7.6	7.4	7.4
Menopausal/had hysterectomy	0.0	11.4	7.7	9.6	9.1
Subfecund/infecund	0.1	7.5	6.5	5.8	6.0
Wants as many children as possible	21.3	7.5	6.9	11.5	10.3
Opposition to use	**14.0**	**8.6**	**6.8**	**10.8**	**9.7**
Respondent opposed	8.7	5.4	4.3	6.7	6.1
Husband/partner opposed	2.7	1.7	1.0	2.3	1.9
Others opposed	0.0	0.1	0.4	0.0	0.1
Religious prohibition	2.6	1.4	1.1	1.8	1.6
Lack of knowledge	**1.6**	**1.3**	**0.0**	**1.9**	**1.5**
Knows no method	1.2	0.6	0.0	1.0	0.8
Knows no source	0.4	0.7	0.0	0.9	0.7
Method-related reasons	**39.2**	**35.5**	**44.9**	**33.4**	**36.4**
Health concerns	13.1	14.4	16.2	13.4	14.1
Fear of side effects	16.7	10.6	14.7	10.9	11.9
Lack of access/too far	0.1	0.8	0.0	0.9	0.7
Cost too much	0.6	0.9	0.4	1.0	0.9
Inconvenient to use	1.5	2.5	1.0	2.8	2.3
Interfere with body's normal process	7.2	6.3	12.6	4.4	6.5
Other	9.1	10.0	15.1	7.9	9.8
Don't know	13.2	8.8	4.5	11.5	9.7
Missing	0.0	0.2	0.0	0.2	0.2
Total	100.0	100.0	100.0	100.0	100.0
Number of women	165	647	211	601	812

- Thirty-six percent of currently married women who are not using contraception and who do not intend to use cited method-related reasons—especially health concerns (14 percent) and fear of side effects (12 percent)—as the main reason for not intending to use in the future. Fear of side effects is more common among younger women and urban women. Another method-related reason frequently mentioned (7 percent) was the interference of contraception with the body's normal processes.
- For one-third of women (33 percent), fertility-related reasons were the main cause for not intending to use in the future. One in three of these women (10 percent) said that the main reason for non-use was that they wanted as many children as possible, with 21 percent of women 15-29 reporting this reason.
- For 10 percent of non-users, the main reason for not intending to use contraception was opposition to use, especially among younger women (14 percent).
- Three in ten women (30 percent) said that the pill was the preferred method of future contraception use, but about one in six preferred condoms and injectables (18 percent each) or the IUD (16 percent).

Table 5.13.2 Preferred method of contraception for future use

Percent distribution of currently married women who are not using a contraceptive method but who intend to use in the future by preferred method, according to age and residence, Guyana 2009

	Age		Residence		
Preferred method	15-29	30-49	Rural	Urban	Total
Female sterilization	5.9	8.3	7.2	6.9	7.0
Pill	32.4	26.6	32.7	29.0	29.8
IUD	14.2	18.7	12.7	17.2	16.2
Injectables	18.2	16.7	17.1	17.6	17.5
Implants	0.9	0.5	1.3	0.5	0.7
Condom	16.2	20.7	22.0	17.3	18.3
Foam/jelly	0.5	0.3	0.0	0.5	0.4
Periodic abstinence	0.0	0.6	0.0	0.4	0.3
Withdrawal	0.0	0.8	0.7	0.3	0.4
Other	1.4	1.2	0.4	1.6	1.3
Unsure	10.3	5.7	5.9	8.8	8.2
Total	100.0	100.0	100.0	100.0	100.0
Number of women	358	298	137	519	655

5.11 EXPOSURE TO FAMILY PLANNING IN THE MASS MEDIA

All respondents in the 2009 GDHS were asked if they had heard or seen a message about family planning on the radio, on television, in newspapers, or in magazines in the few months preceding the survey. The results are presented for women and men by selected background characteristics, in Table 5.14. The purpose of the table is to assess exposure to family planning messages among women and men through various media.

- Exposure to family planning messages on the radio in the past few months is similar among women (30 percent) and men (28 percent). Exposure to family planning messages on television and in the print media (newspapers and magazines) is higher for women (51 and 36 percent, respectively) than for men (44 and 29 percent, respectively).
- Exposure to family planning messages is similar across all age groups for women but increases with age for men. Women and men in the Interior area are much less likely to have been exposed to family planning messages through the media than other respondents. For example, only 19 and 23 percent of women in the Interior area saw a family planning message on television and in a newspaper or magazine, respectively, compared with 54 and 37 percent, respectively, of women in the Coastal area.
- Exposure to family planning messages on the radio is relatively low in Regions 1, 8, and 9 (8 to11 percent for women; 11 to 17 percent for men). Respondents in Regions 1, 8, and 9 also have the lowest level of exposure to family planning messages on television (7 to 16 percent for women; 8 to 12 percent for men). Women in Regions 1 and 9 and men in Regions 1 and 8 have the lowest exposure to such messages through newspapers or magazines (16 and 14 percent, respectively, for women; 17 percent, each, for men).
- Exposure to family planning messages increases steadily with education and socioeconomic status, especially for women. For example, only 8 percent of women with no education were exposed to family planning messages on television in the past few months compared with 66 percent of women with more than secondary education.
- Exposure to family planning messages also increases with the socioeconomic status of the household but not as sharply as with education.

Table 5.14 Exposure to family planning messages

Percentages of women and men age 15-49 who heard or saw a family planning message on the radio, on the television, or in a newspaper/magazine in the past few months, according to background characteristics, Guyana 2009

	Women					Men				
	Exposed to family planning messages on or in:					Exposed to family planning messages on or in:				
Background characteristic	Radio	Tele-vision	Newspaper/ magazine	None of these three sources	Number of women	Radio	Tele-vision	Newspaper/ magazine	None of these three sources	Number of men
Age										
15-19	23.2	44.5	31.4	45.1	1,016	18.1	34.9	22.4	56.7	689
20-24	30.0	52.4	35.6	37.9	767	23.3	41.7	28.3	50.8	511
25-29	33.1	53.1	38.5	34.6	658	25.5	45.0	25.5	45.7	462
30-34	32.2	52.8	39.3	36.5	643	29.6	46.3	27.5	45.1	521
35-39	29.5	53.9	37.7	38.3	699	29.7	44.9	28.9	44.9	470
40-44	29.6	47.0	33.5	42.8	624	32.8	47.4	34.8	43.0	457
45-49	35.7	52.7	38.1	37.3	589	39.3	55.2	39.5	36.5	413
Residence										
Total Urban	33.1	56.9	40.5	32.2	1,475	25.5	46.5	27.3	45.0	949
Georgetown (urban)	36.3	57.1	39.6	31.2	967	24.3	41.2	20.1	51.3	619
Other (urban)	27.2	56.6	42.2	34.2	508	27.6	56.4	40.8	33.2	330
Total Rural	28.5	47.8	34.0	42.3	3,521	28.2	43.4	29.5	47.7	2,573
Total Coastal	31.9	54.1	37.3	36.3	4,495	28.8	47.9	29.9	44.1	3,126
Coastal (urban)	33.1	56.9	40.5	32.2	1,475	25.5	46.5	27.3	45.0	949
Coastal (rural)	31.3	52.7	35.8	38.3	3,019	30.2	48.5	31.0	43.7	2,176
Total Interior	11.4	18.8	23.2	66.6	501	17.3	15.6	21.2	69.6	396
Region										
Region 1	7.7	15.5	16.2	73.8	162	12.2	7.5	17.2	75.8	160
Region 2	20.7	38.6	28.9	50.3	293	25.9	42.2	28.9	49.6	179
Region 3	30.3	55.8	38.7	35.0	687	25.6	48.5	28.9	41.5	420
Region 4	35.9	56.3	39.3	34.1	2,168	30.8	47.2	28.9	46.0	1,540
Region 5	36.3	51.9	35.4	37.3	353	22.2	37.1	22.6	52.9	271
Region 6	24.9	51.2	33.3	40.3	780	29.0	53.0	34.4	38.6	587
Region 7	15.8	27.7	25.8	60.5	104	23.4	30.0	22.6	60.4	61
Region 8	9.7	15.4	30.3	63.2	95	10.5	10.9	17.0	80.3	68
Region 9	11.2	7.2	13.8	78.7	78	16.5	11.6	23.7	68.5	57
Region 10	27.0	54.3	41.6	32.5	277	33.4	53.3	39.5	34.2	178
Education										
No education	6.6	8.4	3.3	84.5	68	14.1	19.1	4.2	72.7	60
Primary	24.1	39.0	23.4	51.9	952	24.5	37.4	20.4	55.5	711
Secondary	30.6	52.6	37.9	37.2	3,568	28.1	45.4	30.8	45.2	2,459
More than secondary	40.5	65.7	52.9	21.4	409	32.3	55.9	39.0	35.7	292
Wealth quintile										
Lowest	16.6	16.9	18.1	67.3	779	23.1	20.4	17.2	63.5	663
Second	27.4	43.9	27.3	46.2	957	24.7	41.8	23.6	48.3	679
Middle	31.2	57.5	37.8	35.3	1,025	30.5	51.6	33.7	42.8	723
Fourth	32.7	60.8	42.6	30.1	1,084	29.5	54.5	34.3	40.1	751
Highest	36.9	62.8	47.2	27.1	1,151	28.9	50.5	34.4	41.7	705
Total	29.8	50.5	35.9	39.3	4,996	27.5	44.2	28.9	47.0	3,522

5.12 CONTACT OF NON-USERS WITH FAMILY PLANNING PROVIDERS

To determine whether non-users of family planning in Guyana have had an opportunity to receive information about family planning from providers, women who were not using contraception were asked whether they had attended a health facility in the past year for any reason and, if so, whether a staff person at that facility spoke to them about family planning methods. They were also asked whether they had been visited by a fieldworker who discussed family planning. The results are shown in Table 5.15.

Table 5.15 Contact of non-users with family planning providers

Percentage of women who are not using contraception who were visited by a fieldworker who discussed family planning, who visited a health facility and discussed family planning, and who visited a health facility but did not discuss family planning, in the 12 months preceding the survey, by background characteristics, Guyana 2009

Background characteristic	Percentage of women who were visited by a fieldworker who discussed family planning	Percentage of women who visited a health facility in the past 12 months and who:		Percentage of women who did not discuss family planning with a fieldworker or at a health facility	Number of women
		Discussed family planning	Did not discuss family planning		
Age					
15-19	8.6	7.1	22.7	86.7	872
20-24	7.7	20.6	32.6	76.4	487
25-29	7.5	19.9	35.9	78.1	387
30-34	10.8	18.6	31.0	75.2	336
35-39	5.0	12.3	37.0	85.2	398
40-44	8.6	6.3	32.0	88.0	370
45-49	3.3	3.4	30.2	93.7	416
Residence					
Total Urban	4.6	7.0	32.1	89.7	929
Georgetown (urban)	2.9	7.0	30.2	91.2	598
Other (urban)	7.6	6.9	35.4	87.0	331
Total Rural	8.6	13.8	29.7	81.5	2,337
Total Coastal	6.7	10.3	31.0	85.8	2,912
Coastal (urban)	4.6	7.0	32.1	89.7	929
Coastal (rural)	7.6	11.8	30.5	83.9	1,983
Total Interior	13.8	25.3	24.9	68.0	354
Region					
Region 1	11.9	27.4	16.1	65.6	129
Region 2	6.9	10.6	33.2	84.5	199
Region 3	6.0	10.8	39.7	85.0	427
Region 4	6.6	10.6	29.7	86.0	1,406
Region 5	9.3	10.3	32.2	83.1	234
Region 6	5.2	8.6	22.5	88.4	522
Region 7	14.8	20.7	25.6	71.6	72
Region 8	23.6	36.2	18.8	56.0	56
Region 9	9.6	19.5	36.8	76.9	64
Region 10	10.4	13.0	45.4	79.0	159
Education					
No education	15.0	23.8	33.9	67.4	52
Primary	8.2	13.7	29.0	82.2	607
Secondary	7.1	11.4	28.9	84.5	2,364
More than secondary	7.1	8.9	47.0	85.3	243
Wealth quintile					
Lowest	10.5	19.3	26.9	75.2	555
Second	8.7	15.1	26.4	80.4	639
Middle	6.7	11.5	32.1	84.5	672
Fourth	5.3	8.2	30.9	88.9	712
Highest	6.7	7.2	34.5	88.1	689
Total	7.4	11.9	30.4	83.8	3,266

- Only 7 percent of women who were not using contraception were visited by a family planning worker who discussed family planning with them during the 12 months prior to the interview. While 12 percent of women who are not using contraception and who visited a health facility discussed family planning with a health worker, 30 percent did not discuss family planning, thus missing the opportunity.
- Overall, 84 percent of women non-users did not discuss family planning with a fieldworker or at a health facility.
- Rural women are more likely than urban women to have been visited by a fieldworker who discussed family planning with them (9 percent versus 5 percent) or to have visited a health facility and discussed family planning with a staff member (14 percent versus 7 percent) in the preceding year. Looking at areas, women in the Interior area were more likely to have been visited by a health worker (14 percent) or to have visited a health facility and discussed family planning (25 percent) than those in the Coastal area (7 and 10 percent, respectively).
- The highest percentages of non-users who discussed family planning with health providers are in Region 8, where 24 percent of women were visited by a health worker and discussed family planning and 36 percent visited a health facility and discussed family planning.

5.13 HUSBAND/PARTNER'S KNOWLEDGE OF WOMEN'S USE OF CONTRACEPTION

The husband or partner's knowledge about a woman's use of family planning is an indication of their prior discussion of, interest in, and continued practice of family planning. Inter-spousal/partner communication is an important intermediate step along the path to adopting a contraceptive method, as well as continuing to use that method or other contraceptive methods in the future. Lack of knowledge or discussion of family planning may relate to a number of factors, including lack of interest in family planning, hostility to the subject of family planning, or customary reticence to talk about sex-related matters. To assess the extent to which women use contraception without informing their husbands or partners, the 2009 GDHS asked married women whether their husbands or partners know they are using a method of family planning. Since the husband/partner's knowledge of women's use of contraception is universal in Guyana, the results are not shown in a separate table.

- Ninety-six percent of currently married women age 15-49 who are using a method report that their husbands or partners know about their use of family planning.
- The highest level of husband/partner's knowledge about women's contraceptive use is observed in the Georgetown (urban) area (99 percent). Among regions, the lowest level of a husband/partner's knowledge is observed in Region 9 (80 percent; the number of cases is relatively small) and in Region 1 (88 percent).

OTHER PROXIMATE DETERMINANTS OF FERTILITY

6

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

Although by no means exact, marriage is one indicator of exposure of women to the risk of pregnancy, and it is therefore important for the understanding of fertility. Populations in which age at marriage is low also tend to experience early childbearing and high fertility; hence, there is motivation to examine trends in age at marriage.

This chapter includes more direct measures of the beginning of exposure to pregnancy and the level of exposure: age at first sexual intercourse and the frequency of intercourse. Measures of other proximate determinants of fertility are the durations of postpartum amenorrhea and postpartum abstinence and the level of infecundity.

6.1 CURRENT MARITAL STATUS

Tables 6.1 and 6.2 show the percent distribution of women and men interviewed in the 2009 GDHS by current marital status, according to age (Table 6.1) and background characteristics (Table 6.2). In this report, the term “married” refers to legal or formal marriage, and “living together” refers to an informal union in which a man and a woman live together, even if a formal civil or religious ceremony has not occurred. In later tables that do not list “living together” as a separate category, these women and men are included in the “currently married” group. Respondents who are currently married, widowed, divorced, or separated are referred to as “ever-married.”

- About three-tenths of women age 15-49 (31 percent) have never married, about one-third (34 percent) are formally married, one in four (25 percent) are living together, and about one in ten (11 percent) are divorced, separated, or widowed.
- Marriage occurs relatively early in Guyana: one in every four women age 20-24 (24 percent) are currently married, and 28 percent are living with a man as if married. Only 9 percent of women age 40 and above have never married. The proportion of women who are separated or divorced generally increases with age and is highest among women age 40-49 (18 percent).
- A greater proportion of men (39 percent) than women (31 percent) have never married. About three-tenths of men (31 percent) are currently married, 22 percent are living together, and 9 percent are divorced, separated, or widowed.
- Men tend to marry at older ages than women. Although about one-fourth of women age 20-24 (24 percent) are formally married, only 11 percent of men in the same age group are formally married. Only 1 percent of men age 15-19 are married or cohabiting with a woman compared with 16 percent of women.

- There are significant differences in the marital status of respondents by residence. For both women and men, urban residents are much less likely to be currently in a union—married or living together—(44 percent of women and 41 percent of men) than rural residents (65 and 56 percent, respectively). Respondents in the Interior area (71 percent of women and 59 percent of men) are much more likely to be currently in union than those in the Coastal area (57 percent of women and 51 percent of men). The percentage of respondents currently in union decreases steadily with the level of education, especially for women. Ninety-two percent of women and 70 percent of men with no education are currently married or cohabiting with a partner compared with 42 percent of women and 46 percent of men with more than secondary education.

Table 6.1 Current marital status by age and sex

Percent distribution of women and men age 15-49 by current marital status, according to age, Guyana 2009

Age	Marital status						Total	Percentage of respondents currently in union[1]	Number of respondents
	Never married	Married	Living together	Divorced	Separated	Widowed			
				WOMEN					
15-19	81.4	4.7	11.5	0.0	2.3	0.0	100.0	16.3	1,016
20-24	42.7	23.9	28.0	0.1	5.2	0.1	100.0	51.9	767
25-29	20.7	34.9	34.6	0.8	8.9	0.1	100.0	69.6	658
30-34	10.9	43.5	33.0	1.5	10.4	0.6	100.0	76.5	643
35-39	9.9	46.9	27.1	2.9	10.8	2.4	100.0	74.0	699
40-44	8.7	49.4	24.3	2.3	12.3	3.0	100.0	73.8	624
45-49	9.4	52.4	20.3	3.2	7.5	7.1	100.0	72.7	589
Total 2009	**30.8**	**33.8**	**24.7**	**1.4**	**7.7**	**1.6**	**100.0**	**58.4**	**4,996**
Total 2005	31.1	39.4	18.9	1.3	7.2	2.1	100.0	58.3	2,425
				MEN					
15-19	98.5	0.2	1.0	0.0	0.3	0.0	100.0	1.2	689
20-24	67.9	10.7	17.4	0.0	4.0	0.0	100.0	28.0	511
25-29	35.1	29.3	29.0	0.6	6.1	0.0	100.0	58.3	462
30-34	13.7	37.3	32.9	1.7	14.4	0.0	100.0	70.2	521
35-39	11.4	48.0	27.3	1.6	11.6	0.1	100.0	75.3	470
40-44	8.8	51.0	26.1	0.7	12.1	1.4	100.0	77.1	457
45-49	7.1	56.7	26.4	2.8	5.2	1.9	100.0	83.0	413
Total 2009	**39.2**	**30.6**	**21.5**	**1.0**	**7.3**	**0.4**	**100.0**	**52.1**	**3,522**
Total 2005	41.6	34.2	17.4	0.5	6.0	0.4	100.0	51.6	1,875

Table 6.2 Current marital status by background characteristics

Percent distribution of women and men by current marital status, according to background characteristics, Guyana 2009

Background characteristic	Marital status						Total	Percentage of respondents currently in union[1]	Number of respondents
	Never married	Married	Living together	Divorced	Separated	Widowed			
WOMEN									
Residence									
Total Urban	41.5	27.5	16.5	2.6	10.6	1.4	100.0	44.0	1,475
Georgetown (urban)	42.6	23.9	16.6	3.1	12.4	1.4	100.0	40.5	967
Other (urban)	39.3	34.2	16.4	1.5	7.1	1.6	100.0	50.6	508
Total Rural	26.4	36.4	28.1	0.9	6.5	1.7	100.0	64.5	3,521
Total Coastal	31.9	33.7	23.3	1.5	7.9	1.7	100.0	57.0	4,495
Coastal (urban)	41.5	27.5	16.5	2.6	10.6	1.4	100.0	44.0	1,475
Coastal (rural)	27.2	36.7	26.7	1.0	6.6	1.8	100.0	63.4	3,019
Total Interior	21.5	34.6	36.7	0.4	5.8	1.1	100.0	71.3	501
Education									
No education	4.9	38.0	53.6	0.0	3.6	0.0	100.0	91.5	68
Primary	10.9	42.3	36.1	0.6	6.8	3.3	100.0	78.4	952
Secondary	34.9	31.8	22.5	1.5	8.0	1.3	100.0	54.3	3,568
More than secondary	45.7	30.1	12.2	2.7	7.9	1.4	100.0	42.4	409
Total	30.8	33.8	24.7	1.4	7.7	1.6	100.0	58.4	4,996
MEN									
Residence									
Total Urban	51.1	23.8	16.9	1.1	6.6	0.5	100.0	40.7	949
Georgetown (urban)	53.1	21.3	16.1	1.1	7.6	0.8	100.0	37.4	619
Other (urban)	47.4	28.6	18.4	1.1	4.6	0.0	100.0	46.9	330
Total Rural	34.9	33.1	23.2	0.9	7.6	0.4	100.0	56.3	2,573
Total Coastal	40.2	31.1	20.1	1.0	7.1	0.4	100.0	51.3	3,126
Coastal (urban)	51.1	23.8	16.9	1.1	6.6	0.5	100.0	40.7	949
Coastal (rural)	35.4	34.3	21.5	1.0	7.4	0.3	100.0	55.9	2,176
Total Interior	31.8	26.5	32.1	0.4	8.7	0.5	100.0	58.7	396
Education									
No education	25.0	29.3	40.6	0.0	3.8	1.3	100.0	69.9	60
Primary	19.6	39.1	29.4	0.9	9.8	1.2	100.0	68.5	711
Secondary	43.9	27.8	19.9	1.0	7.3	0.2	100.0	47.6	2,459
More than secondary	50.4	34.2	11.9	1.1	2.3	0.1	100.0	46.0	292
Total	39.2	30.6	21.5	1.0	7.3	0.4	100.0	52.1	3,522

[1] Currently in union includes currently married and living together.

6.2 AGE AT FIRST UNION

Marriage marks the point in a woman's life when childbearing becomes socially acceptable in Guyana. Marriage is closely associated with fertility because women who marry early will, on average, have more births than women who marry later. Early age at first marriage is an important fertility indicator not only because it increases the length of time a woman is exposed to the risk of pregnancy, but it also tends to lead to early childbearing and higher fertility. Information on age at first marriage was obtained by asking respondents the month and year, or age, at which they started living with their first husband/partner. Older respondents are less likely to recall with accuracy marriage dates and ages; therefore, the data for older respondents should be interpreted with caution.

Table 6.3 shows the percentage of women and men who were first married by specific exact ages, and by the median age at first marriage, according to current age. In drawing conclusions concerning trends, the data for the oldest cohorts should be interpreted cautiously because respondents may not recall marriage dates or ages with accuracy, particularly where informal unions are common.[1] Table 6.3 presents the median age at first union, which is defined as the age by which half of the cohort of women or men has married. The median is preferred over the mean as a measure of central tendency, because, unlike the mean, it can be estimated for all cohorts where at least half of the respondents are ever married at the time of survey.

Table 6.3 Age at first union

Percentage of women and men who were first in union, by specified exact ages, and median age at first union, according to current age, Guyana 2009

Current age	Percentage of respondents who were first in union by exact age: 15	18	20	22	25	Percentage never in union	Number of respondents	Median age at first union[1]
				WOMEN				
15-19	4.6	na	na	na	na	81.4	1,016	a
20-24	5.5	23.0	41.8	na	na	42.7	767	a
25-29	5.9	25.2	42.5	55.0	71.3	20.7	658	21.1
30-34	7.3	30.8	50.1	63.1	75.5	10.9	643	20.0
35-39	5.3	24.1	37.8	52.3	67.1	9.9	699	21.6
40-44	5.7	25.1	46.6	60.3	71.9	8.7	624	20.4
45-49	5.0	26.9	45.8	58.1	70.9	9.4	589	20.6
2009								
20-49	5.8	25.7	43.9	na	na	17.9	3,980	a
25-49	5.8	26.4	44.4	57.6	71.3	12.0	3,213	20.7
2005								
20-49	5.3	27.2	45.9	na	na	18.6	1,969	20.6
25-49	5.0	26.9	46.1	59.9	70.4	13.1	1,583	20.5
				MEN				
15-19	0.2	na	na	na	na	98.5	689	a
20-24	1.3	5.1	13.3	na	na	67.9	511	a
25-29	0.3	5.2	15.8	26.2	49.3	35.1	462	a
30-34	1.2	8.0	18.4	31.1	53.2	13.7	521	24.5
35-39	1.9	7.3	20.7	32.2	49.1	11.4	470	25.1
40-44	1.8	7.1	16.4	30.7	52.0	8.8	457	24.7
45-49	1.4	6.0	14.9	31.4	51.6	7.1	413	24.8
2009								
20-49	1.3	6.5	16.6	na	na	24.8	2,833	a
25-49	1.3	6.8	17.3	30.3	51.1	15.3	2,322	24.8
2005								
20-49	0.8	6.3	15.4	na	na	26.7	1,484	25.4
25-49	0.9	6.5	16.2	31.5	52.5	16.5	1,217	24.6

Note: The age at first union is defined as the age at which the respondent began living with her/his first spouse/partner.
na = Not applicable
a = Omitted because less than 50 percent of the respondents were in union for the first time before reaching the beginning of the age group.
[1] The median is the midpoint of the distribution of respondents by exact age at first union.

[1] Another, often more reliable, way of estimating trends is by comparison of percentages for ever-married five-year age groups with similar data from earlier censuses and surveys. The singulate mean age at marriage (SMAM) can also be calculated from various sources and compared over time. However, possible definitional inconsistencies between data sets should be considered when making such comparisons.

Table 6.4 shows the median age at first marriage among women and men age 25-49, by current age and background characteristics.

Table 6.4 Median age at first union by background characteristics

Median age at first union among women and men 25-49 by current age and background characteristics, Guyana 2009

Background characteristic	Current age 25-29	30-34	35-39	40-44	45-49	Women age 25-49
WOMEN						
Residence						
Total Urban	24.8	21.6	24.7	23.4	23.8	23.6
Georgetown (urban)	a	20.9	25.8	23.7	24.8	24.1
Other (urban)	23.1	23.0	23.6	23.1	20.9	22.9
Total Rural	20.1	19.4	20.5	19.6	19.6	19.9
Total Coastal	21.5	20.1	21.9	20.6	20.8	20.9
Coastal (urban)	24.8	21.6	24.7	23.4	23.8	23.6
Coastal (rural)	20.3	19.5	20.7	19.7	19.6	20.0
Total Interior	19.4	18.7	18.1	19.0	19.6	19.0
Region						
Region 1	(18.7)	(18.3)	(16.8)	(18.6)	(20.3)	18.4
Region 2	19.7	18.7	19.7	18.8	19.7	19.4
Region 3	20.8	20.3	20.6	19.8	18.9	20.2
Region 4	23.0	20.5	22.7	21.3	22.3	22.1
Region 5	(20.3)	19.4	22.2	19.3	(21.5)	20.6
Region 6	18.6	19.1	20.3	20.2	19.5	19.6
Region 7	(20.6)	(20.0)	(19.4)	(19.7)	(18.8)	19.8
Region 8	(19.5)	(17.5)	(18.1)	(19.5)	(17.8)	19.0
Region 9	19.2	(19.0)	(18.2)	(18.5)	(19.8)	19.0
Region 10	22.5	23.1	23.1	23.3	(22.8)	22.9
Education						
No education	*	*	*	*	*	17.3
Primary	18.1	18.0	20.0	18.9	19.8	19.1
Secondary	21.4	20.1	22.1	21.0	20.6	21.0
More than secondary	a	25.8	23.7	24.4	28.2	a
Wealth quintile						
Lowest	18.3	18.2	19.6	18.9	20.2	18.9
Second	20.5	19.1	20.0	19.3	20.1	19.7
Middle	20.7	20.1	20.9	19.9	19.8	20.3
Fourth	21.9	20.9	21.9	21.7	21.0	21.6
Highest	24.3	21.3	23.4	22.3	21.6	22.7
Total 2009	**21.1**	**20.0**	**21.6**	**20.4**	**20.6**	**20.7**
Total 2005	20.0	20.1	20.3	21.2	20.9	20.5
MEN[1]						
Residence						
Total Rural	24.4	24.3	24.2	24.5	24.7	24.4
Total Coastal	a	24.3	25.3	24.6	24.7	24.9
Coastal (urban)	a	25.3	27.6	26.0	25.1	a
Coastal (rural)	24.7	24.1	24.3	24.4	24.6	24.4
Total Interior	22.6	25.4	23.4	26.0	24.9	24.4
Education						
No education	*	*	*	*	a	22.5
Primary	24.3	23.7	25.0	23.6	23.9	24.0
Secondary	24.9	24.7	25.1	26.0	24.6	25.0
More than secondary	a	(26.3)	(28.8)	(24.2)	(29.7)	a
Wealth quintile						
Lowest	23.4	25.0	24.2	26.3	26.1	24.7
Second	a	23.5	25.8	24.2	24.2	24.6
Middle	24.3	25.6	23.8	22.8	23.6	23.9
Fourth	24.6	24.0	25.1	24.6	24.8	24.6
Highest	a	25.2	26.4	25.6	24.7	a
Total 2009	**a**	**24.5**	**25.1**	**24.7**	**24.8**	**24.8**
Total 2005	a	24.1	24.9	24.6	24.0	na

Note: The age at first union is defined as the age at which the respondent began living with her/his first spouse/partner. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
na = Not applicable
a = Omitted because less than 50 percent of the respondents were in union for the first time before reaching the beginning of the age group
[1] Some results for men are not presented due to the small number of cases.

- The median age at marriage among women age 25-49 is 20.7 years. By age 20, 44 percent of women age 25-49 were married, and by age 25, this percentage increases to 71 percent.
- Data show that men tend to marry at a later age than women. The median age at marriage among men age 25-49 is 24.8 years, four years later than women. About half of men age 25-49 (51 percent) are married by age 25 compared with seven in ten women (71 percent).
- Rural women marry almost four years earlier than urban women (19.9 and 23.6 years, respectively). Differences in the median age at first union by residence among men are minor.
- Education has a marked impact on the age at marriage for women. Women age 25-49 with no education marry almost four years earlier than women with secondary education (17.3 and 21.0 years, respectively). Among men, those with no education have a median age at first union of 22.5 years compared with 25.0 years for men with secondary education.
- Similarly, women in the highest wealth quintile tend to marry almost four years later than women in the lowest wealth quintile (22.7 and 18.9 years, respectively); for men, there are no differences by quintiles.

6.3 AGE AT FIRST SEXUAL INTERCOURSE

Age at first marriage is sometimes seen as a proxy for a woman's first exposure to intercourse, but the two events need not occur at the same time. Because women and men may engage in sexual relations prior to marriage, age at first sexual intercourse is a more reliable indicator of a woman's exposure to the risk of pregnancy than the age at first marriage. In the 2009 GDHS, women and men were asked how old they were when they first had sexual intercourse. Tables 6.5.1 and 6.5.2 show the median age at first sexual intercourse, by specific exact ages for women and men, respectively. Furthermore, Tables 6.6.1 and 6.6.2 show the median age at first sexual intercourse, by background characteristics, for women and men, respectively. Figure 6.1 shows median age at first sexual intercourse by region.

- The median age at first sexual intercourse is 18.5 years for women and 17.8 years for men.
- Among young adults, age 15-19, about six in ten (62 percent of women and 59 percent of men) have never had intercourse.
- Eight percent of women age 20-49 had sex before age 15, while almost half (43 percent) had first sexual intercourse by their 18th birthday. Although there is no clear trend by age cohorts, younger women are generally more likely to have their first sexual encounter at an earlier age than older women.
- Twice as many men as women age 20-49 (16 percent versus 8 percent) had sexual intercourse before age 15. Additionally, a higher percentage of men (52 percent) than women (43 percent) had sexual intercourse before age 18. As with women, younger men are generally more likely to have their first sexual encounter at an earlier age than older men.
- There are no major variations in the median age at first sexual intercourse by urban-rural residence. Women and men in the Interior area (16.9 and 16.5 years, respectively) start sexual activity earlier than women and men in the Coastal area (18.6 and 18.0 years, respectively). With regard to education, women with more than secondary education begin sexual activity three and a half years later than those with no education (19.3 and 15.7 years, respectively). Poor women initiate sexual activity about two years earlier than those who live in the wealthiest households (17.1 and 19 years, respectively).
- There are no major differences in the median age at first sexual intercourse among men by education and wealth.

Table 6.5.1 Age at first sexual intercourse: Women

Percentage of women who had first sexual intercourse, by specified exact ages and median age at first intercourse, according to current age, Guyana 2009

Current age	Percentage of women who had first sexual intercourse by exact age: 15	18	20	22	25	Percentage who never had intercourse	Number of women	Median age at first intercourse[1]
15-24	10.1	a	a	a	a	41.0	1,783	a
15-19	10.3	a	a	a	a	61.6	1,016	a
20-24	9.8	46.1	72.3	a	a	13.6	767	18.3
25-29	8.6	44.2	72.5	82.7	90.2	2.6	658	18.3
30-34	7.7	47.2	71.9	82.6	88.7	1.5	643	18.2
35-39	6.6	39.6	67.2	79.0	86.7	0.9	699	18.8
40-44	7.3	40.5	67.4	78.6	86.5	1.6	624	18.6
45-49	7.8	40.7	64.6	77.1	85.3	1.2	589	18.8
2009								
20-49	8.0	43.1	69.4	na	na	3.9	3,980	18.5
25-49	7.6	42.4	68.8	80.1	87.5	1.6	3,213	18.5
2005								
20-49	8.9	43.5	67.6	na	na	5.4	1,969	18.4
25-49	8.6	43.5	67.9	79.8	87.3	2.3	1,583	18.4

na = Not applicable
a = Omitted because less than 50 percent of the women had intercourse for the first time before reaching the beginning of the age group
[1] The median is the midpoint of the distribution of respondents by exact age at first union.

Table 6.5.2 Age at first sexual intercourse: Men

Percentage of men who had first sexual intercourse, by specified exact ages and median age at first intercourse, according to current age, Guyana 2009

Current age	Percentage of men who had first sexual intercourse by exact age: 15	18	20	22	25	Percentage who never had intercourse	Number of men	Median age at first intercourse[1]
15-24	18.9	a	a	a	a	38.6	1,200	a
15-19	15.7	a	a	a	a	58.9	689	a
20-24	23.2	62.6	80.7	a	a	11.2	511	17.1
25-29	17.6	49.5	73.1	82.7	90.2	4.7	462	18.0
30-34	14.5	53.6	72.9	84.3	91.3	2.3	521	17.7
35-39	17.1	52.1	75.6	81.2	86.8	1.7	470	17.8
40-44	12.4	50.4	72.9	82.9	88.5	1.4	457	18.0
45-49	13.0	43.2	64.1	78.6	87.0	2.1	413	18.5
2009								
20-49	16.4	52.3	73.5	na	na	4.0	2,833	17.8
25-49	15.0	50.0	71.9	82.1	88.8	2.4	2,322	18.0
2005								
20-49	14.7	50.6	70.9	na	na	5.5	1,484	18.0
25-49	14.5	50.3	70.1	81.3	89.3	3.5	1,217	18.0

na = Not applicable
a = Omitted because less than 50 percent of the men had intercourse for the first time before reaching the beginning of the age group
[1] The median is the midpoint of the distribution of respondents by exact age at first union.

Figure 6.1 Median Age at First Sexual Intercourse by Region

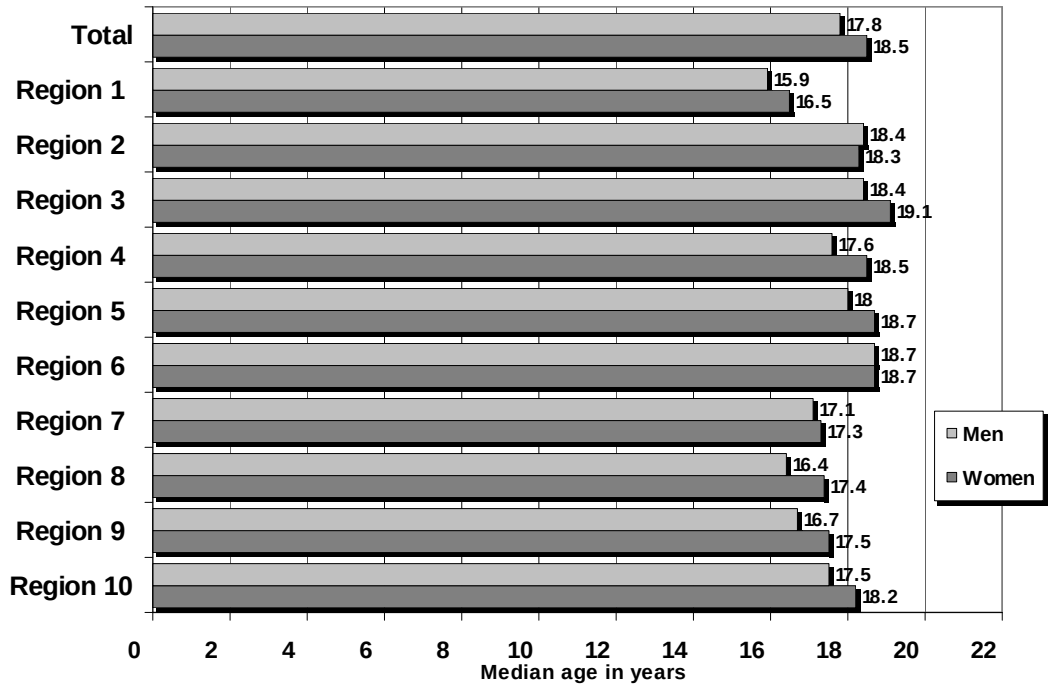


Table 6.6.1 Median age at first sexual intercourse, by background characteristics: Women

Median age at first sexual intercourse among women 20-49, by current age and background characteristics, Guyana 2009

Background characteristic	Current age						Women age 20-49
	20-24	25-29	30-34	35-39	40-44	45-49	
Residence							
Total Urban	18.4	18.4	18.4	18.9	19.0	19.2	18.7
Georgetown (urban)	18.5	18.4	18.1	18.7	18.9	19.1	18.6
Other (urban)	18.3	18.5	18.8	19.6	19.2	19.2	18.8
Total Rural	18.2	18.3	18.1	18.8	18.4	18.6	18.4
Total Coastal	18.4	18.4	18.3	19.0	18.8	18.9	18.6
Coastal urban	18.4	18.4	18.4	18.9	19.0	19.2	18.7
Coastal rural	18.4	18.4	18.3	19.1	18.6	18.8	18.6
Total Interior	16.9	17.0	17.0	16.3	17.0	17.5	16.9
Education							
No education	*	*	*	*	*	*	15.7
Primary	16.9	17.7	17.7	18.7	18.2	18.1	17.9
Secondary	18.5	18.3	18.2	18.7	18.7	19.0	18.5
More than secondary	18.6	19.2	19.4	(19.5)	(20.4)	(19.8)	19.3
Wealth quintile							
Lowest	16.8	17.4	16.9	17.0	17.0	18.5	17.1
Second	17.7	17.8	17.5	18.5	18.2	18.1	18.0
Middle	18.7	18.1	18.3	18.7	18.7	18.7	18.5
Fourth	18.4	18.5	19.0	19.3	19.3	19.2	18.9
Highest	19.2	18.9	18.5	19.4	18.9	19.0	19.0
Total 2009	**18.3**	**18.3**	**18.2**	**18.8**	**18.6**	**18.8**	**18.5**
Total 2005	18.4	17.9	18.5	18.5	18.7	18.6	18.4

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.

Table 6.6.2 Median age at first sexual intercourse, by background characteristics: Men

Median age at first sexual intercourse among men 20-49, by current age and background characteristics, Guyana 2009

Background characteristic	Current age						Men age 20-49
	20-24	25-29	30-34	35-39	40-44	45-49	
Residence							
Total Urban	16.9	17.5	17.5	17.6	18.1	17.8	17.5
Georgetown (urban)	16.7	17.4	(17.5)	(17.4)	18.1	(17.0)	17.3
Other (urban)	18.0	18.4	17.2	17.9	18.1	18.9	18.1
Total Rural	17.2	18.3	17.8	18.0	17.9	18.8	18.0
Total Coastal	17.3	18.3	17.8	18.0	18.1	18.6	18.0
Coastal (urban)	16.9	17.5	17.5	17.6	18.1	17.8	17.5
Coastal (rural)	17.5	18.9	17.9	18.2	18.0	18.9	18.2
Total Interior	15.5	15.7	17.1	16.3	16.8	17.7	16.5
Education							
No education	*	*	*	*	*	a	18.5
Primary	17.2	17.7	17.7	18.1	17.9	18.9	18.0
Secondary	17.0	18.1	17.8	17.6	18.0	18.2	17.8
More than secondary	17.3	(19.1)	(18.0)	(18.0)	(17.3)	(18.3)	17.8
Wealth quintile							
Lowest	15.7	17.4	17.3	16.4	17.9	18.0	17.2
Second	16.9	17.4	17.8	17.8	18.9	18.4	17.8
Middle	17.3	18.7	17.8	18.3	18.1	19.0	18.2
Fourth	17.9	18.4	17.7	18.5	17.7	18.9	18.2
Highest	17.1	17.7	18.1	17.7	17.5	18.4	17.7
Total 2009	**17.1**	**18.0**	**17.7**	**17.8**	**18.0**	**18.5**	**17.8**
Total 2005	17.8	18.3	17.9	17.4	18.2	17.9	18.0

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

6.4 RECENT SEXUAL ACTIVITY

In the absence of contraception, the risk of pregnancy is related to the frequency of intercourse. Information on sexual activity, therefore, can be used to refine measures of exposure to pregnancy. Women and men were asked how long ago their last sexual activity occurred to assess whether they had sexual intercourse in the past four weeks. The results are shown in Tables 6.7.1 and 6.7.2 for women and men, respectively.

Table 6.7.1 Recent sexual activity: Women

Percent distribution of women age 15-49 by timing of last sexual intercourse, according to background characteristics, Guyana 2009

Background characteristic	Time since last sexual intercourse: Within the past 4 weeks	Within 1 year[1]	One or more years ago	Missing	Never had sexual intercourse	Total	Number of women
Age							
15-19	20.2	13.0	4.6	0.6	61.6	100.0	1,016
20-24	55.3	23.2	6.5	1.5	13.6	100.0	767
25-29	67.5	19.0	6.6	4.3	2.6	100.0	658
30-34	68.5	16.5	10.9	2.6	1.5	100.0	643
35-39	64.1	16.3	12.3	6.3	0.9	100.0	699
40-44	62.7	17.5	14.2	3.9	1.6	100.0	624
45-49	56.6	17.9	19.2	5.1	1.2	100.0	589
Marital status							
Never married	16.6	17.5	12.9	2.4	50.6	100.0	1,540
Married	78.0	15.3	3.2	3.4	0.1	100.0	2,920
Formerly married	28.4	28.7	38.7	4.3	0.0	100.0	536
Marital duration[2]							
Married only once	78.2	14.8	3.2	3.7	0.1	100.0	2,363
0-4 years	75.7	18.5	2.3	3.3	0.3	100.0	588
5-9 years	81.6	12.9	1.4	4.2	0.0	100.0	450
10-14 years	84.3	9.1	3.8	2.8	0.0	100.0	424
15-19 years	75.9	15.7	5.1	3.4	0.0	100.0	357
20-24 years	78.2	15.2	2.8	3.9	0.0	100.0	263
25+ years	72.1	17.4	5.1	5.4	0.0	100.0	281
Married more than once	77.2	17.3	3.2	2.3	0.0	100.0	555
Residence							
Total Urban	48.2	19.2	12.3	3.4	17.0	100.0	1,475
Georgetown (urban)	49.1	19.7	12.7	2.3	16.2	100.0	967
Other (urban)	46.4	18.2	11.5	5.5	18.3	100.0	508
Total Rural	56.1	16.7	9.0	3.1	15.1	100.0	3,521
Total Coastal	53.1	16.8	10.5	3.2	16.4	100.0	4,495
Coastal (urban)	48.2	19.2	12.3	3.4	17.0	100.0	1,475
Coastal (rural)	55.4	15.7	9.6	3.1	16.2	100.0	3,019
Total Interior	60.3	22.4	5.5	3.3	8.5	100.0	501
Region							
Region 1	65.2	22.7	3.4	2.1	6.5	100.0	162
Region 2	56.1	16.0	7.6	3.0	17.4	100.0	293
Region 3	54.3	15.9	8.9	2.6	18.3	100.0	687
Region 4	52.4	18.3	10.9	3.2	15.1	100.0	2,168
Region 5	51.9	16.6	13.5	0.8	17.2	100.0	353
Region 6	56.8	11.7	10.1	3.4	18.0	100.0	780
Region 7	53.9	25.4	6.1	2.1	12.6	100.0	104
Region 8	64.0	20.2	5.5	4.5	5.9	100.0	95
Region 9	57.0	19.2	6.6	7.5	9.7	100.0	78
Region 10	43.8	25.0	11.0	6.4	13.8	100.0	277
Education							
No education	73.4	20.4	0.0	3.6	2.7	100.0	68
Primary	65.4	17.2	8.5	2.7	6.2	100.0	952
Secondary	50.9	17.0	10.1	3.2	18.9	100.0	3,568
More than secondary	49.2	21.2	14.1	4.0	11.6	100.0	409
Wealth quintile							
Lowest	58.0	21.5	6.7	3.1	10.7	100.0	779
Second	55.8	17.0	8.8	3.1	15.3	100.0	957
Middle	51.4	17.3	11.9	2.9	16.5	100.0	1,025
Fourth	51.9	16.3	11.2	2.9	17.6	100.0	1,084
Highest	53.1	16.0	10.3	3.9	16.6	100.0	1,151
Total 2009	**53.8**	**17.4**	**10.0**	**3.2**	**15.6**	**100.0**	**4,996**
Total 2005	56.1	16.0	10.2	1.5	16.3	100.0	2,425

Note: *Married* includes women in consensual union (living together). *Formerly married* includes divorced, separated, or widowed.
[1] Excludes women who had sexual intercourse within the last 4 weeks
[2] Excludes women who are not currently married

Table 6.7.2 Recent sexual activity: Men

Percent distribution of men age 15-49 by timing of last sexual intercourse, according to background characteristics, Guyana 2009

Background characteristic	Time since last sexual intercourse: Within the last 4 weeks	Within 1 year[1]	One or more years ago	Missing	Never had sexual intercourse	Total	Number of men
Age							
15-19	15.6	15.7	8.7	1.2	58.9	100.0	689
20-24	58.0	23.4	6.6	0.7	11.2	100.0	511
25-29	71.0	16.0	6.1	2.1	4.7	100.0	462
30-34	77.7	12.1	5.4	2.5	2.3	100.0	521
35-39	79.3	11.2	6.4	1.5	1.7	100.0	470
40-44	79.5	11.4	4.8	3.0	1.4	100.0	457
45-49	79.9	11.4	5.8	0.8	2.1	100.0	413
Marital status							
Never married	28.2	21.9	11.3	1.0	37.5	100.0	1,382
Married	90.5	6.5	0.7	2.2	0.1	100.0	1,835
Formerly married	49.2	30.7	18.7	1.4	0.0	100.0	305
Marital duration[2]							
Married only once	90.0	7.0	0.7	2.2	0.1	100.0	1,479
0-4 years	85.1	11.0	1.3	2.3	0.3	100.0	385
5-9 years	92.8	5.0	0.4	1.8	0.0	100.0	305
10-14 years	95.7	3.1	0.0	1.2	0.0	100.0	256
15-19 years	88.1	7.5	1.7	2.7	0.0	100.0	258
20-24 years	91.0	6.1	0.0	3.0	0.0	100.0	177
25+ years	88.7	7.8	0.0	3.4	0.0	100.0	98
Married more than once	92.8	4.7	0.4	2.0	0.0	100.0	354
Residence							
Total Urban	59.0	18.3	5.5	2.3	14.8	100.0	949
Georgetown (urban)	59.5	19.2	4.9	2.7	13.8	100.0	619
Other (urban)	58.1	16.8	6.8	1.5	16.8	100.0	330
Total Rural	63.8	13.3	6.7	1.4	14.7	100.0	2,573
Total Coastal	61.4	15.0	6.5	1.7	15.4	100.0	3,126
Coastal (urban)	59.0	18.3	5.5	2.3	14.8	100.0	949
Coastal (rural)	62.4	13.6	7.0	1.4	15.7	100.0	2,176
Total Interior	71.4	11.9	5.4	1.6	9.6	100.0	396
Region							
Region 1	78.2	8.5	4.0	0.3	9.0	100.0	160
Region 2	64.6	12.4	5.6	1.0	16.5	100.0	179
Region 3	65.1	11.6	5.5	0.4	17.3	100.0	420
Region 4	59.5	17.5	6.7	2.4	14.0	100.0	1,540
Region 5	56.1	12.9	10.3	1.9	18.8	100.0	271
Region 6	67.0	10.7	5.6	0.7	16.1	100.0	587
Region 7	72.1	10.6	6.4	1.5	9.5	100.0	61
Region 8	68.3	14.9	2.3	3.5	10.9	100.0	68
Region 9	63.4	15.4	6.5	4.3	10.5	100.0	57
Region 10	55.6	22.4	7.6	1.5	12.8	100.0	178
Education							
No education	69.8	5.7	5.6	0.0	18.9	100.0	60
Primary	73.7	12.4	5.3	1.3	7.3	100.0	711
Secondary	59.0	15.0	6.9	1.5	17.6	100.0	2,459
More than secondary	63.4	19.6	5.0	4.5	7.6	100.0	292
Wealth quintile							
Lowest	64.0	15.1	8.5	1.5	11.0	100.0	663
Second	59.2	15.9	8.2	1.1	15.6	100.0	679
Middle	60.1	14.4	7.4	1.1	17.0	100.0	723
Fourth	64.3	12.5	4.5	2.6	16.1	100.0	751
Highest	64.8	15.8	3.7	1.9	13.8	100.0	705
Total 2009	**62.5**	**14.7**	**6.4**	**1.7**	**14.8**	**100.0**	**3,522**
Total 2005	61.3	12.4	7.6	1.6	17.1	100.0	1,875

Note: *Currently married* includes women in consensual union (living together). *Formerly married* includes divorced, separated, or widowed.
[1] Excludes men who had sexual intercourse within the past 4 weeks
[2] Excludes men who are not currently married

Respondents are considered to be sexually active if they had intercourse at least once in the four weeks prior to the survey.

- A similar proportion of women and men age 15-49 (16 and 15 percent, respectively) had never had sex.
- Fifty-four percent of women and 63 percent of men reported that they had sex within the last four weeks preceding the survey, while 17 percent of women and 15 percent of men had sexual intercourse in the year preceding the survey (but not within the past 4 weeks).
- Both young women and men age 15-19 were less likely than respondents in other age groups to be sexually active in the last four weeks, because a large proportion in this age group has never had sexual intercourse (62 percent of women and 59 percent of men).
- A large proportion of respondents currently in union (78 percent of women and 91 percent of men) report being sexually active in the last four weeks.
- There is little difference in recent sexual activity by marital duration although respondents married 10-14 years ago are somewhat more likely to be sexually active recently.
- For both women and men, recent sexual activity is higher in rural areas when compared with urban areas. There are significant variations in the percentage of respondents with recent sexual activity by region, particularly for men. Among women, this percentage ranges from 44 percent in Region 10 to 65 percent in Region 1, while for men recent sexual activity ranges from 56 percent, each, in Regions 5 and 10 to 78 percent in Region 1.
- Recent sexual activity is highest for women with no education (73 percent), and it decreases to 49 percent among women with more than secondary education. For men, recent sexual activity tends to decline with increasing education.
- There is little variation in recent sexual activity by wealth for either women or men.

6.5 POSTPARTUM AMENORRHEA, ABSTINENCE, AND INSUSCEPTIBILITY

Post-partum amenorrhea is the interval between the birth of a child and the return of the menstrual cycle. It is the period during which the woman becomes temporarily and involuntarily infecund following childbirth. Post-partum protection from conception can be prolonged by breastfeeding, which can lengthen the duration of amenorrhea. Delaying the resumption of post-partum sexual relations can also prolong protection. The period of voluntary sexual inactivity after childbirth is referred to as post-partum abstinence. A woman is said to be insusceptible to the risk of pregnancy if she is either amenorrheic or abstaining from sexual intercourse following childbirth. Women who gave birth during the three years prior to the survey were asked about their breastfeeding practices, the duration of amenorrhea, and post-partum sexual abstinence.

Table 6.8 shows the percentage of births in the three years preceding the survey for which mothers were post-partum amenorrheic, abstaining, and insusceptible, by number of months since the birth. Mean and median durations are also shown.

- In Guyana, the median duration of amenorrhea is 3 months; the median duration of post-partum abstinence is slightly lower at 2 months. Women are insusceptible to pregnancy for about 4 months after a birth (median of 4 months and a mean of 9 months).
- Overall, for about one in four births (24 percent) in the last three years, the mothers were insusceptible at the time of the survey, i.e. either still amenorrheic or still abstaining or both (18 percent amenorrheic and 14 percent abstaining).

- Ninety-five percent of women are insusceptible to pregnancy within the first two months following childbirth. At 4-7 months after birth, 44 percent of mothers are still insusceptible mostly as a result of the drastic reduction of in abstinence (only 15-19 percent of mothers abstaining). By 12 to 13 months, about three in ten women (28 percent) are insusceptible, with 16 percent still amenorrheic and 14 percent still abstaining. By 34 to 35 months, the effect of post-partum amenorrhea is almost completely gone (2 percent) and insusceptibility to pregnancy is very low (4 percent).

Table 6.8 Postpartum amenorrhea, abstinence, and insusceptibility

Percentage of births in the three years preceding the survey for which the mother is postpartum amenorrheic, abstaining, and insusceptible, by number of months since birth, and median and mean durations, Guyana 2009

Months since birth	Percentage of births for which the mother is: Amenorrheic	Abstaining	Insusceptible[1]	Number of births
< 2	91.8	90.0	94.9	61
2-3	48.5	40.3	61.8	58
4-5	37.7	19.0	44.4	105
6-7	40.0	15.3	44.0	69
8-9	25.3	7.2	26.9	61
10-11	31.4	18.3	45.0	66
12-13	15.7	13.9	27.9	52
14-15	8.9	7.9	16.2	56
16-17	1.2	2.3	3.4	73
18-19	10.9	9.9	20.8	70
20-21	1.6	8.4	9.9	50
22-23	1.4	4.1	5.0	56
24-25	1.5	3.5	5.0	65
26-27	1.0	6.2	7.2	73
28-29	0.3	2.8	3.1	88
30-31	0.0	2.8	2.8	91
32-33	5.4	6.0	11.5	50
34-35	1.6	2.7	4.4	49
Total	18.1	14.1	24.1	1,193
Median	3.2	2.3	4.3	na
Mean	6.8	5.5	9.0	na

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

In the absence of contraception, variations in postpartum amenorrhea and abstinence are the most important determinants of the interval between births and hence, ultimately, of completed fertility. In some populations differentials across subgroups in the duration of postpartum amenorrhea and abstinence also may indicate incipient changes in traditional postpartum practices. A shortening of the period of postpartum insusceptibility has implications for the provision of family planning services to recent mothers. As will be seen in Chapter 11, duration of breastfeeding (which is linked to amenorrhea) decreases as the education level of the mother increases. As a result, the duration of amenorrhea for educated women is shorter too.

Table 6.9 shows the median duration of amenorrhea, post-partum abstinence, and post-partum insusceptibility by selected background characteristics (results are presented only for selected sub-groups due to the small number of cases).

- Women age 30-49 have a longer median duration of insusceptibility (5.3 months) than younger women (4.0 months) as a result of a longer duration of postpartum amenorrhea (4.5 and 3.0 months, respectively).
- By residence, there is no major variation in the median duration of insusceptibility, although women in the Interior area have a somewhat longer duration of postpartum insusceptibility (4.9 months) than women in the rural and Coastal areas (4.1 months) mostly due to a longer duration of postpartum amenorrhea.

Table 6.9 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, Guyana 2009

Background characteristic	Postpartum amenor-rhea	Postpartum abstinence	Postpartum insuscep-tibility[1]
Mother's age			
15-29	3.0	2.3	4.0
30-49	4.5	2.3	5.3
Residence			
Rural	3.4	2.1	4.1
Coastal	2.7	2.2	4.1
Interior	4.3	2.8	4.9
Education			
Primary	3.8	2.2	4.4
Secondary	3.1	2.2	4.2
Total	3.2	2.3	4.3

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

6.6 TERMINATION OF EXPOSURE TO PREGNANCY

Menopause marks the onset of infecundity and is another factor influencing the risk of pregnancy. In this report, women are considered menopausal if they are neither pregnant nor post-partum amenorrheic and have not had a menstrual period in the past six months. Another facet of loss of exposure not shown in Table 6.10 is terminal separation, divorce, and widowhood where the woman does not remarry before the end of her childbearing years. The 2009 GDHS did not collect enough information on marriage history to define a reasonably precise indicator, but some information may be inferred from the findings already presented in Table 6.1. A third factor affecting the end of fertility is the lack of exposure due to long-term abstinence among currently married women. This information was presented in Table 6.8.

Table 6.10 shows the percentage of women age 30-49 who are menopausal, by age.

- Above age 30, the risk of pregnancy begins to decline with age as the prevalence of menopause increases with age. While only 1 percent of women age 30-34 are menopausal, at the end of the reproductive period (age 48-49), about one in four women (23 percent) is menopausal.
- Overall, 6 percent of women age 30-49 are menopausal.

Table 6.10 Menopause

Percentage of women age 30-49 who are menopausal, by age, Guyana 2009

Age	Percentage menopausal[1]	Number of women
30-34	1.2	643
35-39	2.6	699
40-41	4.6	259
42-43	5.8	240
44-45	11.8	261
46-47	13.3	236
48-49	23.0	217
Total	6.4	2,554

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

FERTILITY PREFERENCES 7

In the 2009 GDHS, several questions were asked to ascertain the respondent's fertility preferences. Did they desire to have another child? How long did they want to wait before having that child? How many children did they consider to be ideal for their family? The first two questions were asked of non-sterilized, currently married respondents. The final question was asked of all respondents. In combination with information on contraceptive use, the data from the responses allow estimation of the demand for family planning, with the goal being either to space or to limit births.

7.1 DESIRE FOR MORE CHILDREN

Respondents were asked: "Would you like to have another child, or would you prefer not to have any more children?" If they responded that they wanted another child, they were asked: "How long would you like to wait from now before the birth of another child?" These questions were appropriately phrased if the respondent had not yet had any children, and if the woman/wife was pregnant, she/he was asked about the desire for more children after the baby she was expecting. Respondents who had been sterilized for contraceptive purposes also required special analytic treatment; generally they were classified as wanting no more children.

Table 7.1.1 shows the percent distribution of currently married women and men by desire for children, according to number of living children. Table 7.1.2 presents the same information for currently married women by background characteristics. Figure 7.1 shows the overall fertility preferences for women in union in Guyana. The summary indicators for women are shown in Figure 7.1. The fertility preferences are classified as follows: wants another child soon (within two years), wants another child later (two or more years later), wants no more children, and sterilized (female and male sterilization).

- Fifty-six percent of currently married women reported that they don't want to have a/another child, and 5 percent are already sterilized. The corresponding figures for men are 51 and 1 percent, respectively. As might be expected, the desire to stop childbearing increases rapidly with the number of children. Among respondents with one child, about one in five (22 percent of women and 20 percent of men) wants no more children or is sterilized; this compares with 81 percent of women and 70 percent of men with three children.
- Among women who want to have a/another child at some point (32 percent), half (16 percent) want to delay the (next) birth for two or more years. Among men, 35 percent of men want to have a/another child at some point, and less than half (14 percent), want to wait for the (next) birth later.

Table 7.1.1 Fertility preferences by number of living children

Percent distribution of currently married women and men 15-49 by desire for children, according to number of living children, Guyana 2009

Desire for children	Number of living children[1]							Total
	0	1	2	3	4	5	6+	
WOMEN[1]								
Have another soon[2]	66.1	23.8	7.9	3.8	3.6	2.8	1.9	14.0
Have another later[3]	16.3	42.9	15.3	7.0	4.2	1.8	0.3	15.5
Have another, undecided when	6.9	4.5	3.4	1.2	1.0	1.1	0.3	2.8
Undecided	2.9	5.4	6.6	4.4	3.2	1.1	0.7	4.3
Want no more	3.8	20.6	62.7	72.5	77.0	83.7	80.7	55.9
Sterilized[4]	0.0	0.9	2.2	8.6	8.6	8.8	15.2	5.3
Declared infecund	4.1	1.5	1.1	1.9	2.3	0.4	0.8	1.7
Missing	0.0	0.5	0.7	0.6	0.1	0.2	0.1	0.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	265	552	719	625	336	190	232	2,920
MEN[5]								
Have another soon[2]	64.0	24.9	11.0	5.4	5.1	4.2	6.1	17.1
Have another later[3]	13.1	31.4	12.9	11.2	5.5	4.7	3.7	14.1
Have another, undecided when	6.3	9.0	4.3	1.2	1.0	0.5	0.4	3.9
Undecided	4.8	10.9	10.9	6.6	7.7	6.1	10.9	8.7
Want no more	4.1	18.5	55.2	69.0	78.8	79.5	74.9	50.8
Sterilized[4]	1.9	1.2	0.5	1.4	1.3	0.0	0.3	1.0
Declared infecund	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Missing	5.4	4.1	5.3	5.3	0.5	5.1	3.7	4.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of men	213	343	448	392	198	109	132	1,835

Note: "Currently married" includes respondents in consensual union (living together).
[1] Includes current pregnancy
[2] Wants next birth within two years
[3] Wants to delay next birth for two or more years
[4] Includes both female and male sterilization
[5] The number of living children includes one additional child if respondent's wife is pregnant (or if any wife is pregnant for men with more than one current wife).

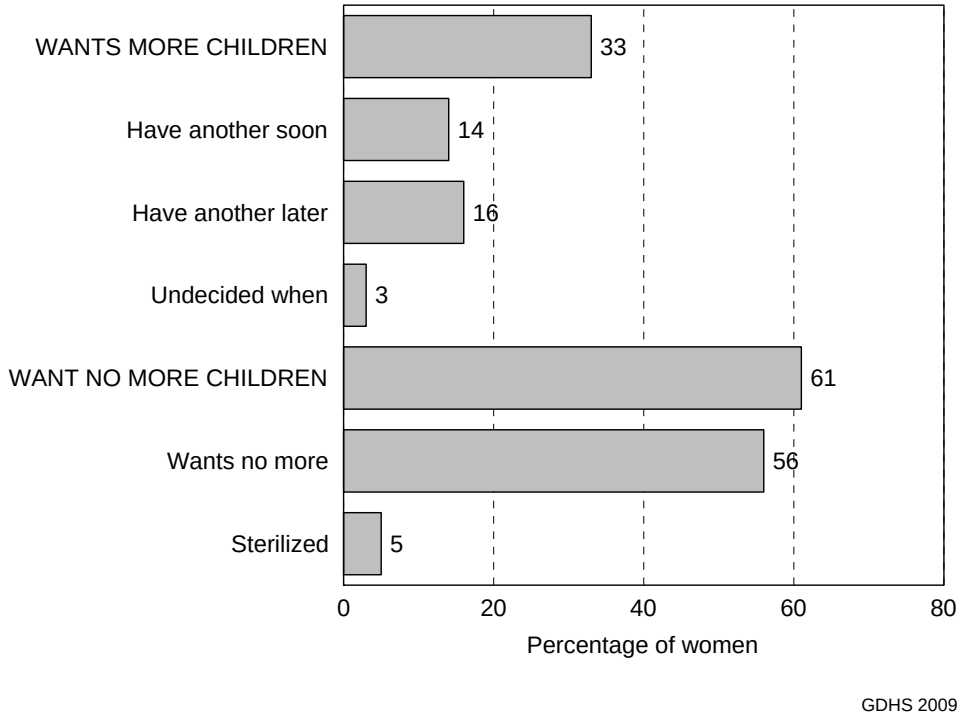
Table 7.1.2 Fertility preferences by background characteristics

Percent distribution of currently married women 15-49 by desire for children, according to background characteristics, Guyana 2009

Background characteristic	Want more children				Want no more/ sterilized					
	Have another soon[1]	Have another later[2]	Have another, undecided when	Un-decided	Want no more	Sterilized[3]	Declared infecund	Missing	Total	Number of women
Residence										
Total Urban	17.1	14.2	3.6	4.1	51.0	7.0	2.1	0.9	100.0	649
Georgetown (urban)	17.8	14.0	4.5	5.2	49.5	5.5	2.9	0.5	100.0	392
Other (urban)	15.9	14.4	2.3	2.4	53.2	9.3	0.9	1.6	100.0	257
Total Rural	13.1	15.9	2.6	4.4	57.4	4.8	1.6	0.3	100.0	2,271
Total Coastal	14.7	16.0	2.7	3.9	54.9	5.6	1.7	0.5	100.0	2,562
Coastal (urban)	17.1	14.2	3.6	4.1	51.0	7.0	2.1	0.9	100.0	649
Coastal (rural)	14.0	16.6	2.4	3.8	56.3	5.1	1.6	0.3	100.0	1,913
Total Interior	8.8	11.9	3.1	7.6	63.3	3.6	1.4	0.3	100.0	357
Region										
Region 1	5.7	9.8	3.5	11.8	66.1	2.2	0.7	0.3	100.0	128
Region 2	10.3	10.2	1.8	5.9	61.3	8.6	1.3	0.6	100.0	192
Region 3	12.9	23.2	2.8	4.3	51.5	3.9	1.4	0.0	100.0	424
Region 4	17.3	15.7	2.9	4.6	52.1	4.6	2.4	0.3	100.0	1,121
Region 5	11.0	15.2	2.5	5.2	58.2	5.0	2.1	0.7	100.0	218
Region 6	13.4	13.0	2.8	0.6	61.8	7.0	0.6	0.9	100.0	523
Region 7	12.1	15.0	3.0	5.8	60.3	1.6	2.2	0.0	100.0	65
Region 8	12.8	13.8	4.3	6.8	54.0	6.8	1.5	0.0	100.0	71
Region 9	6.8	11.8	2.8	5.4	67.5	1.6	3.1	1.1	100.0	57
Region 10	14.9	14.8	2.6	3.0	51.9	11.9	0.4	0.6	100.0	121
Education										
No education	9.5	3.5	6.7	3.1	73.9	1.7	1.6	0.0	100.0	62
Primary	8.4	7.3	1.4	5.0	68.4	7.0	2.1	0.3	100.0	746
Secondary	16.0	18.7	3.1	3.8	51.6	5.0	1.4	0.5	100.0	1,938
More than secondary	17.6	18.9	4.5	7.3	44.7	3.5	3.0	0.5	100.0	173
Wealth quintile										
Lowest	8.8	12.8	3.2	6.2	63.1	4.9	0.9	0.1	100.0	554
Second	14.0	15.1	2.0	4.3	58.0	5.2	1.1	0.2	100.0	576
Middle	14.3	18.4	2.1	4.3	54.3	5.3	1.1	0.2	100.0	592
Fourth	17.5	16.0	3.1	2.4	52.8	5.6	2.0	0.7	100.0	610
Highest	15.1	14.9	3.6	4.6	52.1	5.6	3.2	0.9	100.0	589
Total	14.0	15.5	2.8	4.3	55.9	5.3	1.7	0.4	100.0	2,920

Note: "Currently married" includes respondents in consensual union (living together).
[1] Wants next birth within two years
[2] Wants to delay next birth for two or more years
[3] Includes both female and male sterilization

Figure 7.1 Fertility Preferences of Women in Union



7.2 DESIRE TO LIMIT CHILDBEARING BY BACKGROUND CHARACTERISTICS

Table 7.2 shows the percentage of currently married women who want no more children, by number of living children and background characteristics, and the percentage of currently married men who want no more children, by background characteristics. Regions are not presented in this table because the number of unweighted cases (25-49 for most cells) is small. However, the desire for no children by region is shown in Figure 7.2.

- Overall, over six in ten of currently married women (61 percent) and half of currently married men (52 percent) want no more children.
- By residence, women in rural areas (62 percent) are more likely to report that they want no more children than women in urban areas (58 percent). Furthermore, women in the Interior area (67 percent) are more likely than those in the Coastal area (61 percent) to want no more children.
- Similar to women, men in rural areas are more likely than those in urban areas (54 and 43 percent, respectively) to want no more children. However, unlike women, men in the Coastal area are more likely than those in the Interior area (52 and 50 percent, respectively) to want no more children.
- Close to seven in ten currently married women in Regions 1, 2, 6, and 9 want no more children or are sterilized compared with just above half (55 percent) of women in Region 3. Regions 2, 6, and 9 have the highest percentages of men who are either sterilized or want no more children (60 to 66 percent).
- The largest differences in the desire for no more children are found by educational level, especially among women. For example, 76 percent of women with no education want no more children compared with 48 percent of women with more than secondary education. The same pattern is observed for men but is less pronounced. In general, the desire to limit childbearing tends to decrease with an increase in the wealth quintile of the household.

Table 7.2 Desire to limit childbearing by background characteristics

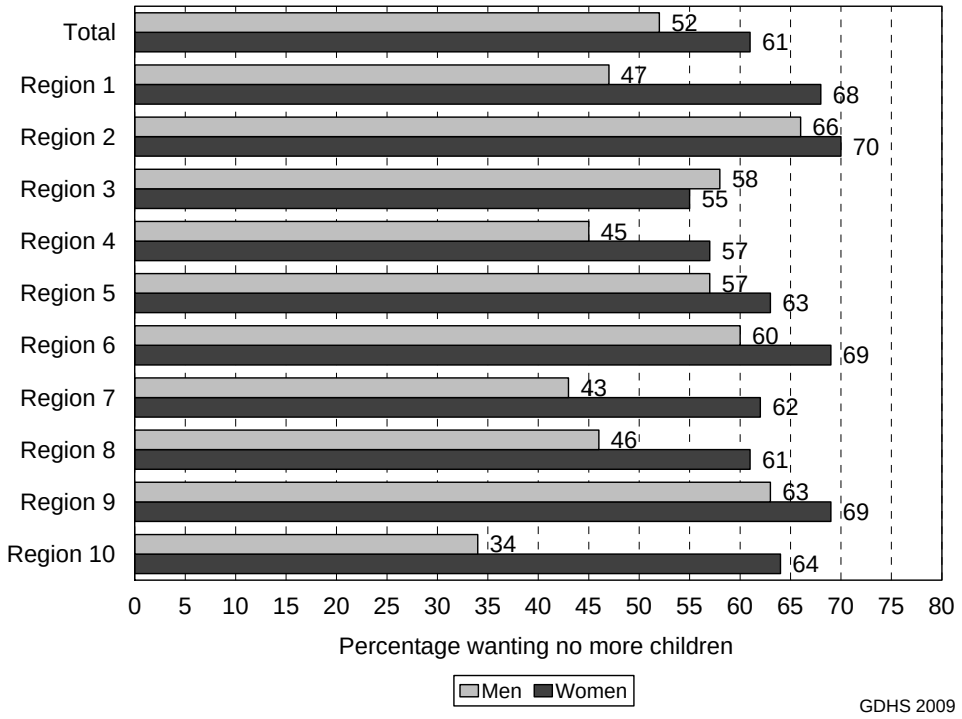
Percentage of currently married women age 15-49 who want no more children, by number of living children and background characteristics, and percentage of currently married men age15-49 who want no more children, by background characteristics, Guyana 2009

Background characteristic	Number of living children[1]							Total women 15-49	Total men 15-49
	0	1	2	3	4	5	6+		
Residence									
Total Urban	1.5	26.9	61.8	80.4	88.3	(89.8)	(90.5)	58.0	43.3
Georgetown (urban)	(0.0)	(22.0)	64.4	(79.8)	*	*	*	55.1	42.2
Other (urban)	(4.6)	35.3	57.8	81.3	92.4	(93.9)	(95.6)	62.5	44.9
Total Rural	4.6	19.8	65.9	81.3	84.9	93.2	96.7	62.2	54.1
Total Coastal	3.6	21.5	65.5	82.7	86.7	93.5	96.4	60.5	52.1
Coastal (urban)	1.5	26.9	61.8	80.4	88.3	(89.8)	(90.5)	58.0	43.3
Coastal (rural)	4.4	19.6	66.9	83.4	86.2	94.8	97.8	61.3	54.9
Total Interior	(6.1)	21.3	58.1	67.9	77.2	89.1	95.0	66.9	49.8
Education									
No education	*	*	*	*	*	*	(100.0)	75.6	52.4
Primary	(13.0)	35.7	77.9	82.7	88.0	93.4	96.6	75.5	59.7
Secondary	1.6	18.7	60.7	80.8	85.9	92.0	94.9	56.5	50.3
More than secondary	2.6	20.5	54.0	74.5	*	*	*	48.2	36.2
Wealth quintile									
Lowest	(6.3)	24.8	66.5	67.3	76.7	89.7	96.8	68.0	55.9
Second	(3.2)	18.2	66.0	86.6	87.0	95.8	91.4	63.2	53.8
Middle	(2.5)	11.3	67.7	82.3	90.4	(99.3)	(100.0)	59.6	55.9
Fourth	6.2	28.2	59.2	84.0	91.8	(80.6)	*	58.4	49.0
Highest	1.5	26.4	66.3	83.4	84.3	*	*	57.7	44.2
Total	3.8	21.5	64.9	81.1	85.6	92.5	95.9	61.3	51.8

Note: "Currently married" includes women/men in consensual union (living together). Women who have been sterilized or who have stated their current method is male sterilization are considered to want no more children. Men who have been sterilized or who state in response to the question about desire for children that their wife has been sterilized are considered to want no more children. Figures preceded by a bracket are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

[1] Includes current pregnancy

Figure 7.2 Desire for No More Children by Region



7.3 NEED AND DEMAND FOR FAMILY PLANNING SERVICES

In general, women have an *unmet need for family planning* if (1) they are currently married, (2) they declare either that they do not want to have any more children (they want to limit their childbearing) or that they want to wait two or more years before having another child (they want to space their births), and (3) they are not currently using contraception.

Women who have an *unmet need for spacing* are pregnant women whose pregnancy was mistimed, amenorrheic women whose last birth was mistimed, and women who are neither pregnant nor amenorrheic and who are not using any method of family planning but say they want to wait two or more years for their next birth. Also included in unmet need for spacing are women who are unsure whether they want another child or who want another child but are unsure when to have the birth. *Unmet need for limiting* refers to pregnant women whose pregnancy was unwanted, amenorrheic women whose last child was unwanted, and women who are neither pregnant nor amenorrheic and who are not using any method of family planning but want no more children. Excluded from the unmet need category are menopausal or infecund women and unmarried women who have not had sexual intercourse in the four weeks prior to the interview.

The category of *using for spacing* is defined as women who are using some method of family planning and say they want to have another child or are undecided whether to have another. The *using for limiting* category includes women who are using family planning and who want no more children. Women with unmet need and those currently using contraception constitute the *total demand for family planning*.

The calculation of unmet need, being a current status measure, is further refined by excluding women who are currently amenorrheic and, therefore, not in need of family planning at this point in time. A more detailed description of the way these indicators are calculated is included in Footnote 1 of Table 7.3, while the components of the unmet need for family planning are illustrated in Figure 7.3.

Table 7.3 shows the need and demand for family planning among currently married women, by background characteristics, while Figure 7.4 compares unmet need with demand satisfied, by region.

- Twenty-nine percent of married women have an unmet need for family planning, more for limiting (19 percent) than for spacing births (10 percent). Forty-three percent of married women are currently using a contraceptive method (met need), 12 percent for spacing and 30 percent for limiting. As a result, the total demand for family planning is estimated at 71 percent of currently married women, 22 percent for spacing and 49 percent for limiting. These findings indicate that only 60 percent of the total demand for family planning is met (the portion of met need subtracted from the total demand).
- Unmet need generally decreases with age and is highest among the youngest age group—age 15-19 (35 percent). The findings show clearly that younger women have a greater unmet need for spacing, while older women have a greater unmet need for limiting.
- There are no major differences in the unmet need among women in Urban, Rural, and Coastal areas (27 to 30 percent). However, the unmet need in the Interior area is relatively higher (37 percent). Among regions, the percentage of women with an unmet need for family planning ranges from 26 percent each, in Regions 3 and 10, to as high as 46 percent, in Region 1.
- Unmet need for spacing increases steadily with education, while unmet need for limiting declines with education. As a result, unmet need remains relatively constant among educational groups (28 to 31 per cent) except among women with no education (41 percent). Both unmet need for spacing and for limiting decline with increasing socioeconomic status of the household. Overall, 38 of women in the lowest quintile have an unmet need for family planning compared with 24 percent in the highest quintile.
- Total demand for family planning increases with age, from 65 percent among women age 15 to 19 to 77 percent among women age 30-34, after which it declines.
- Demand for family planning varies slightly by place of residence, from 68 percent among women in the Interior area to 73 percent in the Georgetown (urban) area. Among regions, total demand for family planning is lowest in Region 9 (52 percent) and highest in Region 10 (77 percent).
- Total demand for family planning increases steadily with education, from 62 percent among women with no education to 77 percent among those with more than secondary education. The total demand for family planning does not vary much by wealth quintile, mostly as a result of decreasing unmet need and increasing contraceptive use with increasing wealth of the household.

Table 7.3 Need and demand for family planning

Percentage of currently married women age 15-49 with unmet need for family planning, percentage with met need for family planning, the total demand for family planning, and the percentage of the demand for contraception that is satisfied, by background characteristics, Guyana 2009

Background characteristic	Unmet need for family planning[1]			Met need for family planning (currently using)[2]			Total demand for family planning[3]			Percentage of demand satis-fied	Number of women
	For spacing	For limiting	Total	For spacing	For limiting	Total	For spacing	For limiting	Total		
Age											
15-19	23.3	11.6	34.9	21.5	8.3	29.8	44.8	19.9	64.7	46.0	166
20-24	22.0	8.1	30.1	24.5	14.1	38.7	46.5	22.3	68.8	56.2	398
25-29	16.9	12.1	29.0	21.1	21.7	42.8	38.0	33.8	71.8	59.7	458
30-34	8.0	18.3	26.2	16.4	34.0	50.4	24.4	52.3	76.7	65.8	492
35-39	3.9	25.6	29.5	6.4	40.5	46.9	10.3	66.0	76.4	61.4	517
40-44	2.4	23.9	26.3	2.4	43.3	45.7	4.8	67.2	72.0	63.4	460
45-49	0.5	27.0	27.6	0.9	31.8	32.7	1.4	58.8	60.3	54.3	429
Residence											
Total Urban	9.3	19.4	28.7	14.5	28.5	43.0	23.8	47.9	71.7	60.0	649
Georgetown (urban)	10.0	19.5	29.5	16.3	27.2	43.5	26.3	46.7	73.0	59.6	392
Other (urban)	8.4	19.2	27.5	11.6	30.6	42.2	20.0	49.8	69.8	60.5	257
Total Rural	9.5	18.9	28.4	11.7	30.7	42.3	21.2	49.6	70.7	59.9	2,271
Total Coastal	9.4	17.9	27.3	13.0	31.0	44.0	22.4	49.0	71.3	61.7	2,562
Coastal (urban)	9.3	19.4	28.7	14.5	28.5	43.0	23.8	47.9	71.7	60.0	649
Coastal (rural)	9.4	17.4	26.8	12.5	31.9	44.4	21.9	49.3	71.2	62.3	1,913
Total Interior	9.9	26.8	36.7	7.2	24.2	31.4	17.1	51.0	68.1	46.1	357
Region											
Region 1	9.5	36.0	45.5	3.1	19.2	22.2	12.6	55.2	67.8	32.8	128
Region 2	7.8	26.1	33.9	9.0	31.8	40.8	16.8	58.0	74.7	54.6	192
Region 3	9.5	16.0	25.5	18.7	30.9	49.6	28.2	46.9	75.1	66.0	424
Region 4	9.6	17.5	27.1	13.6	27.5	41.1	23.2	45.0	68.2	60.3	1,121
Region 5	10.6	17.8	28.4	10.5	37.9	48.4	21.1	55.7	76.8	63.0	218
Region 6	8.0	18.6	26.6	9.7	34.6	44.3	17.7	53.2	70.9	62.5	523
Region 7	11.3	23.9	35.2	10.8	23.8	34.6	22.1	47.7	69.8	49.6	65
Region 8	10.3	19.2	29.5	12.8	31.0	43.8	23.1	50.2	73.3	59.7	71
Region 9	11.7	21.9	33.6	4.2	14.4	18.6	15.8	36.3	52.2	35.6	57
Region 10	11.9	14.4	26.3	11.7	38.7	50.4	23.6	53.1	76.7	65.7	121
Education											
No education	9.8	30.7	40.5	0.4	21.5	21.9	10.2	52.2	62.4	35.1	62
Primary	5.6	23.9	29.4	5.1	35.3	40.4	10.7	59.2	69.9	57.9	746
Secondary	10.3	17.2	27.5	14.5	29.1	43.6	24.8	46.3	71.1	61.3	1,938
More than secondary	17.0	13.8	30.7	22.4	23.9	46.3	39.3	37.7	77.0	60.1	173
Wealth quintile											
Lowest	12.2	26.3	38.4	6.3	26.5	32.8	18.4	52.8	71.2	46.0	554
Second	7.8	20.4	28.2	11.0	30.2	41.2	18.8	50.6	69.4	59.4	576
Middle	10.0	15.6	25.6	13.3	31.7	45.0	23.3	47.3	70.6	63.7	592
Fourth	9.3	17.5	26.8	14.4	29.3	43.7	23.8	46.7	70.5	62.0	610
Highest	8.2	15.8	24.0	16.0	33.2	49.1	24.1	49.0	73.1	67.2	589
Total	9.5	19.0	28.5	12.3	30.2	42.5	21.8	49.2	71.0	59.9	2,920

Note: "Currently married" includes women in consensual union (living together).

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

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

Figure 7.3 Components of the Unmet Need for Family Planning

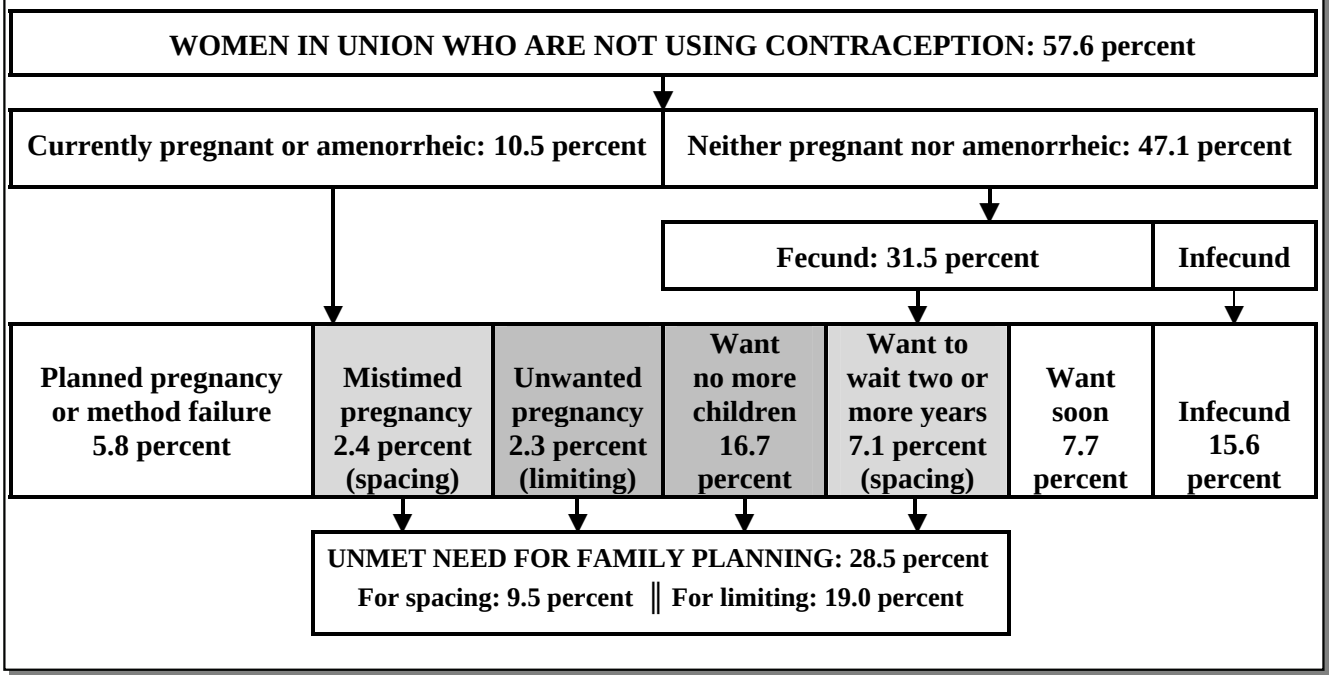
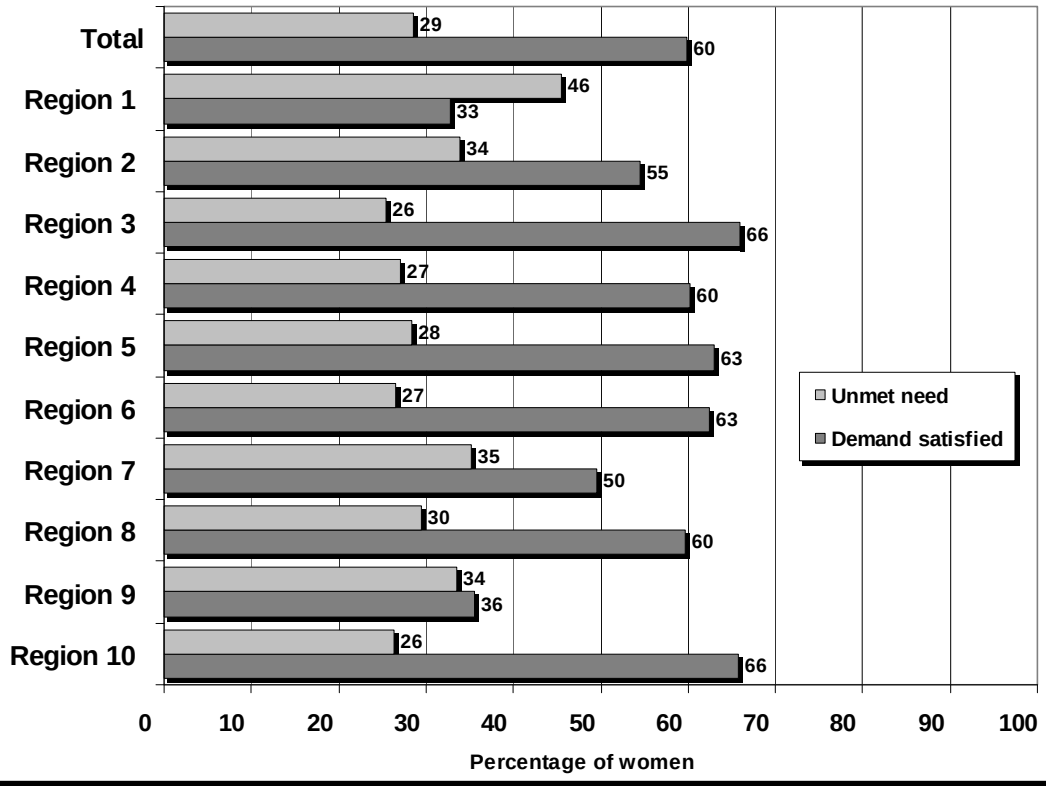


Figure 7.4 Women with Unmet Need and Demand Satisfied, by Region



7.4 IDEAL FAMILY SIZE

Respondents were asked to consider a hypothetical situation independent of their current family size and to report the number of children they would choose to have. Information on what women and men believe to be the ideal family size was elicited through two questions. Respondents who had no living children were asked, "If you could choose exactly the number of children to have in your whole life, how many would that be?" Respondents who had children were asked, "If you could go back to the time you did not have any children and could choose exactly the number of children to have in your whole life, how many would that be?" Nevertheless, even though these questions are based on hypothetical situations, they give an idea of the total number of children women who have not started childbearing will have in the future, while among older women and high parity women this information provides a measure of the level of unwanted fertility.

Table 7.4 presents the percent distribution of all women and all men age 15-49 by ideal number of children, and mean ideal number of children for all respondents and for currently married respondents, according to number of living children. There is usually a correlation between actual and ideal number of children. The reason is twofold. First, to the extent that women implement their preferences, those who want larger families will tend to achieve larger families. Second, women may adjust upwards their ideal size of family as the actual number of children increases (i.e., rationalization). It is also possible that women with large families, being on average older than women with small families, have larger ideal sizes because of attitudes that they developed 20 to 30 years ago.

- The mean ideal number of children for all women age 15-49 is 2.9, while for men age 15-49 it is 3.3, indicating that men's ideal number of children is slightly higher than women's ideal number of children. Currently married women and currently married men prefer larger ideal family sizes (3.1 and 3.5, respectively) than all women and all men. There are two likely reasons for this pattern. First, to the extent that women and men are able to implement their fertility preferences, those who want smaller families will tend to achieve smaller families. At the same time, however, some women and men who already have children may find it difficult to say that they would have preferred to have had fewer children than they have. These women and men are likely to report the number of children they have as their preferred number of children.
- In general, women and men have similar patterns regarding ideal number of children. The preferences converge around three children. For example, 24 percent of all women and 26 percent of all men consider three children to be ideal, and 15 percent each of women and men consider four children to be ideal. There are no major gender differences as the ideal number of children increases. However, the percentage of respondents who want five or more children is quite low (3 to 8 percent).
- The preference for a larger family size is higher for men than women, irrespective of the number of living children. The mean ideal number of children generally increases with the number of living children. Among all women, the ideal number of children ranges from 2.5 for those with no children to 4.2 for those with six or more children. As with women, the mean ideal number of children among all men also tends to increase with the number of children (with some slight fluctuations), from 2.8 for men with no children to 5.7 for men with six or more children.

Table 7.4 Ideal number of children

Percent distribution of all women and all men age 15-49 by ideal number of children, and mean ideal number of children for all respondents and for currently married respondents, according to number of living children, Guyana 2009

	Number of living children[1]							
Ideal number of children	0	1	2	3	4	5	6+	Total
				WOMEN[1]				
0	3.4	2.0	1.7	0.8	2.3	2.9	7.6	2.5
1	6.2	9.5	4.3	4.2	3.4	1.1	2.1	5.4
2	50.3	43.0	46.5	26.2	32.3	22.4	17.1	40.2
3	24.9	27.8	25.1	33.4	9.6	13.6	13.1	24.4
4	8.7	10.7	14.9	22.7	31.5	15.3	17.7	15.0
5	2.2	3.3	2.1	4.6	7.8	22.0	5.3	4.3
6+	1.6	1.9	3.6	5.6	9.1	16.5	29.2	5.4
Non-numeric responses	2.6	1.8	1.7	2.5	3.9	6.1	7.9	2.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	1,532	865	937	766	408	228	261	4,996
Mean ideal number children[2]								
All women	2.5	2.6	2.8	3.2	3.4	4.1	4.2	2.9
Number of women	1,492	850	921	746	392	214	240	4,855
Currently married women	2.5	2.6	2.7	3.1	3.4	4.4	4.2	3.1
Number of women	257	544	706	608	325	177	218	2,834
				MEN[3]				
0	5.8	3.4	3.6	3.6	4.6	3.3	1.4	4.6
1	2.3	5.1	1.9	2.2	1.7	1.1	1.0	2.5
2	40.4	37.6	46.5	11.2	18.9	16.4	11.7	33.9
3	29.7	28.4	19.9	36.3	8.1	15.8	11.4	26.3
4	12.4	11.5	15.3	18.6	38.6	15.0	13.1	15.3
5	3.1	3.7	6.3	12.4	10.6	22.9	8.5	6.2
6+	4.0	6.6	5.8	11.4	13.6	15.1	43.2	8.1
Non-numeric responses	2.1	3.7	0.7	4.3	3.8	10.4	9.8	3.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of men	1,594	472	520	439	232	125	140	3,522
Mean ideal number children[2]								
All men	2.8	3.3	2.9	4.1	3.9	4.3	5.7	3.3
Number of men	1,560	455	516	421	223	112	126	3,413
Currently married men	2.6	3.2	2.9	4.0	3.8	4.1	5.6	3.5
Number of men	208	328	445	374	189	98	119	1,761

Note: "Currently married" includes respondents in consensual union (living together).
[1] Number of living children includes current pregnancy
[2] Means are calculated excluding respondents giving non-numeric responses.
[3] The number of living children includes one additional child if respondent's wife/partner is pregnant (or if any wife/partner is pregnant for men with more than one current wife/partner).

7.5 FERTILITY PLANNING STATUS

Women were asked a series of questions about all their children born in the five years preceding the survey, as well as questions about any current pregnancy, to determine whether the pregnancy was planned, mistimed, or unwanted. The answers to these questions provide insight into the degree to which couples are able to control their fertility.

Table 7.5 shows the percent distribution of births (including current pregnancy) in the five years preceding the survey by fertility planning status, according to birth order and mother's age at birth.

- Eighteen percent of births in the five years preceding the surveys (and current pregnancies) were unwanted, and 22 percent were wanted later.
- The proportion of births that are unwanted increases with age of the mother at the time of the child's birth and with the birth order. For example, 10 percent of births to mothers age 15-24 are unwanted compared with 54 percent for mothers age 40-44. Only 5 percent of first births are unwanted compared with 40 percent of births of fourth parity or higher.

Table 7.5 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, Guyana 2009

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	68.0	25.5	5.4	1.0	100.0	686
2	65.1	24.4	9.1	1.4	100.0	522
3	58.2	18.8	20.2	2.7	100.0	357
4+	41.1	16.1	39.7	3.2	100.0	535
Mother's age at birth						
<20	56.5	31.8	10.4	1.3	100.0	489
20-24	64.1	23.8	9.5	2.5	100.0	627
25-29	58.7	21.3	19.4	0.6	100.0	423
30-34	56.5	14.3	28.0	1.2	100.0	334
35-39	56.3	6.1	34.0	3.6	100.0	186
40-44	35.1	5.1	54.3	5.5	100.0	34
45-49	*	*	*	*	*	7
Total	58.8	21.7	17.6	1.9	100.0	2,101

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

7.6 WANTED FERTILITY RATES

The potential demographic impact of avoiding unwanted births can be estimated by calculating the wanted fertility rate. Unwanted births are defined as births that exceed the number considered ideal. Women who did not report a numeric ideal family size were assumed to want all their births. The total wanted fertility rate represents the level of fertility that would have prevailed in the three years preceding the survey if all unwanted births were prevented. A comparison of the total wanted fertility and total fertility rate suggests the potential demographic impact of the elimination of unwanted births.

Table 7.6 provides information on total "wanted" fertility rates and total fertility rates for the three years preceding the survey, by background characteristics.

- The total wanted fertility rate in Guyana is 2.1 children, 25 percent lower than the observed fertility rate (2.8 children).
- The gap between the observed and the wanted fertility rates is the largest in the Interior area, and is almost two children in difference (wanted fertility rate of 4.1 children; total fertility rate of 6.0 children).

- Among regions, the difference between wanted and observed fertility is highest in Region 1 (2.5 children) and lowest in Region 3 (0.3 children).
- The largest gap is observed among women with no education: 2.6 children (wanted fertility rate of 3.3 children; total fertility rate of 5.9 children). The gap between wanted and observed fertility declines with increasing education.
- The gap among women in the poorest quintile is 2.6 children (wanted fertility rate of 3.3 children; total fertility rate of 5.9 children). The gap also decreases with increasing wealth of the household.

Table 7.6 Wanted fertility rates

Total wanted fertility rates and total fertility rates for the three years preceding the survey, by background characteristics, Guyana 2009

Background characteristic	Total wanted fertility rate	Total fertility rate
Residence		
Total Urban	1.7	2.1
Georgetown (urban)	1.5	2.0
Other (urban)	1.9	2.3
Total Rural	2.3	3.0
Total Coastal	1.9	2.4
Coastal (urban)	1.7	2.1
Coastal (rural)	2.0	2.5
Total Interior	4.1	6.0
Region		
Region 1	4.4	6.9
Region 2	2.0	2.7
Region 3	2.1	2.4
Region 4	1.8	2.3
Region 5	2.2	3.0
Region 6	1.7	2.3
Region 7	3.5	4.9
Region 8	4.3	6.1
Region 9	4.2	5.7
Region 10	2.3	3.0
Education		
No education	(3.3)	(5.9)
Primary	2.6	3.8
Secondary	2.2	2.7
More than secondary	1.4	1.7
Wealth quintile		
Lowest	3.3	4.9
Second	2.0	2.8
Middle	2.1	2.7
Fourth	1.8	2.1
Highest	1.5	1.9
Total	2.1	2.8

Note: Rates are calculated based on births to women age 15-49 in the period 1 to 36 months preceding the survey. The total fertility rates are the same as those presented in Table 4.2. Figures in parentheses are based on 125 to 249 unweighted person-years of exposure.

INFANT AND CHILD MORTALITY 8

This chapter presents estimates on levels, trends, and differentials in neonatal, post-neonatal, infant, child, and under-age 5 mortality in Guyana. The information used to measure these childhood mortality rates was collected from the birth history section of the Women's Questionnaire. Women of reproductive age (15-49) were asked a series of questions including the number of biological sons and daughters living with them, the number living elsewhere, and the number who have died. In addition, for each live birth, women were asked to provide information on the sex, date of birth, whether the birth was single or multiple, and whether the child survived. Current age was collected for living children, and age at death was collected for dead children.

Infant and child mortality rates are basic indicators of a country's socioeconomic situation and quality of life, as well as specific measures of health status. Measures of childhood mortality are also useful in population projections and monitoring and evaluating population and health programs and policies. Characteristics of childhood mortality such as age patterns and socioeconomic and demographic differentials are used to highlight factors that have positive or negative impacts on child survival. Analysis of mortality measures is useful in identifying promising directions for health programs and improving child survival efforts in Guyana.

8.1 DEFINITION, DATA QUALITY, AND METHODOLOGY

Childhood mortality estimates in DHS surveys measure the risk of dying from birth through age five. The rates of childhood mortality presented in this chapter are defined as follows:

Neonatal mortality (NN): the probability of dying between birth and the first month of life

Post-neonatal mortality (PNN): the difference between infant and neonatal mortality

Infant mortality ($_1q_0$): the probability of dying between birth and exact age 1

Child mortality ($_4q_1$): the probability of dying between exact age 1 and exact age 5

Under-age 5 mortality ($_5q_0$): the probability of dying between birth and exact age 5.

All rates are expressed per 1,000 live births, except child mortality, which is expressed per 1,000 children surviving to age 12 months. A detailed description of the method for calculating the probabilities of dying presented in this chapter is given in Rutstein et al (Rutstein et al, 1984).

The reliability of mortality estimates depends on the sampling variability of the estimates and on non-sampling errors. Sampling errors for the 2009 GDHS are presented in Appendix B. Non-sampling errors arise from problems associated with the quality of data collection and include the completeness with which births and deaths are reported and recorded. The most common problems are misreporting of age at death, misreporting of date of birth, and event underreporting (of both the birth and death of a child). The possible occurrence of these data problems in the 2009 GDHS is discussed with reference to the data quality tables in Appendix C.

The reliability of the mortality estimates is affected by the completeness of the reporting of deaths, the degree of displacement of birth dates of surviving and dead children, and the extent to which age at death is accurately reported. Heaping of age at death at 12 months in the 2009 GDHS was not

common (see Appendix C, Table C.6). Also, sometimes interviewers recorded deaths at "1 year," even though instructions required them to record deaths under 2 years of age in months. An unknown fraction of these deaths may have actually occurred before the first birthday. Thus, the infant mortality rate may be biased downward somewhat, and child mortality may be biased upward; under-age 5 mortality would be unaffected. Yet, earlier simulation studies using DHS data from other countries indicate that while age at death misreporting is troublesome, the type and magnitude of that observed in the 2009 GDHS is unlikely to result in biases of more than 5 percent (Sullivan et al, 1990). The rates presented here are thus unadjusted; that is, all deaths reported at 12 months or "1 year" are assigned to the post-infant age period.

Event underreporting is usually more severe for deaths that occur early in infancy. Omission of deaths may also be more common among women who have had several children or in cases where the death took place a long time ago. To assess the impact of omission on measures of child mortality, two indicators are used: (1) the percentage of deaths that occurred under seven days compared with the number that occurred under one month, and (2) the percentage of neonatal deaths compared with the percentage of infant deaths. It is hypothesized that omission will be more prevalent for children who died immediately after birth than for those who lived longer and that omission will be more serious for events that took place in the distant past than for those occurring in the recent past. Table C.5 shows that the percentage of early neonatal deaths ranges from 82 percent (for the period 10 to 14 years preceding the survey) to 91 percent (for the period 0 to 4 years before the survey). Similarly, Table C.6 shows that neonatal deaths comprise 62 to 75 percent of all infant deaths. These figures are considered plausible.[1] Over time, the figures vary within a narrow range for the 20 years preceding the survey, suggesting that there has not been selective omission of early infant deaths.

In addition to recall errors for the more distant retrospective periods, there are structural reasons for limiting mortality estimation to recent periods, preferably to the periods 0-4, 5-9, and 10-14 years before the survey. In fact, except for the first period (0-4 years), the others are slightly biased estimates because they are based on the child mortality experiences of women age 15-44 and age 15-39, respectively, instead of women age 15-49 as in the period 0-4 years preceding the survey. Therefore, estimating mortality for periods more than 10 to 15 years before the survey is not advisable.

8.2 CURRENT ESTIMATES OF INFANT AND CHILD MORTALITY

Table 8.1 presents mortality rates for cohorts of children born in three five-year periods preceding the survey.

- Childhood mortality rates in Guyana are relatively low. For every 1,000 live births, 38 children die during the first year of life (infant mortality) and 40 children die during the first five years (under-age 5 mortality).
- Almost two-thirds of deaths in the first five years (25 deaths per 1,000 live births) take place during the neonatal period (first month of life).
- The mortality rate after the first year of life up to age 5 (child mortality) is also very low, 3 deaths per 1,000 live births.
- Trends in mortality can be examined in two ways: by comparing mortality rates for three five-year periods preceding a single survey and by comparing mortality estimates obtained from various surveys. However, mortality data have to be interpreted with caution because sampling errors associated with mortality estimates are large. The 2009 GDHS mortality data do not show any clear trends over time.

[1] There 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 days of life (Boerma, 1988).

Table 8.1 Early childhood mortality rates

Neonatal, postneonatal, infant, child and under age 5 mortality rates for five-year periods preceding the survey, Guyana 2009

Years preceding the survey	Approximate calendar years[1]	Neonatal mortality (NN)	Postneonatal mortality[2] (PNN)	Infant mortality ($_1q_0$)	Child mortality ($_4q_1$)	Under-five mortality ($_5q_0$)
0-4	2004-2009	25	12	38	3	40
5-9	1999-2004	19	13	32	6	38
10-14	1994-1999	28	11	38	3	42

[1] Because survey fieldwork was conducted from February through late July 2009, the rates for the five-year period 2004-2009 actually apply to the calendar period from mid-2004 to mid-2009; the same mid-year cutoff applies to the other rates.
[2] Computed as the difference between the infant and the neonatal mortality rates

8.3 DIFFERENTIALS IN INFANT AND CHILD MORTALITY

Child survival is closely related to socioeconomic and demographic characteristics of mothers and children. Table 8.2 shows differentials in childhood mortality by four socioeconomic variables: residence, region, mother's education, and household wealth status (quintile). Additionally, Figure 8.1 displays infant mortality rates by place of residence and wealth quintile. Studies have also shown that a number of demographic factors are strongly associated with the survival chances of young children. These factors include sex of child, age of mother at birth, birth order, length of preceding birth interval, and size of child at birth. Table 8.3 shows the relationship between childhood mortality and these demographic variables. For all variables except birth size, mortality estimates are calculated for the 10-year period preceding the survey to reduce sampling variability. Mortality rates by birth size are for the five-year period preceding the survey because information on birth size was collected only for children born in the past five years. The 10-year period was selected to include a sufficient number of cases to study differentials across population groups and to lower sampling errors. However, it is useful to keep in mind that even for the 10-year period, sampling errors remain quite large. For example, the infant mortality estimate for rural areas is 32 deaths per 1,000 live births, with a 95 percent confidence interval of 25 and 38 deaths per 1,000 live births. This indicates that, given the sample size of the 2009 GDHS, the true value of the infant mortality rate may be 7 points higher or lower than the estimated rate of 32 deaths per 1,000 (see Table B.4.2).

- Surprisingly, all indicators of childhood mortality are higher in the Urban than in the Rural areas. For example, infant mortality is 45 deaths per 1,000 live births in Urban areas and 32 deaths per 1,000 live births in Rural areas. Childhood mortality is higher in the Coastal than in the Interior area for most indicators. The infant mortality rate is 37 deaths per 1,000 live births in the Coastal area compared with 27 deaths per 1,000 live births in the Interior area. Early childhood mortality is generally lower among children in the poorer quintiles and higher among children in the wealthier quintiles. For example, children in the wealthiest quintile are more likely to die during the first year of life (44 deaths per 1,000 live births) than children in poor households (25 deaths per 1,000 live births). The patterns in childhood mortality by mother's education are not clear due to the small number of cases under each education category.
- Mortality rates among children born to the oldest mothers (age 30-39) are almost twice as high as mortality rates among children born to youngest mothers. Furthermore, higher-parity children (parity 7 or higher) have higher childhood mortality rates than children of birth orders 2 through 6. Short birth intervals (i.e., less than two years) are clearly associated with higher mortality both during and after infancy, supporting the importance of child spacing for child survival.

Table 8.2 Early childhood mortality rates by socioeconomic characteristics

Neonatal, postneonatal, infant, child, and under-age 5 mortality rates for the 10-year period preceding the survey, by background characteristics, Guyana 2009

Background characteristic	Neonatal mortality (NN)	Postneonatal mortality[1] (PNN)	Infant mortality ($_1q_0$)	Child mortality ($_4q_1$)	Under-5 mortality ($_5q_0$)
Residence					
Total Urban	26	19	45	1	46
Georgetown (urban)	(22)	(19)	(40)	(0)	(40)
Other (urban)	32	20	52	1	54
Total Rural	21	11	32	6	37
Total Coastal	24	13	37	5	41
Coastal (urban)	26	19	45	1	46
Coastal (rural)	24	10	33	6	39
Total Interior	13	13	27	5	31
Mother's education					
No education	*	*	*	*	*
Primary	22	19	41	7	48
Secondary	22	10	32	4	36
More than secondary	*	*	*	*	*
Wealth quintile					
Lowest	14	11	25	7	32
Second	28	9	36	11	47
Middle	27	6	34	0	34
Fourth	20	22	42	1	43
Highest	(25)	(19)	(44)	(0)	(44)

Note: Rates in parentheses are based on 250 to 499 unweighted exposed persons. An asterisk indicates that a rate is based on fewer than 250 unweighted exposed persons and has been suppressed.
[1] Postneonatal mortality is computed as the difference between the infant and the neonatal mortality rates.

Figure 8.1 Infant Mortality Rates for the 10-Year Period Preceding the Survey, by Residence and Wealth Quintile

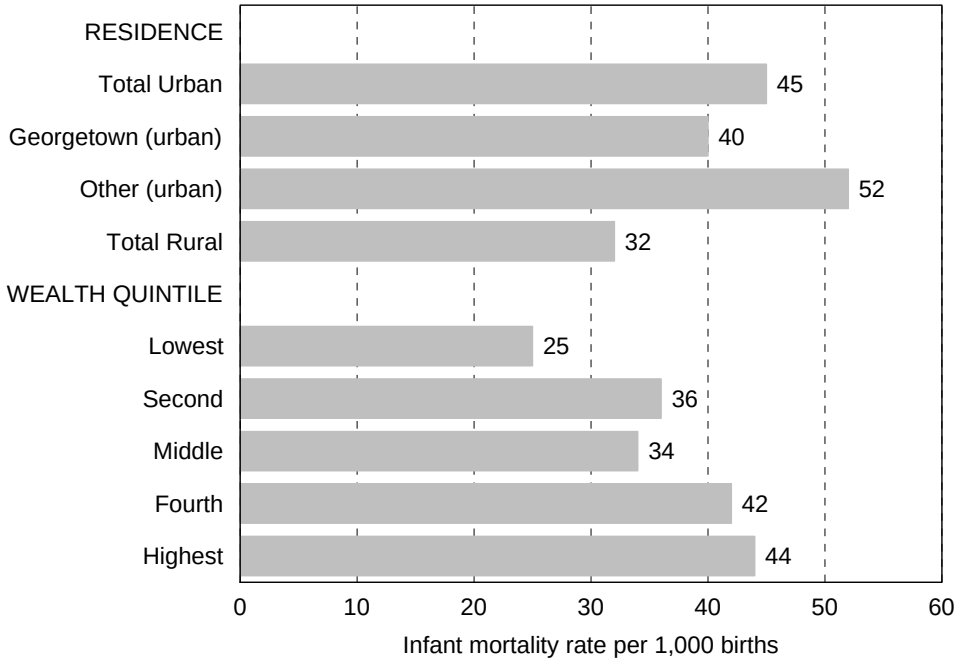


Table 8.3 Early childhood mortality rates by demographic characteristics

Neonatal, postneonatal, infant, child, and under-5 mortality rates for the 10-year period preceding the survey, by demographic characteristics, Guyana 2009

Demographic characteristic	Neonatal mortality (NN)	Postneonatal mortality[1] (PNN)	Infant mortality ($_1q_0$)	Child mortality ($_4q_1$)	Under-5 mortality ($_5q_0$)
Child's sex					
Male	24	12	36	4	40
Female	20	13	34	5	38
Mother's age at birth					
<20	21	7	28	5	33
20-29	16	10	26	4	29
30-39	33	20	53	5	58
40-49	*	*	*	*	*
Birth order					
1	26	8	33	3	37
2-3	18	13	31	4	35
4-6	23	16	39	6	45
7+	(28)	(23)	(51)	(12)	(62)
Previous birth interval[2]					
<2 years	21	15	36	6	42
2 years	17	10	27	8	35
3 years	(7)	(28)	(35)	(1)	(35)
4+ years	29	13	41	4	45
Birth size[3]					
Small/very small	38	9	47	na	na
Average or larger	14	7	21	na	na

Note: Rates in parentheses are based on 250 to 499 unweighted exposed persons. An asterisk indicates that a rate is based on fewer than 250 unweighted exposed persons and has been suppressed.
na = Not applicable
[1] Postneonatal mortality is computed as the difference between the infant and the neonatal mortality rates.
[2] Excludes first-order births
[3] Rates for the five-year period before the survey

8.4 PERINATAL MORTALITY

The perinatal mortality rate serves as a good indicator of the state of health of a population generally, and at delivery in particular. It reflects the level of utilization of health services and the ability of women to cope with the demands of childbirth to deliver a healthy baby. Women in the 2009 GDHS were asked to report on any pregnancy loss that occurred in the five years preceding the survey. For each pregnancy that did not end in a live birth, the duration of pregnancy was recorded. In this report, perinatal deaths include pregnancy losses of at least seven months' gestation (stillbirths) and deaths among live births that occurred within the first seven days of life (early neonatal deaths). The perinatal mortality rate is the sum of stillbirths and early neonatal deaths divided by the sum of all stillbirths and live births. Information on stillbirths and infant deaths that occurred within the first week of life is highly susceptible to omission and misreporting. However, retrospective surveys such as the 2009 GDHS generally provide more representative and accurate perinatal death rates than the vital registration system.

Table 8.4 presents the level of perinatal mortality for Guyana by various background characteristics.

- A total of 1,908 neonatal pregnancies of seven or more months' duration were reported for the five years preceding the survey. Of these, 28 ended in stillbirths and 38 in neonatal deaths, thus giving a perinatal mortality rate of 34 deaths per 1,000 pregnancies.
- The highest perinatal mortality risk is observed among mothers age 30-49 years (51 deaths per 1,000 pregnancies) when compared with mothers under age 30 (27 to 32 deaths per 1,000 pregnancies).
- Perinatal mortality is higher in urban areas (40 deaths per 1,000 pregnancies) compared with rural areas (33 deaths per 1,000 pregnancies) and in the Coastal area (39 deaths per 1,000 pregnancies) compared with the Interior area (17 deaths per 1,000 pregnancies). The number of cases for each region was too small for meaningful analysis.
- Perinatal mortality is relatively low for pregnancies in the lowest quintile (24 deaths per 1,000 pregnancies), after which it increases sharply in the second quintile (59 deaths per 1,000 pregnancies), and it declines thereafter with increasing wealth.

Table 8.4 Perinatal mortality

Number of stillbirths and early neonatal deaths, and the perinatal mortality rate for the five-year period preceding the survey, by background characteristics, Guyana 2009

Background characteristic	Number of stillbirths[1]	Number of early neonatal deaths[2]	Perinatal mortality rate[3]	Number of pregnancies of seven or more months duration
Mother's age at birth				
<20	(3)	(11)	(32)	460
20-29	13	12	27	935
30-49	11	15	51	513
Previous pregnancy interval in months[4]				
First pregnancy	9	13	39	586
<15	*	*	*	131
15-26	(1)	(5)	(15)	367
27-38	(0)	(5)	(17)	274
39+	16	14	53	549
Residence				
Total Urban	(7)	(10)	(40)	431
Georgetown (urban)	(3)	(6)	(33)	268
Other (urban)	*	*	*	163
Total Rural	21	27	33	1,476
Total Coastal	26	33	39	1,497
Coastal (urban)	(7)	(10)	(40)	431
Coastal (rural)	19	23	39	1,066
Total Interior	(2)	(5)	(17)	410
Mother's education				
No education	*	*	*	58
Primary	(5)	(6)	(27)	421
Secondary	19	31	38	1,296
More than secondary	*	*	*	132
Wealth quintile				
Lowest	6	7	24	551
Second	(11)	(13)	(59)	407
Middle	(6)	(7)	(36)	354
Fourth	(5)	(5)	(34)	297
Highest	(0)	(5)	(18)	298
Total	28	38	34	1,908

Note: Figures in parentheses are based on 250 to 499 unweighted pregnancies of seven or more months in duration. An asterisk indicates that a figure is based on fewer than 250 unweighted pregnancies of seven or more months in duration and has been suppressed.

[1] Stillbirths are fetal deaths in pregnancies lasting seven or more months.

[2] Early neonatal deaths are deaths at age 0-6 days among live-born children.

[3] The sum of the number of stillbirths and early neonatal deaths divided by the number of pregnancies of seven or more months in duration, expressed per 1,000

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

8.5 HIGH-RISK FERTILITY BEHAVIOR

The survival of infants and children depends in part on the demographic and biological characteristics of their mothers. These characteristics are of particular importance because many health problems are easily avoidable at a relatively low cost. Infants and children have an elevated risk of dying if their mothers are too young (under 18 years of age) or too old (35 years or older), if they are born after too short a birth interval (less than 24 months), and if they are of high birth order (mother has three or more children). Although first births are commonly associated with higher mortality risk, they are not included in the high-risk category because the risks associated with first births are unavoidable.

Table 8.5 shows the percent distribution of children born in the five years preceding the survey and the percent distribution of currently married women, by risk factors. The table also shows the risk ratio (of dying) for children, by comparing the proportion of dead children in each risk category with the proportion of dead children not in any high-risk category.

Table 8.5 and Figure 8.2 show the percentage of births in the five years preceding the survey that fall into the various risk categories.

- Twenty-eight percent of all children in Guyana are not in a *high-risk category*, and 24 percent are in an *unavoidable risk category*. As a result, almost half the children in Guyana (48 percent) are in the so-called *avoidable high-risk categories*.
- Most of the births in the avoidable high-risk category are in the *single high-risk category* (34 percent): 13 percent are due to high birth orders (birth order of four or higher); for 9 percent, the mother was too young (less than 18 years of age); for another 9 percent, the birth was too soon after a previous birth (less than 24 months), and for 4 percent, the mother was too old (35 years of age or older).
- Fourteen percent of children in an avoidable high-risk category are classified in the *multiple high-risk category*, mostly because the mother is 35 years or older and the birth order is high (6 percent), but also because of a short birth interval and a high birth order (5 percent). The latter group of children is of particular concern because they are almost five times more likely to die than children who are not in any high-risk category (the risk ratio is 4.5).
- The births in high-risk categories are associated with 68 percent of the mothers, divided similarly in single high-risk and multiple high-risk categories (33 and 35 percent, respectively). The majority of mothers in the single-risk category (16 percent) are too old or have more than three births (11 percent). The majority of mothers in the multiple high-risk category are 35 years or older and have more than three births (28 percent).

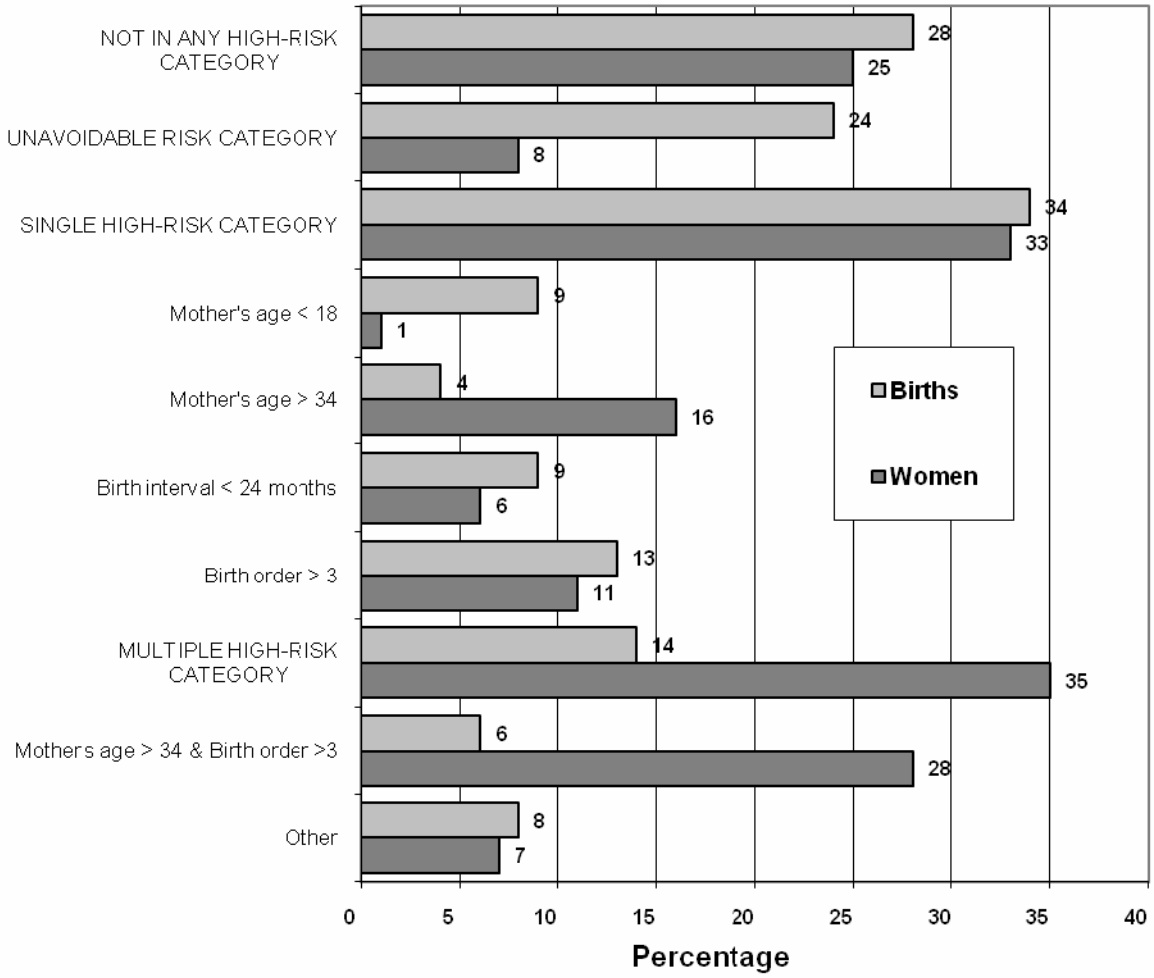
Table 8.5 High-risk fertility behavior

Percent distribution of children born in the five years preceding the survey by category of elevated risk of dying and the risk ratio, and the percent distribution of currently married women by category of risk if they were to conceive a child at the time of the survey, Guyana 2009

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	**27.8**	**1.00**	**24.9**[a]
Unavoidable risk category			
First order births between ages 18 and 34 years	**24.1**	**0.42**	**7.6**
In any avoidable high-risk category	**48.1**	**1.01**	**67.5**
Single high-risk category	*34.0*	*0.70*	*32.8*
Mother's age <18	8.8	1.20	0.5
Mother's age >34	3.6	0.22	16.0
Birth interval <24 months	8.5	0.51	5.9
Birth order >3	13.0	0.63	10.5
Multiple high-risk category	*14.1*	*1.76*	*34.6*
Age <18 and birth interval <24 months	1.9	0.49	0.2
Age >34 and birth interval <24 months	0.2	0.00	0.4
Age >34 and birth order >3	6.0	2.39	27.6
Age >34 and birth interval <24 months and birth order >3	1.2	4.53	1.9
Birth interval <24 months and birth order >3	4.7	0.83	4.5
Total	100.0	na	100.0
Number of births/women	1,886	na	2,920

Note: Risk ratio is the ratio of the proportion dead of births in a specific high-risk category to the proportion dead of 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 occurred less than 15 months ago, or latest birth being of order 3 or higher.
[2] Includes the combined categories age <18 and birth order >3
[a] Includes sterilized women

Figure 8.2 Births in the Last Five Years and Women in Categories of High-risk Fertility Behavior



REPRODUCTIVE HEALTH 9

The health care that a mother receives during pregnancy, at the time of delivery, and soon after delivery is important for the survival and well-being of both the mother and her child. This chapter presents findings on several areas related to maternal health—antenatal, delivery, and postnatal care—and also highlights problems in accessing care. These findings are important for designing appropriate strategies and interventions to improve maternal and newborn health care services.

9.1 ANTENATAL CARE

The major objective of antenatal care (ANC) is to identify and treat problems during pregnancy such as anemia and infection. It is during an antenatal care visit that screening for complications and advice on a range of issues, including birth preparedness, place of delivery, and referral of mothers with complications, occurs. Collecting information on antenatal care can be of great value in identifying subgroups of women who do not use such services and is useful in planning improvements in the services. The antenatal care findings from the 2009 Guyana Demographic and Health Survey (GDHS) provide information on the type of service provider, the number of antenatal care visits, the stage of pregnancy at the time of the first visit, and the services and information provided during antenatal care, including whether tetanus toxoid was received.

Table 9.1 presents the percent distribution of women age 15-49 who had a live birth in the five years preceding the survey. The women are categorized by the type of antenatal care provider consulted during the pregnancy for the most recent birth and according to their background characteristics. If a woman received antenatal care from more than one provider, the provider with the highest qualifications was recorded.

- Among women who had a birth in the five years preceding the survey, 92 percent received antenatal care from a health professional for their most recent birth, 51 percent from a nurse/midwife and 35 percent from a doctor.
- Older mothers age 35-49 (87 percent) are somewhat less likely to receive antenatal care than younger mothers (92 to 93 percent). Women who had six or more births (77 percent) are significantly less likely to receive antenatal care from a skilled provider than women with fewer births (91 to 94 percent).
- Urban women are more likely than rural women to have received antenatal care from a health professional (98 and 90 percent, respectively). Antenatal care was received by only 78 percent of women in the Interior area compared with 95 percent of women in the Coastal area. While antenatal care from a skilled provider is almost universal among women in Regions 3, 4, 5, 6 and 10, only 35 percent of women in Region 9 had antenatal care from a skilled provider (with 42 percent of women in Region 9 having received ANC by a community health worker).
- Eighty-six percent of women with no education received antenatal care from a health professional compared with 95 percent of women with more than secondary education. Similarly, the percentage of women who received ANC from a health professional increased steadily from 79 percent of women in the poorest wealth quintile to 98 percent of those in the highest wealth quintile.
- Doctors provide ANC for 53 percent of women in Region 4 compared with only 6 percent of women in Region 1. Nurses/midwives provide antenatal care for a large proportion of women in Region 6 (79 percent) and Region 1 (70 percent) compared with 15 percent of women in Region 9.

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 and the percentage receiving antenatal care from a skilled provider for the most recent birth, according to background characteristics, Guyana 2009

Background characteristic	Antenatal care provider						No one	Missing	Total	Percentage receiving antenatal care from a skilled provider[1]	Number of women
	Doctor	Nurse/ midwife	Auxiliary nurse/ midwife	Medex	Community health worker	Other					
Mother's age at birth											
<20	27.2	56.2	0.1	8.9	4.0	0.4	3.1	0.3	100.0	92.3	302
20-34	35.0	51.9	0.4	5.7	4.1	1.3	1.5	0.1	100.0	93.0	944
35-49	44.2	39.1	0.0	3.3	7.8	1.4	2.9	1.2	100.0	86.7	179
Birth order											
1	37.2	50.7	0.4	5.8	2.9	0.0	3.1	0.0	100.0	94.0	454
2-3	36.0	51.7	0.3	6.2	3.5	1.3	0.8	0.3	100.0	94.1	614
4-5	32.3	52.7	0.0	5.8	6.2	1.7	1.3	0.0	100.0	90.8	231
6+	21.4	48.2	0.2	7.4	12.3	3.1	5.7	1.7	100.0	77.2	126
Residence											
Total Urban	50.9	45.4	0.0	1.7	0.3	0.2	1.5	0.0	100.0	98.0	346
Georgetown (urban)	57.2	41.6	0.0	0.0	0.0	0.0	1.2	0.0	100.0	98.8	223
Other (urban)	39.5	52.4	0.0	4.8	0.7	0.5	2.1	0.0	100.0	96.6	123
Total Rural	29.2	53.1	0.4	7.5	5.9	1.4	2.2	0.4	100.0	90.1	1,080
Total Coastal	39.3	51.7	0.2	4.0	2.2	0.5	1.7	0.3	100.0	95.2	1,160
Coastal (urban)	50.9	45.4	0.0	1.7	0.3	0.2	1.5	0.0	100.0	98.0	346
Coastal (rural)	34.4	54.4	0.3	5.0	3.1	0.6	1.8	0.4	100.0	94.0	815
Total Interior	13.4	49.1	0.4	15.4	14.5	3.9	3.3	0.1	100.0	78.2	265
Region											
Region 1	5.5	70.1	0.0	16.0	4.1	0.9	3.4	0.0	100.0	91.6	103
Region 2	16.6	32.3	0.0	22.2	24.1	0.0	4.0	0.8	100.0	71.1	80
Region 3	31.2	51.9	0.8	10.7	1.2	0.6	3.2	0.6	100.0	94.5	189
Region 4	52.7	44.8	0.0	0.5	0.6	0.0	1.4	0.0	100.0	98.1	534
Region 5	36.5	58.1	0.0	0.0	0.0	1.8	1.9	1.8	100.0	94.5	105
Region 6	16.5	78.6	0.6	1.5	0.5	1.4	0.9	0.0	100.0	97.2	194
Region 7	14.4	39.0	0.4	20.6	23.0	1.7	0.4	0.5	100.0	74.4	48
Region 8	26.0	32.7	1.4	21.9	8.6	3.7	5.7	0.0	100.0	82.0	47
Region 9	14.1	14.5	0.7	6.0	42.3	17.9	4.5	0.0	100.0	35.3	38
Region 10	42.2	47.9	0.0	5.0	4.1	0.0	0.8	0.0	100.0	95.1	88
Mother's education											
No education	(18.6)	(62.0)	(0.0)	(5.3)	(5.1)	(1.1)	(5.4)	(2.5)	(100.0)	(85.9)	40
Primary	24.6	56.1	0.1	9.4	5.6	1.4	2.5	0.3	100.0	90.2	290
Secondary	36.9	50.0	0.4	5.4	4.5	1.0	1.7	0.2	100.0	92.6	989
More than secondary	44.9	45.6	0.0	4.2	1.2	1.1	3.0	0.0	100.0	94.7	106
Wealth quintile											
Lowest	19.2	48.0	0.3	11.7	14.0	3.1	3.7	0.0	100.0	79.2	361
Second	27.1	63.7	0.1	4.1	2.3	0.6	1.7	0.4	100.0	95.0	297
Middle	34.2	55.1	0.0	6.3	1.2	0.2	2.4	0.5	100.0	95.7	278
Fourth	40.4	50.8	1.1	5.0	0.8	0.5	1.5	0.0	100.0	97.2	241
Highest	60.2	36.9	0.0	1.1	0.8	0.5	0.1	0.5	100.0	98.1	247
Total	34.5	51.2	0.3	6.1	4.5	1.1	2.0	0.3	100.0	92.1	1,425

Note: If more than one source of ANC was mentioned, only the provider with the highest qualifications is considered in this tabulation. Figures in parentheses are based on 25-49 unweighted cases.

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

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

- Almost eight in ten (79 percent) women with a live birth in the five years preceding the survey had four or more antenatal care visits, as recommended, without significant differences by place of residence.
- Almost half of the visits (49 percent) took place during the first trimester, as recommended, ranging from a low of 42 percent in the Interior area to 67 percent in the Georgetown (urban) area.
- The median number of months pregnant at the first visit among women who received ANC was 4 months; 3.7 months in Total Urban areas compared with 4.1 months in Total Rural areas, and 3.9 months in the Total Coastal areas compared with 4.3 months in the Total Interior areas.

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

Percent distribution of women age 15-49 who had a live birth in the five years preceding the survey by number of antenatal care (ANC) visits for the most recent live birth, by the timing of the first visit, and by median months pregnant at first visit among women with ANC, according to residence, Guyana 2009

	Urban-Rural residence				Coastal-Interior residence				
	Urban				Coastal				
Age group/rate	Total Urban	Georgetown (urban)	Other (urban)	Total Rural	Total Coastal	Coastal (urban)	Coastal (rural)	Total Interior	Total
Number of ANC visits									
None	1.5	1.2	2.1	2.2	1.7	1.5	1.8	3.3	2.0
1	0.3	0.0	0.8	1.0	0.8	0.3	1.0	0.7	0.8
2-3	2.3	0.0	6.4	5.4	3.8	2.3	4.5	8.4	4.7
4+	82.1	83.3	79.9	77.3	79.7	82.1	78.7	73.1	78.5
Don't know/missing	13.8	15.5	10.8	14.1	13.9	13.8	14.0	14.5	14.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of months pregnant at time of first ANC visit									
No antenatal care	1.5	1.2	2.1	2.2	1.7	1.5	1.8	3.3	2.0
<4	58.9	66.9	44.4	45.5	50.4	58.9	46.8	41.7	48.8
4-5	28.8	23.6	38.3	34.2	34.2	28.8	36.5	27.1	32.9
6-7	9.4	7.7	12.4	12.5	10.5	9.4	11.0	17.1	11.7
8+	0.9	0.5	1.6	2.0	0.8	0.9	0.7	5.7	1.7
Don't know/missing	0.4	0.0	1.2	3.6	2.3	0.4	3.1	5.1	2.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	346	223	123	1,080	1,160	346	815	265	1,425
Median months pregnant at first visit (for those with ANC)	3.7	3.6	4.2	4.1	3.9	3.7	4.0	4.3	4.0
Number of women with ANC	341	220	120	1,052	1,137	341	796	256	1,392

9.1.1 Content of Antenatal Care

The quality of antenatal care is measured to a large extent by the essential service package provided to pregnant women. The components of this package include prevention and management of anemia and malaria, which are achieved through screening and appropriate management. Micronutrient supplementation, tetanus immunization, and monitoring of certain vital signs to help in the early detection and management of complications that may arise are also included in this important care package. Pregnancy complications are a primary source of maternal and newborn morbidity and mortality. Therefore, ensuring that pregnant women receive information on the signs of complications is an important component of antenatal care.

To help assess antenatal care services, respondents were asked whether they had been advised of possible pregnancy complications and whether they had received certain screening tests during at least one of their antenatal care visits. Caution should be used in considering this information on the components of antenatal care because it depends on pregnant women's recall of events during antenatal care that may have taken place a number of years before the interview. Nevertheless, the results are useful in providing insights into the content of antenatal care.

Table 9.3 presents information on the percentage of pregnant women who took iron tablets or syrup, took drugs for intestinal parasites, were informed of the signs of pregnancy complications, and received other selected services during antenatal care visits for their most recent birth in the past five years. Information on pregnant women who took preventive treatment for malaria is covered in Chapter 12.

- More than four in five women with a live birth in the last five years (83 percent) took iron tablets or syrup during the pregnancy of their most recent birth, but only 17 percent took drugs for intestinal parasites.
- Consumption of iron tablets decreases with age and birth order.
- Women residing in urban areas (93 percent), those in Regions 4 and 10 (88 percent), women with more than secondary education (90 percent), and those living in the wealthiest households (90 percent) are more likely to take iron supplements than other women.
- Consumption of drugs for intestinal parasites increases with age and birth order and is slightly higher in urban than in rural areas. The regional differences are quite pronounced: 8 percent of women in Region 7 received intestinal drugs during their most recent pregnancy compared with 34 percent in Region 1. Consumption of drugs tends to decrease with an increase in education and wealth.
- Two-thirds (66 percent) of women who received antenatal care for their most recent birth in the five years before the survey reported that they had been informed of the signs of pregnancy complications. Urban area women (79 percent) are more likely to be informed of signs of pregnancy complications than are Rural area women (62 percent), and women in the Coastal area (68 percent) are more likely than women in the Interior area (59 percent) to receive this information. Among regions, the percentage of women who were informed of signs of pregnancy complications ranges from 51 percent in Region 2 to 81 percent in Region 10. The likelihood of receiving this information increases steadily with education and the wealth quintile.
- Among women receiving antenatal care, 97 percent said they were weighed, 98 percent had their blood pressure measured, 95 percent had a urine sample taken, and 93 percent had a blood sample taken. Being weighed and having the blood pressure measured during an antenatal care visit is almost universal in all regions except for Region 9 (74 and 75 percent, respectively). Urine and blood samples during antenatal care are also almost universal in all regions but three: Regions 1, 8, and 9.

Table 9.3 Components of antenatal care

Among women age 15-49 with a live birth in the five years preceding the survey, the percentage who took iron tablets or syrup and drugs for intestinal parasites during the pregnancy of the most recent birth, and among women receiving antenatal care (ANC) for the most recent live birth in the five years preceding the survey, the percentage receiving specific antenatal services, according to background characteristics, Guyana 2009

Background characteristic	Among women with a live birth in the last five years, the percentage who during the pregnancy of their last birth:		Number of women with a live birth in the past five years	Among women who received antenatal care for their most recent birth in the last five years, the percentage with selected services:					Number of women with ANC for their most recent birth
	Took iron tablets or syrup	Took intestinal parasite drugs		Informed of signs of pregnancy complications	Weighed	Blood pressure measured	Urine sample taken	Blood sample taken	
Mother's age at birth									
<20	82.9	13.4	302	63.2	97.4	97.7	94.2	92.0	292
20-34	83.7	18.0	944	67.6	97.0	97.6	94.7	93.1	929
35-49	78.1	19.4	179	65.5	95.7	96.8	94.0	90.7	172
Birth order									
1	84.2	9.9	454	68.4	99.0	99.2	95.4	96.5	440
2-3	86.1	17.5	614	66.8	96.4	97.6	95.7	93.1	608
4-5	83.1	24.6	231	64.0	96.0	96.6	92.9	91.3	228
6+	61.3	28.7	126	61.9	93.8	93.0	87.7	77.5	117
Residence									
Total Urban	92.6	18.5	346	79.1	99.7	99.7	98.6	99.7	341
Georgetown (urban)	94.7	14.8	223	81.3	100.0	100.0	99.2	100.0	220
Other (urban)	89.0	25.2	123	75.0	99.2	99.2	97.7	99.2	120
Total Rural	79.6	16.8	1,080	62.3	96.0	96.8	93.1	90.3	1,052
Total Coastal	85.2	15.6	1,160	68.1	98.1	98.6	97.0	97.5	1,137
Coastal (urban)	92.6	18.5	346	79.1	99.7	99.7	98.6	99.7	341
Coastal (rural)	82.0	14.4	815	63.4	97.4	98.2	96.3	96.5	796
Total Interior	72.3	24.2	265	59.0	91.9	92.7	83.2	70.8	256
Region									
Region 1	70.4	34.3	103	51.8	95.3	95.7	87.1	58.9	99
Region 2	80.8	19.2	80	51.3	99.4	98.7	98.9	96.5	77
Region 3	83.5	11.0	189	60.6	98.6	98.6	98.2	98.7	182
Region 4	87.7	12.7	534	72.8	97.9	98.6	96.2	97.3	527
Region 5	79.6	22.5	105	68.9	97.2	98.1	98.1	95.9	101
Region 6	81.9	20.8	194	64.2	97.4	98.6	95.9	97.2	192
Region 7	82.8	8.4	48	63.8	99.2	99.2	95.1	88.2	47
Region 8	77.5	20.3	47	61.3	86.1	91.0	76.2	75.3	45
Region 9	57.0	25.0	38	56.0	73.8	75.0	54.6	56.5	36
Region 10	87.6	21.3	88	80.6	100.0	98.9	98.9	98.1	87
Mother's education									
No education	(70.2)	(15.6)	40	(58.5)	(94.3)	(95.4)	(97.0)	(93.5)	37
Primary	71.9	21.8	290	59.3	95.9	95.9	90.7	84.8	282
Secondary	85.7	16.6	989	67.9	97.2	98.0	95.6	94.7	971
More than secondary	89.9	10.8	106	75.0	98.8	98.8	93.9	93.8	103
Wealth quintile									
Lowest	75.0	23.6	361	53.5	92.4	93.1	87.6	80.1	348
Second	82.2	13.7	297	65.2	98.4	98.1	96.0	94.9	291
Middle	83.2	15.9	278	70.4	98.9	99.6	96.6	97.5	270
Fourth	87.1	17.3	241	74.1	97.5	98.8	95.2	95.3	238
Highest	90.3	13.5	247	74.5	99.0	99.5	99.5	99.5	246
Total	82.8	17.2	1,425	66.4	96.9	97.5	94.5	92.6	1,392

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

9.1.2 Tetanus Toxoid Injections

Neonatal tetanus is a leading cause of neonatal death in developing countries where a high proportion of deliveries are conducted at home or in places where hygienic conditions may be poor. Tetanus toxoid (TT) immunization is given to pregnant women to prevent neonatal tetanus. If a woman has received no previous TT injections, for full protection a pregnant woman needs two doses of TT during pregnancy. However, if a woman was immunized before she became pregnant, she may require

one or no TT injections during pregnancy, depending on the number of injections she has previously received and the timing of the last injection. For a woman to have lifetime protection, a total of five doses is required. The 2009 GDHS collected information on whether women received at least two TT injections and whether the pregnancy for the most recent live birth in the five years preceding the survey was protected against neonatal tetanus. Table 9.4 shows the percentage of women who received two or more tetanus toxoid injections and the percentage whose last birth was protected against neonatal tetanus, by background characteristics, and Figure 9.1 shows the same indicators by residence.

Table 9.4 Tetanus toxoid injections

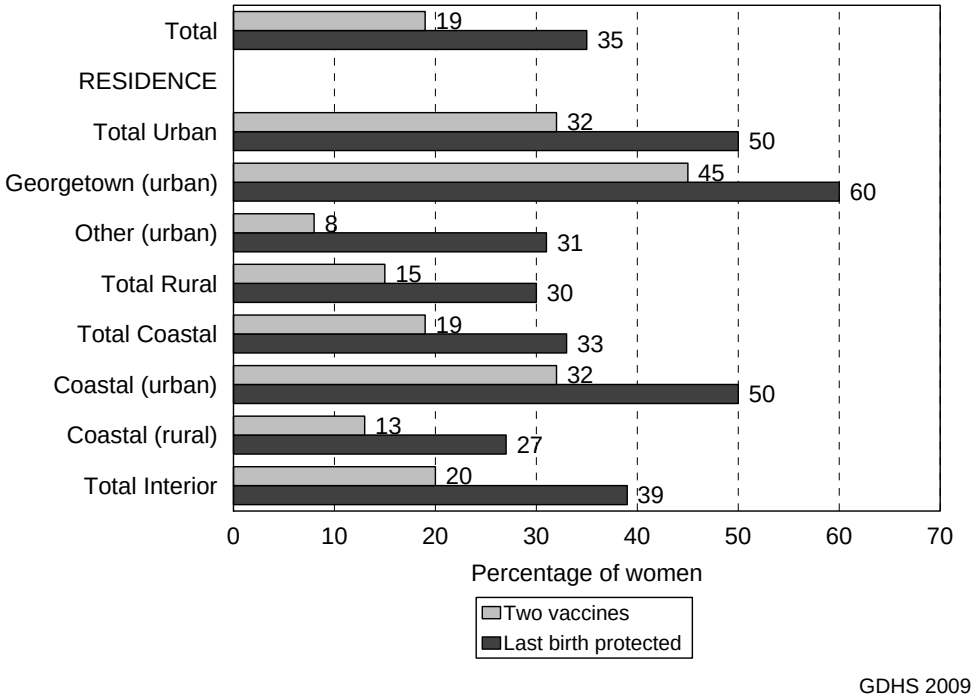
Among mothers age 15-49 with a live birth in the five years preceding the survey, the percentage receiving two or more tetanus toxoid injections (TTI) during the pregnancy for the last live birth and the percentage whose last live birth was protected against neonatal tetanus, according to background characteristics, Guyana 2009

Background characteristic	Percentage receiving two or more injections during last pregnancy	Percentage whose last birth was protected against neonatal tetanus[1]	Number of mothers
Mother's age at birth			
<20	18.1	29.9	302
20-34	18.7	34.8	944
35-49	22.1	40.6	179
Birth order			
1	23.5	31.3	454
2-3	14.1	32.5	614
4-5	23.2	41.1	231
6+	18.9	43.6	126
Residence			
Total Urban	31.9	49.6	346
Georgetown (urban)	44.9	60.1	223
Other (urban)	8.3	30.8	123
Total Rural	14.9	29.7	1,080
Total Coastal	18.9	33.4	1,160
Coastal (urban)	31.9	49.6	346
Coastal (rural)	13.3	26.5	815
Total Interior	19.6	39.4	265
Region			
Region 1	13.0	38.2	103
Region 2	21.3	39.8	80
Region 3	5.5	17.7	189
Region 4	29.4	43.0	534
Region 5	7.0	26.5	105
Region 6	12.2	23.1	194
Region 7	24.4	44.5	48
Region 8	39.9	55.3	47
Region 9	19.2	35.2	38
Region 10	4.3	27.5	88
Mother's education			
No education	(19.4)	(34.9)	40
Primary	14.9	34.3	290
Secondary	19.8	34.1	989
More than secondary	22.3	38.4	106
Wealth quintile			
Lowest	18.9	37.6	361
Second	17.3	30.2	297
Middle	11.4	27.8	278
Fourth	29.8	41.1	241
Highest	19.3	36.4	247
Total	19.0	34.5	1,425

Note: Figures in parentheses are based on 25-49 unweighted cases.
[1] Includes mothers with two injections during the pregnancy of her last birth (19 percent), or two or more injections (the last within 3 years of the last live birth), or three or more injections (the last within five years of the last birth), or four or more injections (the last within 10 years of the last live birth), or five or more injections prior to the last birth

- Only one in five mothers (19 percent) received two or more doses of tetanus toxoid during their last pregnancy. Mothers residing in urban areas are more than twice as likely to receive two TT injections as those residing in rural areas (32 and 15 percent, respectively). Coverage with at least two doses ranges from 7 percent or less in Regions 3, 5, and 10 to 40 percent in Region 8. There are no clear patterns in the relationship between the percentage of women who received two or more TT injections during their last pregnancy and education or wealth.
- Taking vaccinations given during previous pregnancies into account, a total of 35 percent of recent births were protected against neonatal tetanus. Thirty percent of births to mothers under age 20 were protected, compared with 41 percent of births to women age 35 or older.
- Protection against neonatal tetanus is much higher in urban areas than in rural areas (50 and 30 percent, respectively). However, in urban areas outside of Georgetown, only 31 percent of births are protected against neonatal tetanus. Protection ranges from 18 percent in Region 3 to 55 percent in Region 8. Although protection against neonatal tetanus increases steadily with the mother's age at birth and birth order, the effect of education and wealth quintile is not clear.

Figure 9.1 Two Tetanus Vaccinations during Last Pregnancy and Births Protected against Neonatal Tetanus, by Residence



9.2 DELIVERY CARE

Labor and delivery is the shortest and most critical period of the pregnancy-childbirth continuum because most maternal deaths arise from complications during delivery. Even with the best possible antenatal care, any delivery can become a complicated one and, therefore, skilled assistance is essential to safe delivery care. For numerous reasons, many women do not seek skilled care even when they understand the safety reasons for doing so. Some reasons include cost of service, the distance to the health facility, and quality of care.

Respondents in the 2009 GDHS were asked to report the place of birth for all their children born in the five years preceding the survey and to also report those who assisted during the delivery. Table 9.5 shows the percent distribution of live births in the five years preceding the survey by place of delivery, according to background characteristics. Table 9.6 shows the percent distribution of live births in the five years preceding the survey by person providing assistance, according to background characteristics. If the respondent mentioned more than one person attending during delivery, only the most qualified person is reported.

Place of delivery

- Overall, 89 percent of births in the five years preceding the survey in Guyana were delivered in a health facility, mostly from public sector facilities (78 percent).
- The percentage of deliveries that take place in a health facility decreases with an increase in the birth order, and the percentage is higher for births to women who received antenatal care during pregnancy than for births to women who received none. Births in urban areas are more likely to be delivered in a health facility than births in rural areas (97 percent versus 87 percent), and births in the Coastal area are much more likely to be delivered in a health facility than births in the Interior area (94 percent versus 71 percent).
- There are large variations by region. The percentage of births delivered in a health facility ranges from 46 percent in Region 9 to 96 percent in Region 4.
- As might be expected, the percentage of births delivered in a health facility increases with the mother's education and ranges from 72 percent of births to uneducated mothers to 96 percent of births to mothers with more than secondary education. Additionally, the percentage is lowest (74 percent) for births to mothers in the lowest wealth quintile compared with other births (94 to 96 percent).
- One in eleven births (9 percent) take place at home. Only 2 percent of births in the Urban areas take place at home compared with 11 percent in Rural areas. One in four births (25 percent) in the Interior area take place at home. The proportion of births that takes place at home ranges from 2 percent in Region 4 to 52 percent in Region 9.
- Births of 6th or higher order (17 percent), those to mothers with no education (20 percent), and births in the lowest wealth quintile (23 percent) are more likely to occur at home than other births.

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, Guyana 2009

Background characteristic	Health facility			Home	Other	Don't know/ missing	Total	Percentage delivered in a health facility	Number of births
	Public sector	Private sector	Hospital/ clinic abroad						
Mother's age at birth									
<20	86.4	3.3	0.2	8.5	0.5	1.2	100.0	89.8	456
20-34	75.9	13.0	0.6	8.4	0.3	1.9	100.0	89.5	1,221
35-49	73.2	11.3	0.0	9.5	0.0	6.0	100.0	84.5	209
Birth order									
1	81.0	12.2	0.5	5.2	0.4	0.7	100.0	93.7	622
2-3	76.7	12.6	0.5	8.0	0.1	2.2	100.0	89.8	792
4-5	79.3	5.6	0.0	12.1	0.1	2.8	100.0	85.0	296
6+	72.8	2.6	0.6	16.8	1.1	6.1	100.0	75.9	176
Antenatal care visits[1]									
None	(65.3)	(6.2)	(0.0)	(25.3)	(3.2)	(0.0)	(100.0)	(71.5)	29
1-3	85.4	5.9	2.4	6.3	0.0	0.0	100.0	93.7	78
4+	78.7	13.7	0.3	7.0	0.2	0.2	100.0	92.7	1,119
Don't know/missing	75.7	9.2	0.5	9.2	0.5	5.0	100.0	85.3	200
Residence									
Total Urban	78.2	18.6	0.4	1.5	0.0	1.3	100.0	97.2	425
Georgetown (urban)	68.8	27.8	0.7	1.3	0.0	1.4	100.0	97.2	265
Other (urban)	93.8	3.3	0.0	1.8	0.0	1.1	100.0	97.1	159
Total Rural	78.2	8.1	0.4	10.6	0.4	2.4	100.0	86.7	1,462
Total Coastal	80.6	13.0	0.4	3.9	0.3	1.8	100.0	94.0	1,477
Coastal (urban)	78.2	18.6	0.4	1.5	0.0	1.3	100.0	97.2	425
Coastal (rural)	81.6	10.8	0.3	4.9	0.4	2.0	100.0	92.7	1,053
Total Interior	69.4	1.1	0.6	25.1	0.2	3.6	100.0	71.1	409
Region									
Region 1	73.8	0.4	0.0	19.9	0.0	5.9	100.0	74.2	164
Region 2	84.9	0.7	0.0	11.5	0.0	2.9	100.0	85.6	108
Region 3	83.5	10.8	0.0	4.4	0.4	0.9	100.0	94.3	234
Region 4	73.0	22.8	0.6	2.0	0.2	1.4	100.0	96.3	666
Region 5	83.8	6.3	1.2	4.1	0.5	4.0	100.0	91.4	139
Region 6	90.0	1.1	0.0	6.1	0.5	2.3	100.0	91.1	253
Region 7	83.8	1.9	0.0	13.0	0.0	1.3	100.0	85.7	65
Region 8	63.6	0.0	0.9	31.6	1.3	2.6	100.0	64.5	72
Region 9	43.2	0.0	2.8	52.0	0.0	2.0	100.0	46.0	62
Region 10	88.3	5.1	0.0	5.9	0.0	0.8	100.0	93.4	124
Mother's education									
No education	72.3	0.0	0.0	19.6	0.0	8.2	100.0	72.3	60
Primary	79.4	4.2	0.1	13.5	0.1	2.7	100.0	83.7	416
Secondary	79.5	10.9	0.4	6.9	0.4	1.8	100.0	90.9	1,282
More than secondary	63.3	30.8	1.4	3.4	0.0	1.0	100.0	95.6	129
Wealth quintile									
Lowest	73.3	0.7	0.4	22.6	0.2	2.9	100.0	74.4	545
Second	90.1	2.8	0.7	4.7	0.3	1.4	100.0	93.6	399
Middle	90.4	5.3	0.1	2.1	0.4	1.7	100.0	95.8	349
Fourth	74.8	20.1	0.9	2.0	0.6	1.5	100.0	95.8	293
Highest	60.1	34.9	0.0	2.0	0.0	3.1	100.0	95.0	301
Total	78.2	10.5	0.4	8.5	0.3	2.2	100.0	89.0	1,886

[1] Information on antenatal care visits includes only the most recent birth in the five years preceding the survey

Table 9.6 Assistance during delivery

Percent distribution of live births in the five years preceding the survey by person providing assistance during delivery, the percentage of births assisted by a skilled provider, and the percentage delivered by caesarean section, according to background characteristics, Guyana 2009

Background characteristic	Person providing assistance during delivery								Total	Percentage delivered by a skilled provider[1]	Percentage delivered by C-section	Number of births
	Doctor	Nurse/ midwife	Auxiliary nurse/ auxiliary midwife	Medex	Traditional birth attendant	Relative/ other	No one	Don't know/ missing				
Mother's age at birth												
<20	30.3	56.5	1.4	5.4	1.0	5.1	0.0	0.2	100.0	93.6	10.0	456
20-34	31.5	57.0	1.2	2.3	0.6	6.1	0.6	0.7	100.0	92.0	14.1	1,221
35-49	32.0	49.4	3.1	3.1	0.8	7.3	1.4	2.8	100.0	87.6	15.6	209
Birth order												
1	39.0	52.0	1.1	3.6	0.7	3.0	0.1	0.5	100.0	95.7	17.8	622
2-3	29.3	59.8	1.5	2.5	0.4	5.3	0.5	0.7	100.0	93.1	13.3	792
4-5	28.0	56.5	1.2	2.9	1.1	7.8	1.4	1.1	100.0	88.6	8.7	296
6+	18.2	52.7	3.0	4.7	1.5	16.6	0.8	2.4	100.0	78.7	5.2	176
Place of delivery												
Health facility	35.0	59.6	1.5	3.0	0.1	0.5	0.1	0.2	100.0	99.1	14.9	1,679
Elsewhere	1.6	31.6	1.2	5.4	6.9	48.2	5.1	0.0	100.0	39.8	0.0	166
Missing	0.0	7.7	0.0	0.0	0.0	60.2	0.0	32.1	100.0	7.7	0.0	41
Residence												
Total Urban	38.1	59.9	0.1	0.1	0.0	1.0	0.2	0.6	100.0	98.2	18.5	425
Georgetown (urban)	43.3	55.3	0.0	0.0	0.0	0.8	0.0	0.7	100.0	98.5	18.9	265
Other (urban)	29.5	67.5	0.4	0.3	0.0	1.4	0.4	0.5	100.0	97.7	17.9	159
Total Rural	29.3	54.9	1.8	4.0	0.9	7.4	0.7	0.9	100.0	90.1	11.8	1,462
Total Coastal	36.4	58.1	1.1	0.6	0.4	2.0	0.4	1.0	100.0	96.2	15.5	1,477
Coastal (urban)	38.1	59.9	0.1	0.1	0.0	1.0	0.2	0.6	100.0	98.2	18.5	425
Coastal (rural)	35.7	57.5	1.4	0.8	0.5	2.4	0.6	1.2	100.0	95.4	14.3	1,053
Total Interior	12.8	48.5	2.9	12.2	1.9	20.5	0.9	0.1	100.0	76.5	5.1	409
Region												
Region 1	6.1	52.1	1.3	17.7	1.6	20.7	0.5	0.0	100.0	77.2	2.4	164
Region 2	22.2	57.3	5.0	3.4	4.0	6.9	0.0	1.2	100.0	87.9	10.2	108
Region 3	39.0	51.4	4.1	0.0	0.6	2.3	1.7	0.9	100.0	94.6	22.6	234
Region 4	42.7	55.5	0.0	0.2	0.0	0.9	0.0	0.8	100.0	98.3	16.9	666
Region 5	42.4	52.4	0.0	0.0	0.0	2.0	0.6	2.7	100.0	94.8	14.8	139
Region 6	21.8	72.3	0.0	1.5	0.0	2.7	0.4	1.2	100.0	95.7	5.3	253
Region 7	14.1	52.1	8.9	15.5	0.6	8.1	0.0	0.7	100.0	90.6	3.5	65
Region 8	24.9	38.8	0.0	8.5	0.4	26.9	0.5	0.0	100.0	72.1	12.2	72
Region 9	13.9	32.1	6.3	4.8	6.6	34.5	1.9	0.0	100.0	57.0	2.7	62
Region 10	24.9	67.1	0.5	1.6	0.4	3.7	1.7	0.0	100.0	94.2	18.8	124
Mother's education												
No education	17.1	48.5	1.0	4.6	0.0	24.1	1.4	3.4	100.0	71.1	5.9	60
Primary	21.4	61.3	0.3	5.0	1.4	9.4	0.6	0.6	100.0	88.0	12.5	416
Secondary	33.8	55.1	2.0	2.7	0.6	4.5	0.5	0.9	100.0	93.5	12.9	1,282
More than secondary	44.5	52.7	0.2	0.6	0.5	1.5	0.0	0.0	100.0	98.0	22.8	129
Wealth quintile												
Lowest	21.5	49.1	2.3	8.1	2.2	15.5	1.1	0.1	100.0	81.0	5.6	545
Second	28.4	64.0	0.4	3.1	0.3	2.7	0.0	1.0	100.0	96.0	11.9	399
Middle	32.6	60.1	1.8	0.6	0.0	3.2	0.9	0.7	100.0	95.2	16.9	349
Fourth	40.0	56.5	1.8	0.0	0.0	0.9	0.4	0.5	100.0	98.2	20.7	293
Highest	42.8	53.0	0.5	0.0	0.0	1.3	0.0	2.3	100.0	96.3	17.7	301
Total	31.3	56.1	1.5	3.1	0.7	6.0	0.5	0.8	100.0	91.9	13.3	1,886

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

Assistance at delivery

- Overall, 92 percent of births in the five years preceding the survey were assisted by a skilled birth provider, mostly by a nurse or midwife (56 percent), followed by a doctor (31 percent). Friends and relatives assist at 6 percent of the deliveries.
- Births to mothers under age 35 and low order births are more likely to have assistance at delivery by a skilled provider than births to older mothers and high order births. Furthermore, as expected, births in the Urban areas are more likely to receive assistance than births in the Rural areas, and births in the Coastal area are more likely than births in the Interior area to be assisted by a skilled health provider. The percentage of births assisted by a skilled provider is 57 percent in Region 9 compared with 98 percent in Region 4.
- Births to mothers who have more education and births in the higher wealth quintiles are more likely to be assisted by a skilled provider than other births. For example, almost all births to mothers with more than secondary education (98 percent) are assisted by a skilled provider compared with 71 percent of births to mothers with no education.

Cesarean section

- One in eight births (13 percent) in the five years preceding the survey was delivered by caesarean section. The prevalence of C-section deliveries increases steadily with mother's age and decreases with birth order. Regions 1, 6, 7, and 9 have the lowest levels of deliveries by C-section (2 to 5 percent), and Region 3 has the highest level (23 percent). The percentage of births delivered by C-section increases with a mother's education and generally increases with wealth.

9.3 POSTNATAL CARE

Skilled care for mothers is critical in the days after they give birth. Up to 45 percent of all maternal deaths occur within one day of delivery, and 65 percent occur within the first week. This period is also critical to newborn survival because 50 to 70 percent of life-threatening newborn illnesses occur within the first week of life (Manoff Group, 2005).

A postnatal checkup within the first week of delivery is therefore an important strategy for ensuring optimal maternal and newborn health. To assess the extent of postnatal care utilization, women who were interviewed in the GDHS were asked about their most recent birth in the five years preceding the survey, specifically, whether they received a health checkup after the delivery, the timing of the first postnatal checkup, and the type of health provider performing the postnatal checkup. This information is shown in Tables 9.7 and 9.8, according to background characteristics.

Timing of first postnatal checkup

- Postnatal care data show that about two-thirds of women with a birth in the last five years (63 percent) receive a postnatal checkup within 24 hours of delivery, and about eight in ten (79 percent) are checked within the first two days. Two percent of women receive postnatal care 3 to 41 days after delivery, and 15 percent receive no postnatal care at all.
- Births to older mothers and births of higher order are somewhat less likely to receive a postnatal checkup than births to young mothers and births of low order. Having a postnatal checkup within the most crucial period (first two days) is primarily associated with how many children a woman has; women with fewer children are more likely to have an early postnatal checkup than women with more children.
- Women in the Urban area are more likely than women in the Rural area, and women in the Coastal area are more likely than women in the Interior area, to receive postnatal care overall, as well as in a timely manner. The regional differences are quite pronounced.

Although 90 percent of women in Region 4 received postnatal care within two days, only 58 percent of women in Region 4 received postnatal care within four hours of delivery.

- Women in the highest wealth quintile (87 percent) are much more likely to have an early postnatal checkup than women in the lowest wealth quintile (65 percent), and a similar pattern is seen by level of education.

Type of provider of first postnatal checkup

- In Guyana, eight in ten women with a birth in the five years preceding the survey received their first postnatal checkup by a doctor, nurse, or midwife. Two percent, each, received their first postnatal care by a Medex or a community health worker.
- Similar to the findings on the timing of postnatal care, older mothers age 35-49, and those with six or more children are less likely to receive a postnatal checkup by a skilled health provider than other women.
- Women in the Urban area (94 percent) are more likely than women in the Rural area (81 percent) to receive postnatal care from a skilled health provider, as are women in the Coastal area (87 percent) when compared with women in the Interior area (71 percent). Looking at regions, the lowest percentage of women who had the first postnatal checkup done by a doctor, nurse, or midwife is in Region 9 (30 percent) and Region 1 (49 percent). The percentage of women who received their first postnatal checkup by a Medex is unusually high in Region 8 (20 percent) and the percentage who received it by a community health worker is relatively high in Region 9 (23 percent) when compared with the national averages of 2 percent, each.
- The percentage of women who received their first postnatal checkup by a skilled health provider increases with education and wealth quintile. About six in ten women with no education (62 percent) and in the lowest wealth quintile (58 percent) had their first postnatal checkup by a doctor, nurse, or midwife compared with around nine of ten women with more than secondary education (89 percent) and in the highest wealth quintile (92 percent).

Table 9.7 Timing of postnatal care

Among women age 15-49 with a birth in the five years preceding the survey, the percent distribution of mother's first postnatal checkup for the last live birth by time after delivery, according to background characteristics, Guyana 2009

Background characteristic	Timing of first postnatal checkup					Did not receive postnatal checkup[1]	Total	Number of women
	Less than 4 hours	4-23 hours	1-2 days	3-41 days	Don't know/ missing			
Mother's age at birth								
<20	49.3	13.5	16.2	2.2	3.8	15.0	100.0	302
20-34	47.1	16.3	16.1	2.3	4.0	14.1	100.0	944
35-49	49.1	8.1	17.9	2.4	2.3	20.2	100.0	179
Birth order								
1	45.6	16.1	19.6	2.1	3.9	12.7	100.0	454
2-3	50.7	16.5	13.7	2.4	3.6	13.0	100.0	614
4-5	46.3	10.6	17.1	1.6	4.0	20.4	100.0	231
6+	44.9	8.1	16.5	3.5	3.3	23.7	100.0	126
Residence								
Total Urban	60.8	13.2	15.7	1.1	3.2	6.0	100.0	346
Georgetown (urban)	69.8	11.5	15.0	0.6	1.7	1.3	100.0	223
Other (urban)	44.5	16.3	16.8	2.0	5.9	14.5	100.0	123
Total Rural	43.7	15.2	16.6	2.7	3.9	18.0	100.0	1,080
Total Coastal	49.8	15.7	16.8	1.8	3.5	12.4	100.0	1,160
Coastal (urban)	60.8	13.2	15.7	1.1	3.2	6.0	100.0	346
Coastal (rural)	45.1	16.8	17.2	2.1	3.6	15.1	100.0	815
Total Interior	39.3	10.2	14.7	4.2	4.8	26.8	100.0	265
Region								
Region 1	37.1	9.8	8.6	2.7	2.3	39.6	100.0	103
Region 2	61.3	8.6	7.1	0.6	4.0	18.4	100.0	80
Region 3	28.7	24.9	20.8	4.0	2.9	18.7	100.0	189
Region 4	58.2	15.2	16.8	1.3	3.7	4.9	100.0	534
Region 5	33.5	9.8	9.8	2.1	3.2	41.5	100.0	105
Region 6	55.3	13.4	19.3	1.8	2.9	7.3	100.0	194
Region 7	37.8	14.5	21.6	1.2	8.5	16.3	100.0	48
Region 8	55.0	5.0	20.7	4.4	1.6	13.3	100.0	47
Region 9	27.2	8.5	11.2	15.0	10.7	27.5	100.0	38
Region 10	37.0	17.9	20.3	1.2	5.5	18.0	100.0	88
Education								
No education	(41.4)	(3.8)	(18.1)	(0.0)	(6.1)	(30.6)	(100.0)	40
Primary	46.6	12.1	10.5	3.4	4.9	22.5	100.0	290
Secondary	48.6	14.9	18.2	1.9	3.4	12.9	100.0	989
More than secondary	47.0	23.5	14.2	3.3	2.6	9.4	100.0	106
Wealth quintile								
Lowest	38.4	12.2	14.6	4.0	4.8	25.9	100.0	361
Second	48.7	16.4	17.6	1.1	2.6	13.6	100.0	297
Middle	44.9	14.5	19.6	1.9	4.4	14.7	100.0	278
Fourth	54.5	17.2	14.6	1.2	3.4	9.0	100.0	241
Highest	57.4	14.1	15.5	2.6	3.1	7.3	100.0	247
Total	47.8	14.7	16.4	2.3	3.7	15.1	100.0	1,425

Note: Figures in parentheses are based on 25-49 unweighted cases.
[1] Includes women who received the first postnatal checkup after 41 days

Table 9.8 Type of provider of first postnatal checkup

Among women age 15-49 with a birth in the five years preceding the survey, the percent distribution by type of provider of the mother's first postnatal health check for the last live birth, according to background characteristics, Guyana 2009

Background characteristic	Type of health provider of mother's first postnatal checkup							No postnatal checkup	Total	Number of women
	Doctor/ nurse/ midwife	Auxiliary nurse/ midwife	Medex	Community health worker	Traditional birth attendant	Other	Don't know/ missing			
Mother's age at birth										
<20	78.3	0.1	3.4	2.4	0.3	0.0	0.6	15.0	100.0	302
20-34	81.2	0.2	1.8	1.6	0.3	0.2	0.4	14.1	100.0	944
35-49	72.1	1.2	2.5	3.8	0.1	0.0	0.2	20.2	100.0	179
Birth order										
1	83.6	0.0	2.4	0.9	0.3	0.0	0.1	12.7	100.0	454
2-3	81.8	0.2	1.6	2.1	0.2	0.3	0.7	13.0	100.0	614
4-5	75.1	0.0	2.5	1.1	0.5	0.1	0.3	20.4	100.0	231
6+	61.3	2.1	4.4	7.6	0.1	0.4	0.4	23.7	100.0	126
Residence										
Total Urban	93.5	0.0	0.1	0.0	0.2	0.0	0.2	6.0	100.0	346
Georgetown (urban)	98.7	0.0	0.0	0.0	0.0	0.0	0.0	1.3	100.0	223
Other (urban)	84.0	0.0	0.4	0.0	0.6	0.0	0.5	14.5	100.0	123
Total Rural	75.0	0.4	2.9	2.7	0.3	0.2	0.5	18.0	100.0	1,080
Total Coastal	85.5	0.1	0.7	0.8	0.1	0.1	0.2	12.4	100.0	1,160
Coastal (urban)	93.5	0.0	0.1	0.0	0.2	0.0	0.2	6.0	100.0	346
Coastal (rural)	82.1	0.1	0.9	1.2	0.1	0.2	0.2	15.1	100.0	815
Total Interior	53.0	1.2	9.1	7.5	0.9	0.2	1.2	26.8	100.0	265
Region										
Region 1	48.6	0.7	7.2	2.3	1.1	0.4	0.0	39.6	100.0	103
Region 2	64.7	1.5	1.9	11.9	0.7	0.8	0.0	18.4	100.0	80
Region 3	80.7	0.0	0.0	0.0	0.0	0.0	0.6	18.7	100.0	189
Region 4	94.6	0.0	0.5	0.0	0.0	0.0	0.0	4.9	100.0	534
Region 5	57.6	0.0	0.0	0.0	0.0	0.0	0.8	41.5	100.0	105
Region 6	89.5	0.0	2.0	0.0	0.4	0.5	0.3	7.3	100.0	194
Region 7	61.3	2.2	6.8	13.4	0.0	0.0	0.0	16.3	100.0	48
Region 8	59.9	0.9	19.8	4.7	1.0	0.4	0.0	13.3	100.0	47
Region 9	29.5	2.7	6.6	23.4	1.8	0.0	8.6	27.5	100.0	38
Region 10	79.8	0.0	1.8	0.2	0.2	0.0	0.0	18.0	100.0	88
Education										
No education	(61.8)	(1.5)	(1.5)	(1.7)	(0.0)	(2.8)	(0.0)	(30.6)	(100.0)	40
Primary	70.6	0.3	2.2	3.1	0.4	0.0	0.8	22.5	100.0	290
Secondary	81.7	0.3	2.5	1.9	0.2	0.1	0.4	12.9	100.0	989
More than secondary	89.2	0.0	0.2	1.2	0.0	0.0	0.0	9.4	100.0	106
Wealth quintile										
Lowest	58.0	0.8	5.4	7.7	0.8	0.4	0.9	25.9	100.0	361
Second	82.5	0.3	2.8	0.6	0.0	0.0	0.2	13.6	100.0	297
Middle	83.2	0.0	1.5	0.0	0.0	0.2	0.3	14.7	100.0	278
Fourth	90.3	0.2	0.0	0.0	0.0	0.0	0.5	9.0	100.0	241
Highest	92.4	0.0	0.0	0.0	0.3	0.0	0.0	7.3	100.0	247
Total	79.5	0.3	2.3	2.1	0.3	0.2	0.4	15.1	100.0	1,425

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

9.4 PROBLEMS IN ACCESSING HEALTH CARE

Where health services are present, there are many factors—social, cultural, and economic—that may cause women not to use the services, particularly when the health concern is related to sexual or reproductive matters. Information on such factors is particularly important in understanding and addressing the barriers women face in seeking care during pregnancy and at the time of delivery. In the 2009 GDHS, women were asked whether each of the following factors would be a big problem or not a big problem in seeking health care for themselves: getting permission to go for treatment, getting money for treatment, distance to a health facility, having to take transportation, not wanting to go alone to the health facility, concern that there may not be a health provider, and concern that there may be no drugs available.

Table 9.9 provides women's perceived problems in accessing health care for these seven specific reasons, according to background characteristics, including employment.

- The main problems in accessing health care among women are the concern that no drugs may be available at the health facility (reported by 49 percent of women) and that a provider may not be available (reported by 44 percent of women). Furthermore, getting money for treatment was reported by 19 percent of women, not wanting to go alone by 17 percent of women, having to take transport and concern that no female provider may be available by 16 percent, each, and distance to the health facility was reported by 14 percent of women. Only 4 percent of women reported getting permission to go for treatment as a problem in accessing health care.
- Overall, 62 percent of women reported at least one of the specified problems in accessing health care. This percentage declines somewhat with women's age. There are important differences in the percentage of women reporting at least one problem by place of residence. Seventy percent of women in Rural areas report having at least one problem accessing health care compared with 45 percent in Urban areas (34 percent in Georgetown [urban]). Eighty-four percent of women in Region 3 and 82 in Region 5 report at least one problem in accessing health care compared with 53 percent in Region 4 and 55 percent in Region 2.
- There are significant differences in the type of problem in accessing health care by region. For example, getting permission to go for care is reported by 12 percent of women in Region 8 and only 2 percent in Region 4. Thirty-nine percent of women in Region 5 report that getting money for treatment is a problem compared with 14 to 16 percent in Regions 2, 3, and 4. Thirty-eight percent of women in Region 7 say that distance to a health facility is a big problem in accessing care, compared with only 8 percent of women in Region 6. Concern that a female provider may not be available is most common in Region 5 (29 percent) and the lowest in Region 10 (9 percent).
- The percentage of women who have at least one big problem in accessing health care for themselves decreases with education and wealth status. For example, about seven in ten women with no education or with primary education and women in the lowest quintile (67 and 72 percent, respectively) have at least one problem when accessing health care compared with less than half of women with more than secondary education and in the highest wealth quintile (47 and 49 percent, respectively).

Table 9.9 Problems in accessing health care

Percentage of women who reported they have big problems in accessing health care for themselves when they are sick, by type of problem and background characteristics, Guyana 2009

Background characteristic	Problems in accessing health care								At least one problem accessing health care	Number of women
	Getting permission to go for treatment	Getting money for treatment	Distance to health facility	Having to take transport	Not wanting to go alone	Concern no female provider available	Concern no provider available	Concern no drugs available		
Age										
15-19	8.6	22.4	14.3	15.8	30.7	25.9	48.8	54.1	69.7	1,016
20-34	2.6	17.3	14.2	16.2	14.1	14.4	44.4	49.3	62.4	2,068
35-49	2.7	20.1	12.8	15.4	12.4	11.3	41.5	46.2	58.1	1,912
Number of living children										
0	6.2	17.9	12.4	14.7	25.7	22.1	47.6	50.6	65.7	1,598
1-2	2.2	17.3	11.6	14.1	12.7	12.4	42.2	48.3	59.7	1,773
3-4	2.3	20.5	13.4	16.3	11.6	12.9	42.8	47.6	59.5	1,147
5+	6.0	29.7	26.2	24.8	15.2	11.6	43.6	50.5	66.9	478
Marital status										
Never married	6.4	19.9	12.5	15.8	24.2	20.7	44.7	49.2	63.1	1,540
Married or living together	3.0	18.6	14.0	16.1	13.6	13.5	44.6	49.6	62.4	2,920
Divorced/separated/widowed	1.5	22.5	15.1	14.6	13.6	11.7	40.4	46.2	59.2	536
Employed last 12 months										
Not employed	4.5	21.6	14.2	17.0	18.3	17.3	44.9	50.9	65.1	3,004
Employed for cash	2.4	15.5	12.0	12.8	14.2	12.5	42.6	45.8	57.0	1,891
Employed not for cash	10.9	28.9	32.6	37.3	21.9	21.3	51.6	56.1	75.9	93
Missing	18.5	18.5	0.0	15.6	20.6	16.9	59.0	59.0	72.4	8
Residence										
Total Urban	3.3	15.4	8.1	11.7	12.9	11.0	29.7	34.5	44.9	1,475
Georgetown (urban)	2.9	15.6	6.7	10.9	11.2	11.3	20.8	25.9	34.4	967
Other (urban)	3.9	14.8	10.8	13.2	16.1	10.4	46.6	51.1	65.0	508
Rural	4.1	21.1	16.0	17.6	18.5	17.4	50.2	55.2	69.5	3,521
Total Coastal	3.4	17.9	11.6	14.0	16.5	15.6	44.8	49.6	62.1	4,495
Coastal (urban)	3.3	15.4	8.1	11.7	12.9	11.0	29.7	34.5	44.9	1,475
Coastal (rural)	3.4	19.1	13.2	15.1	18.3	17.9	52.1	57.0	70.5	3,019
Total Interior	8.5	33.0	32.7	32.2	19.9	14.7	38.9	44.3	63.8	501
Region										
Region 1	9.5	31.5	34.7	34.8	15.7	14.8	32.2	35.5	59.9	162
Region 2	3.3	13.9	11.2	11.9	14.7	13.9	39.7	40.5	54.7	293
Region 3	3.7	15.0	14.9	15.7	19.8	20.7	69.4	74.0	83.6	687
Region 4	2.2	15.6	9.6	11.7	14.8	14.6	35.5	41.3	53.4	2,168
Region 5	6.9	38.7	23.1	31.2	22.5	28.9	61.1	65.8	82.3	353
Region 6	4.8	18.4	8.4	11.2	17.3	11.0	41.2	46.0	57.6	780
Region 7	8.1	32.8	38.0	33.5	16.7	11.0	36.1	39.0	59.7	104
Region 8	11.5	35.5	27.9	27.4	26.1	17.9	52.8	63.2	70.6	95
Region 9	8.6	31.4	25.8	25.9	24.4	17.2	39.0	44.1	63.5	78
Region 10	2.9	23.5	18.0	22.0	14.8	8.6	49.3	53.2	73.5	277
Education										
No education	8.9	40.0	25.4	25.9	21.9	15.7	29.7	42.6	66.5	68
Primary	4.4	27.4	18.8	21.1	16.1	15.6	47.1	51.8	66.5	952
Secondary	3.9	18.1	13.0	14.9	17.7	16.2	44.6	49.6	62.7	3,568
More than secondary	1.5	8.7	6.0	9.6	10.2	9.6	36.1	39.4	47.4	409
Wealth quintile										
Lowest	7.9	36.5	29.0	31.7	22.6	18.4	45.4	51.1	71.9	779
Second	4.6	24.5	17.1	18.5	16.2	16.0	49.7	55.6	70.5	957
Middle	2.9	17.1	13.3	13.8	17.7	18.0	49.7	56.1	67.2	1,025
Fourth	3.5	15.9	9.7	14.3	15.7	13.8	41.1	44.2	57.8	1,084
Highest	1.8	9.0	4.5	6.2	13.8	12.6	36.7	40.8	48.7	1,151
Total	3.9	19.4	13.7	15.8	16.8	15.5	44.2	49.1	62.3	4,996

CHILD HEALTH 10

Reducing child mortality and morbidity, as well as improving the overall health and wellbeing of children are top priorities for the Government of Guyana and the Ministry of Health as part of their efforts to meet Millennium Development Goals (MDG) for the country. Child health services in Guyana are provided free of charge to all children and are integrated into the primary health care services through the Package of Guaranteed Public Health Services. These services are delivered through the five levels of care: health posts (Level 1), health centers (Level 2), district hospitals (Level 3), regional hospitals (Level 4), and national referral hospitals (Level 5). They are supported by a national referral system that allows for efficient movement of individuals from one level to another. In the rural communities, health services are provided in the health posts, health centers, and district hospitals, and these facilities are staffed with community health workers (CHW), midwives, nurses, and district medical officers.

This chapter presents the findings on child health from the 2009 GDHS. It focuses particularly on neonatal conditions (birth weight and size at birth), children's vaccination status, and treatment practices that are commonly used for children experiencing the three major childhood illnesses: acute respiratory infection (ARI), fever, and diarrhea. The information on children's birth weight and size, treatment practices, and contact with health facilities when children are sick paves the way to strategic planning and implementation of programs to reduce neonatal and infant mortality. Combined with information on childhood mortality, this information can be used to identify subgroups of women and children who face increased risk because of non-use of maternal and child health (MCH) services, and to assist with planning effective improvements for these services.

10.1 CHILD'S SIZE AT BIRTH

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

- Birth weight was reported for 84 percent of live births in the five years preceding the survey. Of these births, 13 percent were reported (based on either a written record or the mother's report) to be less than 2.5 kg. The percentage of births less than 2.5 kg is higher for births of mothers younger than 20 years (20 percent) and for first-order births (18 percent). The percentage of low-weight births tends to be higher for mothers with no primary education. Wealth and area of residence of mothers did not significantly influence birth weights.
- All mothers were asked about their estimate of the baby's size at birth. Seven percent of the births were estimated as very small and 14 percent as smaller than average by the mother. Three-quarters of the births (75 percent) were reported to be average or larger than average at birth.
- Births of sixth or higher order (32 percent), those from the Interior area (27 percent), births to mothers with no education (28 percent) and births from the lowest wealth quintile (26 percent) are the most likely to be reported as very small or smaller than average by the mother when compared with other births.

Table 10.1 Child's weight and size at birth

Percent distribution of live births in the five years preceding the survey, by birth weight; percent distribution of all live births in the five years preceding the survey, by mother's estimate of baby's size at birth; and percentage of all births with a reported birth weight, according to background characteristics, Guyana 2009

Background characteristic	Reported birth weight[1]				Percentage of all births with a reported birth weight	Size of child at birth					
	Less than 2.5 kg.	2.5 kg or more	Total	Number of births		Very small	Smaller than average	Average or larger	Don't know/ missing	Total	Number of births
Mother's age at birth											
<20	19.8	80.2	100.0	389	85.3	7.3	16.9	73.2	2.6	100.0	456
20-34	11.1	88.9	100.0	1,024	83.9	7.3	12.5	76.8	3.4	100.0	1,221
35-49	10.5	89.5	100.0	167	80.1	5.9	17.4	69.8	6.9	100.0	209
Birth order											
1	17.5	82.5	100.0	544	87.5	7.5	14.5	75.9	2.1	100.0	622
2-3	11.1	88.9	100.0	669	84.5	5.4	12.6	78.5	3.5	100.0	792
4-5	9.7	90.3	100.0	234	79.2	7.2	14.6	73.7	4.5	100.0	296
6+	12.2	87.8	100.0	133	75.4	13.3	18.5	60.3	7.9	100.0	176
Mother's smoking status											
Smokes cigarettes/ tobacco	(8.3)	(91.7)	(100.0)	37	68.9	4.1	22.4	71.4	2.1	100.0	54
Does not smoke	13.3	86.7	100.0	1,543	84.5	7.2	13.8	75.4	3.6	100.0	1,827
Residence											
Total Urban	12.9	87.1	100.0	382	89.9	5.4	11.6	80.9	2.1	100.0	425
Georgetown (urban)	12.0	88.0	100.0	242	91.2	3.8	8.7	85.4	2.1	100.0	265
Other (urban)	14.5	85.5	100.0	140	87.8	8.0	16.6	73.4	2.0	100.0	159
Total Rural	13.2	86.8	100.0	1,199	82.0	7.6	14.8	73.5	4.1	100.0	1,462
Total Coastal	13.6	86.4	100.0	1,277	86.4	5.8	13.8	77.4	2.9	100.0	1,477
Coastal (urban)	12.9	87.1	100.0	382	89.9	5.4	11.6	80.9	2.1	100.0	425
Coastal (rural)	13.8	86.2	100.0	895	85.0	6.0	14.7	76.1	3.3	100.0	1,053
Total Interior	11.5	88.5	100.0	304	74.3	11.9	15.0	67.0	6.1	100.0	409
Region											
Region 1	9.3	90.7	100.0	114	69.6	16.7	17.0	59.6	6.8	100.0	164
Region 2	11.1	88.9	100.0	92	84.6	6.1	10.8	78.7	4.3	100.0	108
Region 3	15.4	84.6	100.0	217	92.8	8.4	14.6	75.0	2.0	100.0	234
Region 4	11.4	88.6	100.0	576	86.6	4.1	12.0	81.6	2.4	100.0	666
Region 5	16.3	83.7	100.0	99	71.3	7.1	17.2	70.4	5.3	100.0	139
Region 6	17.6	82.4	100.0	219	86.7	6.2	17.3	72.3	4.2	100.0	253
Region 7	16.1	83.9	100.0	60	93.3	10.3	14.6	71.5	3.5	100.0	65
Region 8	13.8	86.2	100.0	54	75.0	5.7	16.3	71.7	6.3	100.0	72
Region 9	12.5	87.5	100.0	37	59.4	14.2	11.5	64.5	9.8	100.0	62
Region 10	10.6	89.4	100.0	112	90.1	6.9	13.3	79.1	0.8	100.0	124
Mother's education											
No education	(21.5)	(78.5)	(100.0)	37	61.8	13.6	14.5	59.4	12.5	100.0	60
Primary	16.2	83.8	100.0	330	79.3	9.4	20.1	66.6	4.0	100.0	416
Secondary	11.7	88.3	100.0	1,096	85.5	6.3	13.2	77.1	3.3	100.0	1,282
More than secondary	15.8	84.2	100.0	118	91.0	4.8	3.7	90.5	1.0	100.0	129
Wealth quintile											
Lowest	11.7	88.3	100.0	400	73.3	10.7	15.3	68.3	5.8	100.0	545
Second	13.9	86.1	100.0	348	87.3	6.0	19.3	72.5	2.2	100.0	399
Middle	17.1	82.9	100.0	309	88.7	6.0	14.2	76.0	3.8	100.0	349
Fourth	10.2	89.8	100.0	265	90.5	5.7	10.9	82.2	1.2	100.0	293
Highest	12.9	87.1	100.0	258	85.9	4.8	8.1	83.4	3.7	100.0	301
Total	13.2	86.8	100.0	1,580	83.8	7.1	14.1	75.2	3.6	100.0	1,886

Note: Figures in parentheses are based on 25-49 unweighted cases.
[1] Based on either a written record or the mother's report

10.2 VACCINATION OF CHILDREN

The 2009 GDHS collected information on immunization coverage for all children born in the five years before the survey (since January 2004). The government of Guyana has adopted the World Health Organization (WHO) and UNICEF guidelines for vaccinating children. According to these guidelines, to be considered *fully vaccinated*, a child should receive the following vaccinations: one dose each of BCG and measles, three doses of polio vaccine, and three doses of diphtheria, pertussis (whooping cough), and tetanus (DPT) vaccine. In addition, even though no cases of yellow fever have been reported for the past three decades, a vaccine against yellow fever is also recommended for children in Guyana because the country is situated in the region of South America where the threat of yellow fever still exists. BCG, which protects against tuberculosis, should be given at birth or at first clinical contact. DPT and polio vaccine guidelines require three vaccinations at approximately 6, 10, and 14 weeks of age. The measles and yellow fever vaccines should be given between 9 and 18 months of age. In Guyana, vaccines against measles and rubella are given as part of the MMR vaccine. Currently, the pentavalent vaccine (DPT/HepB/HiB), has replaced the DPT vaccine. This vaccine contains, in addition to DPT, the hepatitis B vaccine and a vaccine against *Haemophilus* influenza type B. It is recommended that children receive the complete schedule of vaccinations before 12 months of age.

In the GDHS, information on vaccination coverage was obtained in two ways—from health cards and from mothers' verbal reports. All mothers were asked to show the interviewer the health cards on which the child's immunizations are recorded. If the card was available, the interviewer copied the dates of each vaccination received. If a vaccination was not recorded on the card, the mother was asked to recall whether that particular vaccination had been given. If the mother was not able to present a card for a child, she was asked to recall whether the child had received BCG, polio, pentavalent, MMR/measles, and yellow fever vaccinations. If she recalled that the child had received the polio or pentavalent vaccines, she was asked about the number of doses that the child received.

The data presented here are for children age 18-29 months, the youngest cohort of children who have reached the age by which they should be fully vaccinated, and are restricted to children who were alive at the time of the survey.

10.2.1 Vaccination at Any Time before the Survey

Table 10.2 shows the percentage of children age 18-29 months who received specific vaccines at any time before the survey by source of information. These children are the youngest who have reached the age by which they should be fully vaccinated. The results are restricted to children who were alive at the time of the survey.

Table 10.2 Vaccinations by source of information

Percentage of children 18-29 months who received specific vaccines at any time before the survey, by source of information (vaccination card or the mother's report), and percentage vaccinated by 18 months of age, Guyana 2009

		Pentavalent[1]			Polio								
Source of information	BCG	1	2	3	1	2	3	MMR	Measles	Yellow fever	All basic vaccines[2]	None	Number of children
Vaccination at any time before the survey													
Vaccination card	86.5	85.8	84.9	82.2	72.0	70.7	68.9	61.2	76.2	73.7	62.9	0.2	336
Mother's report	7.7	6.1	4.1	2.5	6.4	5.0	1.2	5.5	5.5	5.3	0.5	4.5	47
Either source	94.1	91.9	89.0	84.7	78.4	75.8	70.0	66.6	81.7	79.0	63.4	4.6	384
Vaccinated by 18 months of age[3]	94.1	91.9	89.0	83.0	77.5	75.8	68.3	59.4	77.2	75.1	58.4	4.6	384

[1] Pentavalent vaccine is also known as DPT+Hib+HepB
[2] BCG, measles, and three doses each of pentavalent and polio vaccines
[3] For children whose information was based on the mother's report, the proportion of vaccinations given during the first 18 months of life was assumed to be the same as for children with a written record of vaccination.

Table 10.3 shows the percentage of children age 18-29 months who received specific vaccines at any time before the survey (according to a vaccination card or the mother's report), and the percentage with a vaccination card by background characteristics. Given the small number of cases, results are not shown by region.

Table 10.3 Vaccinations by background characteristics

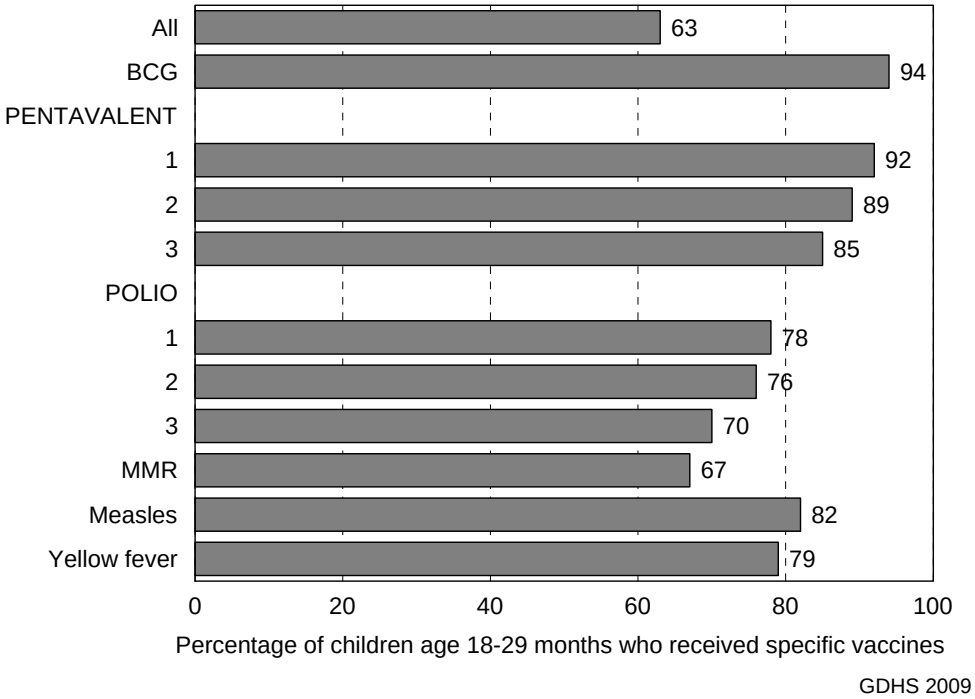
Percentage of children age 18-29 months who received specific vaccines at any time before the survey (according to a vaccination card or the mother's report), and percentage with a vaccination card, by background characteristics, Guyana 2009

Background characteristic	BCG	Pentavalent[1] 1	Pentavalent[1] 2	Pentavalent[1] 3	Polio 1	Polio 2	Polio 3	MMR	Measles	Yellow fever	All basic vaccines[2]	None	Percentage with health card	Number of children
Sex														
Male	92.4	90.4	88.8	82.1	76.9	74.4	68.5	63.9	81.4	77.5	62.4	6.2	87.0	190
Female	95.9	93.4	89.3	87.2	79.9	77.1	71.5	69.3	82.0	80.5	64.4	3.1	88.3	194
Birth order														
1	91.9	86.0	83.7	75.8	76.2	73.5	61.9	65.1	79.8	73.1	55.9	5.9	79.0	117
2-3	95.3	94.6	92.3	90.8	78.7	76.5	74.5	65.5	83.5	84.3	68.5	4.4	92.1	181
4-5	94.3	92.0	87.8	86.7	80.5	76.3	75.7	76.2	87.4	80.6	70.5	4.3	88.3	55
6+	94.9	98.4	92.5	78.6	80.9	78.8	64.8	62.0	67.9	67.3	49.7	1.6	93.2	31
Residence														
Total Urban	96.1	97.5	94.3	87.8	77.1	75.7	67.2	78.6	88.1	87.1	60.2	2.5	84.9	85
Total Rural	93.6	90.3	87.5	83.8	78.8	75.8	70.9	63.2	79.8	76.7	64.3	5.2	88.4	299
Total Coastal	95.2	93.5	90.5	87.3	78.5	75.8	70.3	67.5	84.8	81.9	63.8	3.8	86.9	287
Coastal (urban)	96.1	97.5	94.3	87.8	77.1	75.7	67.2	78.6	88.1	87.1	60.2	2.5	84.9	85
Coastal (rural)	94.8	91.7	88.8	87.1	79.1	75.8	71.6	62.9	83.4	79.7	65.4	4.4	87.7	202
Total Interior	91.0	87.4	84.7	76.8	78.1	75.6	69.3	63.9	72.4	70.4	62.1	7.0	90.0	97
Mother's education														
No education	*	*	*	*	*	*	*	*	*	*	*	*	*	7
Primary	93.2	93.7	87.4	81.8	88.4	85.8	78.2	61.9	79.0	78.8	67.3	4.7	90.0	88
Secondary	95.0	91.9	90.4	87.6	76.1	73.2	69.6	67.5	82.7	79.4	64.3	4.1	89.4	263
More than secondary	(95.1)	(92.2)	(86.1)	(68.4)	(76.8)	(76.8)	(54.5)	(85.3)	(90.0)	(82.6)	52.8	(3.2)	(66.3)	26
Wealth quintile														
Lowest	89.1	84.8	82.2	76.5	79.6	76.4	68.8	56.2	69.4	70.4	59.9	9.0	84.1	134
Second	98.6	97.6	91.2	91.2	84.3	83.5	76.9	70.8	92.7	86.2	71.6	0.7	90.5	60
Middle	94.6	92.4	92.4	90.7	72.2	69.8	69.5	70.4	85.0	79.5	64.6	4.2	92.2	67
Fourth	94.8	94.2	92.1	88.4	82.3	78.0	72.0	72.4	89.2	85.2	68.8	3.5	88.2	52
Highest	99.0	98.4	94.6	86.2	74.0	71.9	65.6	75.0	87.0	84.0	57.9	1.0	87.3	71
Total	94.1	91.9	89.0	84.7	78.4	75.8	70.0	66.6	81.7	79.0	63.4	4.6	87.7	384

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] Pentavalent vaccine is also known as DPT+Hib+HepB
[2] BCG, measles, and three doses each of Pentavalent and polio vaccines

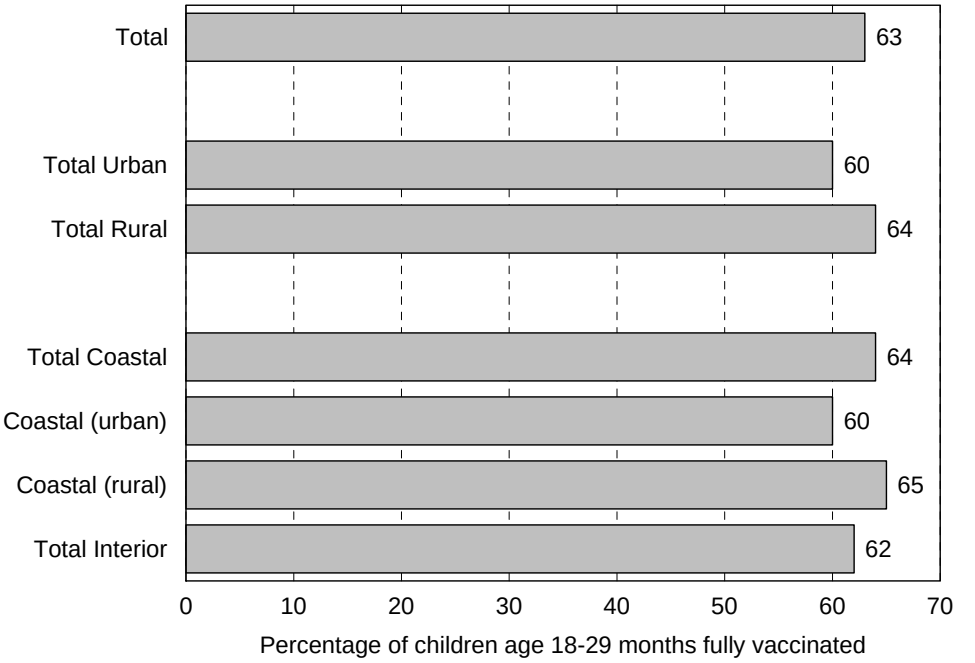
Figure 10.1 shows the vaccination coverage by type of vaccine, and Figure 10.2 shows the vaccination coverage by residence.

Figure 10.1 Vaccination Coverage at Any Time before the Survey among Children 18-29 Months



GDHS 2009

Figure 10.2 Children Age 18-29 Months with All Vaccines at Any Time before the Survey, by Residence



GDHS 2009

- The vaccination cards were seen for 88 percent of the children in the survey.
- Overall, 63 percent of Guyanese children age 18-29 months are fully immunized, and only 5 percent of the children have received no vaccinations at all. Fifty-eight percent of children age 18-29 months are fully vaccinated by 18 months of age.
- Looking at coverage for specific vaccines, 94 percent of children have received the BCG vaccination, 92 percent have received the first dose of pentavalent vaccine, and 78 percent have received the first polio dose (Polio 1). Coverage for the Pentavalent and polio vaccinations declines with subsequent doses; 85 percent of children received the recommended three doses of pentavalent vaccine, and 70 percent received three doses of polio vaccine. These figures reflect dropout rates of 8 percent for the pentavalent vaccine and 11 percent for polio; the dropout rate represents the proportion of children who received the first dose of a vaccine but who did not get the third dose. Eighty-two percent of children are vaccinated against measles, and 79 percent have been vaccinated against yellow fever.
- Full vaccination coverage is lower for first- and sixth- or higher-order births (56 and 50 percent, respectively). Full vaccination coverage decreases with an increase in mother's education, and it is lowest for children in the lowest and highest wealth quintiles.
- There are no major variations in vaccination coverage by residence. However, children in the Interior area are somewhat less likely to be vaccinated than other children. This is especially true when looking at specific vaccines. For example, the percentages of children who received the third dose of the pentavalent vaccine (77 percent) and polio (69 percent), and who are vaccinated against measles (72 percent) and yellow fever (70 percent) are below the national average, indicating a need for scaling up efforts in the Interior area to reach more children and to improve the quality of vaccination services, including recording and monitoring systems.

10.2.2 Trends in Vaccination Coverage

Table 10.4 shows the percentage of children age 18-59 months (at the time of the survey) who received specific vaccines by 18 months of age, and the percentage with a vaccination card. This table helps estimate changes in vaccination coverage over time.

- Children in the oldest cohort (42-59 months) were less likely to have received all their vaccinations (44 percent) than children age 30-41 months (52 percent) and those 18-29 months (58 percent). This pattern is seen with each vaccine but is more marked when all the vaccines are considered together. The findings support a trend towards increased vaccination coverage in Guyana over time.
- Vaccination cards were shown to interviewers for 88 percent of children age 18-29 months, compared with 82 percent of children age 42-59 months. The difference may partly result from the cards for older children having been lost or misplaced over the longer period of time.

Table 10.4 Vaccinations in the first 18 months of life

Percentage of children age 18-59 months at the time of the survey who received specific vaccines by 18 months of age, and percentage with a vaccination card, by current age of the child, Guyana 2009

Age in months	BCG	Pentavalent[1]			Polio			MMR	Measles	Yellow fever	All basic vaccines[2]	None	Percentage with health card	Number of children
		1	2	3	1	2	3							
18-29	94.1	91.9	89.0	83.0	77.5	75.8	68.3	59.4	77.2	75.1	58.4	4.6	87.7	384
30-41	88.5	87.6	85.5	79.0	75.7	70.3	62.0	51.5	73.6	67.9	51.6	9.2	84.1	336
42-59	86.9	87.3	83.6	74.7	71.0	66.1	59.0	55.9	67.1	65.5	44.4	10.7	82.1	502
Total	89.6	88.8	85.8	78.5	74.3	70.3	62.8	55.8	72.1	69.2	50.8	8.4	84.4	1,222

Note: Information was obtained from the vaccination card, or if there was no written record, from the mother. For children whose information was based on the mother's report, the proportion of vaccinations given during the first 18 months of life was assumed to be the same as for children with a written record of vaccinations.
[1] Pentavalent vaccine is also known as DPT+Hib+HepB.
[2] BCG, measles, and three doses each of pentavalent and polio vaccines

Data on vaccination coverage for children in the first 12 months of life are also available from the Guyana Ministry of Health. A direct comparison between the GDHS and the MOH vaccination coverage data is not possible because of the different age range (12 months by the MOH versus 18 months in the GDHS) and different reporting methodologies. The GDHS data are collected at the household level based on the vaccination card or, if there is no written record, based on mother's reporting, which may cause under-reporting due to recall bias. Furthermore, children's vaccination cards may have been lost or misplaced in the household. Finally, other issues that could cause under-reporting of the vaccination coverage in the GDHS may be due to data collection issues such as insufficient probing or incorrect recording by the interviewers.

The Guyana MOH 2009 vaccination coverage rates for children in the first 12 months of age are generally higher than those reported in the 2009 GDHS.

- The 2009 vaccination coverage rates by 12 months of age as reported by the MOH are 98 percent for BCG; 97-98 percent for the three doses of the pentavalent vaccine; 97-98 percent for polio, 97 percent for measles, and 97 percent for yellow fever.

10.3 ACUTE RESPIRATORY INFECTION

Acute lower respiratory tract infection (ARI), primarily pneumonia, is a common cause of illness and death during infancy and childhood. In the case of pneumonia, early diagnosis and treatment with antibiotics can prevent a large proportion of deaths due to acute respiratory infections (ARI). The prevalence of ARI in the 2009 GDHS was estimated by asking mothers whether their children under age five had been ill with a cough accompanied by short, rapid breathing in the two weeks preceding the survey. These symptoms, though compatible with pneumonia, are subjective (i.e., mother's perception of illness) and were not validated by a medical examination.

Table 10.5 shows the percentage of children under age 5 who had a cough accompanied by short, rapid breathing (symptoms of ARI).

- Nationally, 5 percent of children under age 5 had symptoms of an ARI in the two weeks preceding the survey. For 65 percent of these children, advice or treatment was sought from a health facility or provider, and 18 percent received antibiotics for the ARI symptoms (data not shown separately due to small number of cases).
- The prevalence of acute respiratory infection among children increases with age from 1 percent for those under 6 months to 7 percent for children age 12 to 17 months, after which it drops slightly to 4 to 6 percent.
- There are no major variations in the prevalence of ARI symptoms among children under age 5 by gender or mother's smoking status.
- Twice as many children in households that use wood or straw for cooking (7 percent) have ARI symptoms as children in households that use kerosene (3 percent).
- Children in the Rural areas (5 percent) and in the Interior area (7 percent) are more likely to have ARI symptoms that children residing in the Urban areas (3 percent) or in the Coastal area (4 percent). Among regions, 12 percent of all children in Region 8 reported ARI symptoms compared with just 2 percent in Regions 5 and 9.
- There is no clear relationship between prevalence of ARI symptoms among young children and mother's education and household wealth.

Table 10.5 Prevalence and treatment of symptoms of acute respiratory infection (ARI)

Among children under age 5, the percentage who had symptoms of acute respiratory infection, (ARI) in the two weeks preceding the survey, according to background characteristics, Guyana 2009

Background characteristic	Percentage of children with symptoms of ARI[1]	Number of children
Age in months		
<6	1.0	221
6-11	6.0	194
12-17	7.3	178
18-29	4.1	384
30-41	5.8	336
42-59	4.5	502
Sex		
Male	4.9	895
Female	4.5	920
Mother's smoking status		
Smokes cigarettes/tobacco	5.6	51
Does not smoke	4.7	1,760
Cooking fuel		
Electricity or gas	5.4	899
Kerosene	3.0	668
Wood/straw[2]	6.9	236
Residence		
Total Urban	3.4	405
Georgetown (urban)	2.3	252
Other (urban)	5.1	154
Total Rural	5.1	1,410
Total Coastal	4.1	1,421
Coastal (urban)	3.4	405
Coastal (rural)	4.4	1,015
Total Interior	6.8	395
Region		
Region 1	7.1	157
Region 2	4.9	106
Region 3	6.9	229
Region 4	3.0	637
Region 5	2.4	129
Region 6	3.9	245
Region 7	6.1	62
Region 8	12.2	71
Region 9	1.7	61
Region 10	6.5	118
Mother's education		
No education	4.9	56
Primary	5.2	397
Secondary	4.3	1,234
More than secondary	6.2	128
Wealth quintile		
Lowest	6.5	527
Second	3.8	380
Middle	2.9	335
Fourth	5.4	288
Highest	3.8	285
Total	4.7	1,815

[1] Symptoms of ARI (cough accompanied by short, rapid breathing, which was chest-related) are considered a proxy for pneumonia.
[2] Includes grass, shrubs, crop residues

10.4 FEVER

Fever is a symptom of malaria and other acute infections in children. Malaria and other illnesses that cause fever contribute to high levels of malnutrition and mortality. Although fever can occur year-round, malaria is more prevalent after the end of the rainy season. For this reason, temporal factors must be taken into account when interpreting fever as an indicator of malaria prevalence. Because malaria is a major cause contributing to mortality during infancy and childhood in many developing countries, the so-called presumptive treatment of fever with antimalarial medication is advocated in many countries where malaria is endemic. Malaria in Guyana is discussed in greater detail in Chapter 12.

Table 10.6 shows the percentage of children under age 5 with fever during the two weeks preceding the survey and the percentage receiving various treatments, by selected background characteristics.

- One in five children under age 5 in Guyana (20 percent) had fever in the two-week period preceding the survey. Fever is most common among children age 6-29 months (24-26 percent) and then decreases with age. The prevalence of fever is similar for both sexes.
- Children in urban areas are less likely than those in rural areas to have fever (15 percent versus 22 percent). Regions 7 and 8 have the highest prevalence rates for fever among children under age 5 (26 percent each), while Region 9 has the lowest prevalence (14 percent).
- About six in ten children under age 5 with fever (59 percent) were taken to the health facility or provider for the most recent episode of fever. Furthermore, 21 percent received antibiotics, and 6 percent received antimalarial drugs for the fever.

Table 10.6 Prevalence and treatment of fever

Among children under age 5, the percentage who had a fever in the two weeks preceding the survey; and among children with fever, the percentage of children for whom advice or treatment was sought from a health facility or provider, the percentage who took antimalarial drugs and the percentage who took antibiotic drugs, by background characteristics, Guyana 2009

	Children under age 5		Children under age 5 with fever			
Background characteristic	Percentage with fever in the two weeks preceding the survey	Number of children	Percentage for whom advice or treatment was sought from a health facility or provider[1]	Percentage who took antimalarial drugs	Percentage who took antibiotic drugs	Number of children
Age in months						
<6	17.2	221	(57.0)	(0.0)	(12.6)	38
6-11	25.2	194	66.2	4.5	19.3	49
12-17	26.2	178	74.3	6.9	23.7	47
18-29	24.1	384	55.6	6.4	20.9	93
30-41	18.2	336	52.5	13.7	22.9	61
42-59	15.5	502	55.7	4.8	24.2	78
Sex						
Male	21.2	895	58.4	7.8	21.2	190
Female	19.1	920	59.8	4.9	21.3	176
Residence						
Total Urban	15.2	405	61.2	13.1	12.6	62
Georgetown (urban)	10.7	252	*	*	*	27
Other (urban)	22.6	154	61.8	13.5	15.3	35
Total Rural	21.5	1,410	58.6	5.1	23.0	304
Coastal	19.8	1,421	56.4	7.3	24.8	282
Coastal (urban)	15.2	405	61.2	13.1	12.6	62
Coastal (rural)	21.7	1,015	55.1	5.7	28.2	220
Total Interior	21.2	395	67.8	3.4	9.2	84
Region						
Region 1	20.2	157	(71.1)	(7.0)	(8.7)	32
Region 2	16.7	106	(87.3)	(6.5)	(19.3)	18
Region 3	19.5	229	(48.8)	(11.9)	(14.8)	45
Region 4	19.0	637	3.3	7.3	25.5	121
Region 5	21.8	129	(64.3)	(0.0)	(29.4)	28
Region 6	21.5	245	53.3	2.5	34.8	53
Region 7	26.0	62	(63.4)	(2.3)	(11.2)	16
Region 8	25.7	71	(75.0)	(1.4)	(13.3)	18
Region 9	13.7	61	(62.3)	(0.7)	(6.8)	8
Region 10	22.8	118	(60.6)	(14.9)	(9.5)	27
Mother's education						
No education	11.8	56	*	*	*	7
Primary	22.5	397	65.0	0.5	22.4	89
Secondary	19.9	1,234	57.3	7.1	21.2	246
More than secondary	18.5	128	*	*	*	24
Wealth quintile						
Lowest	20.2	527	68.2	2.1	14.8	107
Second	20.3	380	52.0	3.4	23.7	77
Middle	25.1	335	58.2	6.6	29.8	84
Fourth	20.1	288	55.4	11.6	13.1	58
Highest	14.1	285	(55.2)	(15.9)	(27.3)	40
Total	20.1	1,815	59.0	6.4	21.2	366

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]Excludes pharmacy, shop, and traditional practitioner

10.5 DIARRHEA: PREVALENCE AND TREATMENT

Dehydration caused by severe diarrhea is a major cause of morbidity and mortality among young children in Guyana, although the condition can be easily treated with oral rehydration therapy (ORT). Exposure to diarrhea-causing agents is frequently related to the use of contaminated water and to unhygienic practices in food preparation and disposal of excreta. In the 2009 GDHS, mothers were asked whether any of their children under age 5 had diarrhea during the two weeks preceding the survey. If a child had diarrhea, the mother was asked about feeding practices during the diarrheal episode and about actions taken to treat the diarrhea.

10.5.1 Prevalence of Diarrhea

The questions included in the 2009 GDHS can be used to obtain a period prevalence measure of diarrhea, the percentage of children under age 5 whose mothers reported that they had been ill with diarrhea in a two-week period before the interview. Table 10.7 shows the percentage of children under age 5 with diarrhea in the two weeks preceding the survey, by selected background characteristics. The estimate is affected by the reliability of the mother's recall as to when the diarrheal episode occurred. Because the number of cases of diarrhea varies seasonally, in interpreting the findings it should be taken into account that fieldwork for 2009 GDHS took place between early February and late July.

- Overall, about 10 percent of children were reported to have diarrhea in the two weeks before the survey, with just 1 percent having bloody diarrhea. Not surprisingly, very young children are least likely to have had diarrhea, presumably because most of them are exclusively breastfed and hence less exposed to contaminated food. Diarrhea prevalence increases sharply, from 7 percent among children less than 6 months to 18 percent for children 6-11 months and 13 percent for children 12-29 months, and then declines at older ages. The introduction of other liquids and foods at the time of weaning can facilitate the spread of disease-causing microbes. Additionally, at around 12 months, children start to walk and are at increased risk of contamination from the environment. Male children are only slightly more likely to have diarrhea (11 percent) than female children (9 percent).
- Prevalence of diarrhea is higher in households where the drinking water source is not improved (15 percent) than when it is improved (9 percent). Similarly, it is higher in households with non-improved or shared toilet facilities (15 percent) compared with households with an improved, not shared facility (8 percent), clearly indicating the need to address the issues of safe drinking water and improved sanitation.
- Prevalence of diarrhea in Rural areas (11 percent) and the Interior area (14 percent) is significantly higher than the prevalence in Urban areas (6 percent) and in the Coastal areas (9 percent). The prevalence of diarrhea among children under age 5 ranges from 6 percent in Region 10 to 20 percent in Region 1.
- There is no clear pattern in the relationship between prevalence of diarrhea and mother’s education. The prevalence of diarrhea decreases steadily from 16 percent for children in the poorest households to 5 percent for children in the wealthiest.

Table 10.7 Prevalence of diarrhea

Percentage of children under age 5 who had diarrhea in the two weeks preceding the survey, by background characteristics, Guyana 2009

Background characteristic	All diarrhea	Diarrhea with blood	Number of children
Age in months			
<6	7.1	2.0	221
6-11	17.5	1.3	194
12-17	13.2	2.1	178
18-29	12.6	0.4	384
30-41	8.0	0.4	336
42-59	6.2	0.1	502
Sex			
Male	10.8	0.7	895
Female	9.0	0.8	920
Source of drinking water[1]			
Improved	9.4	0.7	1,609
Not improved	13.3	0.8	206
Toilet facility[2]			
Improved, not shared	8.1	0.4	1,394
Non-improved or shared	15.4	1.8	417
Residence			
Total Urban	6.1	0.1	405
Georgetown (urban)	5.1	0.0	252
Other (urban)	7.7	0.3	154
Total Rural	11.0	0.9	1,410
Total Coastal	8.7	0.3	1,421
Coastal (urban)	6.1	0.1	405
Coastal (rural)	9.8	0.4	1,015
Total Interior	14.1	2.2	395
Region			
Region 1	19.7	3.4	157
Region 2	7.5	0.4	106
Region 3	9.5	0.0	229
Region 4	7.0	0.3	637
Region 5	13.6	1.2	129
Region 6	10.8	0.5	245
Region 7	8.9	1.0	62
Region 8	15.5	3.0	71
Region 9	9.3	1.4	61
Region 10	6.4	0.0	118
Mother's education			
No education	7.6	0.2	56
Primary	18.2	1.5	397
Secondary	7.8	0.6	1,234
More than secondary	4.8	0.0	128
Wealth quintile			
Lowest	15.7	1.6	527
Second	10.5	0.7	380
Middle	8.3	0.6	335
Fourth	5.2	0.0	288
Highest	4.9	0.3	285
Total	9.9	0.8	1,815

[1] See Table 2.6 for definition of categories.
[2] See Table 2.8 for definition of categories.

10.5.2 Treatment of Diarrhea

Oral rehydration therapy (ORT), which involves giving children with diarrhea a solution prepared from oral rehydration salts (ORS) or recommended home fluids (RHF)—usually a homemade sugar-salt-water solution—is a simple and effective response to diarrheal illness. Commercially prepared ORS packets and pre-packaged oral rehydration liquids are available free of charge at public health facilities across Guyana. However, in Rural and Interior areas, they are often difficult to access. On the other hand, preparation of RHF at home is simple, and mothers are shown how to prepare RHF at child health clinics.

Mothers of children with diarrhea in the two weeks preceding the survey were asked what was done to manage or treat the illness. Table 10.8 shows the percentage of children with diarrhea who were taken to a health provider for treatment, the percentage who received ORT, and the percentage who were given other treatments, by sex and residence. The breakdown by other background characteristics such as child's age, mother's education, and the wealth quintiles is not shown due to the small number of cases.

- Overall, about six in ten children under age 5 with diarrhea (59 percent) were taken to a health facility or health provider for advice or treatment. Male children (55 percent) are less likely to be taken for treatment or advice to a health facility or provider for their diarrhea than female children (63 percent). Additionally, children living in the Coastal area are much less likely to be taken for treatment or advice (50 percent) than children in the Interior area (79 percent).
- Oral rehydration therapy (ORT) was given to almost six in ten children (59 percent), and 50 percent received ORS packets or pre-packaged liquid and 16 percent received RHF. In total, 64 percent of children with diarrhea received ORT or increased fluids. Female children and children residing in the Interior area are more likely than male children or those in the Coastal area to be treated with ORT and/or increased fluids for their diarrhea.
- Antibiotics are generally not recommended to treat non-bloody diarrhea in young children. Twelve percent of children with diarrhea received antibiotics, even though only 1 percent of children under age 5 had a bloody diarrhea. Four percent of children received anti-motility drugs, and 1 percent received zinc supplements. One in four children (25 percent) received home or other remedies for their diarrhea.
- About one in five children with diarrhea (18 percent) did not receive any treatment at all. Urban children are more than twice as likely as rural children (36 versus 15 percent), and children living in the Coastal area are almost five times as likely as children in the Interior area (24 percent versus 5 percent) to receive no treatment at all for their diarrhea.

Table 10.8 Diarrhea treatment

Among children under age 5 who had diarrhea in the two weeks preceding the survey, the percentage for whom advice or treatment was sought from a health facility or provider, the percentage given oral rehydration therapy (ORT), the percentage given increased fluids, the percentage given ORT or increased fluids, and the percentage who were given other treatments, by selected background characteristics, Guyana 2009

Background characteristic	Percentage of children with diarrhea for whom advice or treatment was sought from a health facility or provider[1]	Oral rehydration therapy (ORT)					Other treatments							
		ORS packets or pre-packaged liquid	Recom-mended home fluids (RHF)	Either ORS or RHF	Increased fluids	ORT or increased fluids	Anti-biotic drugs	Anti-motility drugs	Zinc supple-ments	Intra-venous solution	Home remedy/ other	Missing	No treat-ment	Number of children
Sex														
Male	55.3	47.6	15.1	55.9	11.8	62.2	13.2	1.1	1.2	1.4	23.3	0.9	19.8	96
Female	62.9	52.4	18.0	62.5	16.1	65.5	11.0	6.7	1.4	0.0	26.2	0.3	16.3	83
Residence														
Urban	(31.5)	(12.2)	(25.4)	(37.6)	(18.8)	(52.4)	(16.0)	(0.0)	(0.0)	(0.0)	(11.5)	(0.0)	(35.6)	25
Rural	63.2	55.8	15.0	62.4	13.0	65.5	11.6	4.3	1.5	0.9	26.7	0.7	15.4	155
Coastal/Interior														
Total Coastal	49.9	41.0	18.0	51.6	15.9	57.4	15.6	4.9	1.9	1.1	19.3	0.7	24.1	124
Total Interior	78.5	69.5	13.1	75.4	9.2	77.9	4.5	1.1	0.0	0.0	36.6	0.4	4.9	55
Total	58.8	49.8	16.4	59.0	13.8	63.7	12.2	3.7	1.3	0.7	24.6	0.6	18.2	179

Note: Oral rehydration therapy (ORT) includes solution prepared from oral rehydration salts (ORS), pre-packaged ORS packets, and recommended home fluids (RHF). For 1 percent of children with diarrhea there is no information on the type of treatment. Figures in parentheses are based on 25-49 unweighted cases.
[1] Excludes pharmacy, shop, and traditional practitioner

10.5.3 Feeding Practices during Diarrhea

Mothers are encouraged to continue normal feeding of children with diarrhea and to increase the amount of fluids given. These practices help to reduce dehydration and minimize the adverse consequences of diarrhea on the child's nutritional status. Mothers interviewed in the 2009 GDHS were asked whether they gave the child less, the same amount, or more fluids and food than usual when their child had diarrhea. Table 10.9 shows the percent distribution of children under age 5 who had diarrhea in the two weeks preceding the survey by feeding practices, according to child's sex and residence. Other background characteristics are not shown due to the small number of cases.

- Only 14 percent of children with diarrhea were given more to drink than usual, 43 percent were given the same as usual, and 43 percent were given less to drink than usual or nothing at all. It is particularly unfortunate that 20 percent of children with diarrhea were given much less or nothing to drink.
- Food intake is curtailed even more than fluid intake during episodes of diarrhea. Only 2 percent of children with diarrhea were given more to eat than usual, 31 percent were given the same amount of food as usual, and 59 percent were given less food to eat than usual or none at all. These patterns reflect a gap in practical knowledge among some mothers regarding the nutritional requirements of children during diarrheal episodes. The 2009 GDHS findings indicate a need for further health education efforts to reduce the number of children who become dehydrated or malnourished because of improper feeding practices during diarrhea.
- Only a small proportion of children with diarrhea (9 percent) were given increased fluids and continued feeding, and 39 percent were given continued feeding and received ORT and/or increased fluids. Differentials in these indicators by sex and residence are not large. Girls are slightly more likely than boys to score better on both these indicators. Children in the Coastal area are more likely to be fed according to the recommended feeding practices during diarrhea than children in the Interior area.

Table 10.9 Feeding practices during diarrhea

Percent distribution of children under age 5 who had diarrhea in the two weeks preceding the survey by amount of liquids and food offered compared with normal practice, the percentage of children given increased fluids and continued feeding during the diarrhea episode, and the percentage of children who continued feeding and were given ORT and/or increased fluids during the episode of diarrhea, by sex and residence, Guyana 2009

Background characteristic	Amount of liquids given						Amount of food given							Percentage given increased fluids and continued feeding[1]	Percentage who continued feeding and were given ORT and/or increased fluids	Number of children with diarrhea
	More	Same as usual	Some-what less	Much less	None	Total	More	Same as usual	Some-what less	Much less	None	Never gave food	Total			
Sex																
Male	11.8	49.3	18.3	20.6	0.0	100.0	2.6	30.5	28.0	32.0	0.6	4.6	100.0	8.4	36.3	96
Female	16.1	35.3	29.3	17.9	1.3	100.0	1.3	32.4	31.0	24.0	2.4	9.0	100.0	9.5	41.9	83
Residence																
Total Rural	13.0	39.9	26.4	20.3	0.4	100.0	0.9	28.3	31.0	29.7	1.4	7.7	100.0	7.3	38.2	155
Total Coastal	15.9	46.0	20.3	17.4	0.4	100.0	1.7	38.5	29.6	24.1	0.7	4.1	100.0	10.8	40.4	124
Coastal (rural)	15.1	42.2	24.3	18.4	0.0	100.0	0.0	35.5	32.1	25.2	0.5	5.2	100.0	8.8	39.8	99
Total Interior	9.2	35.8	30.2	23.7	1.1	100.0	2.6	15.4	29.0	37.7	3.0	12.2	100.0	4.8	35.4	55
Total	13.8	42.9	23.4	19.3	0.6	100.0	2.0	31.3	29.4	28.3	1.4	6.6	100.0	8.9	38.9	179

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

10.5.4 Knowledge of ORS Packets

As mentioned earlier, a simple and effective response to dehydration caused by diarrhea is a prompt increase in the child's fluid intake through some form of ORT, which may include the use of a solution prepared from packets of oral rehydration salts (ORS). To ascertain how widespread knowledge of ORS is in Guyana, mothers were asked whether they knew about ORS packets and/or pre-packaged ORS liquid. Table 10.10 shows the percentage of mothers with a birth in the five years preceding the survey who knew about ORS packets and/or pre-packaged ORS liquid for treatment of diarrhea, by background characteristics.

- Knowledge of ORS packets or pre-packaged ORS liquid is widespread in Guyana, with 67 percent of mothers having heard of it. Mothers age 25-49 (74-75 percent), mothers from urban areas (78 percent), those with more than secondary education (77 percent), and mothers from the highest wealth quintile (76 percent) have the highest level of knowledge of the ORS packets or pre-packaged ORS liquid.
- Women in Region 5 (57 percent) are the least knowledgeable about ORS packets and pre-packaged ORS liquid, while mothers in Region 8 (76 percent) are the most knowledgeable.

Table 10.10 Knowledge of ORS packets or pre-packaged ORS liquid

Percentage of mothers age 15-49 who gave birth in the five years preceding the survey who know about ORS packets or pre-packaged ORS liquid for treatment of diarrhea, by background characteristics, Guyana 2009

Background characteristic	Percentage of mothers who know about ORS packets or pre-packaged ORS liquid	Number of mothers
Age		
15-19	55.6	162
20-24	53.4	374
25-34	74.2	622
35-49	75.3	267
Residence		
Total Urban	77.6	346
Georgetown (urban)	82.9	223
Other (urban)	67.9	123
Total Rural	63.4	1,080
Total Coastal	65.9	1,160
Coastal (urban)	77.6	346
Coastal (rural)	60.9	815
Total Interior	70.8	265
Region		
Region 1	73.1	103
Region 2	73.5	80
Region 3	66.1	189
Region 4	69.0	534
Region 5	56.7	105
Region 6	58.6	194
Region 7	73.5	48
Region 8	75.5	47
Region 9	57.8	38
Region 10	67.4	88
Education		
No education	44.8	40
Primary	63.4	290
Secondary	67.6	989
More than secondary	77.2	106
Wealth quintile		
Lowest	68.8	361
Second	63.9	297
Middle	66.3	278
Fourth	58.4	241
Highest	76.2	247
Total	66.8	1,425

ORS = Oral rehydration salts

10.5.5 Disposal of Stools

If human feces are left uncontained, disease can spread by direct contact or by animal contact with the feces. Hence, the proper disposal of children's stools is important in preventing the spread of disease. Table 10.11 shows the percent distribution of mothers who have their youngest child under age 5 living with them, by the way in which the child's stools are disposed of, according to background characteristics and type of toilet facilities in the household.

Table 10.11 Disposal of children's stools

Percent distribution of youngest children under age five living with the mother by the manner of disposal of the child's last fecal matter, and percentage of children whose stools are disposed of safely, according to background characteristics, Guyana 2009

Background characteristic	Manner of disposal of children's stools								Total	Percentage of children whose stools are disposed of safely	Number of mothers
	Child used toilet or latrine	Put/rinsed into toilet or latrine	Buried	Put/rinsed into drain or ditch	Thrown into garbage	Left in the open	Other	Missing			
Age in months											
<6	5.2	53.3	1.4	13.5	21.1	0.3	1.8	3.4	100.0	59.9	217
6-11	3.8	55.3	2.5	14.7	20.7	0.7	1.6	0.7	100.0	61.5	189
12-17	7.7	55.3	1.1	10.3	22.0	1.0	1.5	1.2	100.0	64.1	172
18-29	13.1	65.2	1.5	3.8	13.0	1.1	0.9	1.4	100.0	79.8	314
30-41	35.7	54.8	0.6	1.0	5.8	0.6	0.2	1.4	100.0	91.0	218
42-59	60.7	37.3	0.0	0.0	1.2	0.4	0.0	0.4	100.0	97.9	263
Toilet facility											
Improved, not shared[1]	24.0	52.8	1.1	5.1	14.3	0.3	0.6	1.7	100.0	78.0	1,078
Non-improved or shared	17.5	56.9	1.0	11.4	8.7	2.1	2.0	0.3	100.0	75.4	293
Residence											
Total Urban	32.3	40.9	0.4	1.5	23.4	0.0	0.9	0.5	100.0	73.6	326
Georgetown (urban)	33.1	40.7	0.0	1.0	25.3	0.0	0.0	0.0	100.0	73.7	212
Other (urban)	31.0	41.3	1.1	2.4	20.1	0.0	2.6	1.4	100.0	73.4	115
Total Rural	19.6	57.7	1.3	8.0	9.8	0.9	0.9	1.7	100.0	78.6	1,047
Coastal/Interior											
Total Coastal	25.0	52.9	1.0	5.1	13.8	0.2	0.7	1.3	100.0	78.9	1,116
Coastal (urban)	32.3	40.9	0.4	1.5	23.4	0.0	0.9	0.5	100.0	73.6	326
Coastal (rural)	22.0	57.8	1.3	6.5	9.9	0.3	0.6	1.7	100.0	81.1	789
Total Interior	12.2	57.3	1.5	12.6	9.7	2.9	2.0	1.8	100.0	70.9	258
Region											
Region 1	6.2	61.7	0.0	17.2	10.8	2.3	0.0	1.8	100.0	67.9	100
Region 2	17.4	63.3	1.9	8.4	5.1	1.3	0.9	1.8	100.0	82.6	78
Region 3	23.9	62.1	0.6	5.3	8.0	0.0	0.0	0.0	100.0	86.7	182
Region 4	25.4	48.0	0.6	4.6	20.4	0.0	0.4	0.7	100.0	73.9	514
Region 5	27.1	55.0	4.7	2.2	7.5	0.0	1.6	1.9	100.0	86.8	101
Region 6	23.7	54.8	0.3	7.8	7.9	0.5	1.2	3.7	100.0	78.9	187
Region 7	15.7	47.1	2.2	14.8	11.5	2.8	2.6	3.3	100.0	65.0	46
Region 8	17.6	46.4	1.8	9.9	10.5	6.6	6.9	0.4	100.0	65.8	46
Region 9	20.6	62.6	5.3	0.2	6.7	1.4	0.0	3.3	100.0	88.5	37
Region 10	26.4	51.8	0.8	4.7	12.5	0.5	2.0	1.3	100.0	79.0	82
Education											
No education	(6.8)	(47.5)	(0.0)	(16.7)	(23.7)	(3.3)	(0.0)	(1.9)	100.0	54.3	39
Primary	20.7	58.3	1.8	10.3	4.4	1.5	0.8	2.2	100.0	80.8	284
Secondary	23.0	53.2	1.0	5.4	14.7	0.4	0.8	1.3	100.0	77.2	951
More than secondary	30.2	47.5	0.7	1.5	17.6	0.0	2.4	0.0	100.0	78.4	100
Wealth quintile											
Lowest	15.6	59.7	1.3	11.4	6.7	2.4	1.7	1.2	100.0	76.6	358
Second	21.5	62.4	1.1	4.4	8.5	0.3	0.6	1.1	100.0	85.0	278
Middle	20.3	52.8	0.4	8.6	14.5	0.0	0.8	2.7	100.0	73.5	265
Fourth	26.3	50.0	1.7	3.6	15.9	0.0	0.8	1.7	100.0	78.0	236
Highest	33.3	39.1	1.1	2.0	23.5	0.0	0.4	0.6	100.0	73.5	237
Total	22.6	53.7	1.1	6.5	13.1	0.7	0.9	1.4	100.0	77.4	1,374

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

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

- The most common method of disposing of young children's stools is rinsing the stools into a toilet or latrine (54 percent), followed by 23 percent of children who are using a toilet or latrine. The stools of 13 percent of children are thrown into the garbage, and those of 7 percent of children are put or rinsed into a drain or ditch.
- Overall, 77 percent of children in Guyana have their stools disposed of safely. The percentage of children whose stools are disposed of safely increases sharply with the child's age, especially around 18 months of age. There is no significant difference by type of toilet facility. Rural children and those living in the Coastal area (79 percent, each) are somewhat more likely to have their stools disposed of safely than Urban area children and those living in the Interior area (74 and 71 percent, respectively). Sixty-five percent of children in Region 7 have their stools disposed of safely compared with 87 percent, each, in Regions 3 and 5. The stools of children of mothers with no education (54 percent) are much less likely to be disposed of safely than children of mothers with any education 77-81 percent). There is no clear relationship between the percentage of children whose stools are disposed of safely and household wealth.

NUTRITION OF CHILDREN AND ADULTS 11

This chapter covers nutritional concerns for children and women. The 2009 GDHS collected information from respondents to evaluate the nutritional status of women and young children. For infants and young children, this included information on breastfeeding and complementary feeding. For the micronutrients of iron, vitamin A, and iodine, information was collected on intake levels from supplementation and food. Anthropometric measurements (height and weight) were taken for women age 15-49 and children under age 5 to determine their nutritional status. The 2009 GDHS also included testing of household salt for iodine and testing of children age 6–59 months and women age 15-49 for anemia using HemoCue equipment.

Adequate nutrition is critical to child development. The period from birth to age 2 is important for optimal growth, health, and development. Unfortunately, this period is often marked by growth faltering, micronutrient deficiencies, and common childhood illnesses such as diarrhea and acute respiratory infections (ARI). Optimal feeding practices reported in this chapter include early initiation of breastfeeding, exclusive breastfeeding during the first 6 months of life, continued breastfeeding up to age 2 and beyond, and timely introduction of complementary feeding at age 6 months. In addition to timely initiation of feeding solid/semi-solid foods from age 6 months onwards, optimal feeding practices reported here also include increasing the amount and variety of foods and frequency of feeding as the child gets older, while maintaining frequent breastfeeding. A summary indicator that describes the quality of infant and young child (age 6-23 months) feeding practices (IYCF) is included

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

11.1 NUTRITIONAL STATUS OF YOUNG CHILDREN

The 2009 GDHS collected information on the nutritional status of children by measuring the height and weight of all children under age 6. The measurements were collected with the aim of calculating three indices—weight-for-age, height-for-age, and weight-for-height—all of which take age and sex into consideration. Weight measurements were obtained using lightweight, electronic Seca scales with a digital screen, designed and manufactured under the guidance of the United Nations Children's Fund (UNICEF). Height measurements were carried out using a measuring board produced by Shorr Productions. Children younger than 24 months were measured lying down (recumbent length) on the board, and standing height was measured for older children.

For the 2009 GDHS, the nutritional status of children is calculated using new growth standards published by the World Health Organization (WHO) in 2006. These new growth standards were generated using data collected in the WHO Multimember Growth Reference Study (WHO, 2006). Each of the three nutritional status indicators described below is expressed in standard deviation units from the median of the WHO Child Growth Standards. The indices are not comparable with those based on the previously used NCHS/CDC/WHO reference.

For the purposes of comparison with previous surveys, Appendix Tables C.7.1 and C.7.2 include indices expressed in standard deviation units (SD) from the median of the NCHS/CDC/WHO international reference population, which was in use prior to the new WHO Child Growth Standards.

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

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

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

As mentioned above, height and weight measurements were obtained for all children under age 6 living in the sampled households, including children who were not biological offspring of the women interviewed in the survey. Although data were collected for all children under age 6, for purposes of comparability, the analysis is limited to children under age 5. Valid height and weight measurements were obtained for 74 percent of a total of 2,059 de-facto children under age 5 in the GDHS households. Measurements were missing for 19 percent of the children for several reasons: the name and line number of some of the eligible children were not copied into the Anthropometry Section of the questionnaire from the Household Listing and, hence, not measured; also some of the children were not present, their parents refused, or the children were sick. In addition to the children for whom measurements were missing, there were some children for whom the height or weight measures were implausible and some children for whom information on age in months was not available.

The following analysis focuses on the children for whom complete and plausible anthropometric and age data were collected. Table 11.1.1, Figure 11.1, and Table 11.1.2 show the percentage of children under age 5 classified as malnourished according to height-for-age, weight-for-height, and weight-for age indices. Table 11.1.1 shows these percentages by demographic characteristics; Figure 11.1 shows them by age, and Table 11.1.2 shows them by socioeconomic characteristics. The percentage of children under age 5 who are stunted and underweight, by residence, is presented in Figure 11.2.

Figure 11.1 shows that the level of stunting increases drastically in the second year of life when children are weaned, indicating chronic malnutrition over a long period of time. The level of wasting peaks at about 7 months of age at the time when complementary food in addition to breast milk is introduced. The level of undernutrition increases steadily and peaks at about 11 months of age and then levels off to the second year of life until the age of about 27 months when it starts to decline.

- *Stunting.* As shown in Table 11.1.1. (columns 1-3), almost one in five children (18 percent) under age 5 is short for their age or stunted, and 1 in 20 (5 percent) is severely stunted. As expected, the level of stunting increases somewhat in the second year of life when children are weaned, indicating chronic malnutrition over a long period of time. There are no major differences in stunting by age. Stunting is higher for children born less than four years apart from a previous birth (21-23 percent), those born very small (38 percent), and children of mothers classified as thin based on their BMI (28 percent). The same columns in Table 11.1.2 show that children in Rural areas are almost twice as likely to be stunted as children in Urban areas (20 and 11 percent, respectively), and children in the Interior area (35 percent) are two a half times as likely as those in the Coastal area (14 percent) to be stunted. Stunting is lowest in Region 3 (9 percent) and highest in Region 8 (50 percent). Looking at education and wealth, the percentage of children who are stunted is lowest among children of mothers with more than secondary education (4 percent) and those in the highest wealth quintile (10 percent) and is highest among children of mothers with primary education and those in the lowest wealth quintile (29 and 30 percent, respectively).
- *Wasting.* In Table 11.1.1, the weight-for-height index (columns 4-7) gives information about children's recent experience with food intake. Wasting represents failure to receive adequate nutrition in the period immediately preceding the survey and may result from recent illness or seasonal variations of food. Overall, 5 percent of children under age 5 are wasted, with 1 percent severely wasted. Wasting is highest among children less than 6 months and 9-11 months (10 percent, each), male children (7 percent), children who are born very small (12 percent), children of thin mothers (12 percent), and those of mothers with no education (16 percent).
- Tables 11.1.1 and 11.1.2 (column 6) highlight another problem among young children in Guyana: 6 percent are overweight [Z-scores for wasting are above two standard deviations (+2 SD)]. The highest proportion of overweight children is in age group 9-11 months (12 percent), children of overweight or obese mothers (8 percent), those living in Regions 4 and 7 (9 percent), children of mothers with secondary or more education (6 to 7 percent) and children in the fourth wealth quintile (9 percent).
- Children whose weight-for-age (column 8-11) is below minus two standard deviations (-2 SD) from the median of the reference population are considered underweight. The measure reflects the effects of both acute and chronic malnutrition. Overall, 11 percent of Guyanese children are underweight, with 2 percent classified as severely underweight. Peak levels of low weight-for-age are found among children age 6-8 months (15 percent), followed by those age 12-17 months (14 percent). Boys are slightly more likely to be underweight than girls (12 and 9 percent, respectively). The percentage of children who are underweight decreases with birth interval, and is highest among children born very small and children of thin mothers. Children living in Rural areas are more likely to be underweight than Urban area children (12 and 7 percent, respectively). There is no difference in the percentage of underweight children in Coastal and Interior areas. The proportion of underweight children ranges from 3 percent in Region 7 to 16 percent in Region 1. Children born to mothers with little or no education and those in the lowest wealth quintile are substantially more likely to be underweight than children in the other sub-groups. For example, the proportion of underweight children of mothers with no education is 22 percent, compared with 4 percent of children of mothers with more than secondary education. Similarly, children in the poorest households are almost four times as likely to be underweight as children in the wealthiest (16 percent versus 4 percent).

Table 11.1.1 Nutritional status of children by demographic characteristics

Percentage of children under age 5 classified as malnourished according to three anthropometric indices of nutritional status: height-for-age, weight-for-height, and weight-for-age, by demographic characteristics, Guyana 2009

	Height-for-age (Stunted)			Weight-for-height (Wasted)				Weight-for-age (Underweight)				
Background characteristic	Percentage below -3 SD	Percentage below -2 SD[1]	Mean Z-score (SD)	Percentage below -3 SD	Percentage below -2 SD[1]	Percentage above +2 SD	Mean Z-score (SD)	Percentage below -3 SD	Percentage below -2 SD[1]	Percentage above +2 SD	Mean Z-score (SD)	Number of children
Age in months												
<6	5.5	16.3	-0.6	5.4	10.3	9.8	-0.2	3.1	13.1	1.4	-0.6	100
6-8	5.4	16.5	-0.5	1.2	6.7	9.3	0.0	3.5	15.3	3.1	-0.4	80
9-11	9.4	20.1	-1.0	1.0	10.4	12.0	0.1	5.3	9.9	6.6	-0.5	73
12-17	5.0	19.1	-0.9	0.2	3.3	3.4	-0.1	1.7	14.3	0.3	-0.5	151
18-23	5.9	19.1	-1.0	1.8	6.7	6.2	0.1	2.7	9.6	2.9	-0.4	149
24-35	6.1	20.0	-1.0	0.6	3.4	7.2	0.1	0.9	8.4	2.3	-0.5	345
36-47	3.2	18.8	-0.8	0.7	4.0	4.9	0.0	0.2	10.0	2.4	-0.5	296
48-59	4.2	15.5	-0.8	0.7	5.8	4.4	-0.2	1.2	9.8	1.7	-0.6	329
Sex												
Male	5.2	19.2	-0.9	1.5	7.1	4.7	-0.1	1.8	12.1	2.1	-0.6	750
Female	4.9	17.2	-0.8	0.7	3.6	7.7	0.0	1.4	8.8	2.5	-0.4	772
Birth interval in months[2]												
First birth[3]	4.8	16.6	-0.9	0.5	5.4	7.7	-0.1	1.4	10.5	2.3	-0.5	417
<24	3.9	22.7	-1.0	0.4	7.1	5.0	-0.2	1.9	13.4	2.4	-0.7	251
24-47	7.0	20.7	-1.0	2.0	5.4	5.9	-0.1	2.3	11.5	1.1	-0.6	381
48+	4.4	13.2	-0.6	1.3	4.1	7.1	0.2	0.9	6.7	3.4	-0.2	317
Size at birth[2]												
Very small	7.6	37.6	-1.4	0.5	12.2	2.4	-0.6	6.7	31.7	0.7	-1.2	89
Small	7.3	22.4	-1.1	1.5	6.0	3.2	-0.4	1.6	16.0	0.6	-0.9	209
Average or larger	4.6	15.5	-0.8	1.1	4.6	7.6	0.1	1.2	7.3	2.6	-0.4	1,039
Missing	(2.6)	(21.0)	(-0.9)	(1.0)	(11.7)	(5.0)	(-0.2)	(1.1)	(18.5)	(5.0)	(-0.6)	29
Mother's interview status												
Interviewed	5.2	18.1	-0.9	1.1	5.4	6.6	-0.0	1.6	10.4	2.3	-0.5	1,366
Not interviewed												
In household	6.5	21.9	-0.6	0.0	5.8	5.4	0.2	0.0	7.5	1.5	-0.2	53
Not in the household[4]	3.4	17.6	-0.9	1.7	3.4	1.7	-0.2	1.9	12.3	2.8	-0.6	102
Mother's nutritional status[5]												
Thin (BMI<18.5)	3.8	27.6	-1.2	1.7	11.9	5.2	-0.5	3.8	22.7	2.2	-1.0	103
Normal (BMI 18.5-24.9)	5.9	21.9	-1.0	1.7	6.7	5.2	-0.2	1.9	12.3	1.1	-0.7	620
Overweight/obese (BMI $\geq$ 25)	4.7	12.9	-0.7	0.4	3.1	8.2	0.2	1.1	6.6	3.4	-0.2	653
Missing	4.4	21.6	-0.8	0.0	7.5	3.1	0.1	0.0	7.7	1.8	-0.4	42
Total	5.1	18.2	-0.9	1.1	5.3	6.2	-0.0	1.6	10.5	2.3	-0.5	1,522

Note: Table is based on children who slept in the household the night before the interview. Each of the indices is expressed in standard deviation units -SD from the median of the WHO Child Growth Standards adopted in 2006. The indices in this table are NOT comparable to those based on the previously used NCHS/CDC/WHO standards. Table is based on children with valid dates of birth (month and year) and valid measurement of both height and weight. Figures in parentheses are based on 25-49 unweighted cases.

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

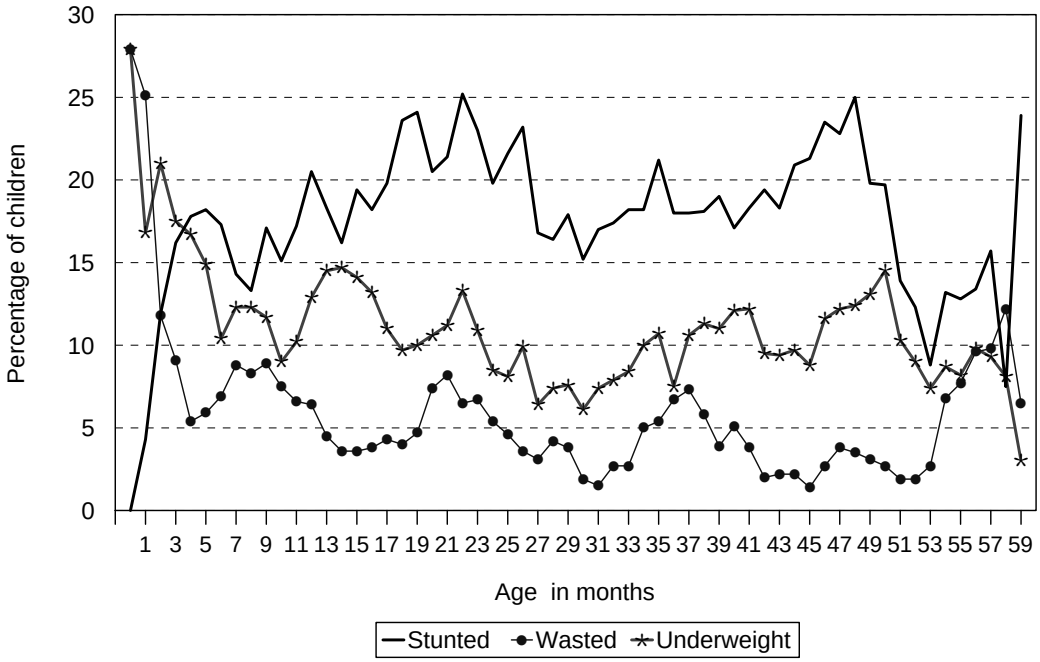
[2] Excludes children whose mothers were not interviewed

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

[4] Includes children whose mothers are dead

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

Figure 11.1 Nutritional Status of Children Under Age 5



Note: *Stunting* reflects chronic malnutrition; *wasting* reflects acute malnutrition; *underweight* reflects chronic or acute malnutrition or a combination of both.

GDHS 2009

Table 11.1.2 Nutritional status of children by socioeconomic characteristics

Percentage of children under age 5 classified as malnourished according to three anthropometric indices of nutritional status: height-for-age, weight-for-height, and weight-for-age, by socioeconomic characteristics, Guyana 2009

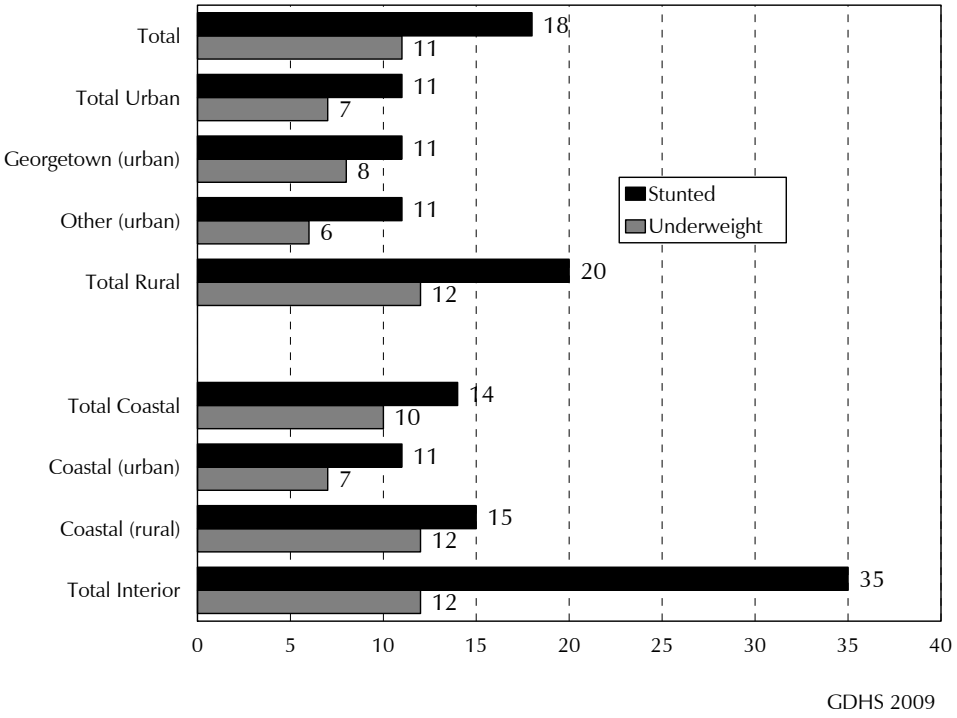
	Height-for-age (Stunted)			Weight-for-height (Wasted)				Weight-for-age (Underweight)				
Characteristic	Percentage below -3 SD	Percentage below -2 SD[1]	Mean Z-score (SD)	Percentage below -3 SD	Percentage below -2 SD[1]	Percentage above +2 SD	Mean Z-score (SD)	Percentage below -3 SD	Percentage below -2 SD[1]	Percentage above +2 SD	Mean Z-score (SD)	Number of children
Residence												
Total Urban	4.0	11.0	-0.6	0.9	5.8	6.3	-0.0	2.0	6.8	3.3	-0.4	341
Georgetown (urban)	5.6	10.9	-0.7	0.7	5.5	6.5	0.0	3.0	7.5	2.4	-0.3	203
Other (urban)	1.5	11.1	-0.5	1.2	6.2	6.0	-0.1	0.6	5.7	4.6	-0.4	138
Total Rural	5.4	20.3	-0.9	1.2	5.2	6.2	-0.0	1.5	11.5	2.0	-0.5	1,180
Total Coastal	3.3	14.2	-0.7	1.0	5.8	6.5	-0.1	1.6	10.2	2.5	-0.5	1,233
Coastal (urban)	4.0	11.0	-0.6	0.9	5.8	6.3	-0.0	2.0	6.8	3.3	-0.4	341
Coastal (rural)	3.0	15.4	-0.8	1.1	5.8	6.6	-0.1	1.5	11.5	2.2	-0.5	892
Total Interior	12.7	35.3	-1.4	1.3	3.1	4.9	0.3	1.5	11.7	1.4	-0.6	289
Region												
Region 1	15.0	39.3	-1.5	2.0	3.0	3.8	0.2	2.2	15.5	0.4	-0.7	116
Region 2	5.7	18.4	-0.9	3.0	9.9	5.5	-0.1	2.4	11.6	2.0	-0.6	96
Region 3	2.0	8.9	-0.6	1.2	6.1	4.2	-0.1	0.6	7.2	1.7	-0.4	217
Region 4	3.9	16.4	-0.8	1.3	5.5	9.3	0.0	2.1	11.3	2.2	-0.4	548
Region 5	2.4	9.9	-0.6	0.0	3.5	3.1	-0.3	0.0	8.4	1.7	-0.5	101
Region 6	3.3	14.8	-0.7	0.0	6.3	4.4	-0.2	2.5	12.1	4.7	-0.6	208
Region 7	6.6	25.0	-1.0	0.2	0.2	8.9	0.6	0.9	3.4	2.7	-0.2	47
Region 8	18.2	49.6	-1.9	0.0	3.2	1.4	0.1	1.0	14.5	1.3	-0.9	46
Region 9	11.1	33.1	-1.5	2.2	4.5	8.4	0.4	1.7	11.5	2.8	-0.6	47
Region 10	3.3	13.8	-0.6	0.4	4.1	3.3	0.0	0.0	5.4	1.9	-0.3	96
Mother's education[2]												
No education	12.0	20.8	-1.1	4.6	16.2	2.4	-0.5	6.8	22.1	1.4	-1.0	46
Primary	8.4	28.6	-1.2	0.9	4.7	4.3	-0.1	2.6	15.2	1.8	-0.7	305
Secondary	4.2	16.2	-0.8	0.9	5.0	7.4	0.0	1.1	8.9	2.5	-0.4	970
More than secondary	2.4	4.4	-0.3	1.3	6.9	6.3	0.1	0.0	3.7	1.8	-0.1	95
Wealth quintile												
Lowest	9.8	29.6	-1.4	2.4	4.8	4.2	-0.0	3.0	15.7	0.6	-0.8	413
Second	4.8	18.3	-1.0	0.5	6.2	5.8	-0.1	1.8	12.8	1.5	-0.7	345
Middle	3.1	13.4	-0.6	1.2	6.2	7.1	-0.0	0.4	7.6	3.2	-0.4	292
Fourth	0.9	12.2	-0.4	0.2	4.1	9.1	0.0	0.1	7.7	5.2	-0.2	251
Highest	4.2	9.8	-0.5	0.5	5.1	6.1	0.0	1.9	4.1	1.9	-0.2	221
Total	5.1	18.2	-0.9	1.1	5.3	6.2	-0.0	1.6	10.5	2.3	-0.5	1,522

Note: Table is based on children who slept in the household the night before the interview. Each of the indices is expressed in standard deviation units -SD from the median of the WHO Child Growth Standards adopted in 2006. The indices in this table are NOT comparable to those based on the previously used NCHS/CDC/WHO standards. Table is based on children with valid dates of birth -month and year and valid measurement of both height and weight.

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

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

Figure 11.2 Children under Five Stunted and Underweight, by Residence



11.2 BREASTFEEDING

Infant feeding practices have an impact on the health of both the child and the mother. Feeding practices are an important determinant of children's nutritional status, which is directly related to the risk of becoming sick and of dying. Early initiation of breastfeeding is encouraged for a number of reasons. Mothers benefit from early suckling because it stimulates breast milk production and facilitates the release of oxytocin, which helps the contraction of the uterus and reduces postpartum blood loss. The first breast milk contains colostrum, which is highly nutritious and has antibodies that protect the newborn from diseases. Early initiation of breastfeeding also fosters bonding between mother and child.

11.2.1 INITIAL BREASTFEEDING

Table 11.2 shows the percentage of children born in the five years preceding the survey ever breastfed, and for last-born children ever breastfed, the timing of initial breastfeeding.

Table 11.2 Initial breastfeeding

Percentage of children born in the five years preceding the survey who were ever breastfed, and for the last children born in the five years preceding the survey ever breast, the percentage who started breastfeeding within one hour and within one day of birth, and the percentage who received a prelacteal feed, by background characteristics, Guyana 2009

	All children under five		Last-born children ever breastfed			
Background characteristic	Percentage of children ever breastfed	Number of children	Percentage who started breastfeeding within 1 hour of birth	Percentage who started breastfeeding within 1 day of birth[1]	Percentage who received a prelacteal feed [2]	Number of children
Sex						
Male	92.2	940	62.7	88.8	17.9	669
Female	93.6	946	65.2	88.4	17.5	670
Assistance at delivery						
Health professional [3]	92.5	1,733	64.6	89.4	17.8	1,260
Traditional birth attendant	(98.0)	14	*	*	*	8
Other	98.7	113	53.0	74.2	14.8	60
No one	*	10	59.0	100.0	19.2	7
Missing	*	16	*	*	*	4
Place of delivery						
Health facility	92.5	1,679	64.7	89.7	17.8	1,218
At home	95.6	161	61.9	85.7	17.4	107
Other	*	5	*	*	*	3
Missing	100.0	41	*	*	*	12
Residence						
Total Urban	93.2	425	64.1	88.9	13.9	323
Georgetown (urban)	92.9	265	60.4	87.2	15.7	209
Other (urban)	93.7	159	70.9	92.1	10.7	114
Total Rural	92.8	1,462	63.9	88.5	18.9	1,016
Total Coastal	91.8	1,477	61.4	87.7	19.5	1,081
Coastal (urban)	93.2	425	64.1	88.9	13.9	323
Coastal (rural)	91.2	1,053	60.3	87.2	21.9	758
Total Interior	96.9	409	74.4	92.3	10.1	258
Region						
Region 1	98.1	164	83.1	95.7	12.2	100
Region 2	96.3	108	63.4	93.7	5.5	77
Region 3	95.2	234	50.2	88.1	26.2	178
Region 4	92.2	666	56.8	85.7	23.3	503
Region 5	84.5	139	76.0	87.0	8.4	91
Region 6	88.6	253	74.1	89.2	17.4	176
Region 7	97.3	65	64.9	91.5	4.2	47
Region 8	93.9	72	69.4	92.1	13.3	45
Region 9	98.6	62	71.2	80.7	10.1	38
Region 10	94.7	124	72.3	94.5	8.3	84
Mother's education						
No education	100.0	60	(66.0)	(83.5)	(8.1)	40
Primary	93.0	416	67.4	89.8	14.3	272
Secondary	92.6	1,282	63.2	88.5	19.0	928
More than secondary	92.0	129	60.7	88.5	19.4	99
Wealth quintile						
Lowest	94.7	545	67.0	90.8	11.4	347
Second	92.2	399	64.1	91.3	17.4	283
Middle	90.5	349	62.2	87.5	17.3	252
Fourth	93.2	293	64.4	87.3	20.8	225
Highest	93.0	301	60.8	84.5	25.0	231
Total	92.9	1,886	63.9	88.6	17.7	1,339

Note: Table is based on children born in the five years preceding the survey regardless of whether the children are living or dead at the time of interview. An asterisk (*) indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parentheses are based on 25-49 unweighted cases.
[1] Includes children who started breastfeeding within one hour of birth
[2] Children given something other than breast milk during the first three days of life
[3] Doctor, nurse/midwife, or auxiliary midwife

- Overall, 93 percent of children born in the five years preceding the survey have been breastfed at some time. Children living in the Interior area (97 percent), in Region 1 (98 percent) and Region 9 (99 percent), children of uneducated mothers (100 percent), and children in the poorest households (95 percent) are somewhat more likely than other children to have ever been breastfed. However, there are no major differentials in the percentage of children ever breastfed by various background characteristics.
- For last-born children ever breastfed, 64 percent started breastfeeding within one hour of birth, and 89 percent started breastfeeding within the first 24 hours after delivery. The proportion of children who receive early breastfeeding varies by type of assistance at delivery. Children of women who gave birth in a health facility (65 percent) are slightly more likely than women who deliver at home (62 percent) to initiate breastfeeding early. The proportion of women initiating breastfeeding within an hour of birth is highest in the Interior area (74 percent) and Region 1 (83 percent). Early initiation of breastfeeding tends to decrease with mother's education and household wealth.
- The survey results indicate that about one in five (18 percent) of last-born babies ever breastfed received a prelacteal feed, i.e., received something other than breast milk during the first three days of life. Children living in rural areas (19 percent), in the Coastal area (20 percent), in Region 3 (26 percent) and Region 4 (23 percent) are more likely than other children to receive a prelacteal feed. Additionally, the percentage of children who receive a prelacteal feed increases with mother's education and household wealth, and it is highest for children of mothers with more than secondary education (19 percent) and those in the highest wealth quintile (25 percent).

11.2.2 Breastfeeding Status by Age

UNICEF and WHO recommend that children be exclusively breastfed during the first 6 months of life and that children be given solid or semi-solid complementary foods in addition to continued breastfeeding from 6 months until age 24 months or more when the child is fully weaned (PAHO and WHO, 2003b; and WHO, Division of Nutrition, 1998). Exclusive breastfeeding is recommended because breast milk is uncontaminated and contains all the nutrients necessary for children in the first few months of life. In addition, the mother's antibodies in breast milk provide immunity to disease. Early supplementation is discouraged for several reasons. First, it exposes infants to pathogens and increases their risk of infection, especially diarrheal diseases. Second, it decreases infants' intake of breast milk and therefore suckling, which reduces breast milk production. Third, in low-resource settings, supplementary food is often nutritionally inferior.

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

Table 11.3 shows the percent distribution of children under age 3 living with their mother by breastfeeding status, and the percentage of all children under age 3 using a bottle with a nipple, according to age in months. Figure 11.3 shows infant feeding practices by age.

Table 11.3 Breastfeeding status by child's age

Percent distribution of youngest children under age 3 who are living with their mother, by breastfeeding status; the percentage currently breastfeeding; and the percentage of children under age 3 using a bottle with a nipple, according to age in months, Guyana 2009

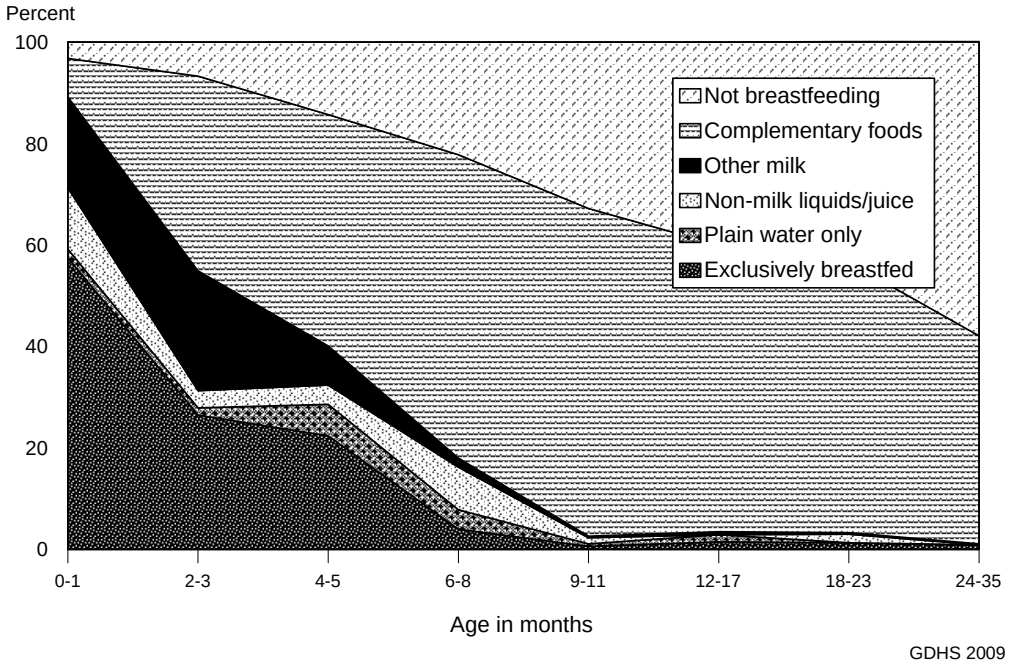
	Percent distribution of youngest children under age 3 living with their mother by breastfeeding status										
			Breastfeeding and consuming:								
Age in months	Not breast-feeding	Exclu-sively breast-fed	Plain water only	Non-milk liquids/ juice	Other milk	Comple-mentary foods	Total	Percent-age currently breast-feeding	Number of youngest children under age 3 years	Using a bottle with a nipple[1]	Number of all children under age 3
<2	3.2	57.5	1.7	12.1	17.9	7.6	100.0	96.8	60	19.3	60
2-3	6.7	26.5	1.4	3.4	23.6	38.4	100.0	93.3	57	48.8	58
4-5	14.3	22.4	6.2	3.8	7.7	45.6	100.0	85.7	99	62.8	103
6-8	22.2	4.0	3.8	8.4	1.8	59.8	100.0	77.8	104	57.7	107
9-11	32.8	0.6	0.5	1.2	0.3	64.6	100.0	67.2	85	67.3	87
12-17	40.0	1.5	1.4	0.0	0.6	56.5	100.0	60.0	172	61.0	178
18-23	43.5	1.3	0.0	1.7	0.3	53.3	100.0	56.5	143	48.7	165
24-35	58.0	0.8	0.1	0.0	0.2	41.0	100.0	42.0	306	49.1	404
0-3	4.9	42.4	1.5	7.9	20.7	22.6	100.0	95.1	117	33.7	118
0-5	9.2	33.2	3.7	6.0	14.7	33.2	100.0	90.8	217	47.2	221
6-9	25.6	3.3	3.2	7.0	1.7	59.2	100.0	74.4	125	60.4	128
12-15	38.4	0.8	2.3	0.0	0.3	58.2	100.0	61.6	103	58.0	105
12-23	41.6	1.4	0.8	0.8	0.4	55.1	100.0	58.4	315	55.1	343
20-23	50.7	2.2	0.0	0.0	0.5	46.6	100.0	49.3	82	49.6	100

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

[1] Based on all children under age 3

- Data show that breastfeeding duration (column 8) is relatively long in Guyana. More than nine in ten children (91 percent) under age 6 months are breastfed, and at age 12-15 months, more than six in ten children (62 percent) are still breastfeeding. By age 20-23 months, about half (49 percent) of children are still breastfeeding.
- While breastfeeding extends for a relatively long time in Guyana, exclusive breastfeeding (column 2) has short duration; only 58 percent of children under 2 months of age are exclusively breastfed; by age 4-5 months, only one in five (22 percent) are still being exclusively breastfed. Overall, only one-third (33 percent) of children under 6 months are exclusively breastfed, which is far less than the 100 percent recommended.
- In addition to breast milk, 15 percent of children under age 6 months are given other (non-breast) milk, 6 percent are given non-milk liquids or juice, 4 percent are given water, and 33 percent are given complementary food in the form of solid or mushy food. At age 6-9 months, about three-fourths (74 percent) of Guyanese children are still being breastfed but about six in ten (59 percent) are receiving complementary foods in addition to breast milk. Similar patterns are observed for older children; 67 percent of children age 9-11 months are still breastfeeding, while 65 percent are receiving complementary foods.
- Bottle-feeding is relatively common. About one in five (19 percent) of the youngest infants (under 2 months) and almost half (49 percent) of infants age 2-3 months use a bottle with a nipple (column 10). This proportion peaks at 67 percent among children age 9-11 months before declining.

Figure 11.3 Infant Feeding Practices by Age



11.2.3 DURATION AND FREQUENCY OF BREASTFEEDING

Table 11.4 shows the median duration of breastfeeding by selected background characteristics. The estimates of median and mean durations of breastfeeding are based on current status data, that is, the proportion of children born in the three years preceding the survey who were being breastfed at the time of the survey.

- The median duration of any breastfeeding in Guyana is long—slightly more than 19 months, although the median duration of exclusive breastfeeding is short—only 3 months. Differences in both these durations by background characteristics are small. The median duration of any breastfeeding is somewhat longer for female children (21 months) and children residing in the Rural areas (21 months) and in the Interior area (25 months).
- Ninety-one percent of all children under age 6 months are breastfed at least six times a day (column 4). On average, children are fed somewhat more frequently during the day (about 7 times) than during the night (about 5 times). The frequency of breastfeeding varies only slightly by background characteristics.

Table 11.4 Median duration and frequency of breastfeeding

Median duration of any breastfeeding, exclusive breastfeeding, and predominant breastfeeding among children born in the three years preceding the survey, percentage of breastfeeding children under age 6 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, Guyana 2009

	Median duration (months) of breastfeeding among children born in the past three years[1]			Frequency of breastfeeding among children under age 6 months[2]			
Background characteristic	Any breast-feeding	Exclusive breast-feeding	Predomi-nant breast-feeding[3]	Percentage breastfed 6+ times in past 24 hours	Mean number of day feeds	Mean number of night feeds	Number of children under 6 months
Sex							
Male	17.6	1.1	1.4	91.9	6.6	5.3	102
Female	20.5	1.3	2.4	89.5	6.6	5.4	91
Residence							
Total Urban	(14.2)	(1.9)	(2.4)	(91.6)	(8.7)	(6.5)	40
Total Rural	20.5	1.1	1.8	90.6	6.0	5.1	154
Total Coastal	18.1	1.0	1.5	89.3	6.5	5.2	152
Coastal (urban)	(14.2)	(1.9)	(2.4)	(91.6)	(8.7)	(6.5)	40
Coastal (rural)	18.8	0.7	1.1	88.5	5.7	4.8	112
Total Interior	24.5	2.4	3.6	96.1	6.9	5.9	42
Mother's education							
No education	*	*	*	*	*	*	3
Primary	22.9	1.8	2.0	90.4	6.9	5.9	47
Secondary	18.4	0.7	1.9	91.5	6.4	5.1	132
More than secondary	*	*	*	*	*	*	12
Wealth quintile							
Lowest	22.0	2.5	3.4	92.9	7.2	6.0	50
Second	(10.1)	(0.5)	(1.8)	(94.4)	(6.9)	(5.5)	50
Middle	15.6	(0.7)	(1.3)	(90.4)	(6.6)	(5.6)	37
Fourth	*	(1.6)	(1.6)	(85.1)	(5.7)	(4.1)	42
Highest	*	*	*	*	*	*	14
Total	19.1	1.2	2.0	90.8	6.6	5.3	194
Mean for all children	19.6	3.0	4.1	na	na	na	na

Note: Medians and means are based on current status. Figures in parentheses are based on 25-49 unweighted cases. An asterisk (*) indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
na = Not applicable
[1] It is assumed that non-last-born children and last-born children not currently living with the mother are not currently breastfeeding.
[2] Excludes children without a valid answer on the number of times breastfed
[3] Either exclusively breastfed or received breast milk and plain water and/or non-milk liquids only

11.3 COMPLEMENTARY FOODS

UNICEF and WHO recommend the introduction of solid foods to infants around age 6 months because by that age breast milk alone is no longer sufficient to maintain a child's optimal growth. In the transition to eating the same food as the rest of the family, children from age 6 months should be fed small quantities of solid and semi-solid foods throughout the day. During this transition period (age 6-23 months), the prevalence of malnutrition increases substantially in many countries because of increased infections and poor feeding practices.

Table 11.5 provides information on the types of foods given to the youngest children under three years of age, living with their mother, on the day and night preceding the interview, according to breast-feeding status.

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

Percentage of children under age 3 living with the mother who consumed specific foods in the day or night preceding the interview, by breastfeeding status and age, Guyana 2009

	Liquids			Solid or semi-solid foods											
Age in months	Infant formula	Other milk[1]	Other liquids[2]	Fortified baby foods	Foods made from grains[3]	Fruits and vege-tables rich in vitamin A[4]	Other fruits and vege-tables	Foods made from roots and tubers	Foods made from legumes and nuts	Meat, fish, poultry, and eggs	Cheese, yogurt, other milk product	Any solid or semi-solid food	Foods made with oil, fat, or butter	Sugary foods	Number of children
BREASTFEEDING CHILDREN															
0-1	15.9	19.9	22.7	0.8	0.8	1.9	0.8	2.8	0.0	2.8	7.1	7.9	0.0	2.8	58
2-3	38.3	47.1	49.5	7.6	39.6	0.0	1.5	0.0	1.9	3.9	6.9	41.2	3.9	8.9	53
4-5	23.9	42.6	50.8	23.7	44.6	10.0	1.5	6.0	0.8	8.6	12.1	53.2	6.8	9.4	85
6-8	33.6	56.7	76.7	22.8	54.9	35.6	9.1	30.5	7.7	38.4	23.2	76.9	32.3	48.4	81
9-11	35.0	74.7	81.6	28.2	85.8	66.6	34.7	49.1	18.7	70.3	26.7	96.1	51.1	52.9	57
12-17	35.7	72.9	89.3	22.2	87.2	53.0	37.3	44.8	32.1	75.0	32.9	94.2	54.6	48.2	103
18-23	25.8	75.8	89.1	21.0	87.1	60.4	34.5	38.8	20.0	80.6	25.2	92.4	49.9	62.4	81
24-35	16.9	79.0	91.9	25.5	96.0	79.2	41.1	49.5	35.8	83.3	51.0	97.6	69.4	68.7	128
6-23	32.6	69.9	84.7	23.1	78.8	52.9	29.1	40.5	20.6	66.4	27.4	89.7	47.2	52.6	322
Total	27.3	61.7	73.2	20.4	67.5	43.5	23.0	31.0	17.6	51.2	26.6	75.1	38.5	42.0	647
NON-BREASTFEEDING CHILDREN															
0-11	52.7	75.7	78.4	41.9	82.4	52.7	32.4	32.4	12.2	45.9	27.0	83.8	27.0	45.9	74
12-17	46.7	85.7	91.7	31.0	97.1	70.6	42.2	36.6	27.6	70.7	52.1	97.1	58.2	70.1	69
18-23	45.3	87.6	96.7	40.5	98.7	80.8	38.2	44.9	27.8	91.2	32.3	98.9	69.7	71.4	62
24-35	34.3	88.2	96.1	25.1	96.7	83.3	40.1	51.3	29.0	90.5	46.5	97.8	75.3	77.5	177
6-23	49.8	87.0	93.9	37.8	97.8	74.4	43.2	40.0	24.9	77.2	42.3	98.0	58.3	69.7	182
Total	43.0	86.9	93.6	32.1	95.5	76.0	40.1	44.3	26.1	80.5	42.3	96.1	63.8	70.3	379

Note: Breastfeeding status and food consumed refer to a 24-hour period (yesterday and last night).
[1] Other milk includes fresh, tinned, and powdered animal milk
[2] Does not include plain water
[3] Includes fortified baby food
[4] Includes pumpkins, carrots, squash, or sweet potatoes that are yellow or orange inside, dark green leafy vegetables, mangoes, papayas, oranges, and pomegranates

- Overall, 62 percent of breastfeeding children under age 3 drink milk other than breast milk, 73 percent drink liquids other than water, and 27 percent drink infant formula. Three-fourths (75 percent) of breastfeeding children received solid or semi-solid foods. The most common complementary foods were made from grain (68 percent); meat, fish, poultry, and eggs (51 percent); fruits and vegetables rich in vitamin A (44 percent); and foods made from roots and tubers (31 percent). Twenty-seven percent of breastfeeding children consume cheese, yogurt, or other milk products, and 23 percent consume fruits and vegetables other than those rich in vitamin A. Consumption of anything cooked with butter, fat, or oil generally begins at 2-3 months (4 percent), increasing to 69 percent at 24-35 months. More than four in ten breastfeeding children (42 percent) consumed sugary foods.
- Almost all (96 percent) non-breastfeeding children under age 3 received solid or semi-solid foods in the day and night preceding the interview, indicating that consumption of complementary foods is generally higher among non-breastfeeding children than breast-feeding children. More than nine in ten (96 percent) of non-breastfeeding children received foods made from grains; around eight in ten (81 percent) were given meat, fish, poultry, or eggs; more than three-quarters (76 percent) ate fruits and vegetables rich in vitamin A; and

about four in ten consumed foods made from roots and tubers (44 percent), cheese, yogurt or other milk products (42 percent), and fruits and vegetables other than those rich in vitamin A (40 percent). More than six in ten (64 percent) of non-breastfeeding children under three years consumed food made with oil, fat, or butter, while seven in ten (70 percent) ate sugary foods.

11.4 APPROPRIATE INFANT AND YOUNG CHILD FEEDING (IYCF)

Infant and young child feeding (IYCF) practices include timely initiation of feeding solid/semi-solid foods from age 6 months and increasing the amount and variety of foods and frequency of feeding as the child gets older, while maintaining frequent breastfeeding. Guidelines have been established with respect to IYCF practices for children age 6-23 months (PAHO/WHO, 2003b.; WHO, 2005).

Table 11.6 presents the results of the 2009 GDHS according to IYCF practices for breastfed and non-breastfed children living with their mother. The indicators focus on the percentage of children for whom feeding practices meet minimum standards with respect to:

- Food diversity (i.e., the number of food groups consumed),
- Feeding frequency (i.e., the number of times a child is fed), and
- Consumption of breast milk or other milks or milk products.

Breastfed children are considered fed in accordance with the minimum IYCF standards if they consume at least three food groups[1] and receive foods other than breast milk at least twice per day in the case of children age 6-8 months and at least three times per day in the case of children age 9-23 months. Non-breastfed children are considered to be fed in accordance with the minimum IYCF standards if they consume milk or milk products, are fed four food groups (including milk products), and are fed at least four times per day.

- Among breastfed children age 6-23 months, about eight in ten (77 percent) were given foods from three or more food groups in the 24 hours preceding the survey, and 45 percent were fed the minimum number of times in the past 24 hours. About four in ten breastfed children (38 percent) fall into both categories, i.e., their feeding practices meet minimum standards with respect to food diversity and feeding frequency.
- The proportion of breastfed children age 6-23 months who receive the recommended variety of foods the minimum number of times a day increases with children's age from 32 percent among children age 6-8 months to 49 percent among those age 9-11 months, and it drops thereafter. There are slight variations in the proportion of breastfed children who meet both criteria by sex of child.
- Urban area children are much more likely than Rural area children (64 percent versus 33 percent), and children living in the Coastal area are more likely than those living in the Interior area (41 percent versus 31 percent) to be fed from three or more food groups the minimum number of times a day. By region, the lowest percentage of breastfed children who are fed the recommended variety of foods the minimum number of times a day ranges from 19 percent in Region 3 to 54 percent in Region 2. The proportion of breastfed children who eat from three or more food groups the minimum number of times a day tends to increase with education and wealth.

[1] Food groups used in the assessment of minimum standard of feeding practices include: infant formula, milk other than breast milk, cheese or yogurt or other milk products; foods made from grains, roots, and tubers, including porridge and fortified baby food from grains; fruits and vegetables rich in vitamin A; other fruits and vegetables; eggs; meat, poultry, fish, and shellfish (and organ meats); beans, peas, and nuts; and foods made with oil, fat, or butter.

- Among non-breastfed children age 6-23 months, 91 percent are given milk or milk products, 81 percent are given food from at least four food groups, and 20 percent are fed four or more times per day. However, only about one in six (17 percent) of non-breastfeeding children are fed in accordance with all three IYCF practices (data not shown).
- A large majority of young children in Guyana are not being fed appropriately. Overall, feeding practices meet the minimum standards for only 31 percent of children age 6-23 months. More than nine in ten children age 6-23 months (97 percent) received breast milk or milk products and about eight in ten (79 percent) received foods from the recommended number of food groups for their age. However, only 36 percent were fed the minimum number of times. Children age 9-11 months (36 percent) are the most likely to be fed according to all three IYCF practices, while those age 6-8 months (25 percent) are the least likely to be fed according to IYCF practices.
- There is very little difference in feeding practices between girls and boys or by Coastal-Interior area. On the other hand, urban children are much more likely than rural children (43 percent versus 27 percent) to be fed in accordance with all three IYCF practices. Among regions, the percentage of children who are fed appropriately is highest in Region 2 (50 percent) and lowest in Region 3 (18 percent). The proportion of children who are fed appropriately increases with mother's level of education, while its relationship with the household wealth quintile does not show a clear pattern.

Table 11.6 Infant and young child feeding (IYCF) practices

Percentage of youngest children age 6-23 months living with their mother who are fed according to three IYCF practices based on breastfeeding status, number of food groups, and times they are fed during the day or night preceding the survey, by background characteristics, Guyana 2009

	Among breastfed children 6-23 months, percentage fed:				Among all children 6-23 months, percentage fed:				
Background characteristic	3+ food groups[1]	Minimum times or more[2]	Both 3+ food groups and minimum times or more	Number of breast-fed children 6-23 months	Breast milk, or milk products[3]	3+ or 4+ food groups[5]	Minimum times or more[6]	With all 3 IYCF practices	Number of all children 6-23 months
Age									
6-8	50.6	52.6	31.5	81	97.2	51.8	41.8	25.3	104
9-11	81.4	51.5	48.8	57	98.6	83.8	38.9	36.3	85
12-17	88.0	43.0	41.9	103	95.9	86.1	33.4	32.3	172
18-23	85.8	33.5	32.9	81	95.7	85.7	32.0	28.6	143
Sex									
Male	72.3	48.7	37.8	156	95.0	76.1	37.3	29.0	248
Female	81.2	40.7	38.7	166	98.1	80.9	34.0	31.9	256
Residence									
Total Urban	81.2	70.0	64.1	59	98.0	83.7	48.3	43.4	103
Georgetown (urban)	(83.5)	(72.4)	(67.3)	41	(98.2	(87.4)	(48.9)	(45.9)	69
Other (urban)	(75.8)	(64.4)	(56.6)	18	97.6	76.2	46.9	38.4	34
Total Rural	75.9	38.9	32.5	263	96.2	77.2	32.4	27.1	401
Total Coastal	79.9	46.7	41.3	224	96.8	81.1	35.5	31.2	384
Coastal (urban)	81.2	70.0	64.1	59	98.0	83.7	48.3	43.4	103
Coastal (rural)	79.5	38.4	33.2	165	96.3	80.1	30.8	26.6	281
Total Interior	70.0	39.6	31.4	99	96.0	70.3	36.1	28.3	120
Region									
Region 1	69.7	35.5	22.1	45	99.1	69.9	33.8	21.4	48
Region 2	84.2	56.3	53.9	24	94.8	83.0	53.5	49.7	35
Region 3	81.7	22.9	18.7	33	96.5	82.4	20.5	18.2	58
Region 4	82.5	52.1	47.7	108	97.9	83.5	35.5	32.9	182
Region 5	*	*	*	22	88.3	78.4	37.5	24.3	37
Region 6	66.6	58.4	46.5	31	99.2	73.5	39.0	31.8	61
Region 7	62.5	51.8	44.0	14	100.0	65.3	49.7	41.2	16
Region 8	68.6	37.3	32.5	16	93.6	68.2	25.6	21.9	23
Region 9	71.8	33.3	33.3	13	84.0	67.6	32.4	28.3	18
Region 10	77.1	48.4	46.5	18	100.0	82.2	41.7	40.3	25
Mother's education									
No education	66.4	19.2	17.6	16	*	*	*	*	19
Primary	72.3	42.3	32.4	72	98.0	75.0	33.1	26.1	106
Secondary	78.2	46.2	40.6	220	96.4	80.7	36.6	31.9	349
More than secondary	*	*	*	14	(100.0)	(73.0)	(44.3)	(39.4)	29
Wealth quintile									
Lowest	77.2	39.8	34.5	123	94.2	77.6	33.7	28.6	160
Second	71.6	44.8	41.4	62	99.0	77.7	36.4	33.3	103
Middle	68.5	35.4	22.8	53	95.4	74.2	28.6	18.1	89
Fourth	(85.4)	(57.1)	(52.9)	42	97.4	83.8	36.3	33.2	82
Highest	(86.4)	(57.5)	(50.3)	41	98.8	81.1	47.4	43.2	70
Total	76.9	44.5	38.3	322	96.6	78.5	35.7	30.5	504

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

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

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

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

[4] Non-breastfed children ages 6-23 months are considered to be fed with a minimum standard of three Infant and Young Child Feeding practices if they receive other milk or milk products and are fed at least the minimum number of times per day with at least the minimum number of food groups.

[5] 3+ food groups for breastfed children and 4+ food groups for non-breastfed children

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

11.5 ANEMIA IN CHILDREN

Anemia is a condition characterized by low levels of hemoglobin in the blood. This results in a reduced amount of oxygen being transported in the body and reduces its capacity to function. Anemia is associated with impaired cognitive and motor development in children. Iron is a main component of hemoglobin, and iron deficiency is estimated to be responsible for half of the global prevalence of anemia. Young children and pregnant and postpartum women are the most severely affected because of the high iron demands of fetal infant growth during pregnancy. Other causes of anemia include malaria, hookworm, and other helminthes infection, nutritional deficiencies, chronic infections, genetic conditions (such as sickle cell and thalassemia), HIV/AIDS, and high fertility. Anemia is a serious concern for children because it can impair cognitive development, stunt growth, and increase morbidity from infectious diseases. Information on the prevalence of anemia can be useful for the development of health-intervention programs designed to prevent anemia, such as promoting consumption of iron-rich foods, iron supplementation, food fortification, and de-worming programs as appropriate (CDC, 1998).

The 2009 GDHS included anemia testing of women age 15-49 and children age 6-59 months. Values of hemoglobin were obtained using the HemoCue instrument. Children under 6 months were not tested because they have higher levels of hemoglobin at birth and just after birth, and including them may distort prevalence of anemia. Anemia levels were determined by measuring the level of hemoglobin in the blood. A drop of capillary blood was taken with a finger prick (using sterile, disposable instruments) and the hemoglobin concentration was measured using the HemoCue photometer system. Trained personnel on each of the 2009 GDHS interviewing teams performed the testing procedures, following informed consent.

Table 11.7 presents the anemia prevalence for children age 6-59 months based on tests of children who were present at the time of testing, whose parents consented to their being tested, and whose hemoglobin results represented plausible data. Children are classified into three groups according to the level of hemoglobin in their blood:

- Mild: hemoglobin concentration 10.0-10.9 g/dl
- Moderate: hemoglobin concentration 7.0-9.9 g/dl
- Severe: hemoglobin concentration less than 7.0 g/dl

- Thirty-nine percent of all children age 6-59 months in Guyana have some level of anemia, including 23 percent of children who are mildly anemic, 15 percent who are moderately anemic, and less than 1 percent with severe anemia. Prevalence of any anemia is highest for children 9-11 months and lowest for those 36-59 months (25-28 percent). Male children are slightly more anemic (41 percent) than female children (37 percent).
- There is little variation in the prevalence of anemia in children by Urban area-Rural area or Coastal area-Interior area residence.
- There are important differentials by region in the prevalence of anemia. More than half of children in Region 1 are anemic (51 percent) compared with 30 percent in Region 8.
- The percentage of children with anemia is lowest among children of mothers with secondary or higher education (38-40 percent) and children in the highest wealth quintile (32 percent).

Table 11.7 Prevalence of anemia in children

Percentage of children age 6-59 months classified as having anemia, by background characteristics, Guyana 2009

Background characteristic	Anemia status by hemoglobin level				Number of children
	Mild (10.0-10.9 g/dl)	Moderate (7.0-9.9 g/dl)	Severe (< 7.0 g/dl)	Any anemia (<12.0 g/dl)	
Age in months					
6-8	33.8	23.2	0.0	57.0	71
9-11	44.5	29.3	0.3	74.1	72
12-17	21.2	35.9	0.5	57.7	151
18-23	34.7	19.0	0.3	54.1	141
24-35	21.4	14.2	0.9	36.4	327
36-47	19.0	8.5	0.2	27.7	281
48-59	18.3	6.3	0.0	24.6	306
Sex					
Male	24.9	16.1	0.4	41.3	664
Female	22.0	14.8	0.4	37.2	685
Mother's interview status					
Interviewed	23.6	15.5	0.4	39.5	1,188
Not interviewed					
In household	23.3	14.1	1.0	38.5	52
Not in the household	21.5	15.2	0.0	36.7	109
Residence					
Total Urban	22.3	16.9	0.6	39.9	297
Georgetown (urban)	23.8	16.5	0.0	40.3	170
Other (urban)	20.4	17.4	1.5	39.2	127
Total Rural	23.8	15.0	0.3	39.1	1,052
Total Coastal	23.0	15.1	0.4	38.5	1,060
Coastal (urban)	22.3	16.9	0.6	39.9	297
Coastal (rural)	23.3	14.4	0.3	38.0	763
Total Interior	25.0	16.5	0.4	41.9	289
Region					
Region 1	32.8	18.0	0.0	50.8	121
Region 2	28.6	21.0	0.5	50.1	97
Region 3	21.5	12.4	0.0	33.9	168
Region 4	23.1	11.2	0.4	34.7	452
Region 5	24.6	24.8	0.0	49.4	87
Region 6	22.0	18.5	0.7	41.1	199
Region 7	23.7	11.0	0.2	34.9	44
Region 8	10.8	19.2	0.0	30.0	43
Region 9	21.3	10.5	0.6	32.4	49
Region 10	19.8	20.0	1.3	41.1	88
Mother's education					
No education	15.4	30.6	0.2	46.2	47
Primary	27.4	15.2	0.5	43.2	281
Secondary	23.0	14.5	0.4	37.9	833
More than secondary	22.7	17.1	0.0	39.8	76
Wealth quintile					
Lowest	24.5	17.0	0.2	41.6	410
Second	24.2	16.5	0.2	40.9	306
Middle	22.8	19.1	0.2	42.1	245
Fourth	21.8	11.6	1.5	34.9	208
Highest	22.7	9.5	0.0	32.1	179
Total	23.4	15.4	0.4	39.3	1,349

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

[1] Includes children whose mothers are deceased

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

11.6 MICRONUTRIENT INTAKE AMONG CHILDREN

Micronutrient deficiency is a serious contributor to childhood morbidity and mortality. Children can receive micronutrients from foods, food fortification, and direct supplementation.

Vitamin A is an essential micronutrient for the immune system and plays an important role in maintaining the epithelial tissue in the body. Severe vitamin A deficiency can cause eye damage. Vitamin A deficiency can also increase the severity of infections such as measles and diarrheal diseases in children and slow recovery from illness. Vitamin A is found in breast milk, other milks, liver, eggs, fish, butter, mangoes, papayas, carrots, pumpkins, yellow-orange sweet potatoes, and dark green leafy vegetables. The liver can store an adequate amount of the vitamin for 4-6 months. Therefore, periodic dosing (every 6 months) with vitamin A supplements is a rapid, low-cost method of ensuring that children at risk do not develop vitamin A deficiency. Since 2004, young children and pregnant mothers are offered a micronutrient Sprinkles Packet that contains vitamin A.

Iron is essential for cognitive development. Low iron intake can also contribute to anemia. Iron requirements are greatest between the ages of 6 and 12 months, when growth is extremely rapid. The 2009 GDHS collected information on the consumption of foods rich in vitamin A and foods rich in iron.

Dietary deficiency of iodine constitutes a major, global public health concern. A lack of sufficient iodine is known to cause goiter, cretinism (a severe form of neurological defect), spontaneous abortion, premature birth, infertility, stillbirth, and increased child mortality. Iodine deficiency disorders (IDD) are the single most common cause of preventable mental retardation and brain damage (WHO, 2007). Since iodine cannot be stored for long periods by the body, small amounts are needed regularly. Where soil and therefore crops and grazing animals do not provide sufficient dietary iodine to the population, and where seafood is not regularly consumed, food fortification has proven to be a highly successful and sustainable intervention. The fortification of salt with iodine is the most common method of preventing IDD. When vulnerable populations do not have access to fortified foods such as iodized salt, a short-term solution is supplementation with capsules containing iodized oil.

Table 11.8 shows indicators used to measure children's intake of several key micronutrients, as well as the percentage receiving anti-worming medication and living in households with adequately iodized salt.

- More than eight in ten (86 percent) children age 6-35 months living with the mother consumed foods rich in vitamin A in the 24 hours preceding the survey, and less than eight in ten (77 percent) consumed foods rich in iron. There is a steady increase with age in the proportion of children who eat foods rich in vitamin A and iron, from 58 percent of children 6-8 months to 94 percent of those age 24-35 months for foods rich in vitamin A and from 46 percent of children 6-8 months to 88 percent of those 24-35 months for foods rich in iron. Female children are slightly more likely to have consumed foods rich in iron than male children. Children who are not breastfeeding are more likely to consume foods rich in vitamin A and iron (94 and 85 percent, respectively) compared with their breastfeeding counterparts (81 and 71 percent, respectively), presumably because they are older than breastfeeding children. Children born to the youngest mothers (15-19) are somewhat less likely to consume vitamin A-rich foods or iron-rich foods (81 and 74 percent, respectively) compared with those born to older women.
- Consumption of foods rich in vitamin A or iron is higher among children in Urban areas and Coastal areas than children in Rural and Interior areas. Consumption of vitamin A foods is highest among children in Region 5 (91 percent) and lowest in Region 1 (76 percent). Consumption of iron-rich foods ranges from 68 percent in Region 8 to 80 percent in Region 6.

Consumption of vitamin A or iron-rich foods among children age 6-35 months generally increases with mother's level of education and increasing wealth quintile.

- The 2009 GDHS also collected information on iron supplementation. One in five children (25 percent) age 6-59 months received iron supplements in the past seven days. Supplementation is higher among children age 12-23 months (34-35 percent) than younger and older children. Children of the oldest mothers age 40-49 are less likely to receive iron supplements (18 percent) than children of younger mothers (21-29 percent).
- Children in the Urban and the Coastal areas (32 and 27 percent, respectively) are more likely to receive an iron supplement than children in the Rural and the Interior areas (22 and 17 percent, respectively). The proportion of children receiving iron supplements in the past seven days is lowest in Region 1 (5 percent) and highest in Region 8 (41 percent). The proportion of children receiving an iron supplement is lowest for children of uneducated mothers (9 percent) and children in households in the lowest two wealth quintiles (18-20 percent).
- Because intestinal worms can contribute to both anemia and vitamin A deficiency, the 2009 GDHS collected information on whether children age 6-59 months had been given de-worming medication. More than half of children (55 percent) age 6-59 months received de-worming medication in the six months preceding the survey. Older children age 48-59 months, females, non-breastfeeding children, and children of oldest mothers age 40-49 are more likely than other subgroups to be given de-worming medication in the past six months. Children living in the Urban and the Coastal areas are more likely than children in the Rural and the Interior areas to receive de-worming medication. Among regions, this proportion ranges from 31 percent in Region 7 to 70 percent in Region 10. Children whose mothers have more than secondary education (71 percent) and are in the highest wealth quintile (66 percent) are more likely to receive de-worming medication than other children.
- Only 14 percent of children 6-59 months old live in households with adequately iodized salt, with the highest percentage being in the Interior area (28 percent), Region 9 (87 percent), and in households belonging to the lowest wealth quintile (18 percent). However, these data should be interpreted with caution due to a relatively small number of cases in some of the categories.

Table 11.8 Micronutrient intake among children

Among youngest children age 6-35 months who are living with their mother, the percentages who consumed vitamin A-rich and iron-rich foods in the day or night preceding the survey, and among all children 6-59 months, the percentages who were given vitamin A supplements in the six months preceding the survey, who were given iron supplements in the past seven days, and who were given de-worming medication in the six months preceding the survey, and among all children age 6-59 months who live in households that were tested for iodized salt, the percentage who live in households with adequately iodized salt, by background characteristics, Guyana 2009

	Among youngest children age 6-35 months living with the mother:			Among all children age 6-59 months:			Among children age 6-59 months living in households tested for iodized salt	
Background characteristic	Percentage who consumed foods rich in vitamin A in past 24 hours[1]	Percentage who consumed foods rich in iron in past 24 hours[2]	Number of children	Percentage given iron supplements in past 7 days	Percentage given de-worming medication in past 6 months[3]	Number of children	Percentage living in households with adequately iodized salt[4]	Number of children
Age in months								
6-8	57.5	46.4	104	15.5	3.9	107	13.3	101
9-11	85.8	68.5	85	23.0	17.8	87	13.1	85
12-17	84.6	73.3	172	33.8	36.1	178	13.7	170
18-23	92.1	85.2	143	34.5	46.1	165	11.3	156
24-35	94.2	87.5	306	24.9	66.6	404	14.3	386
36-47	na	na	na	20.8	64.5	311	11.8	297
48-59	na	na	na	21.0	71.9	343	15.1	320
Sex								
Male	85.1	74.6	395	25.4	52.9	777	12.9	737
Female	87.2	78.8	415	23.6	56.9	817	14.0	778
Breastfeeding status								
Breastfeeding	80.8	71.2	450	24.9	38.7	499	14.1	473
Not breastfeeding	94.0	85.3	330	25.5	63.5	966	12.8	921
Missing	(81.9)	(66.9)	29	15.2	53.3	130	16.1	121
Mother's age at birth								
15-19	80.9	73.8	101	21.0	41.6	161	11.7	159
20-29	86.0	76.8	415	23.0	55.1	843	12.0	793
30-39	88.9	77.6	250	29.3	57.4	502	17.1	481
40-49	84.7	79.1	45	18.4	63.2	88	9.5	82
Residence								
Total Urban	88.7	81.0	180	31.6	62.8	358	13.4	345
Georgetown (urban)	88.1	79.8	118	33.7	61.6	223	13.8	220
Other (urban)	90.0	83.1	62	28.2	64.7	135	12.6	125
Total Rural	85.5	75.6	630	22.4	52.6	1,236	13.5	1,170
Total Coastal	88.2	78.0	637	26.7	57.0	1,245	9.5	1,185
Coastal (urban)	88.7	81.0	180	31.6	62.8	358	13.4	345
Coastal (rural)	88.0	76.8	457	24.7	54.6	887	7.9	840
Total Interior	78.8	72.4	173	16.8	47.7	349	27.8	330
Region								
Region 1	76.0	73.6	65	4.8	41.2	136	10.7	131
Region 2	88.8	78.5	47	30.2	51.4	96	12.8	88
Region 3	89.4	74.9	105	20.1	55.3	199	11.2	195
Region 4	87.1	78.3	294	29.0	56.2	554	11.0	535
Region 5	90.5	76.6	61	31.8	60.8	115	1.5	105
Region 6	87.8	79.6	101	23.2	55.3	215	2.8	201
Region 7	79.9	73.5	31	17.2	30.8	55	12.8	50
Region 8	78.0	68.2	32	41.2	56.2	64	23.2	57
Region 9	78.4	73.5	25	19.8	59.5	55	86.7	52
Region 10	89.5	78.1	49	20.2	70.2	106	25.7	100
Mother's education								
No education	(79.1)	(65.3)	24	8.6	30.9	54	9.5	52
Primary	85.6	76.8	161	17.4	53.3	341	12.2	318
Secondary	86.1	76.9	572	25.8	54.9	1,086	14.1	1,033
More than secondary	92.6	80.2	53	40.8	70.9	114	13.0	112
Wealth quintile								
Lowest	86.6	76.9	229	20.3	49.6	471	18.1	441
Second	84.0	73.3	151	18.2	52.5	329	9.9	311
Middle	79.2	72.8	157	24.2	54.1	285	11.6	277
Fourth	91.9	81.6	129	26.5	57.8	244	12.8	234
Highest	90.4	80.4	143	38.1	65.7	266	12.6	251
Total	86.2	76.8	810	24.5	54.9	1,595	13.5	1,515

Note: Information on vitamin A and iron supplements and de-worming medication is based on the mother's recall.
na = Not applicable
[1] Includes meat (and organ meat), fish, poultry, eggs, pumpkin, red or yellow yams or squash, carrots, red sweet potatoes, dark green leafy vegetables, mango, papaya, and other locally grown fruits and vegetables that are rich in vitamin A.
[2] Includes meat (including organ meat), fish, poultry, and eggs
[3] De-worming for intestinal parasites is commonly done for helminthes and for schistosomiasis.
[4] Salt containing 15 parts per million (ppm) of iodine or more; excludes children in households in which salt was not tested

11.7 PRESENCE OF IODIZED SALT IN HOUSEHOLDS

The fortification of household salt with iodine is the most common method of preventing iodine deficiency disorders (IDDs). Fortified salt that contains at least 15 parts per million (ppm) of iodine is considered adequate for the prevention of IDD. The 2009 GDHS asked for and tested the salt in the selected households. Results are shown in Table 11.9 by residence.

- The household salt was tested in 93 percent of households.
- Among households with tested salt, the majority (80 percent) have no iodine at all in their salt, 10 percent have salt with inadequate iodine content (<15 ppm), and only 11 percent have salt with adequate iodine content (15+ ppm).
- Households in Urban areas (13 percent) are slightly more likely than Rural area households (10 percent) to have salt with adequate salt content. Households in the Interior area are almost three times as likely as those in the Coastal area to have salt with an adequate salt content (25 percent versus 9 percent). Eighty-one percent of households in Region 9 have salt with adequate iodine content compared with 4 percent in Region 6.

Table 11.9 Presence of iodized salt in the household

Among all households, percentage of households tested for iodine content and percentage of households with no salt; and among households with salt tested, the percent distribution by level of iodine in salt (parts per million or ppm), according to residence and wealth quintile, Guyana 2009

Background characteristic	Among all households, percentage with salt tested	Number of households	Among households with tested salt, the percent distribution by iodine content of salt:				Number of households
			None (0 ppm)	Inadequate (<15 ppm)	Adequate (15+ ppm)	Total	
Residence							
Total Urban	95.5	1,603	74.0	12.9	13.0	100.0	1,530
Georgetown (urban)	97.0	1,053	72.8	13.6	13.6	100.0	1,022
Other (urban)	92.5	550	76.4	11.7	11.9	100.0	508
Total Rural	92.0	4,029	82.2	8.3	9.5	100.0	3,709
Total Coastal	93.3	5,052	81.9	9.2	8.9	100.0	4,712
Coastal (urban)	95.5	1,603	74.0	12.9	13.0	100.0	1,530
Coastal (rural)	92.2	3,449	85.6	7.5	6.9	100.0	3,182
Total Interior	90.8	580	61.6	13.6	24.9	100.0	527
Region							
Region 1	93.0	199	74.2	16.3	9.5	100.0	185
Region 2	93.9	348	80.4	7.6	12.0	100.0	327
Region 3	95.3	763	82.3	6.4	11.3	100.0	727
Region 4	93.6	2,420	80.4	10.9	8.7	100.0	2,266
Region 5	90.1	417	87.3	6.9	5.7	100.0	376
Region 6	92.7	879	85.8	10.0	4.2	100.0	815
Region 7	93.0	116	74.4	14.1	11.5	100.0	108
Region 8	84.7	104	73.5	10.6	15.8	100.0	88
Region 9	88.3	88	4.4	14.7	80.9	100.0	78
Region 10	91.0	297	69.2	5.6	25.2	100.0	270
Wealth quintile							
Lowest	89.0	1,110	80.8	8.2	11.1	100.0	988
Second	92.7	1,151	82.2	8.6	9.3	100.0	1,068
Middle	93.7	1,122	83.0	8.0	9.0	100.0	1,051
Fourth	94.2	1,126	81.7	8.5	9.8	100.0	1,060
Highest	95.4	1,123	71.6	15.0	13.3	100.0	1,072
Total	93.0	5,632	79.8	9.7	10.5	100.0	5,239

11.8 NUTRITIONAL STATUS OF WOMEN AND MEN

The 2009 GDHS collected anthropometric data on height and weight for interviewed women and men age 15-49. Two indicators of nutritional status based on these data are presented in this report for women: the percentage with very short stature (less than 145 cm) and body mass index (BMI). One indicator (BMI) is presented for men.

BMI or the Quetelet index, is used to measure thinness or obesity. BMI is defined as weight in kilograms divided by height squared in meters (kg/m^2). A cut-off point of 18.5 is used to define thinness or acute undernutrition and a BMI of 25.0 or above usually indicates overweight or obesity. The prevalence of overweight women and men is a growing concern in developing countries, predisposing them to a wide range of health problems such as diabetes and heart disease as well as poor birth outcomes for women. In many countries, however, chronic energy deficiency is still a problem among adults, which leads to low work productivity and reduced resistance to illness.

The height of a woman is associated with past socioeconomic status and nutrition during childhood and adolescence. Low pre-pregnancy BMI and short stature are risk factors for poor birth outcomes and obstetric complications. In developing countries, maternal underweight is a leading risk factor for preventable death and diseases.

Tables 11.10.1 and 11.10.2 present data on the nutritional status of women and men age 15-49, respectively, according to background characteristics. Respondents for whom there was no information on anthropometry are excluded from this analysis. The analysis of height is based on 4,758 women, and the analysis of BMI is based on 4,459 women and 3,246 men age 15-49 years.

Women

- Overall, just 3 percent of women 15-49 in Guyana are less than 145 cm in height, with 42 percent of all women falling within the normal BMI range of 18.5-24.9. Rural area women (4 percent) and those in the Interior area (14.8 percent) are slightly more likely than Urban area women and those in the Coastal area (2 percent, each) to have a height below 145 cm. Women in Region 5 (1 percent) are the least likely and women in Region 8 (20 percent) are the most likely to be less than 145 cm in height. The percentage of women with a height less than 145 cm—most vulnerable to health risks especially during pregnancy—were mostly not educated (13 percent) and in the lowest wealth quintile (11 percent).
- The mean BMI for all women 15–49 years old in the sample was 25.6, just above the cut-off point of 25.0 for overweight and obesity. At the national level, 11 percent of women were considered thin (BMI <18.5), and 4 percent were moderately and severely thin (BMI <17.0). The percentage of women who are thin is highest among youngest women 15-19 (26 percent), women in the Rural and Coastal areas (11 percent, each), and those in Regions 3, 4, 5, and 6 (11 to 12 percent). There is no clear relationship between the percentage of women who are thin and education and household wealth. However, women with secondary education (12 percent) and in the second and third wealth quintiles (13-14 percent) are more likely than other women to be thin.
- Overweight and obesity (BMI ≥25.0) are quite common in Guyana, with 48 percent of all women being overweight or obese, and 22 percent being obese (BMI ≥30.0). The proportion of women who are overweight or obese is especially high among women age 30-49 years (61-66 percent are overweight or obese, and 27-34 percent are obese). The Interior area (56 percent) and Region 7 (57 percent) have the highest percentages of women who are overweight or obese. The percentages of women who are overweight or obese decreases with education and increases with wealth.

Table 11.10.1 Nutritional status by background characteristics: Women

Among women age 15-49, the percentage with height under 145 cm, mean Body Mass Index (BMI), and percentage with specific BMI levels, by background characteristics, Guyana 2009

	Height		Body Mass Index BMI [1] (kg/m^2)								
				Normal	Thin			Overweight/obese (OO)			
Background characteristic	Percentage of women below 145 cm	Number of women	Mean Body Mass Index (BMI)	18.5-24.9 (total normal)	<18.5 (total thin)	17.0-18.4 (mildly thin)	<17.0 (moderately and severely thin)	≥25.0 (total overweight/ obese)	25.0-29.9 (overweight)	≥30.0 (obese)	Number of women
Age											
15-19	3.5	973	21.7	56.5	25.9	14.5	11.5	17.6	10.9	6.7	917
20-29	3.5	1,362	24.6	47.3	12.2	6.7	5.5	40.5	24.1	16.4	1,217
30-39	3.6	1,283	27.3	35.1	3.7	2.7	1.0	61.2	34.0	27.2	1,218
40-49	2.7	1,161	28.1	30.2	3.4	2.3	1.1	66.3	32.8	33.6	1,150
Residence											
Total Urban	1.7	1,428	25.9	39.9	9.7	5.4	4.3	50.4	27.0	23.4	1,369
Georgetown (urban)	1.5	934	25.8	40.1	9.3	5.3	4.0	50.5	28.5	22.1	901
Other (urban)	2.2	494	26.1	39.5	10.3	5.6	4.7	50.2	24.3	25.9	469
Total Rural	4.0	3,352	25.5	42.2	10.8	6.4	4.5	47.0	26.0	21.0	3,133
Total Coastal	2.1	4,303	25.5	41.4	11.3	6.5	4.8	47.3	25.5	21.7	4,091
Coastal (urban)	1.7	1,428	25.9	39.9	9.7	5.4	4.3	50.4	27.0	23.4	1,369
Coastal (rural)	2.2	2,875	25.3	42.2	12.1	7.1	5.0	45.7	24.8	20.9	2,722
Total Interior	14.8	476	26.7	42.1	2.2	1.6	0.6	55.7	33.8	21.9	411
Region											
Region 1	17.8	160	27.4	41.7	2.3	1.3	1.0	56.0	33.8	22.2	125
Region 2	3.4	288	25.2	43.4	9.8	6.3	3.5	46.8	29.4	17.4	273
Region 3	1.5	656	24.8	45.7	11.9	6.9	4.9	42.4	24.4	18.0	629
Region 4	2.0	2,099	25.6	40.7	11.3	6.6	4.7	48.0	25.6	22.4	1,998
Region 5	1.4	321	25.6	41.2	12.4	7.4	5.0	46.5	22.4	24.1	291
Region 6	2.8	730	25.5	39.3	12.0	6.1	5.8	48.7	26.9	21.8	701
Region 7	12.5	95	26.6	42.1	1.3	0.7	0.6	56.6	33.6	23.0	85
Region 8	20.3	87	25.8	48.0	1.7	1.4	0.3	50.2	31.5	18.7	78
Region 9	12.3	73	25.6	48.4	2.5	1.9	0.6	49.1	33.9	15.2	68
Region 10	2.0	269	27.0	37.4	6.8	4.8	2.0	55.7	25.9	29.9	253
Education											
No education	12.5	65	29.0	33.7	4.4	1.2	3.3	61.8	25.0	36.8	55
Primary	6.2	905	26.4	35.8	7.0	3.8	3.2	57.2	31.8	25.4	843
Secondary	2.7	3,430	25.3	43.2	11.6	6.9	4.7	45.2	24.9	20.3	3,245
More than secondary	0.3	380	25.8	40.4	9.7	4.9	4.8	49.9	26.4	23.5	360
Wealth quintile											
Lowest	10.7	748	25.5	46.0	7.2	4.5	2.7	46.7	29.2	17.5	674
Second	2.7	923	25.3	42.0	13.6	7.5	6.1	44.4	21.7	22.7	863
Middle	2.0	984	25.0	43.1	13.0	7.3	5.7	43.9	23.4	20.5	917
Fourth	2.4	1,033	26.1	38.3	10.6	6.7	3.9	51.1	27.3	23.8	989
Highest	0.9	1,092	26.0	39.8	7.6	4.2	3.4	52.5	29.7	22.8	1,059
Total	3.3	4,780	25.6	41.5	10.5	6.1	4.4	48.0	26.3	21.7	4,502

Note: The Body Mass Index (BMI) is expressed as the ratio of weight in kilograms to the square of height in meters (kg/m^2).
[1] Excludes pregnant women and women with a birth in the preceding 2 months

Table 11.10.2 Nutritional status by background characteristics: Men

Among men age 15-49, mean Body Mass Index (BMI) and percentages with specific BMI levels, by background characteristics, Guyana 2009

Background characteristic	Mean Body Mass Index (BMI)	Normal	Thin			Overweight/obese (OO)			Number of men
		18.5-24.9 (total normal	<18.5 (total thin)	17.0-18.4 (mildly thin)	<17.0 (moderately and severely thin)	≥25.0 (total over-weight/ obese)	25.0-29.9 (over-weight)	≥30.0 (obese)	
Age									
15-19	20.8	60.7	28.9	16.1	12.8	10.4	7.5	2.9	640
20-29	23.7	62.7	8.2	6.3	2.0	29.1	21.2	7.9	904
30-39	24.4	53.8	7.7	5.6	2.1	38.5	27.9	10.6	903
40-49	24.8	46.9	8.0	5.3	2.6	45.1	33.7	11.4	802
Residence									
Total Urban	23.8	55.9	11.6	7.9	3.7	32.5	21.2	11.3	882
Georgetown (urban)	23.9	56.6	10.8	7.3	3.5	32.6	20.9	11.8	575
Other (urban)	23.7	54.6	13.1	9.0	4.0	32.3	21.8	10.5	307
Total Rural	23.5	55.9	12.3	7.8	4.5	31.8	24.3	7.5	2,368
Total Coastal	23.4	55.1	13.2	8.5	4.7	31.7	23.2	8.5	2,897
Coastal (urban)	23.8	55.9	11.6	7.9	3.7	32.5	21.2	11.3	882
Coastal (rural)	23.2	54.7	13.9	8.7	5.2	31.3	24.1	7.2	2,015
Total Interior	25.0	62.7	3.0	2.4	0.6	34.2	25.2	9.0	353
Region									
Region 1	25.5	63.3	5.6	4.3	1.3	31.1	18.9	12.2	141
Region 2	24.4	54.0	6.4	4.2	2.3	39.6	28.3	11.3	169
Region 3	22.9	54.7	17.0	12.1	5.0	28.3	21.0	7.3	390
Region 4	23.3	56.1	12.8	7.6	5.2	31.1	23.0	8.2	1,456
Region 5	23.4	56.8	13.5	9.7	3.9	29.7	21.7	8.0	241
Region 6	23.8	51.4	13.2	8.4	4.8	35.4	26.4	9.1	526
Region 7	24.7	57.5	1.4	0.5	0.9	41.1	35.0	6.2	57
Region 8	23.5	74.9	2.8	2.8	0.0	22.3	22.0	0.3	59
Region 9	25.1	56.5	0.0	0.0	0.0	43.5	37.0	6.5	50
Region 10	24.0	59.2	10.5	8.4	2.1	30.3	18.1	12.1	161
Education									
No education	26.1	61.7	11.1	11.1	0.0	27.2	14.2	13.1	53
Primary	23.7	53.9	10.4	7.8	2.7	35.7	28.0	7.7	643
Secondary	23.3	57.3	12.9	8.0	4.9	29.7	21.7	8.0	2,284
More than secondary	25.1	48.0	9.0	5.4	3.7	42.9	29.1	13.8	270
Wealth quintile									
Lowest	23.2	66.3	9.5	6.6	2.9	24.1	20.3	3.8	604
Second	22.9	58.1	16.1	11.6	4.5	25.8	18.8	7.0	617
Middle	22.8	57.1	14.9	9.6	5.4	28.0	20.5	7.5	663
Fourth	24.0	52.6	11.1	7.1	3.9	36.3	26.7	9.6	708
Highest	24.8	46.7	9.0	4.3	4.6	44.3	30.3	14.1	658
Total	23.6	55.9	12.1	7.8	4.3	32.0	23.5	8.5	3,250

Note: The Body Mass Index (BMI) is expressed as the ratio of weight in kilograms to the square of height in meters (kg/m^2).

Men

- The mean body mass index for men age 15-49 was 23.6, with 56 percent of all men falling within the normal BMI range of 18.5-24.9. About one in nine of all men (12 percent) is underweight (BMI <18.5), and 8 percent are mildly thin (BMI 17.0-18.4), while 4 percent are moderately and severely thin (BMI <17.0). Similar to women, the percentage of men who are thin is highest among the youngest age group 15-19 (29 percent), men in the Coastal area (13 percent), and those in Region 3 (17 percent). The percentage of men who are thin is lowest among men in the Interior area (3 percent), men in Regions 1,2,7, and 8 (less than 1 to 6 percent), men with more than secondary education (9 percent), and men in the lowest and highest wealth quintiles (9-10 percent).

- Overweight and obesity (BMI ≥25.0) is also common among men, although less common than among women (32 and 48 percent, respectively). One in eleven men (9 percent) were classified as obese (BMI ≥30.0). The proportion of men who are overweight or obese is highest among men age 30-49 years (39-45 percent), men in Region 9 (44 percent), those with more than secondary education (43 percent) and men in the highest wealth quintile (44 percent).

11.9 FOODS CONSUMED BY MOTHERS

The quality and quantity of foods consumed by mothers has a direct impact on their health and that of their children, especially the health of breastfeeding children. The 2009 GDHS included questions on the types of foods consumed by mothers of children under age 3 during the day and night preceding the interview.

Table 11.11 shows the foods most commonly consumed by mothers who have a child younger than age 3 living with them. This information can have policy and programmatic implications because it provides a proxy for the quality of mother's diet.

- The foods consumed by women age 15-49 in the day or night preceding the interview include grains, mainly rice (92 percent); meat, fish, shellfish, poultry, or eggs (88 percent); milk (80 percent); vitamin A-rich fruits and vegetables (77 percent), and foods made with oil, butter, or fat (69 percent). A smaller percentage consumed foods made from roots and tubers (46 percent); cheese or yogurt (42 percent); fruits and vegetables other than vitamin-A rich ones (40 percent); and foods made from legumes (31 percent). Consumption of tea/coffee (79 percent), other liquids (88 percent), and sugary foods (60 percent) is also common.
- Consumption of milk, a major source of calcium for women, was lowest for women from the Interior area (74 percent), from Rural areas (78 percent), with no education (41 percent), and from the lowest wealth quintile (70 percent). Similar patterns are observed for consumption of vitamin A-rich fruits and vegetables. Foods containing iron such as meat, fish, shellfish, poultry, or eggs were consumed less frequently among women in rural areas.

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

Among mothers age 15-49 with a child under age 3 living with them, the percentage who consumed specific types of foods in the day or night preceding the interview, by background characteristics, Guyana 2009

	Liquids			Solid or semi-solid foods										
Background characteristic	Milk	Tea/coffee	Other liquids	Foods made from grains	Foods made from roots/ tubers	Foods made from legumes	Meat/ fish/ shellfish/ poultry/ eggs	Cheese/ yogurt	Vitamin A-rich fruits/ vege-tables[1]	Other fruits/ vege-tables	Other solid or semi-solid food	Foods made with oil/ fat/ butter	Sugary foods	Number of women
Age														
15-19	78.7	69.0	93.8	87.7	48.0	26.4	86.6	34.0	70.2	38.0	43.0	72.3	57.0	150
20-29	78.2	81.4	87.4	92.8	44.6	31.7	88.5	44.5	76.8	39.2	46.8	67.7	60.8	524
30-39	83.6	78.8	86.7	91.3	46.1	32.3	87.7	41.1	80.8	41.6	42.4	69.0	58.1	305
40-49	87.4	74.4	89.1	92.9	57.7	34.2	88.6	45.1	81.9	38.2	67.5	67.1	66.7	48
Residence														
Total Urban	89.0	77.1	92.2	95.5	49.7	43.9	94.6	59.7	87.2	43.9	53.7	78.9	70.6	226
Georgetown (urban)	91.2	74.2	95.0	94.3	53.8	44.2	94.2	64.9	89.6	42.1	54.6	81.5	68.9	147
Other (urban)	84.9	82.4	87.2	97.8	42.1	43.3	95.4	50.1	82.8	47.2	52.1	73.9	73.7	80
Total Rural	77.9	78.9	87.1	90.5	45.2	27.6	86.1	37.0	74.4	38.5	43.7	65.8	56.7	800
Total Coastal	82.1	81.4	91.1	93.9	43.5	34.0	87.6	47.8	79.4	40.7	48.6	72.7	64.2	808
Coastal (urban)	89.0	77.1	92.2	95.5	49.7	43.9	94.6	59.7	87.2	43.9	53.7	78.9	70.6	226
Coastal (rural)	79.4	83.0	90.6	93.3	41.1	30.2	84.9	43.2	76.3	39.5	46.7	70.3	61.7	582
Total Interior	73.8	67.7	77.6	83.1	56.0	20.8	89.5	20.4	69.3	36.0	35.8	53.9	43.2	218
Region														
Region 1	80.9	66.1	71.8	89.5	59.3	18.1	89.4	19.1	68.5	44.5	39.8	47.5	43.6	86
Region 2	78.9	81.3	83.1	83.7	32.0	19.2	84.9	30.5	72.4	32.1	36.2	62.9	57.4	56
Region 3	82.0	80.6	91.9	96.2	43.5	33.0	80.9	47.2	74.0	37.0	45.4	82.9	70.4	135
Region 4	85.0	80.2	93.6	95.6	44.5	37.4	91.5	55.6	82.1	37.2	52.4	74.5	63.5	375
Region 5	85.1	84.3	92.5	91.2	48.9	32.6	79.7	38.1	78.9	47.0	48.9	64.4	61.5	75
Region 6	70.7	84.0	85.7	91.9	43.1	30.2	86.6	38.5	77.8	54.1	42.3	63.0	59.2	131
Region 7	67.9	60.5	84.1	78.3	43.2	11.4	90.6	19.0	66.8	25.9	32.5	56.3	33.7	38
Region 8	60.3	62.2	78.8	69.1	58.5	17.3	80.7	15.1	64.4	36.2	32.3	41.7	43.3	38
Region 9	61.5	71.6	81.0	76.2	71.2	35.3	95.9	24.2	81.6	25.2	40.8	64.7	46.4	32
Region 10	93.6	83.6	87.1	97.9	41.2	38.5	95.2	42.5	80.3	39.6	48.3	81.0	70.3	60
Education														
No education	(41.2)	(63.9)	(76.8)	(77.0)	(60.4)	(25.0)	(88.5)	(24.1)	(54.8)	(39.7)	(38.1)	(59.7)	(48.1)	27
Primary	80.8	77.0	83.5	94.0	47.3	26.7	85.3	32.5	73.3	41.0	44.1	62.2	58.3	214
Secondary	81.9	78.9	90.3	91.3	46.3	32.4	88.4	46.0	78.3	38.0	47.4	71.0	61.0	719
More than secondary	78.2	84.1	85.1	93.9	35.5	35.6	92.4	36.6	87.3	53.1	39.3	69.0	55.8	67
Wealth quintile														
Lowest	69.9	69.8	81.6	86.4	49.4	22.9	87.6	26.5	70.8	34.3	43.6	55.6	47.7	285
Second	87.3	83.7	94.2	94.4	42.5	27.5	91.7	38.1	77.9	38.7	44.0	77.2	62.6	202
Middle	81.5	82.4	88.7	90.7	42.6	32.1	83.1	45.8	68.3	38.6	47.9	70.3	66.8	204
Fourth	80.6	79.9	89.0	94.9	50.3	36.9	87.0	50.3	83.2	38.1	50.6	75.8	63.3	173
Highest	88.1	80.7	91.0	95.1	45.2	43.3	91.3	60.5	92.5	53.5	44.7	71.5	64.6	162
Total	80.3	78.5	88.2	91.6	46.2	31.2	88.0	42.0	77.2	39.7	45.9	68.7	59.7	1,027

Note: Foods consumed in the past 24-hour period (yesterday and last night). Figures in parentheses are based on 25-49 unweighted cases.
[1] Includes pumpkin, red or yellow yams or squash, carrots, red sweet potatoes, dark green leafy vegetables, mango, papaya, and other locally grown fruits and vegetables that are rich in vitamin A.

11.10 ANEMIA IN WOMEN AND MEN

The same equipment and procedures used to measure anemia in children were employed to measure anemia in women and men. Three levels of severity of anemia are distinguished: mild anemia (10.0-10.9 g/dl for pregnant women, 10.0-11.9 g/dl for non-pregnant women, and 12.0-12.9 g/dl for men); moderate anemia (7.0-9.9 g/dl for women and 9.0-11.9 g/dl for men); and severe anemia (less than 7.0 g/dl for women and less than 9.0 g/dl for men). Appropriate adjustments in these cut-off points should be made for respondents living at altitudes above 1,000 meters and for respondents who smoke because both of these groups require more hemoglobin in their blood (Centers for Disease Control and Prevention, 1998). These adjustments were made for respondents who smoke; however adjustments for altitude were not made because none of the respondents were living at altitudes above 1,000 meters.

Tables 11.12.1 and 11.12.2 show the prevalence of anemia in women and men, respectively, by background characteristics.

Women

- Thirty-seven percent of women 15-49 in Guyana have some form of anemia, with the majority (29 percent) having mild anemia and 8 percent having moderate anemia.
- There is some variation in the prevalence of anemia among women by background characteristics. The prevalence of anemia is highest among older women age 40-49 (43 percent), those with six or more children (47 percent), women using an IUD (44 percent), and women living in the Coastal area (38 percent).
- There are important differentials by region in the prevalence of anemia among women. Region 5 has the highest percentage of women with anemia (49 percent), while Regions 8 and 9 (24 and 21 percent, respectively) have the lowest percentage of women with anemia.
- The prevalence of anemia is lowest among women with no education (28 percent compared with 37-40 percent of women with any education) and women in the highest wealth quintile (33 percent compared with 38-40 percent of women in the other wealth quintiles).

Men

- Only 6 percent of men 15-49 are classified as anemic, with 4 percent being mildly anemic and only 1 percent being moderately anemic.
- There are no major variations in the prevalence of anemia among men by various background characteristics. The highest anemia prevalence is recorded among men in Region 5 (10 percent), men with no education (13 percent), and men in the lowest wealth quintile (8 percent).

Table 11.12.1 Prevalence of anemia: Women

Percentage of women age 15-49 with anemia, by background characteristics, Guyana 2008

Background characteristic		Anemia status by hemoglobin level: Mild	Moderate	Severe	Any	Number of women
	Not pregnant	10.0-11.9 g/dl	7.0-9.9 g/dl	<7.0 g/dl	<12.0 g/dl	
	Pregnant	10.0-10.9 g/dl	7.0-9.9 g/dl	< 7.0 g/dl	<11.0 g/dl	
Age						
15-19		26.2	7.4	0.5	34.1	935
20-29		28.8	6.6	0.0	35.5	1,304
30-39		28.1	7.8	0.7	36.7	1,241
40-49		30.7	11.4	1.1	43.1	1,115
Number of children ever born						
0		25.4	6.0	0.3	31.8	1,423
1		29.1	8.3	0.5	37.9	725
2-3		29.0	9.6	0.5	39.1	1,543
4-5		31.2	8.8	1.0	41.1	622
6+		35.0	10.9	1.3	47.2	281
Maternity status						
Pregnant		18.9	18.7	0.0	37.5	201
Breastfeeding		28.5	8.0	0.1	36.6	622
Neither		29.1	7.7	0.7	37.5	3,772
Using IUD						
Yes		37.1	6.5	0.0	43.5	226
No		28.1	8.4	0.6	37.1	4,369
Smoking status						
Smokes cigarettes/tobacco		28.6	7.1	0.2	35.9	148
Does not smoke		28.6	8.3	0.6	37.4	4,438
Residence						
Total Urban		29.9	7.2	0.4	37.5	1,336
Georgetown (urban)		28.1	7.4	0.3	35.9	860
Other (urban)		33.1	6.7	0.5	40.3	476
Total Rural		28.0	8.7	0.7	37.4	3,259
Total Coastal		29.1	8.5	0.6	38.2	4,127
Coastal (urban)		29.9	7.2	0.4	37.5	1,336
Coastal (rural)		28.7	9.1	0.7	38.6	2,791
Total Interior		23.7	6.1	0.1	30.0	468
Region						
Region 1		25.8	9.2	0.0	35.0	158
Region 2		31.6	8.3	0.7	40.5	287
Region 3		32.9	5.9	0.4	39.2	605
Region 4		26.6	8.2	0.7	35.5	2,013
Region 5		33.9	14.0	1.3	49.2	316
Region 6		28.6	10.0	0.4	39.0	711
Region 7		19.7	7.1	0.4	27.2	92
Region 8		23.2	1.2	0.0	24.4	88
Region 9		16.5	4.8	0.0	21.3	73
Region 10		33.9	5.1	0.7	39.7	254
Education						
No education		21.1	7.4	0.0	28.4	63
Primary		27.9	10.5	1.2	39.5	894
Secondary		28.5	8.1	0.5	37.1	3,277
More than secondary		31.7	4.8	0.3	36.7	362
Wealth quintile						
Lowest		26.4	10.6	1.1	38.1	737
Second		30.6	8.8	0.3	39.7	884
Middle		28.0	9.2	0.9	38.1	950
Fourth		28.6	9.2	0.6	38.4	984
Highest		28.9	4.4	0.2	33.4	1,040
Total		28.6	8.3	0.6	37.4	4,595

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

Table 11.12.2 Prevalence of anemia: Men

Percentage of men age 15-49 with anemia, by background characteristics, Guyana 2009

Background characteristic	Anemia status by hemoglobin level				Number of men
	Mild (12.0-12.9 g/dl)	Moderate (9.0-11.9 g/dl)	Severe (< 9.0 g/dl)	Any anemia (<13.0 g/dl)	
Age					
15-19	5.2	1.0	0.0	6.2	625
20-29	4.3	1.8	0.0	6.2	863
30-39	3.5	1.1	0.1	4.7	875
40-49	5.2	1.5	0.2	6.8	770
Smoking status					
Smokes cigarettes/tobacco	4.7	1.2	0.0	5.8	959
Does not smoke	4.4	1.5	0.1	6.0	2,172
Residence					
Total Urban	3.8	0.9	0.1	4.9	832
Georgetown (urban)	3.2	0.8	0.2	4.3	536
Other (urban)	4.8	1.2	0.0	5.9	295
Total Rural	4.7	1.5	0.1	6.3	2,302
Total Coastal	4.6	1.3	0.1	6.0	2,781
Coastal (urban)	3.8	0.9	0.1	4.9	832
Coastal (rural)	5.0	1.4	0.1	6.5	1,949
Total Interior	3.3	2.0	0.1	5.4	353
Region					
Region 1	2.2	3.9	0.3	6.4	149
Region 2	6.2	1.6	0.0	7.9	164
Region 3	7.4	1.0	0.4	8.8	356
Region 4	3.9	0.6	0.1	4.6	1,394
Region 5	4.2	6.2	0.0	10.4	235
Region 6	4.3	0.9	0.0	5.2	524
Region 7	3.3	0.2	0.0	3.5	55
Region 8	3.4	0.5	0.0	3.9	56
Region 9	5.3	2.0	0.0	7.3	49
Region 10	4.6	1.0	0.0	5.5	151
Education					
No education	6.2	6.8	0.0	13.0	58
Primary	5.0	3.0	0.1	8.0	639
Secondary	4.4	0.8	0.1	5.3	2,186
More than secondary	2.8	1.3	0.0	4.1	251
Wealth quintile					
Lowest	5.5	2.6	0.1	8.2	605
Second	4.1	2.3	0.2	6.7	599
Middle	4.4	1.1	0.2	5.8	639
Fourth	5.3	0.8	0.0	6.1	671
Highest	2.8	0.1	0.0	2.9	620
Total	4.4	1.4	0.1	5.9	3,133

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

11.11 MICRONUTRIENT INTAKE AMONG MOTHERS

Adequate micronutrient intake by women has important benefits for them and their children. Breastfeeding children benefit from micronutrient supplementation that mothers receive, especially vitamin A. Iron supplementation of women during pregnancy protects the mother and infant against anemia. It is estimated that one-fifth of perinatal mortality and one-tenth of maternal mortality are attributable to iron deficiency anemia. Anemia also results in an increased risk of premature delivery and low birth weight. Finally, iodine deficiency is related to a number of adverse pregnancy outcomes.

Table 11.13 presents indicators of micronutrient intake among mothers, particularly (1) the percentage of women with a birth in the past three years who consume vitamin A- and iron-rich foods; (2) the percentage of women with a birth in the five years preceding the survey who suffered from night blindness during pregnancy, who took iron tablets or syrup for specific numbers of days during their last pregnancy, and who took de-worming medication during their last pregnancy; and (3) the percentage with a live birth in the past five years who live in households that were tested for salt and that have adequately iodized salt, by background characteristics.

- Ninety-five percent of women age 15-49 with a child under age 3 living with her consumed foods rich in vitamin A, and 88 percent consumed foods rich in iron in the 24 hours preceding the survey. There are no major variations in the consumption of these foods by various background characteristics.
- Night blindness was reported in 5 percent of women 15-49 with a child born in the past five years. However, when adjusted (by excluding women who reported night blindness but did not report difficulty with vision during the day), the prevalence of night blindness was just over 1 percent. Mothers from the Interior area (3 percent), those in Region 1 (7 percent) and Region 2 (5 percent), mothers with primary education and those from the lowest wealth quintile (3 percent, each) have the highest prevalence of night blindness when compared with other women.
- With regard to iron supplementation during pregnancy, 16 percent of women did not take iron tablets or syrup during pregnancy. Although six in ten women said they took iron tablets, 20 percent took iron for fewer than 60 days. More than one-third of women (34 percent) took the iron tablets or syrup for the recommended 90 or more days. Iron intake varies by background characteristics. Older women, women living in the Rural and the Interior areas, and those living in Region 9 are more likely than other women not to have taken any iron supplements during pregnancy. The percentage of women who did not take any iron during pregnancy decreases as level of education and wealth quintile increase.
- One in eight women (12 percent) with a child born in the past five years lives in households with adequately iodized salt. This percentage is relatively high for women in the Interior area (25 percent) and significantly high for women living in Region 9 (88 percent). There are no major variations by other background characteristics.

Table 11.13 Micronutrient intake among mothers

Among women age 15-49 with a child under age three years living with her, the percentages who consumed vitamin A-rich and iron-rich foods in the 24 hours preceding the survey; among mothers age 15-49 who during the pregnancy of the last child born in the five years prior to the survey, the percentage who suffered from night blindness, the percentage who took iron tablets or syrup for specific numbers of days, and the percentage who took deworming medication; and among women age 15-49 with a child born in the past five years, who live in households that were tested for iodized salt, the percentage who live in households with adequately iodized salt, by background characteristics, Guyana 2009

	Among women with a child under three years living with them:			Among women with a child born in the past five years:									Among women with a child born in the past five years, who live in households that were tested for iodized salt:	
				Percentage with night blindness during pregnancy for last birth		Number of days women took iron tablets or syrup during pregnancy for last birth					Percentage of women who took deworming medication during pregnancy of last birth			
Background characteristic	Percentage who consumed vitamin A- rich foods[1]	Percentage who consumed iron-rich foods[2]	Number of women	Reported	Adjusted[3]	None	<60	60-89	90+	Don't know/ missing		Number of women	Percentage living in households with adequately iodized salt[4]	Number of women
Age														
15-19	92.0	86.6	150	8.7	1.9	12.5	26.6	6.0	30.7	24.2	12.1	162	11.2	154
20-29	95.5	88.5	524	3.3	0.7	16.6	19.3	6.0	30.7	27.5	16.1	723	10.2	658
30-39	95.6	87.7	305	5.5	2.0	14.8	20.1	4.2	41.6	19.3	20.1	456	14.6	426
40-49	96.3	88.6	48	10.2	1.9	17.4	16.1	2.6	31.2	32.7	20.8	84	9.3	73
Residence														
Total Urban	96.9	94.6	226	3.9	1.4	7.2	21.5	5.2	38.5	27.6	18.5	346	12.4	315
Georgetown (urban)	96.1	94.2	147	3.3	1.5	5.3	16.8	2.8	45.6	29.6	14.8	223	13.2	207
Other (urban)	98.4	95.4	80	4.9	1.0	10.6	30.1	9.5	25.6	24.2	25.2	123	10.9	108
Total Rural	94.5	86.1	800	5.4	1.3	18.3	19.8	5.2	32.9	23.9	16.8	1,080	11.5	996
Total Coastal	95.0	87.6	808	3.1	0.9	13.9	18.4	5.1	37.9	24.8	15.6	1,160	8.7	1,069
Coastal (urban)	96.9	94.6	226	3.9	1.4	7.2	21.5	5.2	38.5	27.6	18.5	346	12.4	315
Coastal (rural)	94.2	84.9	582	2.8	0.7	16.7	17.0	5.0	37.6	23.7	14.4	815	7.1	754
Total Interior	95.4	89.5	218	13.7	3.4	23.1	28.3	5.8	18.3	24.6	24.2	265	25.1	242
Region														
Region 1	97.1	89.4	86	21.3	6.5	24.7	28.4	8.8	12.8	25.3	34.3	103	9.0	97
Region 2	92.4	84.9	56	7.1	4.9	17.6	12.1	5.2	28.6	36.5	19.2	80	10.1	73
Region 3	94.7	80.9	135	4.3	0.4	15.3	7.8	2.7	37.0	37.3	11.0	189	9.9	179
Region 4	94.8	91.5	375	2.4	0.8	12.3	15.1	5.6	48.5	18.6	12.7	534	10.2	497
Region 5	97.7	79.7	75	3.8	0.0	16.0	14.5	5.3	28.8	35.5	22.5	105	1.7	93
Region 6	93.9	86.6	131	0.8	0.0	16.7	38.4	2.8	21.5	20.5	20.8	194	2.6	178
Region 7	97.0	90.6	38	12.9	0.5	15.8	34.3	0.9	30.2	18.7	8.4	48	14.2	43
Region 8	87.6	80.7	38	4.1	1.9	21.9	21.0	4.9	25.5	26.7	20.3	47	16.5	40
Region 9	96.9	95.9	32	11.3	2.1	26.5	25.6	2.7	10.6	34.6	25.0	38	87.6	35
Region 10	98.9	95.2	60	6.4	1.4	12.4	32.0	12.7	23.5	19.4	21.3	88	25.0	78
Education														
No education	(97.3)	(88.5)	27	(14.1)	(0.0)	(24.5)	(18.4)	(16.6)	(15.6)	(24.8)	(15.6)	40	(8.5)	38
Primary	94.8	85.3	214	9.4	2.6	25.1	18.9	2.1	26.1	27.8	21.8	290	10.5	268
Secondary	94.6	88.4	719	3.8	1.2	13.1	21.0	5.5	36.7	23.6	16.6	989	12.2	906
More than secondary	100.0	92.4	67	1.8	0.0	8.9	16.9	6.4	40.3	27.4	10.8	106	11.8	99
Wealth quintile														
Lowest	95.8	87.6	285	10.8	3.2	21.4	20.6	4.7	26.6	26.8	23.6	361	15.7	333
Second	95.4	91.7	202	3.6	0.7	16.8	21.4	6.5	27.7	27.6	13.7	297	7.6	263
Middle	89.7	83.1	204	3.3	0.3	15.8	22.2	4.6	37.4	20.0	15.9	278	11.6	258
Fourth	97.6	87.0	173	3.1	1.3	12.1	20.0	6.5	38.1	23.3	17.3	241	11.0	228
Highest	97.2	91.3	162	2.4	0.6	8.7	16.1	3.8	46.0	25.4	13.5	247	11.4	228
Total	95.1	88.0	1,027	5.1	1.3	15.6	20.2	5.2	34.2	24.8	17.2	1,425	11.7	1,311

Note: Figures in parentheses are based on 25-49 unweighted cases.
[1] Includes meat (and organ meat), fish, poultry, eggs, pumpkin, red or yellow yams or squash, carrots, red sweet potatoes, dark green leafy vegetables, mango, papaya, and other locally grown fruits and vegetables that are rich in vitamin A
[2] Includes meat (and organ meat), fish, poultry, and eggs
[3] Women who reported night blindness but who did not report difficulty with vision during the day
[4] Salt containing 15 ppm of iodine or more; excludes women in households where salt was not tested

MALARIA 12

Malaria is endemic in the interior regions of Guyana and constitutes one of the leading causes of morbidity and mortality in these regions, especially among pregnant women and children under age 5. Even though interior Regions 1, 7, 8, and 9 constitute about 60 percent of Guyana's overall surface area, only about 10 percent of the indigenous population lives there. Another 4 to 5 percent of the population seeks work in these regions, especially in mining, logging, and natural resource exploration. Annually, about 12,000 malaria cases were reported nationally in 2008, representing a downward trend from about 60,000 cases reported in 2003. Of the total malaria cases, almost all (98 percent) occurred in Regions 1, 7, 8, and 9, and they accounted for one in twelve (8 percent) of all outpatient visits. Slightly more than 2 percent of hospital admissions result from complications of malaria, and these cases are considered serious, accounting for about 1 percent of all deaths in Guyana (MOH Statistical Unit).

Vector Control Services of the Guyana Ministry of Health is in the process of implementing the national malaria strategy for the period 2008-2012. This strategy is guided by WHO criteria, recommendations in the *Global Malaria Action Plan for a Malaria-Free World*, and activities outlined in the *Regional Strategic Plan for Malaria in the Americas 2006–2010* (PAHO, 2006). The objectives of this initiative are to ensure that, by 2012, at least 80 percent of individuals at risk for malaria have access to the most suitable and affordable combination of personal and community protective measures, such as insecticide-treated mosquito nets (ITNs), and prompt, effective diagnosis and treatment for malaria. One focus of this initiative is pregnant women, and the related objective is to ensure that at least 90 percent of pregnant women who are at risk of malaria, especially those in their first pregnancies, have access to preventive measures, early diagnosis, and prompt treatment.

This chapter presents information that helps assess how well malaria control strategies are implemented. These strategies include making mosquito nets available by category in the selected households, use of mosquito nets by women and children, and use of antimalarial drugs as prophylaxis for pregnant women and as treatment for children under age 5 with fever. Information is also presented on the specific antimalarial drugs received as well as the timing of the treatment.

12.1 OWNERSHIP OF MOSQUITO NETS

One of the most important means for controlling vector-borne diseases, such as malaria or dengue fever, is to break the host-vector link. The use of bed nets in malaria control does just that by creating a physical barrier between humans and the female Anopheles mosquito, which feeds primarily at night. Treating the bed nets with an insecticide that leaves a residual effect has the added advantage of repelling and/or killing the mosquitoes. This reduces the mosquito population and, eventually, terminates their ability to transmit malaria.

There are various types of insecticide-treated mosquito nets (ITNs) on the market. They include the long-lasting, insecticide-treated nets that require re-treatment only after about four years or 20 washes, and the standard insecticide-treated nets that need to be re-treated every six months or after three washes. Since around 2002, the Guyanese government has purchased and distributed long-lasting ITNs to people living in malaria-endemic regions. There is also an active program, implemented by the Ministry of Health, which educates household members on use and home treatment of ITNs to prevent vector-borne diseases.

Table 12.1 shows the percentages of households with at least one net, more than one net (treated or untreated), one or more ever-treated nets, one or more insecticide-treated nets, and the average number of nets per household, by background characteristics.

Table 12.1 Household possession of mosquito nets

Percentage of households with at least one and more than one net (treated or untreated), one and more than one ever-treated nets, and one and more insecticide-treated nets[1] (ITN), and the average number of nets per household, by background characteristics, Guyana 2009

	Any type of mosquito net			Ever-treated mosquito net[2]			Insecticide-treated mosquito net (ITN)[1]			
Background characteristic	Percentage of households with at least one net	Percentage of households with more than one net	Average number of nets per household	Percentage of households with at least one net	Percentage of households with more than one net	Average number of ever-treated nets per household	Percentage of households with at least one ITN	Percentage of households with more than one ITN	Average number of ITNs per household	Number of households
Residence										
Total Urban	84.6	63.7	1.9	14.1	10.6	0.3	12.6	9.3	0.3	1,603
Georgetown (urban)	86.1	65.2	2.0	5.5	4.4	0.1	4.1	3.1	0.1	1,053
Other (urban)	81.6	60.9	1.9	30.6	22.4	0.7	28.8	21.2	0.6	550
Total Rural	90.2	67.0	2.0	35.2	25.0	0.8	30.7	22.0	0.7	4,029
Total Coastal	88.6	66.1	2.0	26.4	19.1	0.6	24.6	18.1	0.5	5,052
Coastal (urban)	84.6	63.7	1.9	14.1	10.6	0.3	12.6	9.3	0.3	1,603
Coastal (rural)	90.5	67.2	2.0	32.1	23.1	0.7	30.2	22.2	0.7	3,449
Total Interior	88.0	65.8	2.0	53.9	36.5	1.1	34.0	21.1	0.7	580
Region										
Region 1	94.5	71.5	2.2	55.7	36.6	1.2	38.0	24.0	0.8	199
Region 2	97.5	78.0	2.3	67.2	51.9	1.5	62.0	48.0	1.4	348
Region 3	92.2	67.1	2.0	24.2	16.7	0.5	22.8	16.2	0.5	763
Region 4	88.5	62.9	1.9	15.7	9.5	0.3	14.3	8.8	0.3	2,420
Region 5	87.6	69.5	2.1	26.6	21.7	0.6	24.7	20.9	0.6	417
Region 6	86.8	71.2	2.0	46.4	37.2	1.1	45.1	36.3	1.1	879
Region 7	91.0	64.9	1.9	69.6	45.8	1.4	47.7	30.5	0.9	116
Region 8	89.1	65.3	2.0	70.6	50.5	1.6	40.2	23.2	0.8	104
Region 9	76.0	64.8	2.1	44.2	35.3	1.1	22.7	15.9	0.5	88
Region 10	74.9	52.0	1.6	8.3	3.5	0.1	4.5	1.7	0.1	297
Malaria-endemic regions[3]	89.4	67.6	2.1	60.0	41.3	1.3	38.0	23.9	0.8	507
Wealth quintile										
Lowest	80.8	47.2	1.5	39.2	23.5	0.7	28.8	15.5	0.5	1,110
Second	88.9	60.6	1.8	31.1	21.7	0.6	28.1	20.0	0.6	1,151
Middle	92.7	69.4	2.0	30.3	22.3	0.6	28.8	21.4	0.6	1,122
Fourth	90.9	75.2	2.2	27.6	22.2	0.7	25.0	20.8	0.6	1,126
Highest	89.5	77.5	2.3	18.0	14.8	0.5	17.2	14.3	0.4	1,123
Total	88.6	66.0	2.0	29.2	20.9	0.6	25.6	18.4	0.5	5,632

[1] An insecticide-treated net (ITN) is (1) a factory-treated net that does not require any further treatment, (2) a pre-treated net obtained within the past 12 months, or (3) a net that has been soaked with insecticide within the past 12 months
[2] An ever-treated net is a pre-treated net or a non-pre-treated net, which has subsequently been soaked with insecticide at any time
[3] Regions 1, 7, 8, and 9

- Eighty-nine percent of households in Guyana own a mosquito net, whether treated or untreated, and 66 percent of households own more than one net. Rural area households are more likely to own at least one net than Urban area households (90 percent versus 85 percent). About nine in ten households in the malaria-endemic regions (1, 7, 8, and 9) have at least one mosquito net. The percentage of households with at least one net is lowest for households in the lowest wealth quintile (81 percent) compared with other households (89-93 percent).

- The average number of mosquito nets per household is 2.
- About three in ten (29 percent) of households own at least one ever-treated net, and more than one in four (26 percent) own an insecticide-treated net. Rural area households are more than twice as likely to own an ITN as Urban area households (31 percent versus 13 percent), and households in the Interior area are more likely than those in the Coastal area to own at least one ITN (34 percent versus 25 percent). About four in ten households in the malaria-endemic regions (38 percent) have at least one ITN. It is noteworthy that only 23 percent of households in Region 9 (a malaria-endemic region) own an ITN. The percentage of households with at least one ITN is lowest for households in the highest wealth quintile (17 percent) compared with other households (25 to 29 percent).

12.2 USE OF MOSQUITO NETS BY CHILDREN

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

In the 2009 GDHS, respondents to the Household Questionnaire were asked about the use of mosquito nets by all members of the household on the night before the interview. Table 12.2 presents information on the use of mosquito nets by children under age 5 in all households and in households with an ITN, by background characteristics.

- Eight in ten children under age 5 in all households slept under a mosquito net (treated or untreated) the night before the survey; about three in ten (29 percent) slept under an ever-treated net; and about one in four (24 percent) slept under an ITN. In households that own at least one ITN, a substantially larger proportion of children under age 5 slept under an ITN the night before the survey (81 percent).
- Among children under age 5, those age 1-2 are somewhat more likely than other children to have slept under any net (82 to 84 percent), an ever-treated net (31 to 32 percent), or an ITN (27 to 28 percent) the night before the survey. Children in Urban areas (82 percent) are slightly more likely than those in Rural areas (80 percent) and children in the Coastal area (83 percent) are more likely than those in the Interior area (70 percent) to have slept under any net. The opposite is true for the other ever-treated and insecticide-treated nets. Children living in the Rural and Interior areas are significantly more likely to have slept under an ever-treated net or an ITN the previous night than children in Urban and Coastal areas. Seventy-five percent of children under age 5 from the malaria-endemic regions had slept under any net, 46 percent had slept under an ever-treated net, and 30 percent had slept under an ITN. Among the malaria-endemic regions, Region 9 has the lowest percentage of children under age 5 who slept under any net (44 percent), under an ever-treated net (18 percent), or an ITN (8 percent) the night before. The proportion of children who slept under an ever-treated net or an ITN generally decreases with increasing wealth quintile, while the percentage sleeping under any net tends to increase with wealth.
- In households that own at least one ITN, the percentage of children who slept under an ITN decreases with child's age. It is higher among children living in Urban areas (90 percent) and in the Coastal area (85 percent) when compared with children living in Rural areas (80 percent)

and the Interior area (72 percent). About three quarters (73 percent) of children living in households with an ITN in Regions 1, 7, 8, and 9—the malaria-endemic regions—had slept under an ITN the previous night. The relationship between the proportion of children in households with ITNs who slept under an ITN the night before and wealth does not follow a clear pattern.

Table 12.2 Use of mosquito nets by children

Among children under age 5 in all households, the percentage who, on the night preceding the interview, slept under a mosquito net (treated or untreated), under an ever-treated mosquito net, and under an insecticide-treated net (ITN), and among children under age 5 in households with at least one ITN, the percentage who slept under an ITN the past night, by background characteristics, Guyana 2009

	Children under age 5 in all households				Children under age 5 in households with an ITN	
Background characteristic	Percentage who slept under any net last night	Percentage who slept under an ever-treated net last night[1]	Percentage who slept under an ITN last night[2]	Number of children	Percentage who slept under an ITN last night[2]	Number of children
Age (in years)						
<1	82.7	27.8	23.8	424	85.7	118
1	84.0	31.4	27.0	400	83.7	129
2	81.9	31.9	28.3	447	81.2	156
3	76.9	26.6	21.6	375	77.9	104
4	76.0	25.8	20.5	411	77.6	109
Sex						
Male	80.0	29.5	25.4	1,022	81.9	317
Female	80.7	28.0	23.3	1,036	80.8	299
Residence						
Total Urban	81.8	14.5	12.6	464	90.4	65
Georgetown (urban)	86.7	7.3	5.1	283	*	15
Other (urban)	74.1	25.8	24.3	181	87.7	50
Total Rural	80.0	32.9	27.8	1,594	80.3	551
Total Coastal	83.0	25.6	23.6	1,639	84.6	458
Coastal (urban)	81.8	14.5	12.6	464	90.4	65
Coastal (rural)	83.4	30.0	28.0	1,175	83.7	393
Total Interior	70.3	41.0	27.1	419	72.0	158
Region						
Region 1	80.9	49.4	36.4	155	78.2	72
Region 2	93.3	68.4	61.5	125	91.5	84
Region 3	88.8	22.8	22.8	272	(92.2)	67
Region 4	81.9	15.0	12.9	733	76.1	125
Region 5	75.2	19.4	17.1	145	(83.6)	30
Region 6	83.9	46.9	45.6	277	85.7	148
Region 7	77.5	56.3	32.4	71	76.3	30
Region 8	70.4	54.7	36.7	75	76.3	36
Region 9	43.9	17.9	7.7	72	(37.3)	15
Region 10	67.2	4.1	2.5	133	*	9
Malaria-endemic regions[3]	75.3	45.8	30.3	373	73.4	153
Wealth quintile						
Lowest	72.6	38.0	28.0	582	78.8	207
Second	82.7	29.2	25.8	447	90.3	128
Middle	85.3	30.9	29.7	370	84.4	130
Fourth	79.1	21.5	19.0	347	68.6	96
Highest	87.3	16.4	14.9	311	85.6	54
Total	80.4	28.8	24.4	2,058	81.4	616

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 available
[1] An ever-treated net is a pretreated net, or a non-pretreated net, which has subsequently been soaked with insecticide at any time.
[2] An insecticide-treated net (ITN) is a factory-treated net that does not require any further treatment; or a pretreated net obtained within the past 12 months; or a net that has been soaked with insecticide within the past 12 months.
[3] Regions 1, 7, 8, and 9

12.3 USE OF MOSQUITO NETS BY WOMEN

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

Table 12.3.1 shows the percentage of all women age 15-49 in all households who slept under a mosquito net (treated or untreated) the night before the survey, and in households that own at least one ITN, the proportion who slept under an ITN the night before the survey, by background characteristics.

- More than three-quarters (76 percent) of women age 15-49 in all households slept under a mosquito net (treated or untreated) the night before the survey; and more than one in five slept under an ever-treated net (24 percent) or under an ITN (22 percent). In households that own at least one ITN, almost four times as many women slept under an ITN the night before the survey when compared with women from all households (82 percent versus 22 percent).
- Among all women, those living in Rural areas are much more likely than Urban women to have slept under any net (78 percent versus 71 percent), under an ever-treated net (30 percent versus 11 percent), and under an ITN (27 percent versus 10 percent). Women in the Coastal area are more likely than those in the Interior area to have slept under any net (77 and 70 percent, respectively). On the other hand, women in the Interior area are more likely than those in the Coastal area to have slept under an ever-treated net (41 percent versus 22 percent) or an ITN (27 percent versus 21 percent).
- The percentage of women who slept under any net ranges from 43 percent in Region 9 to 90 percent, each, in Regions 1 and 2. Looking at ever-treated nets and ITNs, only 3 percent and 2 percent, respectively, slept under an ever-treated net and an ITN in Region 10 compared with 58 and 53 percent, respectively, of women in Region 2. The proportion of women who slept under any net the previous night tends to increase with education, while the proportion who slept under an ever-treated net or an ITN decreases with education. The lowest percentage of all women who slept under an ever-treated net or under an ITN (15 percent, each) is among women in the highest wealth quintile. The percentage of women who slept under any net does not have a clear relationship with wealth.
- In households that own at least one ITN, the percentage of women who slept under an ITN is higher among those living in the Rural areas and the Coastal area (83 percent, each) when compared with women living in the Urban areas (75 percent) and the Interior area (75 percent). Only 28 percent of women living in households with an ITN in Region 10 and 35 percent in Region 9 had slept under an ITN the previous night compared with 90 percent, each, in Regions 2 and 3. The relationship between the proportion of women in households with ITNs who slept under an ITN the night before and education or wealth does not follow a clear pattern.

Table 12.3.1 Use of mosquito nets by women

Among women age 15-49 in all households, the percentages who slept the night before the survey under a mosquito net (treated or untreated), under an ever-treated mosquito net, and under an insecticide-treated net (ITN); and among women age 15-49 in households with at least one ITN, the percentage who slept the night before the survey under an ITN, by background characteristics, Guyana 2009

	Women age 15-49 in all households				Women age 15-49 in households with an ITN	
Background characteristic	Percentage who slept under any net last night	Percentage who slept under an ever-treated net last night[1]	Percentage who slept under an ITN last night[2]	Number of women	Percentage who slept under an ITN last night[2]	Number of women
Residence						
Total Urban	71.1	10.8	9.8	1,638	74.9	215
Georgetown (urban)	72.9	4.5	3.5	1,073	(64.6)	58
Other (urban)	67.7	22.6	21.9	564	78.7	157
Total Rural	78.3	29.8	26.8	3,907	83.2	1,261
Total Coastal	76.9	22.4	21.3	4,986	83.1	1,276
Coastal (urban)	71.1	10.8	9.8	1,638	74.9	215
Coastal (rural)	79.7	28.1	26.9	3,348	84.7	1,061
Total Interior	70.2	40.5	26.7	559	74.7	200
Region						
Region 1	90.4	48.0	34.1	181	87.6	70
Region 2	89.8	57.5	53.2	324	89.5	192
Region 3	83.7	21.2	20.2	759	89.7	171
Region 4	75.6	12.8	12.1	2,411	78.0	373
Region 5	73.3	23.3	22.0	390	77.1	111
Region 6	77.5	41.9	41.1	864	84.7	419
Region 7	73.0	54.5	36.0	116	79.2	53
Region 8	69.1	54.6	35.2	104	78.4	47
Region 9	43.0	19.7	9.4	86	35.2	23
Region 10	53.1	2.9	1.5	309	(27.8)	17
Malaria-endemic regions[3]	73.3	45.9	30.4	487	76.8	193
Education						
No education	70.9	37.3	22.2	92	(86.7)	24
Primary	76.5	28.2	25.1	1,024	82.2	312
Secondary	76.1	23.6	21.6	3,910	82.2	1,027
More than secondary	79.4	19.7	18.0	465	83.2	100
Wealth quintile						
Lowest	67.2	32.1	24.0	868	75.4	276
Second	76.3	26.7	24.2	1,070	85.5	303
Middle	80.0	25.8	24.6	1,112	86.0	319
Fourth	77.5	24.1	22.6	1,219	79.7	345
Highest	77.6	15.4	15.2	1,276	82.8	233
Total	76.2	24.2	21.8	5,545	81.9	1,476

Note: Figures in parentheses are based on 25-49 unweighted cases.
[1] An ever-treated net is a pretreated net, or a non-pretreated net, which has subsequently been soaked with insecticide at any time.
[2] An insecticide-treated net (ITN) is a factory-treated net that does not require any further treatment; or a pretreated net obtained within the past 12 months; or a net that has been soaked with insecticide within the past 12 months.
[3] Regions 1, 7, 8, and 9

12.4 MALARIA DURING PREGNANCY

In malaria-endemic areas, it is common health policy that pregnant women receive prophylactic Intermittent Preventive Treatment (IPT) with antimalarial drugs. However, in Guyana and the rest of the Americas where unstable malaria exists, IPT is not commonly promoted and the policy has been to promote the use of preventive measures such as sleeping under an ITN and ensuring early diagnosis and prompt treatment of malaria cases.

Questions on IPT with antimalarial drugs during the last pregnancy in the last five years were included in the 2009 GDHS. However, due to the small number of cases of mothers with malaria, the results are described in the text but not included in malaria tables. Additionally, it is likely that, when asked about the drug(s) taken during pregnancy, some women are not sure which specific drug(s) they took, affecting the quality of the data.

Table 12.3.2 shows the percentage of pregnant women 15-49 in all households who slept under a mosquito net (treated or untreated) the night before the survey, by background characteristics. The percentage of women age 15-49 in households that own at least one ITN who slept under an ITN the night before the survey is not shown due to the small number of cases.

- Around eight in ten women age 15-49 in all households (78 percent), slept under a mosquito net (treated or untreated) the night before the survey; one-third slept under an ever-treated net (33 percent), and three in ten slept under an ITN (30 percent). In households that own at least one ITN, 88 percent of women slept under an ITN the night before the survey (data not shown due to small number of cases).
- Among all women, those living in Rural areas are more likely than those from Urban areas to have slept under any net (79 percent versus 76 percent), under an ever-treated net (38 percent versus 15 percent), and under an ITN (35 percent versus 13 percent).
- Eighty-six percent of women in the malaria-endemic regions (Regions 1, 7, 8, and 9) slept under any net the previous night, 54 percent slept under an ever-treated net, and 44 percent slept under an ITN.
- The number of cases for each education category is relatively small for a meaningful analysis. The percentage of women who slept under any net, under an ever-treated net, and under an ITN the night before decreases with an increase in wealth.
- As mentioned above, the Intermittent Preventive Treatment (IPT) is not a recommended strategy to control malaria in Guyana. Data show that only 1 percent of women received SP/Fansidar during an antenatal care visit for their most recent pregnancy in the two preceding years (data not shown).

Table 12.3.2 Use of mosquito nets by pregnant women

Percentage of pregnant women age 15-49 in all households who slept the night before the survey under a mosquito net (treated or untreated), under an ever-treated mosquito net, and under an insecticide-treated net (ITN), by background characteristics, Guyana 2009

	Pregnant women age 15-49 in all households			
Background characteristic	Percentage who slept under any net last night	Percentage who slept under an ever-treated net last night[1]	Percentage who slept under an ITN last night[2]	Number of women
Residence				
Urban	75.6	14.8	12.6	46
Rural	79.2	38.3	34.9	168
Coastal	76.9	28.3	27.0	168
Interior	83.8	50.5	41.1	47
Malaria-endemic regions[3]	85.9	53.9	43.9	44
Education				
No education	*	*	*	8
Primary	87.0	37.2	32.9	48
Secondary	79.3	35.1	32.6	142
More than secondary	*	*	*	16
Wealth quintile				
Lowest	80.5	45.1	38.5	58
Second	(83.4)	(41.3)	(36.9)	41
Middle	(77.8)	(25.3)	(25.3)	44
Fourth	(75.5)	(26.7)	(24.3)	41
Highest	(72.5)	(19.6)	(19.6)	30
Total	78.4	33.2	30.1	215

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] An ever-treated net is a pretreated net or a non-pretreated net that has subsequently been soaked with insecticide at any time.

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

[3] Regions 1, 7, 8, and 9

12.5 PREVALENCE AND MANAGEMENT OF CHILDHOOD MALARIA

Since the major manifestation of malaria is fever, in the **2009 GDHS** mothers were asked whether their children under age 5 had a fever in the two weeks preceding the survey. Although fever can occur all year round, malaria is more prevalent during the rainy season, and such temporal factors must be taken into account when interpreting the occurrence of fever as an indicator of malaria prevalence. If a fever was reported, the mother was asked whether treatment was sought at a health facility and whether the child was given any medication and, if so, how soon the medication was taken after the episode of illness started.

Table 12.4 shows the percentage of children under age 5 with fever in the two weeks preceding the survey, and among children with fever, the percentage who received antimalarial drugs and the percentage who took antimalarial drugs the same day or next day, by background characteristics.

- One in five children under age five (20 percent) had a fever in the two weeks preceding the survey (also see Table 10.6). Of these, only 6 percent of children received an antimalarial drug, and just 4 percent received the antimalarial drug on the same or the next day after the onset of the fever. Almost all of the children with fever who took antimalarial drugs took Chloroquine (6 percent).
- Children age 36-47 months are more likely to be given antimalarial drugs for the treatment of fever and more likely to receive the drugs the same or the next day than other children. Children living in the Urban and the Coastal areas are more likely to be given antimalarial drugs than children in the Rural and the Interior areas. Children of more educated mothers and children of mothers in the higher wealth quintiles are more likely than other children to be given antimalarial drugs and to receive these drugs the same or next day as the onset of the fever. The prevalence of children with fever is high in Region 7 and Region 8 (26 percent each) and low in Region 9 (14 percent).
- Four percent of all children with fever in the malaria-endemic regions received antimalarial drugs, and 3 percent received the drugs the same or next day.
- The percentage of children with fever who took an antimalarial drug and who took the drug the same or next day tends to increase with wealth, while the pattern of variation by education is not clear because of the small number of cases.

Table 12.4 Prevalence and prompt treatment of children with fever

Percentage of children under age 5 with fever in the two weeks preceding the survey, and among children with fever, the percentage who took antimalarial drugs, and the percentage who took the drugs the same or next day following the onset of fever, by background characteristics, Guyana 2009

	Children under age 5		Children under age 5 with fever				
Background characteristic	Percentage with fever in the two weeks preceding the survey	Number of children	Percentage who took antimalarial drugs	Percentage who took antimalarial drugs same day or next day	Percentage who took Chloroquine	Percentage who took Chloroquine same day or next day	Number of children with fever
Age (in months)							
<12	21.0	415	2.6	1.8	2.1	1.8	87
12-23	26.0	343	6.9	4.7	4.8	2.6	89
24-35	20.5	404	7.3	5.6	7.3	5.6	83
36-47	18.9	311	11.9	8.4	11.9	8.4	59
48-59	14.0	343	4.5	1.0	4.5	1.0	48
Residence							
Total Urban	15.2	405	13.1	4.4	13.1	4.4	62
Total Rural	21.5	1,410	5.1	4.3	4.3	3.7	304
Total Coastal	19.8	1,421	7.3	4.9	6.7	4.3	282
Coastal (urban)	15.2	405	13.1	4.4	13.1	4.4	62
Coastal (rural)	21.7	1,015	5.7	5.1	4.9	4.2	220
Total Interior	21.2	395	3.4	2.2	3.0	2.2	84
Region							
Region 1	20.2	157	(7.0)	(5.8)	(5.8)	(5.8)	32
Region 2	16.7	106	(6.5)	(2.6)	(6.5)	(2.6)	18
Region 3	19.5	229	(11.9)	(8.8)	(11.9)	(8.8)	45
Region 4	19.0	637	7.3	6.2	5.8	4.7	121
Region 5	21.8	129	(0.0)	(0.0)	(0.0)	(0.0)	28
Region 6	21.5	245	2.5	2.5	2.5	2.5	53
Region 7	26.0	62	(2.3)	(0.2)	(2.0)	(0.0)	16
Region 8	25.7	71	(1.4)	(0.0)	(1.4)	(0.0)	18
Region 9	13.7	61	(0.7)	(0.0)	(0.7)	(0.0)	8
Region 10	22.8	118	(14.9)	(2.5)	(14.9)	(2.5)	27
Malaria-endemic regions[1]	21.2	351	3.9	2.5	2.5	0.0	74
Mother's education							
No education	11.8	56	*	*	*	*	7
Primary	22.5	397	0.5	0.5	0.5	0.4	89
Secondary	19.9	1,234	7.1	4.8	7.1	4.8	246
More than secondary	18.5	128	*	*	*	*	24
Wealth quintile							
Lowest	20.2	527	2.1	0.8	1.7	0.8	107
Second	20.3	380	3.4	3.4	3.4	3.4	77
Middle	25.1	335	6.6	6.1	6.6	6.1	84
Fourth	20.1	288	11.6	5.3	8.4	2.1	58
Highest	14.1	285	(15.9)	(10.1)	(15.9)	(10.1)	40
Total	20.1	1,815	6.4	4.3	5.8	3.8	366

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] Regions 1, 7, 8, and 9

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

Acquired Immune Deficiency Syndrome (AIDS), first recognized internationally in 1981, is caused by the human immunodeficiency virus (HIV). The virus compromises the immune system and makes the body prone to opportunistic infections.

The predominant mode of HIV transmission is through heterosexual contact, which usually accounts for more than 90 percent of new HIV cases, followed in magnitude by perinatal transmission, whereby the mother passes HIV to the child during pregnancy, at the time of birth, or after birth through breastfeeding. Other modes of HIV transmission can be through transfusion of infected blood and blood products and from transplant of donated organs or bone and tissue grafts. The future direction of this pandemic depends in large part on the level of knowledge of how the virus is spread and consequent changes in sexual behavior.

The 2009 Guyana DHS collected information on HIV/AIDS-related knowledge in Guyana including social stigmatization, risk behavior modification, access to high-quality services for sexually transmitted infections (STI), provision and uptake of HIV counseling and testing, and the prevalence of male circumcision. The principal objective of this chapter is to establish the level of relevant knowledge, perceptions, and behaviors at the national level, and within geographic and socioeconomic sub-populations. Such information should go a long way toward better targeting of interventions for effective prevention, treatment, care, and support for those groups most in need of information and most at risk of HIV infection.

The data presented in this chapter are useful for programs in Guyana that are aimed at controlling the spread of HIV/AIDS, especially by helping to identify individuals and sub-groups most in need of information and behavior change and modification.

13.1 KNOWLEDGE OF AIDS

Respondents in the 2009 GDHS were asked whether they had heard of AIDS. Those who reported having heard of AIDS were asked a series of questions about whether AIDS can be avoided and how. Table 13.1 shows the percent distribution of women and men age 15-49 who have heard of AIDS, by background characteristics.

- Knowledge of AIDS is almost universal in Guyana—97 percent of women and men have heard of AIDS. There are minor variations in knowledge of AIDS by age, marital status, or residence. The only exception is the level of knowledge in the Interior area, which is lower for both women (89 percent) and men (95 percent).
- Among regions, the lowest percentage with knowledge about AIDS is in Region 9 for women (78 percent) and Regions 7 and 9 for men (92 percent, each).
- The level of AIDS knowledge generally increases with education and wealth for both women and men.

Table 13.1 Knowledge of AIDS

Percentage of women and men 15-49 who have heard of AIDS, by background characteristics, Guyana 2009

Background characteristic	Women: Percentage who have heard of AIDS	Women: Number of women	Men: Percentage who have heard of AIDS	Men: Number of men
Age				
15-24	97.3	1,783	98.1	1,200
15-19	97.4	1,016	97.4	689
20-24	97.3	767	99.1	511
25-29	95.6	658	97.4	462
30-39	97.2	1,342	97.3	990
40-49	97.1	1,213	96.5	870
Marital status				
Never married	97.9	1,540	97.4	1,382
Ever had sex	98.5	761	98.6	863
Never had sex	97.4	779	95.4	518
Currently married	96.2	2,920	97.4	1,835
Formerly married	99.2	536	97.5	305
Residence				
Total Urban	99.0	1,475	99.3	949
Georgetown (urban)	99.8	967	99.7	619
Other (urban)	97.4	508	98.5	330
Total Rural	96.2	3,521	96.7	2,573
Total Coastal	98.0	4,495	97.7	3,126
Coastal (urban)	99.0	1,475	99.3	949
Coastal (rural)	97.5	3,019	97.0	2,176
Total Interior	88.7	501	94.6	396
Region				
Region 1	87.9	162	95.8	160
Region 2	96.7	293	98.9	179
Region 3	99.3	687	94.8	420
Region 4	99.4	2,168	99.1	1,540
Region 5	92.3	353	93.9	271
Region 6	95.6	780	97.4	587
Region 7	94.9	104	91.6	61
Region 8	85.3	95	93.5	68
Region 9	77.6	78	92.3	57
Region 10	99.5	277	98.7	178
Education				
No education	81.3	68	76.3	60
Primary	93.5	952	95.8	711
Secondary	98.0	3,568	98.1	2,459
More than secondary	99.4	409	99.2	292
Wealth quintile				
Lowest	89.5	779	95.9	663
Second	98.1	957	95.7	679
Middle	98.6	1,025	97.7	723
Fourth	97.7	1,084	98.1	751
Highest	99.3	1,151	99.3	705
Total 2009	**97.0**	**4,996**	**97.4**	**3,522**
Total 2005	98.2	2,425	98.2	1,875

Note: *Currently married* includes respondents in consensual union (living together). *Formerly married* includes divorced/separated/widowed.

13.2 KNOWLEDGE OF HIV PREVENTION METHODS

In Guyana, as in many other countries, HIV in adults is mainly transmitted by heterosexual contact between a partner who is HIV positive and a partner who is HIV negative. Consequently, HIV prevention programs focus their messages and efforts on three important aspects of behavior: using condoms, limiting the number of sexual partners or staying faithful to one partner, and delaying sexual debut for young persons (abstinence).

To ascertain whether programs have effectively communicated these messages, the 2009 GDHS respondents were specifically asked if people can reduce their chances of getting the AIDS virus by using a condom every time they have sex, by having just one HIV-negative sexual partner who has no other sexual partners, and by not having sexual intercourse at all. The information obtained from the answer to these questions is crucial in understanding which population groups have lower levels of knowledge about HIV prevention methods and thus, is helpful in properly tailoring and directing the education programs to the right target groups.

Table 13.2 shows the percentage of respondents age 15-49 who, in response to prompted questions, say that people can reduce the risk of getting the AIDS virus by using condoms every time they have sexual intercourse, by having just one sex partner who is not infected and has no other partners, and by abstaining from sexual intercourse, by background characteristics. Additionally, Figure 13.1 shows knowledge of two HIV prevention methods—condom use and limiting sexual intercourse to one uninfected partner—by residence and education.

Table 13.2 Knowledge of HIV prevention methods

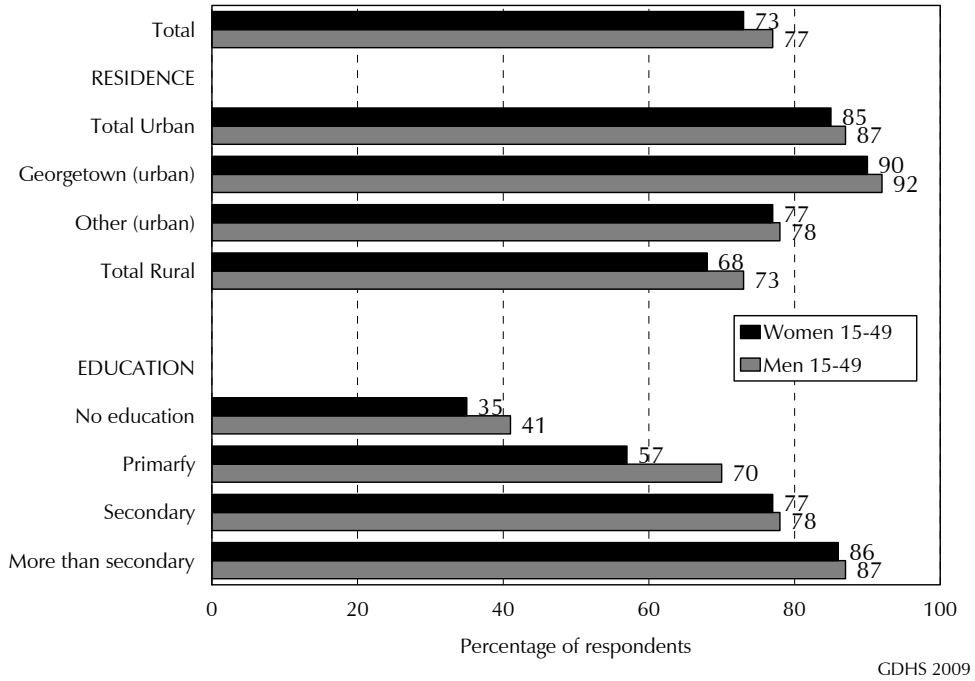
Percentage of women and men age 15-49 who, in response to prompted questions, say that people can reduce the risk of getting the AIDS virus by using condoms every time they have sexual intercourse, by having just one sex partner who is not infected and has no other partners, and by abstaining from sexual intercourse, by background characteristics, Guyana 2009

	Women					Men				
Background characteristic	Using condoms[1]	Limiting sexual intercourse to one uninfected partner[2]	Using condoms and limiting sexual inter-course to one uninfected partner	Abstaining from sexual intercourse	Number of women	Using condoms[1]	Limiting sexual intercourse to one uninfected partner[2]	Using condoms and limiting sexual inter-course to one uninfected partner	Abstaining from sexual intercourse	Number of men
Age										
15-24	83.2	79.6	72.4	78.5	1,783	83.5	83.8	75.3	76.9	1,200
15-19	81.8	78.8	71.1	77.4	1,016	84.4	81.4	75.2	76.0	689
20-24	85.0	80.6	74.0	80.0	767	82.4	86.9	75.4	78.2	511
25-29	81.8	84.2	75.6	77.5	658	87.8	86.4	79.5	80.0	462
30-39	81.3	84.3	74.3	79.5	1,342	82.2	83.8	75.8	76.3	990
40-49	78.4	83.0	72.2	76.5	1,213	84.2	86.2	77.5	79.6	870
Marital status										
Never married	84.9	84.0	76.8	82.1	1,540	84.9	82.7	76.1	78.9	1,382
Ever had sex	89.0	87.2	81.5	84.8	761	87.1	85.6	78.8	82.5	863
Never had sex	81.0	80.9	72.2	79.5	779	81.3	77.9	71.6	72.9	518
Currently married	79.0	80.5	70.8	75.7	2,920	82.6	86.3	76.4	77.3	1,835
Formerly married	83.5	87.1	76.5	80.7	536	87.3	83.9	79.6	76.0	305
Residence										
Total Urban	90.4	90.9	85.2	89.2	1,475	92.6	91.2	86.9	90.6	949
Georgetown (urban)	93.7	93.1	89.7	94.3	967	96.5	93.8	91.5	92.7	619
Other (urban)	84.0	86.7	76.8	79.5	508	85.5	86.3	78.4	86.6	330
Total Rural	77.5	78.7	68.2	73.6	3,521	80.7	82.3	72.7	73.1	2,573
Total Coastal	83.1	83.6	75.0	79.6	4,495	85.6	86.0	78.1	78.8	3,126
Coastal (urban)	90.4	90.9	85.2	89.2	1,475	92.6	91.2	86.9	90.6	949
Coastal (rural)	79.5	80.0	70.0	74.9	3,019	82.6	83.8	74.3	73.7	2,176
Total Interior	65.5	70.8	57.8	65.3	501	70.4	74.4	64.2	70.2	396
Region										
Region 1	60.4	63.9	50.5	61.6	162	61.8	64.6	54.1	63.4	160
Region 2	79.5	84.9	73.5	76.6	293	86.2	88.9	79.8	84.5	179
Region 3	83.3	83.0	75.0	77.8	687	75.2	76.0	65.5	64.7	420
Region 4	85.4	84.9	77.8	84.2	2,168	93.4	93.1	89.0	86.5	1,540
Region 5	76.1	75.2	65.5	70.8	353	77.5	74.7	64.8	67.3	271
Region 6	79.6	81.1	70.0	71.5	780	75.5	77.8	62.7	69.9	587
Region 7	79.9	81.2	73.9	75.2	104	75.9	78.7	72.0	71.8	61
Region 8	61.5	74.7	58.3	61.9	95	67.5	71.4	60.6	63.8	68
Region 9	54.7	60.5	47.9	55.4	78	76.2	83.6	71.3	80.4	57
Region 10	84.7	89.0	77.8	84.3	277	88.8	92.0	85.0	88.9	178
Education										
No education	40.8	50.8	34.8	46.6	68	46.2	54.3	41.2	48.1	60
Primary	68.2	68.7	56.8	65.2	952	77.5	80.4	69.5	69.3	711
Secondary	84.2	85.6	76.9	80.6	3,568	85.8	85.7	78.2	79.7	2,459
More than secondary	93.7	89.8	85.9	92.1	409	91.1	93.1	86.9	89.1	292
Wealth quintile										
Lowest	62.5	66.6	52.0	62.8	779	74.1	74.5	63.9	69.5	663
Second	78.6	79.1	69.2	73.8	957	80.9	82.2	72.8	77.3	679
Middle	82.9	85.2	75.6	78.6	1,025	83.5	85.6	76.5	73.9	723
Fourth	86.2	86.1	79.2	82.3	1,084	88.8	89.1	82.7	79.9	751
Highest	90.3	89.3	83.3	88.0	1,151	91.2	91.1	85.6	87.9	705
Total 2009	**81.3**	**82.3**	**73.3**	**78.2**	**4,996**	**83.9**	**84.7**	**76.5**	**77.8**	**3,522**
Total 2005	81.9	86.9	76.2	87.7	2,425	85.0	89.3	80.5	86.2	1,875

Note: *Currently married* includes respondents in consensual union (living together). *Formerly married* includes divorced, separated, and widowed.
[1] Every time they have sexual intercourse
[2] Who has no other partners

- More than eight in ten respondents age 15-49 know that consistent use of condoms is a means of preventing the spread of HIV(81 percent of women and 84 percent of men) and that limiting sexual intercourse to one HIV-negative, faithful partner can reduce the chances of contracting HIV (82 percent of women and 85 percent of men).
- The proportion of men who said that people can reduce the chances of getting the AIDS virus by using condoms and limiting sex to one HIV-negative partner is slightly higher (77 percent) than that of women (73 percent). Thus, knowledge is higher among men than women for each of the three specified prevention methods.
- An equal proportion of women and men age 15-49 (78 percent, each) know that abstinence is a way to reduce the chance of HIV infection.
- Differentials in knowledge of HIV prevention by age and marital status are not large. As expected, the level of knowledge of methods of HIV prevention is lower among respondents who have never had sexual intercourse.
- For both women and men, knowledge of HIV prevention methods is higher in Urban areas than in Rural areas and higher in the Coastal area than in Interior area. For example, 85 percent of women in Urban areas have knowledge of both prevention methods (using condoms and limiting sexual intercourse to one uninfected faithful partner) compared with 68 percent of women in rural areas. Similarly, 75 percent of women in the Coastal area have knowledge of these two HIV prevention methods compared with 58 percent in the Interior area. For women, the lowest percentages who have knowledge about HIV prevention methods are in Regions 1, 8, and 9, while for men the lowest percentage is in Region 1. For instance, less than half of women in Region 9 (48 percent) know that proper use of condoms and limiting sexual intercourse to one uninfected faithful partner can prevent the spread of HIV infection. In some of these areas, the majority of the indigenous population speak traditional tribal languages, and therefore educational messages in English may not be comphrensible and may not reach them.
- For both genders, the percentage with knowledge for any of the HIV prevention methods increases significantly with education and wealth. For example, 86 percent of women and 87 percent of men with more than secondary education know that using condoms and limiting sexual intercourse to one uninfected faithful partner can reduce the risks of getting the AIDS virus, compared with only 35 percent of women and 41 percent of men with no education.

Figure 13.1 Knowledge of Two HIV Prevention Methods (Using Condoms and Limiting Sexual Intercourse to One Uninfected Faithful Partner), by Residence and Education



13.3 BELIEFS ABOUT AIDS

In addition to knowing effective ways to avoid contracting HIV/AIDS, people also find it useful to be able to identify incorrect beliefs about AIDS, thus enabling them to eliminate misconceptions. Common misconceptions about AIDS include the idea that HIV-infected people appear ill and the belief that the virus can be transmitted through mosquito or other insect bites, by sharing food with someone who is infected, or by witchcraft or other supernatural means. Respondents in the 2009 GDHS were asked about these four misconceptions. Table 13.3.1 details the results for women and Table 13.3.2 for men. Figure 13.2 shows comprehensive knowledge about AIDS among women and men, by residence and education.

- About nine in ten Guyanese adults know that a healthy-looking person can have the AIDS virus (87 percent of women and men) or that AIDS cannot be transmitted by supernatural means (87 percent of women and 88 percent of men). About three-quarters of women (73 percent) and two-thirds of men (65 percent) are aware that the AIDS virus cannot be transmitted through mosquito bites. Furthermore, 84 percent of women and 79 percent of men know that the AIDS virus cannot be contracted by sharing food with a person who has AIDS.
- Overall, more than half of women (53 percent) and more than four in ten men (46 percent) in Guyana have a comprehensive knowledge of HIV/AIDS transmission and prevention methods, that is, they know that condom use and limiting sex to one uninfected partner are HIV prevention methods; are aware that a healthy looking person can have the AIDS virus; and reject the two most common local misconceptions (that AIDS can be transmitted by mosquito bites and by sharing food with someone with AIDS). The percentage of women and men with a comprehensive knowledge has increased only slightly since the 2005 Guyana AIDS Indicator Survey (GAIS).

- Younger women are somewhat more likely to have a comprehensive knowledge about AIDS than older women, while among men there is no major difference by age. Respondents who ever had sex have a much higher level of comprehensive knowledge than those who never had sex. Among women, marital status has an impact on comprehensive knowledge about AIDS; currently married women (48 percent) are less likely than never married (61 percent) or formerly married women (60 percent) to have a comprehensive knowledge about AIDS, while among men the variation is not pronounced.
- Urban respondents and those in the Coastal area are much more likely to have comprehensive knowledge about AIDS than respondents in the Rural and Interior areas. For example, 70 percent of women in Urban areas have comprehensive knowledge about AIDS compared with 46 percent of women in Rural areas; and 54 percent in the Coastal area have such knowledge compared with 41 percent of women in the Interior area.
- For women, the lowest percentage of comprehensive knowledge about AIDS is in Region 9 (31 percent) and the highest in Region 10 (63 percent), while for men it ranges from 26 percent in Region 5 to 64 percent in Region 10.
- Education and wealth status have a strong positive correlation with the likelihood of having a comprehensive knowledge about AIDS. The percentage with comprehensive knowledge increases from 20 percent among women and 11 percent among men with no education to 78 and 75 percent, respectively, among women and men with secondary or higher education. Similar patterns are observed in the variation of this indicator by wealth. Thirty-two percent of women and 28 percent of men in the lowest wealth quintile have a comprehensive knowledge about AIDS compared with 68 percent of women and 65 percent of men in the highest wealth quintile.

Table 13.3.1 Comprehensive knowledge about AIDS: Women

Percentage of women age 15-49 who say that a healthy-looking person can have the AIDS virus and who, in response to prompted questions, correctly reject local misconceptions about AIDS transmission, and the percentage with a comprehensive knowledge about AIDS, by background characteristics, Guyana 2009

Background characteristic	Percentage of women who say that: A healthy-looking person can have the AIDS virus	AIDS cannot be transmitted by mosquito bites	AIDS cannot be transmitted by supernatural means	A person cannot become infected by sharing food with someone with AIDS	Percentage who say that a healthy-looking person can have the AIDS virus and who reject the two most common misconceptions	Percentage of women with a comprehensive knowledge about AIDS[1]	Number of women
Age							
15-24	86.3	74.7	88.3	86.8	65.1	54.1	1,783
15-19	84.9	76.0	87.3	86.9	65.6	53.1	1,016
20-24	88.1	73.0	89.5	86.8	64.5	55.4	767
25-29	89.7	74.4	88.2	86.4	69.2	57.0	658
30-39	87.3	74.5	86.5	83.6	64.6	53.7	1,342
40-49	84.9	69.8	85.3	78.4	58.8	48.1	1,213
Marital status							
Never married	88.6	81.3	89.0	89.2	72.0	60.5	1,540
Ever had sex	92.7	85.7	89.7	92.9	78.8	68.1	761
Never had sex	84.6	76.9	88.2	85.6	65.4	53.0	779
Currently married	85.0	68.1	85.4	80.6	58.4	47.6	2,920
Formerly married	90.6	79.7	90.4	86.2	71.2	60.2	536
Residence							
Total Urban	93.1	83.9	91.1	91.9	77.5	70.4	1,475
Georgetown (urban)	95.7	87.9	92.8	94.1	81.9	76.6	967
Other (urban)	88.2	76.2	87.9	87.6	69.1	58.5	508
Total Rural	84.0	69.0	85.4	80.5	58.3	45.6	3,521
Total Coastal	88.2	74.5	88.1	85.2	65.2	54.2	4,495
Coastal (urban)	93.1	83.9	91.1	91.9	77.5	70.4	1,475
Coastal (rural)	85.7	69.9	86.7	81.9	59.3	46.3	3,019
Total Interior	73.5	63.9	77.2	71.9	52.7	41.4	501
Region							
Region 1	67.8	47.9	74.8	61.3	38.6	33.4	162
Region 2	83.6	63.6	87.0	80.2	54.2	46.1	293
Region 3	87.8	75.7	89.1	84.8	63.8	52.9	687
Region 4	91.0	79.3	90.3	89.7	71.0	59.8	2,168
Region 5	83.8	64.4	84.6	76.4	56.2	44.2	353
Region 6	82.5	65.9	83.2	76.2	54.9	43.3	780
Region 7	84.3	76.2	86.5	81.0	64.9	53.6	104
Region 8	74.3	74.7	73.6	77.7	66.6	51.1	95
Region 9	55.6	62.2	68.3	64.8	40.0	30.7	78
Region 10	93.4	81.5	87.5	92.2	75.9	62.8	277
Education							
No education	65.5	37.3	56.0	48.8	32.0	19.7	68
Primary	74.0	58.3	78.5	70.8	44.6	32.1	952
Secondary	89.2	76.0	88.9	86.5	67.0	56.2	3,568
More than secondary	97.5	92.4	96.0	97.0	88.5	78.0	409
Wealth quintile							
Lowest	71.9	56.3	75.5	67.6	44.8	32.3	779
Second	85.4	71.4	86.5	80.7	59.6	46.6	957
Middle	87.4	74.2	87.9	87.2	64.7	53.9	1,025
Fourth	90.2	74.4	87.6	85.4	65.8	56.0	1,084
Highest	93.9	85.1	94.1	93.1	78.3	68.2	1,151
Total 2009	**86.7**	**73.4**	**87.1**	**83.9**	**64.0**	**52.9**	**4,996**
Total 2005	88.4	69.6	86.1	78.3	58.2	50.2	2,425

Note: *Currently married* includes women in consensual union (living together). *Formerly married* includes divorced, separated, and widowed.

[1] Comprehensive knowledge means knowing that use of condom during every sexual intercourse and having just one uninfected and faithful partner can reduce the chance of getting the AIDS virus; knowing that a healthy-looking person can have the AIDS virus; and rejecting the two most common local misconceptions (that AIDS can be transmitted by mosquito bites and by sharing food with someone with AIDS).

Table 13.3.2 Comprehensive knowledge about AIDS: Men

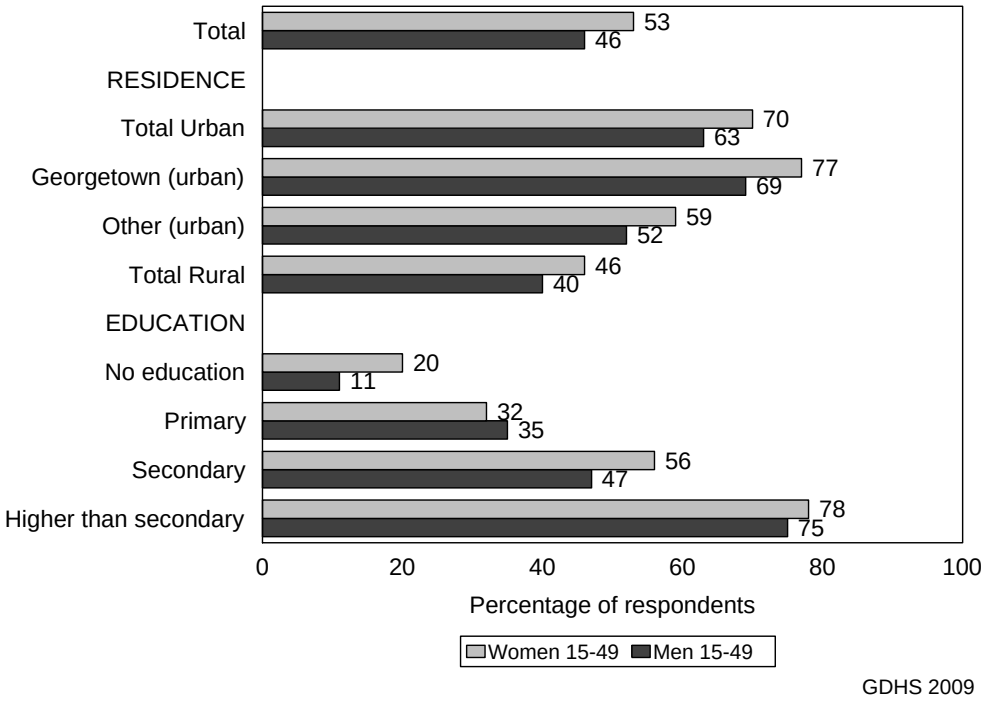
Percentage of men age 15-49 who say that a healthy-looking person can have the AIDS virus and who, in response to prompted questions, correctly reject local misconceptions about AIDS transmission, and the percentage with comprehensive knowledge about AIDS, by background characteristics, Guyana 2009

Background characteristic	Percentage of men who say that: A healthy-looking person can have the AIDS virus	AIDS cannot be transmitted by mosquito bites	AIDS cannot be transmitted by supernatural means	A person cannot become infected by sharing food with someone with AIDS	Percentage who say that a healthy-looking person can have the AIDS virus and who reject the two most common misconceptions	Percentage of men with comprehensive knowledge about AIDS[1]	Number of men
Age							
15-24	86.3	67.5	88.5	82.0	55.2	46.6	1,200
15-19	83.8	63.9	85.2	80.7	52.0	44.5	689
20-24	89.6	72.4	93.1	83.8	59.5	49.4	511
25-29	90.3	68.3	88.0	78.1	57.3	49.7	462
30-39	85.1	63.1	87.0	77.3	51.8	44.4	990
40-49	88.1	61.6	89.3	77.5	52.6	45.2	870
Marital status							
Never married	86.1	66.3	86.9	81.4	56.3	48.2	1,382
Ever had sex	92.4	71.2	89.0	84.8	63.0	54.1	863
Never had sex	75.7	58.1	83.3	75.8	45.3	38.4	518
Currently married	87.1	64.4	89.4	78.2	52.6	44.8	1,835
Formerly married	89.3	61.7	87.5	73.4	50.7	43.9	305
Residence							
Total Urban	92.9	78.0	93.0	88.0	69.2	63.3	949
Georgetown (urban)	93.0	82.6	96.7	90.8	73.8	69.4	619
Other (urban)	92.7	69.5	86.0	82.7	60.6	51.8	330
Total Rural	84.7	60.1	86.5	75.8	48.2	39.7	2,573
Total Coastal	87.9	65.5	89.1	79.9	54.6	46.9	3,126
Coastal (urban)	92.9	78.0	93.0	88.0	69.2	63.3	949
Coastal (rural)	85.7	60.0	87.4	76.4	48.2	39.7	2,176
Total Interior	79.3	60.5	81.5	72.2	48.6	39.5	396
Region							
Region 1	75.5	48.7	80.2	66.3	38.7	26.9	160
Region 2	91.7	71.8	89.7	80.5	60.2	52.6	179
Region 3	81.6	60.9	84.4	76.7	45.8	34.9	420
Region 4	91.0	71.8	92.9	86.2	62.6	57.8	1,540
Region 5	81.4	45.0	78.9	63.3	35.9	26.1	271
Region 6	84.2	57.6	87.5	70.5	43.0	30.9	587
Region 7	82.1	69.1	84.3	76.0	58.6	50.5	61
Region 8	78.2	61.8	82.8	68.4	46.2	39.5	68
Region 9	73.9	72.2	78.1	76.2	51.3	42.4	57
Region 10	95.8	73.6	85.5	91.1	70.1	63.9	178
Education							
No education	43.7	28.3	62.5	48.2	15.5	11.0	60
Primary	83.2	56.2	83.8	69.3	43.5	34.8	711
Secondary	87.8	65.4	89.4	81.0	54.2	46.7	2,459
More than secondary	97.5	89.0	94.5	92.6	84.3	75.3	292
Wealth quintile							
Lowest	79.5	50.5	82.2	63.9	36.1	28.4	663
Second	84.4	61.0	84.7	73.0	48.5	40.6	679
Middle	87.0	64.8	87.7	80.9	52.6	43.8	723
Fourth	90.2	68.1	92.4	84.7	59.7	51.2	751
Highest	92.8	79.0	93.4	91.3	70.9	64.7	705
Total 2009	**86.9**	**64.9**	**88.2**	**79.1**	**53.9**	**46.0**	**3,522**
Total 2005	89.8	61.1	85.5	74.2	50.9	45.2	1,875

Note: *Currently married* includes men in consensual union (living together). *Formerly married* includes divorced/separated/widowed.

[1] Comprehensive knowledge means knowing that use of a condom during every sexual intercourse and having just one uninfected and faithful partner can reduce the chance of getting the AIDS virus; knowing that a healthy-looking person can have the AIDS virus; and rejecting the two most common local misconceptions (transmission by mosquito bites and by sharing food with someone with AIDS).

Figure 13.2 Comprehensive Knowledge about AIDS, by Residence and Education



13.4 KNOWLEDGE OF PREVENTION OF MOTHER-TO-CHILD TRANSMISSION OF HIV

Increasing the level of general knowledge of transmission of the virus from mother to child and reducing the risk of transmission by use of antiretroviral drugs are critical to improving the health of HIV-infected mothers and reducing the transmission of the virus to their children during and after pregnancy, labor, and delivery.

All women and men interviewed in the 2009 GDHS were asked if the virus that causes AIDS can be transmitted from the mother to her child. If the answer was yes, they were further asked whether the virus could be transmitted during pregnancy, during delivery, or during breastfeeding. Respondents were also asked if a mother who is infected with the AIDS virus could reduce the risk of giving the virus to the baby by taking certain drugs during pregnancy. The results are presented in Table 13.4 by background characteristics.

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

Percentage of women and men age 15-49 who know that HIV can be transmitted from mother to child by breastfeeding, and that the risk of mother-to-child transmission (MTCT) of HIV can be reduced by the mother taking special drugs during pregnancy, by background characteristics, Guyana 2009

	Women				Men			
Background characteristic	HIV can be transmitted by breastfeeding	Risk of MTCT can be reduced by mother taking special drugs during pregnancy	HIV can be transmitted by breastfeeding and risk of MTCT can be reduced by mother taking special drugs during pregnancy	Number of women	HIV can be transmitted by breastfeeding	Risk of MTCT can be reduced by mother taking special drugs during pregnancy	HIV can be transmitted by breastfeeding and risk of MTCT can be reduced by mother taking special drugs during pregnancy	Number of men
Age								
15-24	82.0	70.2	63.1	1,783	65.0	55.2	42.5	1,200
15-19	81.6	68.5	61.8	1,016	62.2	54.6	40.5	689
20-24	82.5	72.3	64.8	767	68.7	55.9	45.2	511
25-29	76.8	70.5	62.6	658	69.5	59.5	47.9	462
30-39	75.9	66.3	57.4	1,342	66.0	50.6	39.1	990
40-49	77.2	65.3	57.5	1,213	68.3	54.3	43.7	870
Marital status								
Never married	82.2	73.7	66.3	1,540	61.8	54.7	40.9	1,382
Ever had sex	86.0	82.0	75.0	761	62.9	59.0	43.4	863
Never had sex	78.5	65.7	57.7	779	59.8	47.5	36.8	518
Currently married	76.1	63.9	55.9	2,920	70.0	54.5	43.7	1,835
Formerly married	80.9	73.5	65.8	536	69.1	50.6	42.8	305
Pregnancy status								
Pregnant	82.7	63.5	60.9	214	na	na	na	na
Not pregnant/not sure	78.3	68.2	60.1	4,782	na	na	na	na
Residence								
Total Urban	86.8	83.4	77.4	1,475	70.3	69.5	53.2	949
Georgetown (urban)	89.0	85.8	81.4	967	69.0	74.1	55.7	619
Other (urban)	82.4	78.7	69.7	508	72.8	61.0	48.4	330
Total Rural	75.1	61.5	52.9	3,521	65.4	48.6	38.6	2,573
Total Coastal	78.7	69.9	61.5	4,495	67.4	55.8	43.6	3,126
Coastal (urban)	86.8	83.4	77.4	1,475	70.3	69.5	53.2	949
Coastal (rural)	74.8	63.3	53.7	3,019	66.2	49.8	39.5	2,176
Total Interior	76.8	50.9	48.1	501	60.8	42.0	34.0	396
Region								
Region 1	75.9	36.0	33.3	162	57.9	39.2	32.9	160
Region 2	75.8	66.4	59.4	293	68.9	56.9	42.9	179
Region 3	73.7	67.7	54.2	687	57.8	54.6	39.2	420
Region 4	81.9	75.3	68.2	2,168	68.7	62.3	48.8	1,540
Region 5	73.1	55.0	48.3	353	63.4	41.0	31.7	271
Region 6	75.5	59.0	50.8	780	70.9	41.2	34.4	587
Region 7	82.5	67.5	64.5	104	60.2	52.4	40.6	61
Region 8	74.0	46.4	44.5	95	56.7	25.2	19.7	68
Region 9	66.8	47.8	46.1	78	64.9	39.6	31.2	57
Region 10	87.5	86.7	77.4	277	74.0	73.6	61.0	178
Education								
No education	51.3	24.9	22.1	68	34.0	20.4	17.0	60
Primary	70.7	50.3	43.0	952	63.9	42.6	35.4	711
Secondary	80.2	70.9	63.0	3,568	67.8	55.3	43.1	2,459
More than secondary	86.9	91.0	81.7	409	70.5	80.2	60.7	292
Wealth quintile								
Lowest	72.4	47.9	43.7	779	62.8	37.2	30.9	663
Second	78.9	63.2	56.0	957	67.9	47.8	39.9	679
Middle	79.3	68.8	60.4	1,025	68.3	52.4	42.2	723
Fourth	78.7	74.2	64.9	1,084	66.5	61.3	46.6	751
Highest	81.5	79.0	70.0	1,151	67.7	70.9	52.0	705
Total 2009	**78.5**	**68.0**	**60.1**	**4,996**	**66.7**	**54.2**	**42.5**	**3,522**
Total 2005	71.8	47.6	38.5	2,425	65.2	36.2	27.9	1,875

Note: The category *Currently married* includes respondents in consensual union (living together). *Formerly married* includes divorced/separated/widowed.
na = Not applicable

- About eight in ten women (79 percent) and seven in ten men (67 percent) know that HIV can be transmitted by breastfeeding. Sixty-eight percent of women and 54 percent of men are aware that the risk of mother-to-child transmission (MTCT) can be reduced by the mother taking drugs during pregnancy.
- Overall, 60 percent of women and 43 percent of men know that HIV can be transmitted through breastfeeding and that the risk of MTCT can be reduced by the mother taking special drugs during pregnancy. Among women, knowledge is lowest among those who are married or living together.
- Older women age 30-49 are somewhat less likely than younger women to know about MTCT and the use of special drugs to reduce the risk of MTCT. As expected, women who ever had sex have a much higher level of knowledge about MTCT and the use of special drugs than those who never had sex. Currently married women (56 percent) are less likely than never married or formerly married women (66 percent, each) to know about MTCT and the use of special drugs to reduce the risk of MTCT, while among men there is no significant variation by marital status.
- Similar to their comprehensive knowledge about AIDS, Urban area respondents and those in the Coastal area are much more likely to know about MTCT and the use of special drugs to reduce the risk of MTCT than respondents in the Rural and Interior areas. Among women, 77 percent living in Urban areas have this knowledge compared with 53 percent of women in Rural areas; and 62 percent in the Coastal area have this knowledge compared with 48 percent of women in the Interior area.
- For both women and men, the highest percentage with knowledge about MTCT and the use of special drugs to reduce the risk of MTCT is in Region 10 (77 and 61 percent, respectively), while the lowest percentage for women is in Region 1 (33 percent) and for men is in Region 8 (20 percent).
- The percentage of respondents with knowledge about MTCT and the use of special drugs to reduce the risk of transmission increases steadily with education and wealth. Twenty-two percent of women and 17 percent of men with no education have such knowledge compared with 82 percent of women and 61 percent of men with secondary or higher education. Similar patterns are observed by wealth.
- All the above indicators have improved since the 2005 GAIS for both women and men. The combined indicator, knowledge that HIV can be transmitted by breastfeeding and that the risk of MTCT can be reduced by the mother taking special drugs during pregnancy has also shown significant improvement over the same period. For women, it has increased from 39 percent in 2005 to 60 percent in 2009, and for men it has increased from 28 percent in 2005 to 43 percent in 2009.

13.5 STIGMA ASSOCIATED WITH AIDS AND ATTITUDES RELATED TO HIV/AIDS

Widespread stigma and discrimination in a population can adversely affect people's willingness to be tested for HIV as well as their adherence to antiretroviral therapy. Reduction of stigma and discrimination in a population is, thus, an important impetus to the success of programs targeting HIV/AIDS prevention and control.

To assess the level of stigma, the 2009 GDHS respondents who had heard of AIDS were asked if they would be willing to care for a family member with the AIDS virus in their home, if they would buy fresh vegetables from a shopkeeper who has the AIDS virus, if they thought a female teacher who has the AIDS virus but is not sick should be allowed to continue teaching, and if they would not want to keep secret that a family member has the AIDS virus. Tables 13.5.1 and 13.5.2 show the results for women and men, respectively.

Table 13.5.1 Accepting attitudes toward those living with HIV: Women

Among women age 15-49 who have heard of AIDS, percentage expressing specific accepting attitudes toward people with HIV, by background characteristics, Guyana 2009

Background characteristic	Percentage of women who: Are willing to care for a family member with the AIDS virus in the respondent's home	Would buy fresh vegetables from a shopkeeper who has the AIDS virus	Say that a female teacher with the AIDS virus and who is not sick should be allowed to keep teaching	Would not want to keep secret that a family member got infected with the AIDS virus	Percentage expressing accepting attitudes on all four indicators	Number of women who have heard of AIDS
Age						
15-24	87.0	58.2	77.3	36.4	17.3	1,736
15-19	87.6	57.0	75.7	35.1	15.2	989
20-24	86.3	59.9	79.5	38.2	20.1	746
25-29	85.2	65.1	75.3	44.1	22.6	629
30-39	82.8	54.1	73.0	45.3	20.6	1,305
40-49	81.5	47.7	69.8	50.5	22.5	1,178
Marital status						
Never married	88.4	64.1	82.8	33.8	19.1	1,509
Ever had sex	87.5	69.9	88.9	33.1	21.4	750
Never had sex	89.4	58.4	76.7	34.5	16.8	759
Currently married	82.0	50.7	68.3	48.5	20.2	2,808
Formerly married	84.8	55.8	80.0	42.1	23.1	532
Residence						
Total Urban	86.1	62.4	88.2	30.3	18.8	1,460
Georgetown (urban)	83.6	60.1	92.1	24.7	15.7	965
Other (urban)	90.8	67.0	80.5	41.3	24.8	494
Total Rural	83.6	52.4	68.0	48.8	20.7	3,388
Total Coastal	84.9	55.9	76.1	42.3	20.2	4,403
Coastal (urban)	86.1	62.4	88.2	30.3	18.8	1,460
Coastal (rural)	84.3	52.6	70.0	48.3	20.9	2,943
Total Interior	78.4	51.4	54.3	52.2	19.7	445
Region						
Region 1	66.1	31.7	39.8	53.8	11.7	142
Region 2	83.2	55.1	66.0	47.9	25.4	283
Region 3	86.6	59.2	74.6	44.6	20.6	682
Region 4	85.4	56.1	82.5	37.3	19.2	2,154
Region 5	84.5	47.8	69.1	50.2	21.2	326
Region 6	80.0	49.0	61.7	49.0	17.4	746
Region 7	81.1	67.5	62.8	46.5	22.3	98
Region 8	85.7	60.3	56.7	46.5	19.3	81
Region 9	80.1	54.4	52.2	57.9	24.1	60
Region 10	94.0	74.5	86.2	46.4	30.3	276
Education						
No education	59.6	39.1	44.8	39.3	9.0	55
Primary	76.1	37.0	53.8	53.3	14.7	890
Secondary	86.3	57.9	77.3	41.8	20.9	3,497
More than secondary	88.3	77.2	94.8	34.5	26.8	406
Wealth quintile						
Lowest	77.2	41.7	49.6	48.3	14.1	697
Second	81.3	50.2	68.6	50.7	20.7	939
Middle	86.7	56.9	75.3	41.8	18.7	1,010
Fourth	84.6	57.8	79.1	43.7	23.3	1,059
Highest	88.7	64.7	87.8	34.8	21.8	1,143
Total 2009	**84.3**	**55.5**	**74.1**	**43.2**	**20.1**	**4,848**
Total 2005	77.9	44.7	59.9	58.9	19.4	2,382

Note: *Currently married* includes women in consensual union (living together). *Formerly married* includes divorced, separated, or widowed.

Table 13.5.2 Accepting attitudes toward those living with HIV: Men

Among men age 15-49 who have heard of HIV/AIDS, percentage expressing specific accepting attitudes toward people with HIV, by background characteristics, Guyana 2009

Background characteristic	Percentage of men who: Are willing to care for a family member with the AIDS virus in the respondent's home	Would buy fresh vegetables from a shopkeeper who has the AIDS virus	Say that a female teacher with the AIDS virus and who is not sick should be allowed to keep teaching	Would not want to keep secret that a family member got infected with the AIDS virus	Percentage expressing accepting attitudes on all four indicators	Number of men who have heard of AIDS
Age						
15-24	91.5	67.6	74.2	35.4	18.7	1,177
15-19	92.2	65.2	73.1	32.7	18.1	671
20-24	90.5	70.9	75.6	39.0	19.6	506
25-29	86.7	61.7	74.6	44.7	24.8	449
30-39	82.7	57.0	66.9	54.8	25.6	964
40-49	83.0	61.2	70.0	59.0	28.7	840
Marital status						
Never married	91.6	66.7	74.9	37.2	21.1	1,346
Ever had sex	93.0	71.1	77.5	38.2	23.4	851
Never had sex	89.2	59.1	70.4	35.4	17.1	494
Currently married	83.0	59.4	68.9	56.0	26.7	1,787
Formerly married	82.2	59.7	68.0	47.1	20.2	298
Residence						
Total Urban	90.9	74.6	84.5	38.4	25.3	943
Georgetown (urban)	91.8	77.6	89.3	33.8	24.9	617
Other (urban)	89.2	68.9	75.3	47.1	26.1	326
Total Rural	84.6	57.7	66.1	51.5	23.4	2,487
Total Coastal	87.0	62.7	72.5	47.3	24.4	3,055
Coastal (urban)	90.9	74.6	84.5	38.4	25.3	943
Coastal (rural)	85.3	57.4	67.2	51.3	24.0	2,112
Total Interior	80.3	59.2	60.2	52.1	19.7	375
Region						
Region 1	74.4	49.0	45.9	60.2	17.8	153
Region 2	85.8	58.5	63.9	54.6	27.6	177
Region 3	89.1	58.6	60.8	48.6	24.3	399
Region 4	90.8	68.8	83.6	43.6	27.4	1,526
Region 5	82.9	54.5	58.0	51.4	18.5	255
Region 6	75.8	51.1	57.9	53.1	17.0	572
Region 7	84.9	68.0	76.2	47.5	25.1	56
Region 8	79.6	57.8	58.7	34.6	11.8	64
Region 9	83.9	61.2	68.2	71.0	31.8	53
Region 10	94.3	77.8	82.0	41.8	25.9	176
Education						
No education	(63.4)	(30.9)	(36.9)	(86.7)	(19.7)	46
Primary	76.0	53.3	58.7	57.1	24.6	681
Secondary	88.6	62.6	72.7	45.5	22.7	2,413
More than secondary	95.2	85.8	93.5	39.7	32.8	290
Wealth quintile						
Lowest	77.4	46.2	47.9	53.9	15.8	636
Second	84.3	58.5	67.8	51.5	23.0	650
Middle	86.6	63.0	71.7	47.6	23.8	707
Fourth	89.1	65.9	80.0	46.6	25.7	736
Highest	93.1	76.1	85.6	40.6	30.2	700
Total 2009	**86.3**	**62.3**	**71.2**	**47.9**	**23.9**	**3,430**
Total 2005	77.8	41.9	51.9	59.5	19.5	1,841

Note: *Currently married* includes women in consensual union (living together). *Formerly married* includes divorced, separated, or widowed. Figures in parentheses are based on 25-49 unweighted cases.

- More than eight in ten women (84 percent) and men (86 percent) in Guyana would be willing to care for a relative who is sick with AIDS in their own household, an increase from 78 percent of both women and men in 2005. More than half of women (56 percent) and six in ten men (62 percent) say that they would buy fresh vegetables from a shopkeeper who is infected with HIV, an increase from 45 percent of women and 42 percent of men in 2005. More thans even in ten respondents (74 percent of women and 71 percent of men) believe that an HIV-positive female teacher who is not sick should be allowed to continue teaching, an increase from 60 percent of women and 52 percent of men in 2005. Finally, 43 percent of Guyanese women and 48 percent of Guyanase men would not want an HIV positive status of their family member to remain a secret, a decrease from 59 percent of women and 60 percent of men in 2005.
- A composite indicator showing the percenatge with an accepting attitude on all four indicators shows that only 20 percent of women and 24 percent of men express accepting attitudes on all four indicators, almost the same as in 2005 (19 percent of women and 20 percent of men).
- Various background characteristics are correlated with positive attitudes toward people living with HIV. Older women and men age 25 or more are more likely to have accepting attitudes on all four indicators than those 15-24. Respodents who never had sex have the lowest percentage with accepting attitudes on all four indicators (17 percent of both women and men) than other respondents. There are no major variations by urban-rural residence or Coastal-Interior area. By region, the percentage of women withh accepting attitudes on all four indicators ranges from 12 percent in Region 1 to 30 percent in Region 10, while the percentage of men ranges from 12 percent in Region 8 to 32 percent in Region 9.
- The percentage of respondents with accepting attitudes on all four measures increases steadily with education. Nine percent of women and 20 percent of men with no education have such accepting attitudes compared with 27 percent of women and 33 percent of men with secondary or higher education. For men, the percentage with accepting attitudes on all four measures incerases by wealth from 16 percent of those in the lowest quintile to 30 percent in the highest quintile, while for women the relationship does not follow a clear pattern.

13.6 ATTITUDES TOWARD NEGOTIATING SAFER SEX

In an effort to assess the ability of women to negotiate safer sex with a spouse who has a sexually transmitted infection (STI), all respondents were asked two attitudinal questions. They were asked whether a wife is justified in refusing to have sex with her husband if she knows her husband has an STI and whether a woman in the same circumstances is justified in asking that her husband use a condom. Table 13.6 shows the results for both women and men.

- Almost nine in ten respondents (89 percent of women and 88 percent of men) feel that a wife is justified in refusing to have sexual intercourse with her husband if she knows he has a sexually transmitted disease. More than nine in ten believe that a wife is justified in asking that they use a condom if she knows that her husband has an STI (93 percent of women and 94 percent of men). These findings are similar to those reported in the 2005 GAIS.
- Ninety-six percent of women and men agree that a woman is justified in either refusing sexual intercourse with her husband or in asking him to use a condom if she knows he has an STI.
- Respondents living in the Coastal area and in Region 10, those with more than secondary education, and those in the highest two wealth quintiles are more likely to agree on both indicators than other respondents.

Table 13.6 Attitudes toward negotiating safer sex with husband

Percentage of women and men age 15-49 who believe that, if a husband has a sexually transmitted disease, his wife is justified in refusing to have sexual intercourse with him or asking that they use a condom, by background characteristics, Guyana 2009

	Women				Men			
	Woman is justified in:				Woman is justified in:			
Background characteristic	Refusing to have sexual inter-course	Asking that they use a condom	Either refusing sexual intercourse or asking to use a condom	Number of women	Refusing to have sexual inter-course	Asking that they use a condom	Either refusing sexual intercourse or asking to use a condom	Number of men
Age								
15-24	85.7	92.2	94.2	1,783	85.2	94.2	95.6	1,200
15-19	83.2	91.2	92.7	1,016	83.5	93.4	95.3	689
20-24	88.9	93.6	96.2	767	87.7	95.1	96.0	511
25-29	88.4	93.9	95.9	658	89.6	95.7	97.2	462
30-39	91.2	95.0	97.0	1,342	90.5	94.4	96.4	990
40-49	90.0	93.3	95.9	1,213	89.7	94.0	94.8	870
Marital status								
Never married	87.3	92.1	94.5	1,540	85.2	93.8	95.2	1,382
Ever had sex	89.4	94.1	96.3	761	89.5	95.8	97.4	863
Never had sex	85.3	90.1	92.7	779	78.1	90.3	91.6	518
Currently married	89.0	93.9	96.0	2,920	90.0	94.4	96.0	1,835
Formerly married	89.9	95.0	96.5	536	93.2	96.9	97.8	305
Residence								
Total Urban	91.7	95.6	97.0	1,475	93.9	97.1	98.6	949
Georgetown (urban)	92.8	96.1	97.3	967	95.8	97.7	98.8	619
Other (urban)	89.6	94.5	96.5	508	90.4	96.0	98.2	330
Total Rural	87.3	92.6	95.0	3,521	86.4	93.4	94.8	2,573
Total Coastal	89.6	94.5	96.4	4,495	88.7	94.7	96.2	3,126
Coastal (urban)	91.7	95.6	97.0	1,475	93.9	97.1	98.6	949
Coastal (rural)	88.6	93.9	96.1	3,019	86.4	93.7	95.1	2,176
Total Interior	79.5	84.4	88.3	501	86.1	91.7	93.0	396
Region								
Region 1	77.9	83.0	85.8	162	87.2	96.1	97.3	160
Region 2	87.8	92.2	94.1	293	86.1	94.8	95.0	179
Region 3	88.4	95.5	97.2	687	80.3	88.6	91.4	420
Region 4	91.5	95.2	96.7	2,168	93.0	97.0	97.8	1,540
Region 5	89.7	95.5	96.8	353	82.2	92.2	94.9	271
Region 6	85.5	90.8	95.0	780	86.9	94.0	95.8	587
Region 7	89.7	90.4	94.7	104	86.5	88.8	90.9	61
Region 8	77.4	82.3	87.1	95	76.5	81.6	83.7	68
Region 9	63.6	73.1	79.2	78	83.4	87.9	88.4	57
Region 10	91.3	97.2	98.3	277	92.2	97.5	99.0	178
Education								
No education	75.3	67.0	79.3	68	70.2	84.5	88.6	60
Primary	85.1	89.4	92.8	952	85.7	92.9	94.2	711
Secondary	89.1	94.5	96.3	3,568	89.1	94.6	96.2	2,459
More than secondary	94.4	98.0	98.4	409	92.8	97.8	98.3	292
Wealth quintile								
Lowest	78.5	84.8	88.5	779	85.9	92.0	94.1	663
Second	88.7	92.6	95.2	957	84.9	94.3	95.2	679
Middle	88.6	95.3	96.8	1,025	89.4	94.2	96.2	723
Fourth	92.0	95.9	97.8	1,084	89.4	95.0	96.8	751
Highest	92.1	95.9	97.5	1,151	92.0	96.2	96.7	705
Total 2009	**88.6**	**93.4**	**95.6**	**4,996**	**88.4**	**94.4**	**95.8**	**3,522**
Total 2005	93.1	93.8	97.5	2,425	89.4	91.9	95.9	1,875

Note: *Currently married* includes respondents in consensual union (living together). *Formerly married* includes divorced/separated/widowed.

13.7 ATTITUDES TOWARD CONDOM EDUCATION FOR YOUTH

Condom use is one of the main strategies for combating the spread of HIV. Social acceptance of condom use among young people is a key factor determining use of condoms to prevent the sexual transmission of HIV and other STIs, as well as to prevent early pregnancy. However, educating youth about condoms is sometimes controversial, with some saying it promotes early sexual experimentation. Others are in favor of teaching youth to abstain from sexual intercourse until they are married. To measure attitudes toward education about condoms, the 2009 GDHS respondents were asked if they thought that children age 12-14 should be taught about using a condom to avoid HIV. The results are shown in Table 13.7. Because the table focuses on adult opinion, results are tabulated for respondents age 18-49.

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

Percentage of women and men age 18-49 who agree that children age 12-14 years should be taught about using a condom to avoid AIDS, by background characteristics, Guyana 2009

	Women 18-49		Men 18-49	
Background characteristic	Percentage who agree	Number of women	Percentage who agree	Number of men
Age				
18-24	83.6	1,187	86.4	749
18-19	83.7	420	83.7	238
20-24	83.5	767	87.6	511
25-29	81.1	658	88.1	462
30-39	83.7	1,342	85.9	990
40-49	76.5	1,213	83.4	870
Marital status				
Never married	80.1	994	84.0	931
Currently married	80.6	2,878	85.9	1,834
Formerly married	87.3	528	89.1	305
Residence				
Total Urban	84.0	1,284	85.8	800
Georgetown (urban)	83.4	853	86.3	526
Other (urban)	85.2	432	85.0	273
Total Rural	80.2	3,115	85.6	2,271
Total Coastal	82.2	3,958	86.1	2,713
Coastal (urban)	84.0	1,284	85.8	800
Coastal (rural)	81.3	2,674	86.2	1,914
Total Interior	73.3	442	82.2	357
Region				
Region 1	80.4	141	81.6	147
Region 2	80.1	250	88.7	152
Region 3	81.6	609	83.1	362
Region 4	84.2	1,924	87.6	1,341
Region 5	81.9	310	82.3	239
Region 6	76.4	685	85.7	520
Region 7	67.3	89	71.5	53
Region 8	73.2	86	81.0	62
Region 9	58.8	70	84.5	50
Region 10	87.1	236	87.8	145
Education				
No education	58.3	60	60.5	58
Primary	74.4	919	84.2	681
Secondary	83.4	3,019	86.8	2,045
More than secondary	85.0	402	85.9	287
Wealth quintile				
Lowest	72.0	672	85.3	600
Second	79.8	836	81.9	586
Middle	84.5	918	87.0	607
Fourth	81.8	950	88.5	650
Highest	85.3	1,023	85.4	628
Total 2009	**81.3**	**4,399**	**85.7**	**3,071**
Total 2005	81.1	2,121	83.6	1,619

Note: *Currently married* includes respondents in consensual union (living together). *Formerly married* includes divorced, separated, or widowed.

- Overall, more than eight in ten women (81 percent) and men (86 percent) agree that children age 12-14 years should be taught about the use of condoms to avoid AIDS. Older respondents age 40-49 are slightly less likely than younger respondents to support education of children age 12-14 about condom use to prevent AIDS. Formerly married women and men are somewhat more likely than those who are currently married or who never married to agree on safe sex education for children age 12-14. Urban women (84 percent) are more likely than their rural counterparts (80 percent) to agree on teaching children age 12-14 about condom use to avoid AIDS, while there is no urban-rural difference among men. Women and men living in the Coastal area (82 and 86 percent, respectively) are more likely than women and men living in the Interior area (73 and 82 percent, respectively) to agree about education of children age 12-14 on condom use. By region, agreement on teaching children age 12-14 about the use of condoms ranges for women from 59 percent in Region 9 to 87 percent in Region 10 and for men from 72 percent in Region 7 to 89 percent Region 2.
- The proportion of both women and men who support teaching children age 12-14 about condoms increases with level of education and, for women, it also tends to increase with wealth. For example, 58 percent of women with no education agree on instructing children 12-14 years about condoms, compared with 85 percent of women with more than secondary education. The comparable figures for men are 61percent and 86 percent, respectively. For women, the percentage who agree that children age 12-14 should be taught about condoms increases from 72 percent among those in the lowest wealth quintile to 85 percent among women in the highest wealth quintile. Among men, there is no clear pattern in the variation of this indicator by wealth.

13.8 HIGHER-RISK SEX

Given that most HIV cases in Guyana are contracted through heterosexual contact, information on sexual behavior is important in designing and monitoring intervention programs to control the spread of HIV.

The 2009 GDHS included questions on respondents' sexual partners during their lifetime and in the 12 months preceding the survey. For male respondents, an additional question was asked on whether they paid anyone in exchange for sex during the 12 months preceding the interview. Information on the use of condoms at the last sexual intercourse with each type of partner was collected for women and men. These questions are sensitive, and it is recognized that some respondents may have been reluctant to provide information on recent sexual behavior.

13.8.1 Multiple Partners and Condom Use

Tables 13.8.1 and 13.8.2 show the percentage of all women and all men, respectively, age 15-49 years who had sexual intercourse with more than one partner in the past 12 months and the percentage who engaged in higher-risk sexual intercourse in the past 12 months.

- A larger proportion of men 15-49 (10 percent) than women (1 percent) reported having had more than one sexual partner in the 12 months preceding the survey. Additionally, a higher percentage of men (30 percent) than women (17 percent) reported having had sex with a person who was neither their spouse nor their cohabiting partner (higher-risk sex) in the year before the survey.
- Among respondents who had sexual intercourse in the 12 months before the survey, only 2 percent of women reported having more than one sexual partner in that period. This is considerably lower than the 13 percent reported by men. Similarly, 23 percent of women, compared with 38 percent of men, reported that they had sexual intercourse in the past 12 months with someone who was not their spouse or marital partner.

- Among both women and men who had sexual intercourse in the past 12 months, the proportion having higher-risk sexual intercourse generally decreases as age increases. By definition, sexual intercourse with a person who is not a spouse or a cohabiting partner (higher-risk sex) is more common among women and men who have never married and those who are currently divorced, separated, or widowed. For this reason, almost all (close to 100 percent) never-married women and never-married men who had sexual intercourse in the past 12 months had higher-risk sexual intercourse. On the other hand, only 1 percent of currently married women and 7 percent of currently married men had sexual intercourse with someone other than their spouse. Respondents who live in Urban areas, in the Coastal area, and those living in Region 10 are more likely than other respondents to have had higher-risk sexual intercourse in the past 12 months. Similarly, higher-risk sexual intercourse generally increases with increasing level of education and wealth quintile.
- Women and men in the 2009 GDHS were also asked about condom use with multiple partners or higher-risk sexual intercourse in the 12 months preceding the survey. Although truly effective protection requires condom use at every sexual contact, the sexual contacts covered here are those considered to pose the greatest risk of HIV transmission. Among women and men who had more than one partner in the 12 months before the survey, 48 percent of women (data not shown due to the small number of cases) and 65 percent of men said they used a condom during the most recent sexual intercourse.
- Among respondents who reported having had higher-risk intercourse (with a person who was neither their husband nor who lived with them) in the past 12 months, about half of women (52 percent) and seven in ten men (72 percent) used a condom at the last higher-risk sex. The smaller proportions of women with multiple partners, higher-risk sexual intercourse, and condom use, compared with men, may accurately reflect the context, but it may also reflect a bias from some women being hesitant to report behavior that may not be widely accepted.
- Condom use by respondents who had higher-risk sexual intercourse in the past 12 months is more likely among young people age 15-19, never married respondents, respondents living in Urban areas, women living in the Coastal area, and women in Regions 2 and 10 and men in Regions 9 and 10. Condom use during last higher-risk sexual intercourse is higher among men with more than secondary education, and for both women and men, it is highest among those in the highest wealth quintile.
- Overall, the mean number of lifetime sexual partners is four times as high for men as for women (8 partners versus 2 partners). There are no significant variations in the number of lifetime partners for women by background characteristics. For men, those age 40-49 (10 partners) and men who were formerly married (15 partners) have the highest number of lifetime sexual partners when compared with other men.

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

Among all women age 15-49, the percentage who had sexual intercourse with more than one sexual partner (column 1) and the percentage who had intercourse in the past 12 months with a person who was neither their husband nor who lived with them (column 2); among women age 15-49 who had sexual intercourse in the past 12 months, the percentage who had sexual intercourse with more than one sexual partner (column 4) and the percentage who had intercourse in the past 12 months with a person who was neither their husband nor who lived with them (column 5); among those having more than one partner in the past 12 months, the percentage reporting that a condom was used at last intercourse (column 7); and the mean number of sexual partners during her lifetime for women who ever had sexual intercourse (column 9), by background characteristics, Guyana 2009

	All women			Among women who had sexual intercourse in the past 12 months			Among women who had intercourse in the past 12 months with a person who was neither their husband nor who lived with them:		Among women who ever had sexual intercourse:	
Background characteristic	Percentage who had 2+ partners in the past 12 months	Percentage who had inter-course in the past 12 months with a person who was neither their husband nor who lived with them	Number of women	Percentage who had 2+ partners in the past 12 months	Percentage who had inter-course in the past 12 months with a person who was neither their husband nor who lived with them	Number of women	Percentage who reported using a condom at last inter-course with that person	Number of women	Mean number of sexual partners in lifetime	Number of women
Age										
15-24	1.3	22.4	1,783	2.4	42.4	939	55.8	399	1.8	1,028
15-19	1.1	17.3	1,016	3.2	52.1	337	58.9	176	1.6	382
20-24	1.5	29.1	767	1.9	36.9	602	53.4	223	2.0	646
25-29	2.2	22.5	658	2.5	26.0	569	46.7	148	2.1	601
30-39	1.6	13.1	1,342	1.9	15.7	1,108	54.6	175	2.1	1,252
40-49	0.4	9.1	1,213	0.6	11.7	940	42.4	111	2.5	1,127
Marital status										
Never married	2.0	34.2	1,540	6.0	99.8	526	57.2	527	2.3	728
Currently married	0.4	1.3	2,920	0.5	1.4	2,725	49.6	38	1.9	2,783
Formerly married	3.6	49.9	536	6.2	87.1	306	42.7	268	3.5	498
Residence										
Total Urban	2.2	26.7	1,475	3.2	39.5	994	61.3	394	2.5	1,156
Georgetown (urban)	2.3	30.4	967	3.3	43.9	666	62.0	294	2.6	778
Other (urban)	1.9	19.7	508	3.0	30.4	328	59.1	100	2.2	378
Total Rural	0.9	12.5	3,521	1.2	17.1	2,562	44.1	439	2.0	2,852
Total Coastal	1.2	16.9	4,495	1.7	24.1	3,141	53.1	758	2.1	3,578
Coastal (urban)	2.2	26.7	1,475	3.2	39.5	994	61.3	394	2.5	1,156
Coastal (rural)	0.7	12.1	3,019	1.1	16.9	2,148	44.2	365	1.9	2,422
Total Interior	1.7	14.9	501	2.1	17.8	415	43.3	75	2.6	430
Region										
Region 1	0.6	10.4	162	0.7	11.8	142	(42.0)	17	2.6	142
Region 2	0.5	9.1	293	0.7	12.6	211	(62.3)	27	1.6	233
Region 3	1.4	12.8	687	2.0	18.2	482	48.5	88	1.7	541
Region 4	1.5	22.2	2,168	2.1	31.4	1,533	56.3	482	2.5	1,745
Region 5	0.7	10.7	353	1.0	15.6	242	(29.0)	38	1.5	289
Region 6	0.5	7.5	780	0.8	10.8	534	35.6	59	1.5	608
Region 7	2.5	18.8	104	3.2	22.7	82	44.0	19	3.0	87
Region 8	2.4	14.5	95	2.9	17.2	80	(38.6)	14	2.9	82
Region 9	2.8	12.3	78	3.7	16.1	59	48.7	10	1.7	63
Region 10	1.9	29.0	277	2.8	42.2	191	57.9	81	2.8	218
Education										
No education	0.6	5.8	68	0.7	6.2	63	*	4	2.2	62
Primary	0.8	7.2	952	1.0	8.7	786	47.0	68	1.9	858
Secondary	1.3	17.6	3,568	1.9	25.8	2,419	53.7	628	2.2	2,742
More than secondary	2.2	32.3	409	3.1	46.0	288	47.9	132	2.5	346
Wealth quintile										
Lowest	1.2	11.6	779	1.5	14.2	619	49.6	90	2.2	646
Second	1.8	15.9	957	2.5	21.9	696	53.2	153	2.0	773
Middle	0.8	15.0	1,025	1.2	21.8	704	48.1	153	2.4	821
Fourth	0.8	15.7	1,084	1.2	23.0	740	47.9	170	2.0	857
Highest	1.7	23.2	1,151	2.5	33.3	796	57.6	267	2.1	911
Total	1.3	16.7	4,996	1.8	23.3	3,556	52.2	833	2.1	4,008

Note: *Currently married* includes respondents in consensual union (living together). *Formerly married* includes divorced/separated/widowed. 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.

Table 13.8.2 Multiple sexual partners and higher-risk sexual intercourse in the past 12 months: Men

Among all men age 15-49, the percentage who had sexual intercourse with more than one sexual partner (column 1) and the percentage who had intercourse in the past 12 months with a person who was neither their wife nor who lived with them (column 2); among men age 15-49 who had sexual intercourse in the past 12 months, the percentage who had sexual intercourse with more than one sexual partner (column 4) and the percentage who had intercourse in the past 12 months with a person who was neither their wife nor who lived with them (column 5); among those having more than one partner in the past 12 months, the percentage reporting that a condom was used at last intercourse (column 7); and among those having sexual intercourse in the past 12 months with a person who was neither their wife nor who lived with them, the percentage reporting that a condom was used at last intercourse with that person (column 9); and the mean number of sexual partners during her lifetime for men who ever had sexual intercourse (column 11), by background characteristics, Guyana 2009

	All men			Among men who had sexual intercourse in the past 12 months			Among men who had 2+ partners in the past 12 months:		Among men who had intercourse in the past 12 months with a person who was neither their husband nor who lived with them:		Among men who ever had sexual intercourse:	
Background characteristic	Percentage who had 2+ partners in the past 12 months	Percentage who had intercourse in the past 12 months with a person who was neither their wife nor who lived with them	Number of men	Percentage who had 2+ partners in the past 12 months	Percentage who had intercourse in the past 12 months with a person who was neither their wife nor who lived with them	Number of men	Percentage who reported using a condom at last sexual inter-course	Number of men	Percentage who reported using a condom at last inter-course with that person	Number of men	Mean number of sexual partners in lifetime	Number of men
Age												
15-24	12.4	41.6	1,200	23.6	79.1	632	76.1	149	78.1	500	6.1	659
15-19	8.0	30.2	689	25.6	96.4	216	85.8	55	85.1	208	5.2	264
20-24	18.4	57.1	511	22.6	70.1	416	70.4	94	73.1	292	6.7	395
25-29	9.5	34.0	462	10.9	39.1	402	(76.7)	44	70.8	157	6.8	358
30-39	10.1	23.2	990	11.2	25.7	893	56.6	100	66.5	230	7.5	820
40-49	6.4	16.5	870	7.0	18.2	792	43.4	55	57.6	144	10.2	714
Marital status												
Never married	13.0	50.0	1,382	25.9	99.7	693	83.8	180	78.3	691	7.1	734
Currently married	5.6	6.6	1,835	5.8	6.8	1,781	27.4	103	59.1	121	7.0	1,569
Formerly married	21.3	71.4	305	26.6	89.4	244	75.0	65	57.2	218	14.9	249
Residence												
Total Urban	14.8	41.9	949	19.2	54.1	734	70.8	141	77.3	397	8.5	630
Georgetown (urban)	16.2	46.9	619	20.6	59.6	487	73.3	100	76.5	290	9.6	384
Other (urban)	12.3	32.4	330	16.5	43.3	247	64.9	41	79.4	107	6.8	246
Total Rural	8.1	24.6	2,573	10.4	31.9	1,984	61.7	207	68.0	633	7.6	1,921
Total Coastal	9.6	29.1	3,126	12.6	38.0	2,388	64.6	300	71.3	908	7.7	2,257
Coastal (urban)	14.8	41.9	949	19.2	54.1	734	70.8	141	77.3	397	8.5	630
Coastal (rural)	7.3	23.5	2,176	9.6	30.9	1,653	59.0	159	66.7	511	7.4	1,628
Total Interior	12.2	30.7	396	14.7	36.8	330	70.4	48	73.4	122	8.2	294
Region												
Region 1	10.4	33.7	160	12.0	38.8	138	78.1	*	75.7	54	8.6	129
Region 2	7.3	21.9	179	9.5	28.4	138	(66.3)	13	75.0	39	6.2	143
Region 3	8.7	27.2	420	11.3	35.4	323	(56.8)	36	55.0	114	7.8	313
Region 4	10.3	33.9	1,540	13.4	44.1	1,185	69.4	159	74.6	523	9.2	1,065
Region 5	8.2	22.8	271	11.9	33.1	187	(67.3)	22	74.0	62	5.8	183
Region 6	8.2	19.2	587	10.6	24.7	456	48.9	48	61.6	113	5.5	459
Region 7	8.3	24.5	61	10.0	29.6	50	45.7	*	(57.1)	15	9.4	50
Region 8	22.6	39.1	68	27.1	47.0	57	66.5	*	(73.9)	27	8.5	35
Region 9	8.3	14.8	57	10.5	18.8	45	78.9	*	(84.6)	8	6.2	42
Region 10	15.5	42.2	178	19.9	54.1	139	(73.1)	28	83.8	75	7.6	132
Education												
No education	0.0	6.3	60	0.0	(8.3)	45	*	0	*	4	(7.1)	44
Primary	7.1	21.0	711	8.3	24.4	612	(51.0)	51	54.1	149	6.0	581
Secondary	10.6	30.7	2,459	14.4	41.5	1,818	68.4	261	73.6	754	8.3	1,712
More than secondary	12.4	42.0	292	14.9	50.7	242	(63.6)	36	80.0	123	8.6	213
Wealth quintile												
Lowest	8.3	27.1	663	10.5	34.3	524	59.5	55	66.4	180	7.8	511
Second	8.3	25.4	679	11.0	33.8	510	66.2	56	73.0	172	8.1	500
Middle	9.4	29.3	723	12.7	39.3	539	60.0	68	70.9	212	6.5	525
Fourth	9.9	29.9	751	12.9	38.9	576	63.8	75	71.5	224	8.6	545
Highest	13.4	35.7	705	16.6	44.3	568	73.5	94	75.5	252	7.9	470
Total	9.9	29.5	3,522	12.8	38.3	2,718	65.4	348	71.7	1,040	7.8	2,551

Note: *Currently married* includes respondents in consensual union (living together). *Formerly married* includes divorced/separated/widowed. 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.

13.8.2 Transactional Sex

As described earlier in the chapter, higher-risk sex is defined as having sex with a non-marital, non-cohabiting partner. This includes sex with commercial sex workers (i.e., prostitutes). Sex with prostitutes is particularly risky because they have many partners and are thus more likely to have sexually transmitted infections. Only 1 percent of men reported having paid someone in exchange for sex in the past 12 months, with no major variations by background characteristics (data not shown due to the small number of cases).

13.9 COVERAGE OF PRIOR HIV TESTING

Knowledge of one's HIV status can empower individuals to take precautions to protect against either acquiring or transmitting the disease. Deliberate efforts need to be made to educate people about the importance of getting tested for HIV so as to know one's status. Consequently, Guyana has established a number of voluntary counseling and testing (VCT) sites across the country and encourages their access and use by the general population. Through the Ministry of Health, the government has designated a National Day of HIV Testing to improve access of all persons to VCT services.

The percentage of women who have ever been tested may increase over time because women who become pregnant do have an additional opportunity to receive counseling on HIV testing when they attend antenatal clinics during pregnancy, and after being counseled, they can also undergo HIV testing as part of their antenatal care.

- Data in Tables 13.9.1 and 13.9.2 show that almost nine in ten women (89 percent) and men (87 percent) know where to get an HIV test. However, the proportions ever tested are much smaller; only 53 percent of women and 38 percent of men age 15-49 have ever been tested for HIV. Most of those tested received the results of their test; 50 percent of women and 35 percent of men were ever tested and received the results of their test. The proportions who had a recent test are smaller; only 27 percent of women and 22 percent of men received the results of the last HIV test taken in the past 12 months.
- The proportion of respondents ever tested for HIV is lowest for the age group 15-19 (32 percent of women and 18 percent of men) and highest among respondents 25-29 (71 percent of women and 52 percent of men). Formerly married and never married respondents who have had sex are more likely to go for an HIV test than other sub groups.
- Urban women (62 percent) and men (49 percent) are more likely than their rural counterparts (48 and 34 percent, respectively) to have ever been tested for HIV. These findings are to be expected given that most NGOs and stand-alone VCT sites in Guyana are in urban areas. Women living in the Interior area are slightly more likely than those living in the Coastal area to have ever been tested for HIV (56 percent versus 52 percent). For men, the opposite is true; those living in the Coastal area are somewhat more likely than men in the Interior area to have ever been tested for HIV (38 and 33 percent, respectively). There are regional variations in HIV testing. The percentage of women ever tested for HIV ranges from 39 percent in Region 5 to 66 percent in Region 7, while for men it ranges from 23 percent in Region 1 to 46 percent in Region 10.
- The level of education and wealth is positively related to HIV testing. HIV testing is much more common among the most educated and wealthy individuals when compared with those with no education and in the lowest wealth quntiles; the difference is more pronounced for men than for women.
- The differentials in the percentage of individuals ever tested for HIV and who received their results, by residence, education, and socioeconomic status, provide important information that should be considered in the design and implementaton of programs targeting HIV/AIDS in Guyana.

Table 13.9.1 Coverage of prior HIV testing: Women

Percentage of women age 15-49 who know where to get an HIV test, percent distribution of women age 15-49 by testing status and by whether they received the results of the test; the percentage of women ever tested, and the percentage of women age 15-49 who received their test results the last time they were tested for HIV in the past 12 months, according to background characteristics, Guyana 2009

Background Characteristic	Percentage who know where to get an HIV test	Percent distribution of women by testing status and by whether they received the results of the last test				Percentage ever tested	Percentage who received results from last HIV test taken in the past 12 months	Number of women
		Ever tested and received results	Ever tested, did not receive results	Never tested	Total			
Age								
15-24	88.5	43.7	3.7	52.5	100.0	47.5	29.4	1,783
15-19	86.0	28.9	3.1	68.0	100.0	32.0	21.9	1,016
20-24	91.8	63.4	4.5	32.1	100.0	67.9	39.3	767
25-29	90.2	67.7	3.4	28.9	100.0	71.1	36.4	658
30-39	90.3	57.5	3.1	39.4	100.0	60.6	27.7	1,342
40-49	88.7	39.3	1.6	59.1	100.0	40.9	17.6	1,213
Marital status								
Never married	89.8	39.3	2.4	58.4	100.0	41.6	25.8	1,540
Ever had sex	95.5	67.0	2.7	30.3	100.0	69.7	43.8	761
Never had sex	84.3	12.1	2.1	85.8	100.0	14.2	8.3	779
Currently married	88.2	52.4	3.5	44.1	100.0	55.9	25.9	2,920
Formerly married	93.2	63.2	2.0	34.8	100.0	65.2	36.5	536
Residence								
Total Urban	95.2	59.6	2.6	37.7	100.0	62.3	32.5	1,475
Georgetown (urban)	95.9	64.9	2.1	33.0	100.0	67.0	35.5	967
Other (urban)	94.0	49.7	3.6	46.7	100.0	53.3	26.6	508
Total Rural	86.8	45.3	3.1	51.6	100.0	48.4	24.7	3,521
Total Coastal	90.8	49.2	2.9	47.9	100.0	52.1	26.5	4,495
Coastal (urban)	95.2	59.6	2.6	37.7	100.0	62.3	32.5	1,475
Coastal (rural)	88.6	44.1	3.0	52.9	100.0	47.1	23.7	3,019
Total Interior	75.9	52.3	3.7	44.0	100.0	56.0	31.2	501
Region								
Region 1	67.4	45.6	3.2	51.2	100.0	48.8	28.1	162
Region 2	87.2	43.0	1.7	55.4	100.0	44.6	24.4	293
Region 3	91.5	46.4	3.2	50.4	100.0	49.6	23.9	687
Region 4	93.5	56.2	2.5	41.2	100.0	58.8	31.9	2,168
Region 5	79.7	34.9	4.2	60.9	100.0	39.1	17.6	353
Region 6	86.8	37.2	4.0	58.8	100.0	41.2	17.3	780
Region 7	86.7	63.5	2.8	33.7	100.0	66.3	38.1	104
Region 8	77.3	56.1	4.3	39.6	100.0	60.4	30.9	95
Region 9	67.0	39.3	4.5	56.3	100.0	43.7	20.2	78
Region 10	95.9	62.4	2.1	35.5	100.0	64.5	34.5	277
Education								
No education	69.1	43.9	1.7	54.4	100.0	45.6	17.2	68
Primary	78.6	38.0	4.4	57.7	100.0	42.3	20.5	952
Secondary	91.6	49.8	2.8	47.4	100.0	52.6	27.1	3,568
More than secondary	97.2	74.6	1.7	23.6	100.0	76.4	42.8	409
Wealth quintile								
Lowest	75.3	46.9	3.3	49.8	100.0	50.2	26.7	779
Second	88.0	45.8	3.5	50.7	100.0	49.3	27.3	957
Middle	91.2	47.8	4.2	48.0	100.0	52.0	25.8	1,025
Fourth	92.6	46.2	2.3	51.5	100.0	48.5	24.4	1,084
Highest	95.0	59.0	1.9	39.1	100.0	60.9	30.5	1,151
Total	89.3	49.5	3.0	47.5	100.0	52.5	27.0	4,996

Note: *Currently married* includes respondents in consensual union (living together). *Formerly married* includes divorced, separated, or widowed.

Table 13.9.2 Coverage of prior HIV testing: Men

Percentage of men age 15-49 who know where to get an HIV test, percent distribution of men age 15-49 by testing status and by whether they received the results of the test; the percentage of men ever tested, and the percentage of men age 15-49 who received their test results the last time they were tested for HIV in the past 12 months, according to background characteristics, Guyana 2009

Background characteristic	Percentage who know where to get an HIV test	Percent distribution of men by testing status and by whether they received the results of the last test: Ever tested and received results	Ever tested, did not receive results	Never tested	Total	Percentage ever tested	Percentage who received results from last HIV test taken in the past 12 months	Number of men
Age								
15-24	83.2	25.1	1.9	73.0	100.0	27.0	17.8	1,200
15-19	80.7	16.4	1.3	82.2	100.0	17.8	13.5	689
20-24	86.6	36.9	2.6	60.5	100.0	39.5	23.6	511
25-29	89.2	49.3	2.7	48.0	100.0	52.0	29.2	462
30-39	89.0	39.2	2.3	58.5	100.0	41.5	22.6	990
40-49	88.6	38.0	2.8	59.3	100.0	40.7	21.6	870
Marital status								
Never married	83.2	28.4	1.9	69.7	100.0	30.3	20.3	1,382
Ever had sex	88.4	41.3	2.6	56.1	100.0	43.9	29.6	863
Never had sex	74.6	7.0	0.7	92.4	100.0	7.6	4.9	518
Currently married	89.6	38.9	2.9	58.2	100.0	41.8	22.1	1,835
Formerly married	87.4	46.2	1.1	52.7	100.0	47.3	24.5	305
Residence								
Total Urban	95.0	46.8	2.2	51.0	100.0	49.0	29.3	949
Georgetown (urban)	95.9	52.2	1.8	46.0	100.0	54.0	32.6	619
Other (urban)	93.4	36.6	2.9	60.5	100.0	39.5	23.0	330
Total Rural	84.0	31.2	2.4	66.4	100.0	33.6	18.8	2,573
Total Coastal	88.3	35.9	2.5	61.7	100.0	38.3	21.8	3,126
Coastal (urban)	95.0	46.8	2.2	51.0	100.0	49.0	29.3	949
Coastal (rural)	85.4	31.1	2.6	66.3	100.0	33.7	18.6	2,176
Interior	76.3	32.0	1.2	66.8	100.0	33.2	19.8	396
Region								
Region 1	70.4	22.9	0.0	77.1	100.0	22.9	17.2	160
Region 2	90.2	28.7	2.6	68.6	100.0	31.4	15.7	179
Region 3	80.4	27.3	3.2	69.6	100.0	30.4	16.8	420
Region 4	91.5	43.6	1.3	55.0	100.0	45.0	26.6	1,540
Region 5	84.5	21.9	4.1	74.0	100.0	26.0	11.3	271
Region 6	85.2	28.5	4.4	67.1	100.0	32.9	18.3	587
Region 7	85.7	38.9	0.9	60.2	100.0	39.8	21.6	61
Region 8	76.7	40.0	1.8	58.2	100.0	41.8	16.8	68
Region 9	71.7	32.0	1.9	66.2	100.0	33.8	21.2	57
Region 10	93.0	43.5	2.3	54.2	100.0	45.8	27.7	178
Education								
No education	46.3	7.4	0.9	91.8	100.0	8.2	2.0	60
Primary	83.8	30.8	2.6	66.6	100.0	33.4	18.6	711
Secondary	87.5	34.9	2.3	62.7	100.0	37.3	21.1	2,459
More than secondary	98.3	56.4	2.2	41.4	100.0	58.6	37.2	292
Wealth quintile								
Lowest	76.1	28.0	1.4	70.6	100.0	29.4	17.2	663
Second	84.9	31.4	2.1	66.5	100.0	33.5	17.9	679
Middle	87.8	35.8	2.6	61.6	100.0	38.4	23.0	723
Fourth	91.1	37.6	3.5	58.9	100.0	41.1	23.1	751
Highest	93.9	43.6	1.9	54.5	100.0	45.5	26.2	705
Total	86.9	35.4	2.3	62.2	100.0	37.8	21.6	3,522

Note: *Currently married* includes respondents in consensual union (living together). *Formerly married* includes divorced, separated, or widowed.

13.9.1 HIV Testing during Antenatal Care

One of the tragic consequences of HIV in women is the transmission of the virus from mother-to-child. This can occur during pregnancy, at the time of delivery, or through breastfeeding. Worldwide, the effects of mother-to-child transmission (MTCT) of HIV are staggering. As part of the strategy for the prevention of mother-to-child transmission of HIV, women are counseled about HIV/AIDS during antenatal care (ANC) visits and offered an HIV test. In the 2009 GDHS, women age 15-49 who gave birth in the two years preceding the survey were asked whether they received counseling during ANC visits for their most recent birth, whether they were offered and accepted a test for HIV as part of their antenatal care, and if tested, whether they received the test results.

Table 13.10 shows, for women who gave birth in the two years preceding the survey, the percentage who received HIV counseling during antenatal care for their most recent birth, and the percentage who accepted an offer of HIV testing, whether or not they received their test results, by background characteristics.

- Among women who gave birth in the two years preceding the survey, two-thirds (66 percent) were counseled about HIV/AIDS during antenatal care for their most recent birth. The likelihood of receiving HIV/AIDS counseling during a visit is higher in Urban than in Rrural areas (82 and 61 percent, respectively) and in the Coastal than in the Interior area (69 and 55 percent, respectively). It generally increases with education and wealth.
- Almost eight in ten (79 percent) women were offered and accepted an HIV test during antenatal care, and most of them (75 percent) received their test results. These findings show a remarkable improvement from the 2005 GAIS findings when half of the mothers were tested for HIV during ANC, and only 6 percent received their results.
- When counselling, testing, and receipt of the results are combined into one indicator, only 60 percent of women received counseling, were offered and accepted an HIV test, and received the results during ANC for their most recent birth. Seventy-seven percent of urban women and 65 percent of women in the Coastal area were being counseled, tested, and given their HIV test result during ANC compared with only 55 percent of rural women and 44 percent of women in the Interior area. The lowest percentages of women who underwent all components of VCT during ANC are in Regions 1 and 9 (34 and 37 percent, respectively) and the highest are in Region 2 (72 percent).
- The likelihood of receiving all components of VCT during ANC among women who gave birth in the past two years generally increases with education and wealth.

Table 13.10 Pregnant women counseled and tested for HIV

Among all women 15-49 who gave birth in the two years preceding the survey, (1) the percentage who received HIV counseling during antenatal care for their most recent birth, (2) the percentage who accepted an offer of HIV testing, by whether they received their test results, and (3) the percentage who were counseled, were offered and accepted testing, and received results, according to background characteristics, Guyana 2009

Background characteristic	Percentage who received HIV counseling during antenatal care[1]	Percentage who were offered and accepted an HIV test during antenatal care and who:[2]		Percentage who were counseled, were offered and who accepted an HIV test, and who received results[2]	Number of women who gave birth in the past two years[3]
		Received results	Did not receive results		
Age					
15-24	67.4	73.9	4.3	61.2	342
15-19	66.1	69.5	5.9	58.3	133
20-24	68.2	76.7	3.3	63.0	209
25-29	64.1	75.6	4.9	59.2	162
30-39	65.2	76.6	3.3	58.6	222
40-49	(57.0)	(57.0)	(1.4)	(57.0)	24
Residence					
Total Urban	81.9	85.7	4.3	76.7	158
Georgetown (urban)	84.4	91.0	4.2	79.1	101
Other (urban)	77.4	76.4	4.3	72.5	57
Total Rural	61.4	71.5	4.0	55.4	592
Total Coastal	68.9	81.3	3.7	64.5	581
Coastal (urban)	81.9	85.7	4.3	76.7	158
Coastal (rural)	64.0	79.6	3.4	59.9	423
Total Interior	54.8	51.2	5.4	44.1	168
Region					
Region 1	47.9	42.0	7.9	33.9	70
Region 2	77.2	78.4	1.3	72.4	46
Region 3	66.9	88.2	1.6	66.9	91
Region 4	71.9	89.4	1.9	69.6	272
Region 5	57.2	63.6	5.0	49.5	55
Region 6	62.2	61.5	10.9	48.7	95
Region 7	72.2	69.0	2.5	66.1	24
Region 8	62.3	54.5	5.0	51.0	30
Region 9	48.9	45.0	5.7	37.1	25
Region 10	67.7	77.3	2.4	66.6	41
Education					
No education	*	*	*	*	23
Primary	50.7	63.6	4.8	43.1	163
Secondary	70.7	78.4	4.1	65.2	518
More than secondary	(74.7)	(84.5)	(0.0)	(71.2)	46
Wealth quintile					
Lowest	57.2	59.8	2.6	51.2	218
Second	71.2	73.8	7.5	62.3	163
Middle	68.2	84.1	3.0	63.3	144
Fourth	69.0	80.5	4.7	64.3	128
Highest	67.6	86.8	2.5	64.4	97
Total	65.7	74.5	4.1	59.9	750

Note: *Currently married* includes women in consensual union (living together). *Formerly married* includes divorced, separated, or widowed. 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]In this context, *counseled* means that someone talked with the respondent about all three of the following topics: (1) babies getting the AIDS virus from their mother, (2) preventing the virus, and (3) getting tested for the virus

[2] Only women who were offered the test are included here. Women who were either required or asked for the test are excluded from the numerator of this measure.

[3] Denominator for percentages includes women who did not receive antenatal care for their last birth in the past two years.

13.10 MALE CIRCUMCISION

Recently, male circumcision has been shown to be associated with lower transmission of STIs, including HIV (WHO and UNAIDS, 2007). To examine this relationship, men age 15-49 interviewed in the 2009 GDHS were asked if they were circumcised. Table 13.11 shows the percentage of men who report that they have been circumcised, by background characteristics, including ethnicity. Men who declared that they were unsure whether they had been circumcised are considered as not having been circumcised.

Table 13.11 Male circumcision

Percentage of men age 15-49 who report having been circumcised, by background characteristics, Guyana 2009

Background characteristic	Percentage circumcised	Number of men
Age		
15-24	12.7	1,200
15-19	11.4	689
20-24	14.6	511
25-29	10.1	462
30-39	10.8	990
40-49	13.5	870
Residence		
Total Urban	13.8	949
Georgetown (urban)	12.4	619
Other (urban)	16.3	330
Total Rural	11.4	2,573
Total Coastal	12.7	3,126
Coastal (urban)	13.8	949
Coastal (rural)	12.3	2,176
Total Interior	6.5	396
Region		
Region 1	7.8	160
Region 2	10.1	179
Region 3	12.7	420
Region 4	11.2	1,540
Region 5	19.0	271
Region 6	14.0	587
Region 7	5.5	61
Region 8	5.8	68
Region 9	5.8	57
Region 10	12.7	178
Ethnicity		
African	12.7	933
Indian	13.2	1,748
Amerindian	6.2	291
Portuguese	(17.4)	38
Chinese	*	2
Mixed	9.3	504
Education		
No education	6.6	60
Primary	10.8	711
Secondary	12.1	2,459
More than secondary	15.3	292
Wealth quintile		
Lowest	8.2	663
Second	10.1	679
Middle	13.6	723
Fourth	13.8	751
Highest	14.0	705
Total	12.0	3,522

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.

- Twelve percent of Guyanese men age 15-49 are circumcised, with little difference by age. Men in the Coastal area are almost twice as likely to be circumcised as men in the Interior area (13 and 7 percent, respectively). Six percent of men in Regions 7, 8, and 9 are circumsized compared with 19 percent of men in Region 5.
- The percentage of circumcised men is lowest among those of Amerindian ethnicity (6 percent), half the national prevalence of 12 percent.
- The prevalence of circumcision increases with the level of education and the socioeconomic status of the household. Men with more than secondary education are more than twice as likely to be circumcised as men with no education (15 and 7 percent, respectively).

13.11 SELF-REPORTING OF SEXUALLY TRANSMITTED INFECTIONS

Sexually transmitted infections are closely associated with HIV because they increase the likelihood of contracting HIV and share similar risk factors. In the 2009 GDHS, all respondents who ever had sexual intercourse were asked if they had had a sexually transmitted infection (STI) or symptoms of an STI (including bad-smelling/abnormal genital discharge and genital sore or ulcer) in the 12 months preceding the survey.

Table 13.12 shows the self-reported prevalence of STIs and STI symptoms among women and men age 15-49 who have ever had sexual intercourse.

- Only 1 percent of Guyanese women and men who have ever had sexual intercourse reported having an STI in the past 12 months. Four percent of women and 2 percent of men reported having had an abnormal genital discharge, and 1 percent, each, reported having had a genital sore or ulcer in the 12 months preceding the survey. In total, 5 percent of women and 3 percent of men reported having either an STI, an abnormal discharge, or a genital sore.
- The highest rates of STIs and STI symptoms are found in the 15-19 age group (7 percent among women and 4 percent among men), in urban areas for women (6 percent) and in the Interior area for women (5 percent) and men (6 percent). There are no marked differences by marital status for women or men or circumcision status for men. Looking at regional variations, the highest percentage with an STI and/or an STI symptom is in Region 10 for women (7 percent) and Region 1 for men (9 percent).
- The prevalence of STIs and STI symptoms is not strongly associated with the level of education or wealth of the household.

Table 13.12 Self-reported prevalence of sexually transmitted infections (STIs) and STI symptoms

Among women and men age 15-49 who ever had sexual intercourse, the percentage reporting having an STI and/or symptoms of an STI in the past 12 months, by background characteristics, Guyana 2009

	Women					Men				
Background characteristic	Percentage with an STI	Percentage with bad smelling/ abnormal genital discharge	Percentage with genital sore/ ulcer	Percentage with STI/ discharge/ genital sore/ ulcer	Number of women who ever had sexual intercourse	Percentage with an STI	Percentage with bad smelling/ abnormal genital discharge	Percentage with genital sore/ ulcer	Percentage with STI/ discharge/ genital sore/ ulcer	Number of men who ever had sexual intercourse
Age										
15-24	1.1	5.0	0.7	5.5	1,053	0.7	2.0	0.5	3.1	737
15-19	1.4	6.2	1.0	6.8	390	1.0	2.5	0.8	4.2	284
20-24	0.9	4.2	0.5	4.8	663	0.5	1.8	0.2	2.5	454
25-29	1.6	5.2	1.1	6.2	641	1.5	1.9	0.5	3.2	440
30-39	0.6	3.8	1.0	4.6	1,326	1.0	1.7	0.8	2.5	970
40-49	0.6	3.2	0.8	3.8	1,196	0.5	1.0	0.8	2.2	855
Marital status										
Never married	1.6	3.8	0.9	4.9	761	0.6	1.9	0.4	2.6	863
Currently married	0.8	4.2	0.9	4.8	2,918	1.1	1.5	0.7	2.7	1,833
Formerly married	0.4	4.1	0.8	4.8	536	0.1	1.4	1.1	2.6	305
Male circumcision										
Circumcised	na	na	na	na	na	0.8	1.9	0.3	2.9	361
Not circumcised	na	na	na	na	na	0.9	1.6	0.7	2.7	2,563
Residence										
Total Urban	1.4	4.9	1.3	5.7	1,225	0.4	2.0	0.3	2.6	808
Georgetown (urban)	1.7	4.4	1.1	4.9	810	0.3	1.6	0.3	2.3	534
Other (urban)	0.9	5.8	1.6	7.3	415	0.5	2.8	0.3	3.3	275
Total Rural	0.7	3.8	0.7	4.5	2,990	1.0	1.5	0.8	2.7	2,194
Total Coastal	0.8	4.1	0.8	4.8	3,756	0.6	1.5	0.5	2.3	2,644
Coastal (urban)	1.4	4.9	1.3	5.7	1,225	0.4	2.0	0.3	2.6	808
Coastal (rural)	0.5	3.8	0.6	4.3	2,531	0.7	1.2	0.6	2.1	1,836
Total Interior	1.5	4.2	1.4	5.4	459	2.4	2.8	1.8	5.5	358
Region										
Region 1	0.9	4.1	1.2	5.3	151	3.5	4.5	4.0	8.5	145
Region 2	0.5	2.2	1.6	3.3	242	0.6	3.1	0.7	4.0	150
Region 3	0.4	4.7	0.4	5.1	561	1.1	2.3	1.2	3.5	347
Region 4	1.0	3.8	0.8	4.4	1,839	0.7	0.9	0.4	1.9	1,324
Region 5	1.0	2.3	0.8	3.0	293	0.0	2.1	0.3	2.4	220
Region 6	0.5	5.8	0.7	6.1	640	0.4	1.4	0.4	1.9	493
Region 7	2.1	5.1	2.1	6.4	91	0.0	1.5	0.7	2.2	55
Region 8	1.7	3.3	1.9	5.2	89	2.0	0.9	0.6	3.0	61
Region 9	1.4	3.6	1.7	4.4	70	1.9	0.8	0.0	2.7	51
Region 10	1.5	5.7	1.6	7.4	239	1.3	2.4	0.0	3.6	155
Education										
No education	0.0	4.2	0.0	4.2	66	0.0	2.1	1.2	3.3	49
Primary	0.6	2.7	0.5	3.2	893	0.5	1.5	0.5	2.4	659
Secondary	0.9	4.6	1.0	5.4	2,895	1.1	1.7	0.8	2.9	2,025
More than secondary	1.2	3.8	1.4	4.8	362	0.1	1.1	0.2	1.3	270
Wealth quintile										
Lowest	0.9	3.2	0.9	4.2	695	1.6	2.6	1.4	4.2	590
Second	0.5	3.8	0.7	4.6	811	0.5	1.5	0.5	2.3	573
Middle	0.9	4.6	1.6	5.4	856	0.7	1.4	0.3	2.1	601
Fourth	1.3	4.1	0.3	4.7	893	0.8	1.3	0.7	2.7	630
Highest	0.7	4.7	1.1	5.1	960	0.7	1.3	0.4	2.0	608
Total 2009	**0.9**	**4.1**	**0.9**	**4.8**	**4,215**	**0.8**	**1.6**	**0.7**	**2.7**	**3,002**
Total 2005	1.4	2.3	0.8	3.7	2,031	1.2	2.5	0.7	3.7	1,555

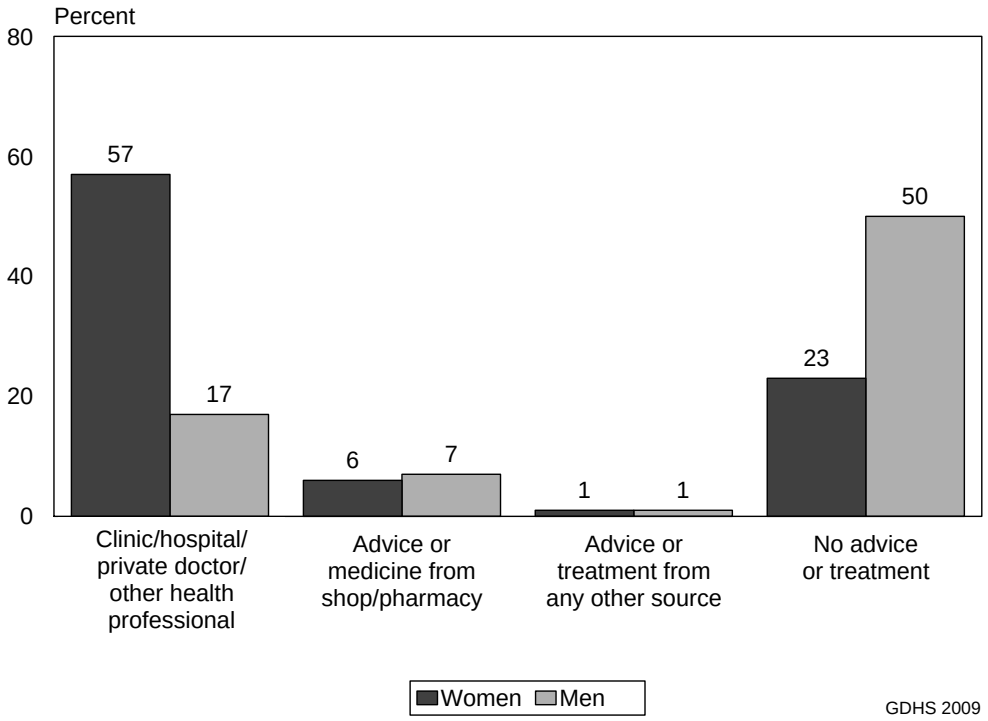
na = Not available

Note: *Currently married* includes respondents in consensual union (living together). *Formerly married* includes divorced, separated, or widowed.

Figure 13.3 shows the proportion of women and men who had an STI or symptoms of an STI who sought advice or treatment from various sources.

- About six in ten women (57 percent) and one in six men (17 percent) who had an STI or symptoms of an STI sought treatment from a health facility or health professional.
- About one in 13 women (6 percent) or men (7 percent) seeks treatment for their STIs or STI-related symptoms from a shop or a pharmacy.
- About one in four women (23 percent) and half of men (50 percent) did not seek any advice or treatment.
- It must be noted that there is a relatively high percentage of women (14 percent) and men (26 percent) with missing data on the source of advice or treatment for their STIs or STI-related symptoms (data not shown separately).

Figure 13.3 Women and Men Seeking Treatment for STIs



13.12 PREVALENCE OF MEDICAL INJECTIONS

Injection overuse in a health care setting can contribute to the transmission of blood-borne pathogens because it amplifies the effect of unsafe practices, such as reuse of injection equipment. To measure the potential risk of transmission of HIV associated with medical injections, respondents in the 2009 GDHS were asked if they had received an injection in the past 12 months, and if so, whether their last injection was given with a syringe from a new, unopened package. It should be noted that medical injections can be self-administered (e.g., insulin for diabetes). These injections were not included in the calculation. Results are shown in Table 13.13.

Table 13.13 Prevalence of medical injections

Percentage of women and men age 15-49 who received at least one medical injection in the past 12 months, the average number of medical injections per person in the past 12 months, and among those who received a medical injection, the percentage of last medical injections for which the syringe and needle were taken from a new, unopened package, by background characteristics, Guyana 2009

	Women					Men				
Background Characteristic	Percentage who received a medical injection in the past 12 months	Average number of medical injections per person in the past 12 months	Number of women	For last injection, syringe and needle taken from a new, unopened package	Number of women who received a medical injection in the past 12 months	Percentage who received a medical injection in the past 12 months	Average number of medical injections per person in the past 12 months	Number of men	For last injection, syringe and needle taken from a new, unopened package	Number of men who received a medical injection in the past 12 months
Age										
15-24	23.8	0.7	1,783	95.1	425	21.7	0.5	1,200	95.9	260
15-19	20.4	0.6	1,016	93.7	208	22.3	0.5	689	95.7	153
20-24	28.3	0.8	767	96.5	217	20.9	0.6	511	96.3	107
25-29	29.6	1.1	658	97.2	195	22.7	1.1	462	98.4	105
30-39	25.4	1.0	1,342	96.4	341	24.2	1.1	990	94.4	240
40-49	27.3	1.3	1,213	93.8	331	26.2	1.3	870	95.0	228
Residence										
Total Urban	25.6	1.1	1,475	95.5	378	22.6	0.8	949	95.0	215
Georgetown (urban)	23.1	1.1	967	94.6	223	20.8	0.7	619	96.6	129
Other (urban)	30.4	1.2	508	96.8	154	26.0	1.1	330	92.6	86
Total Rural	26.0	0.9	3,521	95.4	914	24.1	1.0	2,573	95.7	619
Total Coastal	24.9	0.9	4,495	95.5	1,119	23.2	1.0	3,126	95.6	724
Coastal (urban)	25.6	1.1	1,475	95.5	378	22.6	0.8	949	95.0	215
Coastal (rural)	24.5	0.9	3,019	95.5	741	23.4	1.1	2,176	95.8	509
Interior	34.5	1.0	501	95.0	173	27.6	0.7	396	95.4	109
Region										
Region 1	33.9	0.5	162	94.2	55	21.6	0.7	160	(100.0)	34
Region 2	20.6	1.0	293	94.0	60	18.7	1.2	179	85.1	33
Region 3	24.9	0.8	687	97.6	171	21.6	1.3	420	96.1	91
Region 4	25.3	1.0	2,168	95.9	548	21.1	0.9	1,540	96.9	325
Region 5	21.3	0.9	353	92.3	75	27.6	0.9	271	96.1	75
Region 6	23.0	0.8	780	93.3	179	28.7	1.0	587	93.6	168
Region 7	38.9	1.3	104	96.4	40	31.0	0.9	61	90.7	19
Region 8	37.8	2.2	95	94.6	36	36.1	0.8	68	94.8	25
Region 9	28.1	0.5	78	90.6	22	38.5	0.9	57	94.4	22
Region 10	37.9	1.4	277	97.6	105	23.2	1.0	178	98.3	41
Education										
No education	18.7	0.4	68	*	13	26.3	3.0	60	*	16
Primary	26.5	1.2	952	94.2	252	23.6	1.4	711	93.1	168
Secondary	25.3	0.9	3,568	95.6	903	24.2	0.8	2,459	96.0	595
More than secondary	30.4	1.0	409	96.3	124	18.6	0.4	292	97.0	54
Wealth quintile										
Lowest	25.8	0.8	779	94.7	201	26.1	1.4	663	93.7	173
Second	24.5	0.9	957	93.8	234	24.3	1.2	679	94.5	165
Middle	26.8	0.9	1,025	94.9	275	22.7	0.7	723	98.9	165
Fourth	27.7	1.1	1,084	96.1	300	21.8	0.8	751	97.0	164
Highest	24.4	1.0	1,151	97.1	281	23.7	0.8	705	93.8	167
Total 2009	**25.9**	**1.0**	**4,996**	**95.4**	**1,292**	**23.7**	**1.0**	**3,522**	**95.5**	**833**
Total 2005	24.2	0.9	2,425	91.8	588	26.1	1.0	1,875	90.0	490

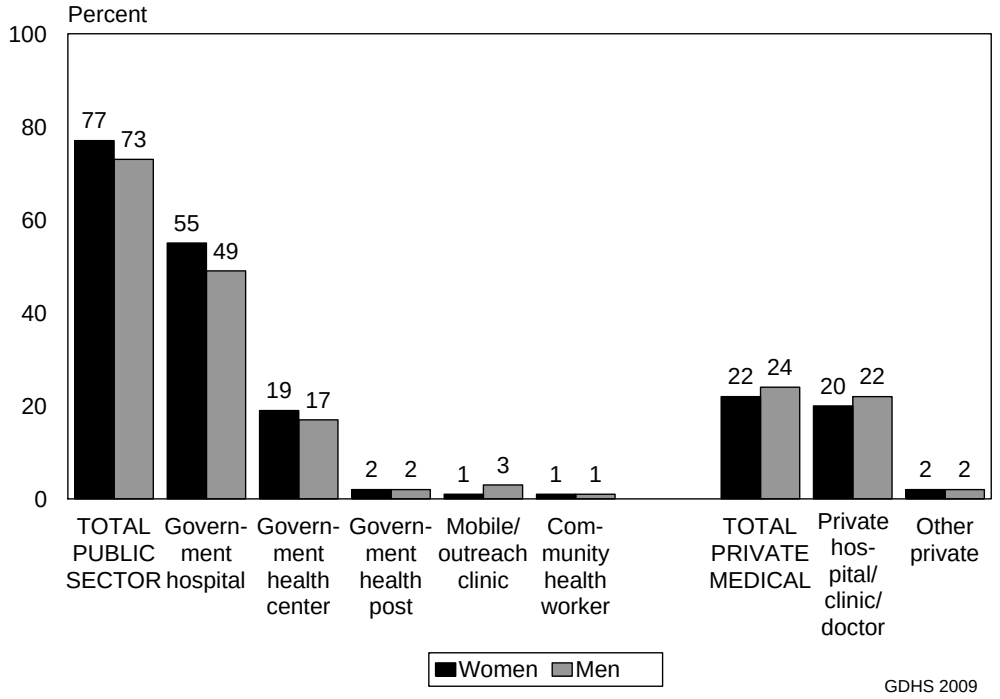
Note: Medical injections are those given by a doctor, nurse, pharmacist, dentist, or any other health worker. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

- Overall, about one in four women (26 percent) of women and men age 15-49 (24 percent) received a medical injection in the past 12 months. The average number of injections was about 1 among both women and men.
- The potential risk of transmission of HIV associated with such injections is very low because the vast majority of respondents—95 percent of women and 96 percent of men who received medical injections—reported that the syringe and needle were taken from a new, unopened package, with minor variations by background characteristics. These figures are encouraging for the Guyanese population and for the Ministry of Health because contaminated needles can be one means by which HIV is transmitted.
- The likelihood of receiving an injection in the past 12 months is highest among respondents in the Interior area (35 percent of women and 28 percent of men), women in Region 7 and men in Region 9 (39 percent, each), and women with more than secondary education (30 percent) and men with no education (26 percent).

Respondents who had received an injection in the past 12 months were asked where they obtained their last injection. Figure 13.4 shows the type of facility where the last medical injection was received.

- Overall, about three-fourths of women (77 percent) and men (73 percent) age 15-49 received their last medical injection from a public sector facility, the majority (55 percent of women and 49 percent of men) received it from a government hospital, followed by a government health center (19 percent of women and 17 percent of men).
- A total of 22 percent of women and 24 percent of men received their last injection from a private medical facility, mainly from a private hospital, clinic, or doctor (20 percent of women and 22 percent of men).

Figure 13.4 Type of Facility Where Last Medical Injection Was Received



13.13 HIV/AIDS-RELATED KNOWLEDGE AND SEXUAL BEHAVIOR AMONG YOUNG ADULTS

This section addresses knowledge of HIV/AIDS issues and related sexual behavior among youth age 15-24. Special attention is paid to this group because it accounts for half of all new HIV cases worldwide (Ross et al., 2006). In addition to knowledge of HIV transmission, results are presented on age at first sex, condom use, age differences between sexual partners, sex related to alcohol use, and voluntary counseling and testing for HIV.

13.13.1 HIV/AIDS-Related Knowledge among Young Adults

Young respondents were asked the same set of questions on beliefs about HIV transmission as other respondents. Information on the overall level of knowledge of major methods of avoiding HIV and the level of rejection of major misconceptions is shown in Tables 13.2, 13.3.1, and 13.3.2. These results indicate the general level of awareness of HIV prevention methods among young people.

Table 13.14 shows the level of the composite indicator, comprehensive knowledge about AIDS,[1] and knowledge of a source of condoms among young people, by background characteristics.

- About half of respondents age 15-24 (54 percent of women and 47 percent of men) have a comprehensive knowledge of AIDS, (i.e., know that people can reduce their chances of getting the AIDS virus by having sex with only one uninfected, faithful partner and by using condoms consistently; know that a healthy-looking person can have the AIDS virus; and know that HIV cannot be transmitted by mosquito bites or by supernatural means).
- The level of comprehensive knowledge substantially increases with age, education, and wealth status; knowledge is much higher among youth in Urban than in Rural areas and among youth living in the Coastal rather than in the Interior area. For example, 72 percent of young urban women have comprehensive knowledge about AIDS compared with 47 percent of young rural women. Further, comprehensive knowledge among young female respondents with more than secondary education is more than twice as high as among those with primary education (72 and 29 percent, respectively). The gap is even wider among male respondents (75 and 21 percent, respectively).
- General knowledge of formal condom sources is higher among young men than young women (87 and 79 percent, respectively). Consistent with trends in other indicators, knowledge of condom sources is higher among more educated, urban youth and among those in the highest wealth quintile. The difference in knowledge of source by education is the most dramatic, especially for young women. Sixty-three percent of women with primary education know a source, compared with 97 percent of women with more than secondary education. The comparable figures for men are 81 and 99 percent, respectively.

[1] Comprehensive knowledge means knowing that consistent use of condoms during sexual intercourse and having just one HIV-negative, faithful partner can reduce the chances of getting the AIDS virus, knowing that a healthy-looking person can have the AIDS virus, and rejecting the two most common local misconceptions about HIV/AIDS transmission or prevention. The components of comprehensive knowledge are presented in Tables 13.2, 13.3.1, and 13.3.2.

Table 13.14 Comprehensive knowledge about AIDS and of a source for condoms among youth

Percentage of young women and young men age 15-24 with comprehensive knowledge about AIDS and the percentage with knowledge of a source of condoms, by background characteristics, Guyana 2009

	Women age 15-24			Men age 15-24		
Background characteristic	Percentage with comprehensive knowledge of AIDS[1]	Percentage who know a condom source[2]	Number of women	Percentage with comprehensive knowledge of AIDS[1]	Percentage who know a condom source[2]	Number of men
Age						
15-19	53.1	74.6	1,016	44.5	82.4	689
15-17	51.2	71.9	597	42.1	77.9	451
18-19	55.7	78.5	420	49.1	90.9	238
20-24	55.4	85.7	767	49.4	92.5	511
20-22	56.6	84.7	496	49.0	91.8	312
23-24	53.2	87.6	271	50.2	93.4	199
Marital status						
Never married	57.7	79.1	1,155	47.6	86.1	1,026
Ever had sex	65.3	90.4	426	53.4	97.2	563
Never had sex	53.3	72.4	729	40.6	72.7	463
Ever married	47.4	80.0	628	40.9	90.1	174
Residence						
Total Urban	71.7	88.9	513	61.6	92.5	374
Georgetown (urban)	76.1	90.8	339	67.1	91.7	236
Other (urban)	63.1	85.2	174	52.3	94.0	138
Total Rural	47.0	75.6	1,270	39.8	84.0	826
Total Coastal	55.2	80.3	1,586	47.4	86.2	1,075
Coastal (urban)	71.7	88.9	513	61.6	92.5	374
Coastal (rural)	47.3	76.2	1,072	39.8	82.7	701
Total Interior	45.1	72.3	198	39.8	91.2	125
Region						
Region 1	33.3	56.9	75	30.7	94.9	58
Region 2	49.9	72.6	107	50.1	90.7	61
Region 3	55.9	76.2	256	34.3	74.9	149
Region 4	58.9	82.7	770	57.6	90.3	532
Region 5	43.1	76.8	121	21.8	81.2	93
Region 6	47.5	78.3	253	33.4	79.8	177
Region 7	62.5	85.3	42	54.1	88.7	19
Region 8	55.0	79.3	33	25.4	82.4	17
Region 9	32.4	71.2	24	(43.7)	(81.3)	14
Region 10	63.9	91.2	103	66.8	98.6	80
Education						
No education	*	*	14	*	*	14
Primary	28.9	62.8	171	20.8	81.2	107
Secondary	55.8	80.1	1,465	46.8	85.9	969
More than secondary	71.9	96.7	134	75.0	98.9	110
Wealth quintile						
Lowest	36.9	65.4	304	25.3	77.6	181
Second	46.8	76.0	371	42.4	82.2	229
Middle	55.2	79.7	367	39.8	87.8	289
Fourth	56.6	83.8	380	56.4	89.2	266
Highest	72.3	89.7	363	64.6	93.8	235
Total 2009	**54.1**	**79.4**	**1,783**	**46.6**	**86.7**	**1,200**
Total 2005	52.6	80.3	842	47.3	91.4	658

Note: *Ever married* includes respondents in consensual union (living together). 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] Comprehensive knowledge means knowing that use of a condom and having just one uninfected faithful partner can reduce the chance of getting the AIDS virus; knowing that a healthy-looking person can have the AIDS virus; and rejecting the two most common local misconceptions (transmission by mosquito bites and by sharing food with someone with AIDS). The components of comprehensive knowledge are presented in Tables 13.2, 13.3.1 and 13.3.2.

[2] The following categories are not considered sources for condoms: friends, family members, and home.

13.13.2 Age at First Sex

Age at first sexual intercourse is of particular interest given the fact that HIV is mainly transmitted through heterosexual contact. The 2009 GDHS gathered information on the timing of the first sexual intercourse for both men and women. Table 13.15 shows the percentage of young women and men who had sexual intercourse before age 15 and before age 18, by background characteristics.

- One in ten (10 percent) of women 15-24 and one in five (19 percent) of men age 15-24 had sex by age 15, up from 9 and 13 percent, respectively in the 2005 GAIS. The percentage of respondents 18-24 who had sex before exact age 18 increases rapidly to 46 percent for women and 60 percent for men, a decrease from 59 percent of women and 68 percent of men in the 2005 GAIS.
- As might be expected, the proportion of young women who had sex before exact ages of 15 and 18 is much higher among those who have ever been married than among those who have never been married. The relationship is similar for young men, but the gap is not as wide. Among women, those who know of a condom source are as likely to have sex by age 15 as those who do not have such knowledge (10 percent, each) but they are more likely to have sex by age 18 than those who do not know of a condom source (48 and 37 percent, respectively). Among men, those who know of a condom source are much more likely to have sexual intercourse by age 15 (21 percent) or by age 18 (64 percent) than those who do not know of a condom source (7 and 23 percent, respectively).
- Urban women are less likely to have sexual intercourse by age 15 (6 percent) or by age 18 (45 percent) than their Rural area counterparts (12 and 47 percent, respectively), and women in Coastal areas are less likely to have sexual intercourse by age 15 (9 percent) or by age 18 (44 percent) than those living in the Interior area (22 and 64 percent, respectively). Among men, however, those living in Urban areas are more likely to have sex by age 15 or by age 18 than men in Rural areas, while the Coastal area-Interior area pattern is similar to that for women, with men in the Coastal area being more likely to have sex by age 15 or 18 than those in the Interior area.
- Across regions, young women and men in Region 1 (30 and 44 percent, respectively) are the most likely to have had their sexual debut by age 15. Young women in Region 8 (72 percent) and young men in Region 1 (80 percent) are the most likely to have had sex by age 18. Young women in Regions 3 and 5 (6 percent, each) and young men in Region 2 (9 percent) are the least likely to have had sex by age 15. Finally, young women in Region 3 (36 percent) and young men in Region 6 (42 percent) are the least likely to have had sexual intercourse by age 15.
- For young women, higher educational attainment is associated with a lower likelihood of initiating sexual intercourse at an early age. For example, whereas 28 percent of women age 15-24 with primary education had sex by age 15, only 8 percent of women with more than secondary education had sex by age 15. The proportion of young women initiating sex by age 15 and 18 is lowest among women in the highest wealth quintile. The relationship between early initiation of sex and level of education or wealth quintile seen among young women is less apparent among young men, and the percentages do not follow a clear pattern.

Table 13.15 Age at first sexual intercourse among youth

Percentage of young women and men age 15-24 who had sexual intercourse by exact ages 15 and 18, by background characteristics, Guyana 2009

Background characteristic	Women age 15-24		Women age 18-24		Men age 15-24		Men age 18-24	
	Percentage who had sexual intercourse before exact age 15	Number of women	Percentage who had sexual intercourse before exact age 18	Number of women	Percentage who had sexual intercourse before exact age 15	Number of men	Percentage who had sexual intercourse before exact age 18	Number of men
Age								
15-19	10.3	1,016	na	na	15.7	689	na	na
15-17	8.4	597	na	na	14.8	451	na	na
18-19	13.0	420	46.0	420	17.6	238	55.7	238
20-24	9.8	767	46.1	767	23.2	511	62.6	511
20-22	9.4	496	47.1	496	20.7	312	56.4	312
23-24	10.6	271	44.1	271	27.0	199	72.2	199
Marital status								
Never married	4.9	1,155	28.7	608	17.4	1,026	57.5	575
Ever married	19.7	628	64.3	578	27.9	174	69.9	174
Knows condom source[1]								
Yes	10.1	1,416	47.9	987	20.7	1,040	63.7	688
No	10.1	367	37.2	200	7.2	160	22.6	60
Residence								
Total Urban	5.5	513	44.8	323	20.3	374	65.3	225
Georgetown (urban)	4.8	339	45.4	225	19.3	236	72.0	144
Other (urban)	6.8	174	43.3	98	22.1	138	53.4	81
Total Rural	12.0	1,270	46.5	864	18.2	826	58.3	524
Total Coastal	8.6	1,586	43.7	1,049	17.2	1,075	58.6	663
Coastal (urban)	5.5	513	44.8	323	20.3	374	65.3	225
Coastal (rural)	10.0	1,072	43.3	726	15.6	701	55.2	438
Total Interior	22.4	198	63.6	138	33.2	125	73.9	86
Region								
Region 1	30.1	75	66.5	55	44.0	58	79.8	45
Region 2	16.7	107	48.5	63	9.4	61	47.1	34
Region 3	5.5	256	35.9	178	16.2	149	57.7	91
Region 4	9.0	770	45.7	526	19.0	532	65.5	333
Region 5	5.9	121	44.2	78	18.6	93	54.6	61
Region 6	8.9	253	42.8	159	9.5	177	41.6	110
Region 7	13.0	42	46.3	28	17.1	19	(65.5)	11
Region 8	27.1	33	72.2	24	21.9	17	(62.1)	11
Region 9	16.3	24	57.1	17	(26.5)	14	*	7
Region 10	8.1	103	55.2	61	31.8	80	68.1	47
Education								
No education	*	14	*	6	*	14	*	11
Primary	27.7	171	65.6	138	25.0	107	56.2	77
Secondary	8.0	1,465	44.2	916	18.3	969	61.3	556
More than secondary	7.6	134	36.2	127	17.5	110	60.0	105
Wealth quintile								
Lowest	24.4	304	66.0	197	27.2	181	65.9	118
Second	10.7	371	53.4	250	22.5	229	63.3	136
Middle	6.9	367	43.9	261	22.7	289	54.3	173
Fourth	6.2	380	38.7	246	12.7	266	53.5	165
Highest	4.9	363	31.7	234	11.4	235	67.6	157
Total 2009	**10.1**	**1,783**	**46.1**	**1,187**	**18.9**	**1,200**	**60.4**	**749**
Total 2005	8.6	842	58.6	538	12.9	658	68.0	403

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. *Ever married* includes respondents in consensual union (living together).
na = Not applicable
[1] The following categories are not considered sources for condoms: friends, family members, and home.

13.13.3 Condom Use at First Sex

Consistent condom use is advocated by HIV control programs to reduce the risk of sexual transmission of HIV among sexually active young adults. Young adults who use condoms the first time they have sexual intercourse are more likely to sustain condom use later in life. Condom use at first sex serves as an indicator of reduced risk of exposure at the beginning of sexual activity. To assess the extent of condom use from the beginning of sexual exposure, respondents age 15-24 were asked whether they used condoms the first time they had sex. Results are shown in Table 13.16 by background characteristics.

- Condom use at first sex is not very common in Guyana. Among young adults age 15-24 who have ever had sexual intercourse, only 46 percent of females and 54 percent of males used a condom the first time they had sex. Never-married women and men (63 and 59 percent, respectively) are much more likely to use a condom at first sex than those who have been married (34 and 35 percent, respectively). It is also markedly more common among respondents who know where to obtain a condom (49 percent of women and 55 percent of men) than those who do not have such knowledge (27 percent of women and 25 percent of men).
- Young women and men who live in Urban areas (62 and 59 percent, respectively), in the Coastal area (47 and 56 percent, respectively) and in Region 10 (73 and 66 percent, respectively) are more likely to use a condom at first sex than other young adults.
- As expected, young women and men with more than secondary education (68 and 58 percent, respectively) and in the highest quintiles (64 and 58 percent, respectively) are the most likely to use a condom at first sex than those with less or no education or in the lowest wealth quintiles.

Table 13.16 Condom use at first sexual intercourse among youth

Among young women and young men age 15-24 who have ever had sexual intercourse, the percentage who used a condom the first time they had sexual intercourse, by background characteristics, Guyana 2009

Background characteristic	Women age 15-24		Men age 15-24	
	Percentage who used a condom at first sexual intercourse	Number of women who have ever had sexual intercourse	Percentage who used a condom at first sexual intercourse	Number of men who have ever had sexual intercourse
Age				
15-19	46.3	390	59.7	284
15-17	46.1	139	57.0	131
18-19	46.5	251	62.0	152
20-24	45.5	663	49.6	454
20-22	47.2	409	54.9	261
23-24	42.6	254	42.4	193
Marital status				
Never married	63.3	426	59.2	563
Ever married	33.9	627	34.9	174
Knows condom source[1]				
Yes	49.4	888	54.8	704
No	26.6	165	(24.7)	33
Residence				
Total Urban	61.5	283	58.5	240
Georgetown (urban)	60.2	193	51.6	154
Other (urban)	64.4	90	70.8	86
Total Rural	40.0	769	51.1	497
Total Coastal	47.1	897	56.3	643
Coastal (urban)	61.5	283	58.5	240
Coastal (rural)	40.5	614	55.0	403
Total Interior	38.1	156	34.1	94
Region				
Region 1	23.2	64	31.1	49
Region 2	29.1	62	43.5	33
Region 3	48.4	138	50.2	83
Region 4	50.7	458	59.4	338
Region 5	43.5	65	47.3	54
Region 6	31.1	126	52.4	89
Region 7	43.5	30	(44.3)	13
Region 8	58.5	28	(17.4)	10
Region 9	38.9	17	(38.3)	9
Region 10	72.7	64	66.1	59
Education				
No education	*	12	*	11
Primary	18.1	127	34.8	71
Secondary	48.2	821	55.6	565
More than secondary	67.8	93	58.4	90
Wealth quintile				
Lowest	31.3	224	34.9	119
Second	39.0	234	52.7	145
Middle	40.9	206	59.1	173
Fourth	57.7	207	57.8	155
Highest	64.2	182	58.1	145
Total 2009	**45.8**	**1,053**	**53.5**	**737**
Total 2005	43.2	484	54.8	381

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. *Ever married* includes respondents in consensual union (living together).

[1] The following categories are not considered sources for condoms: friends, family members, and home.

13.13.4 Abstinence and Premarital Sex

The period between age at first sex and age at marriage is often a time of sexual experimentation. Premarital sex and the length of the interval between sexual initiation and marriage are among the factors contributing to the spread of HIV. Table 13.17 shows, for never-married women and men age 15-24, the percentage who have never had sexual intercourse, the percentage who had sex in the past 12 months, and among those who had sex in the past 12 months, the percentage who used a condom at last sexual intercourse.

- In Guyana, never-married young adults age 15-24 show a relatively high level of abstinence: 63 percent of women and 45 percent of men in this age group have never had sexual intercourse. About three in ten (29 percent) of all never-married women age 15-24 and more than four in ten men (45 percent) of never-married men age 15-24 had sexual intercourse in the 12 months preceding the survey.
- Abstinence among unmarried youth decreases with age and is significantly higher among those who do not know of a condom source. Abstinence is much higher among women age 15-24 in rural areas than in urban areas (66 percent versus 57 percent) and those in the Interior area compared with women in the Coastal area (65 percent versus 47 percent). Similar patterns are observed among men. Abstinence is significantly more common among youth with less education. There is no strong relationship between premarital abstinence and wealth among youth.
- About six in ten never-married women (59 percent) reported using a condom at last sexual intercourse in the past 12 months (a decrease from 64 percent in the 2005 GAIS), as did eight in ten (80 percent) of the young men (an increase from 70 percent in the 2005 GAIS). Condom use at last sexual intercourse is highest among the 18-19 year-olds; it is higher among women who know where to obtain a condom (number of cases is too small for men to make meaningful comparisons), and it is higher among youth in urban than in rural areas. There is no clear pattern in the relationship between condom use at last sexual intercourse and education or wealth.

Table 13.17 Premarital sexual intercourse in the past year and condom use during premarital sexual intercourse among youth

Among never-married women and men age 15-24, percentage who have never had sexual intercourse and percentage who have had sexual intercourse in the past 12 months; and among those who have had premarital sexual intercourse in the past 12 months, percentage who used a condom at last sexual intercourse, by background characteristics, Guyana 2009

	Never-married women age 15-24					Never-married men age 15-24				
Background characteristic	Percentage who have never had sexual intercourse	Percentage who had sexual intercourse in the past 12 months	Number of never-married women	Percentage who used a condom at last sexual intercourse	Number of women who had sexual intercourse in the past 12 months	Percentage who have never had sexual intercourse	Percentage who had sexual intercourse in the past 12 months	Number of never-married men	Percentage who used a condom at last sexual intercourse	Number of men who had sexual intercourse in the past 12 months
Age										
15-19	75.5	18.8	827	62.4	156	59.8	30.4	679	85.5	206
15-17	83.8	11.6	547	54.5	63	71.0	20.6	451	79.3	93
18-19	59.4	32.8	281	67.9	92	37.4	49.8	228	90.7	114
20-24	31.8	55.3	328	55.5	181	16.5	73.7	347	75.2	256
20-22	36.2	50.5	242	57.0	122	20.8	70.8	245	74.0	173
23-24	19.5	68.8	86	52.5	59	6.3	80.6	102	77.7	82
Knows condom source[1]										
Yes	57.8	33.9	913	59.6	310	38.1	50.8	883	80.6	449
No	83.1	11.2	242	(48.4)	27	88.8	9.2	143	*	13
Residence										
Total Urban	57.2	33.8	402	69.1	136	39.6	53.3	339	83.8	181
Georgetown (urban)	54.6	36.4	267	67.8	97	38.2	55.8	215	81.2	120
Other (urban)	62.3	28.5	135	72.5	38	42.1	49.0	124	89.1	61
Rural	66.3	26.7	753	51.7	201	47.8	41.0	686	77.3	281
Total Coastal	64.5	28.2	1,066	58.7	301	46.4	43.8	932	81.3	408
Coastal (urban)	57.2	33.8	402	69.1	136	39.6	53.3	339	83.8	181
Coastal (rural)	68.9	24.8	664	50.1	165	50.3	38.4	592	79.3	227
Total Interior	46.8	40.7	90	58.8	36	32.5	57.0	94	68.5	54
Region										
Region 1	49.7	39.2	21	*	8	22.3	70.2	40	(64.2)	28
Region 2	71.9	22.4	62	*	14	52.1	35.1	54	(75.9)	19
Region 3	72.5	22.9	162	(61.8)	37	52.2	41.7	126	(63.1)	52
Region 4	58.6	34.5	533	60.6	184	41.4	49.1	467	85.4	230
Region 5	63.9	20.1	86	*	17	49.1	33.0	81	(91.1)	27
Region 6	80.4	14.6	156	(46.7)	23	60.8	31.4	145	68.3	46
Region 7	46.4	41.5	28	(51.3)	11	(33.3)	55.1	17	(64.3)	9
Region 8	(39.2)	(44.2)	14	*	6	(62.0)	31.5	11	*	4
Region 9	53.0	36.9	14	*	5	(44.8)	38.1	12	*	5
Region 10	48.1	39.2	80	77.1	31	29.0	59.5	74	90.9	44
Education										
No education	*	*	3	*	1	*	*	5	*	2
Primary	72.4	20.3	61	*	12	49.2	40.4	72	(55.2)	29
Secondary	65.4	27.3	982	61.0	268	47.5	43.0	851	81.7	366
More than secondary	37.7	50.7	109	(45.8)	55	21.0	67.0	97	79.7	65
Wealth quintile										
Lowest	59.9	28.8	133	57.8	38	47.1	43.4	133	73.0	58
Second	63.3	31.1	215	66.2	67	43.7	44.5	192	83.0	86
Middle	66.1	26.0	241	59.2	63	46.3	41.0	250	77.2	103
Fourth	63.5	29.2	272	56.9	79	46.7	44.9	237	78.8	107
Highest	61.5	30.6	294	54.7	90	42.1	51.4	213	84.4	110
Total 2009	**63.1**	**29.2**	**1,155**	**58.7**	**337**	**45.1**	**45.0**	**1,026**	**79.8**	**462**
Total 2005	65.2	27.4	548	63.9	150	48.0	40.4	579	69.9	234

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] The following categories are not considered sources for condoms: friends, family members, and home.

13.13.5 Higher-Risk Sex and Condom Use among Young Adults

The most common means of transmission of HIV in Guyana is through unprotected sex with a person who is HIV positive. To prevent HIV/AIDS transmission, it is important that young people practice the recommended ABC methods regarding safe sex (abstinence, being faithful to one HIV-negative partner, and condom use).

Table 13.18 shows for young women and men age 15-24 who were sexually active in the 12 months preceding the survey, the proportion who engaged in higher-risk sex[2] during this period. The table also shows, for those who engaged in higher-risk sex, the proportion who used a condom at last higher-risk sex.

- The results indicate that higher-risk sex is more common among young men (80 percent) than among young women (42 percent) who had sexual intercourse in the past 12 months. Condom use at last higher-risk sexual intercourse is also higher among young men (78 percent) than young women (56 percent).
- Higher-risk sex is more prevalent among younger respondents and among those who have never married. This is expected because higher-risk sex is, by definition, sexual intercourse with a non-marital partner, and older respondents are more likely to be married. It is also higher among youth who know of a condom source. Urban women age 15-24 are more likely to have higher-risk sexual intercourse than rural women (67 and 34 percent, respectively), and young women living in the Coastal area are more likely than those living in the Interior area to have higher-risk sexual intercourse (44 and 32 percent, respectively). The same pattern is seen for men, but the differences are less pronounced. Higher-risk sexual intercourse is most prevalent among young women and men in Region 10 (66 percent of women and 92 percent of men). The proportion of young people age 15-24 who reported higher-risk sexual intercourse in the 12 months preceding the survey increases with level of education and wealth quintile. Condom use at the last higher-risk sex generally follows the same patterns.

[2] Sexual intercourse with a non-marital, non-cohabiting partner

Table 13.18 Higher-risk sexual intercourse among youth and condom use at last higher-risk intercourse in the past 12 months

Among young women and men age 15-24 who had sexual intercourse in the past 12 months, the percentage who had higher-risk sexual intercourse in the past 12 months, and among those having higher-risk intercourse in the past 12 months, the percentage reporting that a condom was used at last higher-risk intercourse, by background characteristics, Guyana 2009

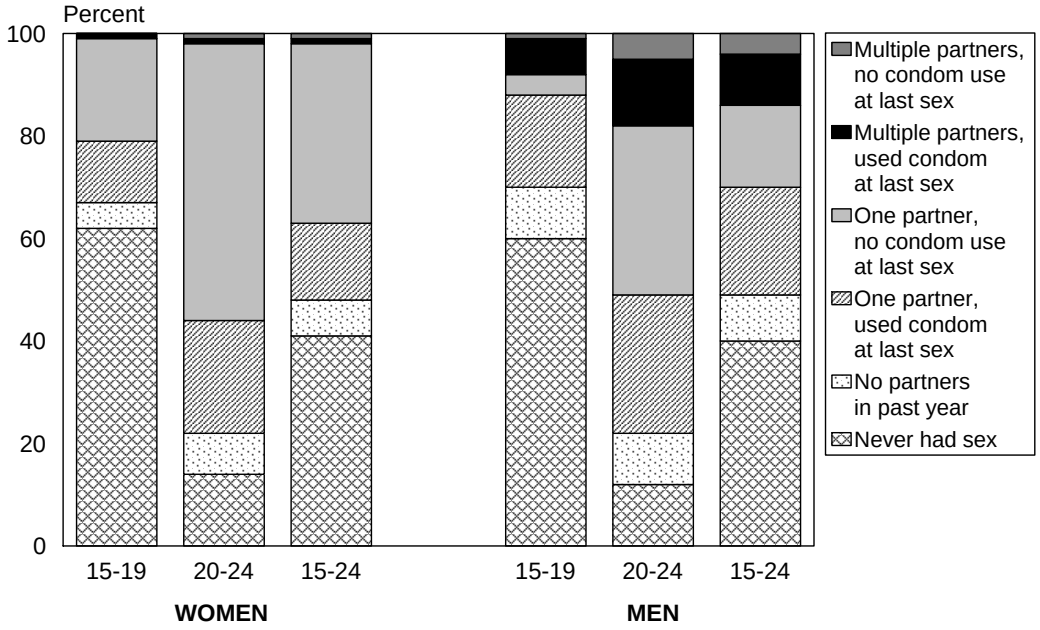
	Women age 15-24				Men age 15-24			
Background characteristic	Percentage who had higher-risk intercourse in the past 12 months	Number of women who had sexual intercourse in the past 12 months	Percentage who reported using a condom at last higher-risk intercourse	Number of women who had higher-risk intercourse in the past 12 months	Percentage who had higher-risk intercourse in the past 12 months	Number of men who had sexual intercourse in the past 12 months	Percentage who reported using a condom at last higher-risk intercourse	Number of men who had higher-risk intercourse in the past 12 months
Age								
15-19	52.1	337	58.9	176	96.7	216	85.2	208
15-17	62.9	113	53.1	71	99.4	93	79.3	93
18-19	46.7	224	62.9	104	94.6	122	89.9	116
20-24	36.9	602	53.3	222	70.6	416	73.3	294
20-22	40.0	369	56.6	148	75.9	239	75.4	181
23-24	32.0	233	46.7	75	63.5	177	69.9	113
Marital status								
Never married	100.0	337	58.7	337	100.0	462	80.3	462
Ever married	10.1	602	39.4	61	23.7	170	(54.7)	40
Knows condom source[1]								
Yes	46.0	796	56.5	366	81.0	601	79.1	487
No	22.4	143	(47.0)	32	(49.6)	30	*	15
Residence								
Total Urban	67.0	241	66.9	162	89.6	214	81.9	192
Georgetown (urban)	72.4	166	65.3	120	92.4	140	78.8	129
Other (urban)	55.0	75	71.6	41	84.4	75	88.3	63
Total Rural	33.9	698	48.1	236	74.3	417	75.9	310
Total Coastal	44.3	797	56.0	353	80.5	548	79.6	441
Coastal (urban)	67.0	241	66.9	162	89.6	214	81.9	192
Coastal (rural)	34.4	556	46.7	191	74.7	334	77.7	249
Total Interior	31.8	142	54.0	45	73.0	83	68.5	61
Region								
Region 1	16.9	61	*	10	69.9	45	(66.1)	32
Region 2	26.6	58	*	15	72.2	26	(75.9)	19
Region 3	35.3	126	(57.7)	44	78.5	76	(60.9)	59
Region 4	53.6	414	57.1)	222	85.1	293	83.1	249
Region 5	37.2	49	*	18	(75.8)	39	(89.7)	30
Region 6	22.4	113	(42.0)	25	62.9)	75	69.5	47
Region 7	50.8	26	(50.7)	13	(80.1	11	(64.3)	9
Region 8	35.5	25	*	9	(70.0)	9	*	6
Region 9	39.0	14	*	6	*	6	*	5
Region 10	65.6	53	74.5	35	91.5	50	89.7	46
Education								
No education	*	12	*	1	*	10	*	4
Primary	13.7	121	*	17	57.7	64	(59.6)	37
Secondary	43.7	727	57.8	318	81.5	480	80.1	391
More than secondary	78.7	79	46.5	62	90.4	77	79.9	70
Wealth quintile								
Lowest	26.2	204	44.5	53	61.8	105	72.5	65
Second	38.1	217	63.9	83	74.7	122	83.3	91
Middle	36.5	182	59.2	66	82.7	141	74.3	116
Fourth	49.1	185	53.3	91	84.2	134	78.5	113
Highest	69.2	151	55.1	104	90.1	130	81.1	117
Total 2009	**42.4**	**939**	**55.8**	**398**	**79.5**	**632**	**78.2**	**502**
Total 2005	40.4	436	61.6	176	80.5	312	67.6	251

Note: *Ever married* includes respondents in consensual union (living together). 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] The following categories are not considered sources for condoms: friends, family members, and home.

Figure 13.5 presents the findings on the extent of both risky and safe sex practices among young people in Guyana.

- About four in ten women (41 percent) and men age 15-24 (39 percent) have never had sex, and an additional 6 percent of women and 9 percent of men have had sex but not in the 12 months before the survey.
- Although 16 percent of women and 23 percent of men age 15-24 say they had sex with only one partner in the past 12 months and that they used a condom the last time, a significant proportion of young women (35 percent) and men (17 percent) had only one partner in the past year but did not use a condom the last time they had sexual intercourse.
- The proportion of young people who had multiple sexual partners in the past 12 months is not large—1 percent of women and 12 percent of men. Overall, less than 1 percent of young women and 3 percent of young men who had sex with more than one partner in the past 12 months did not use a condom the last time they had sex.

Figure 13.5 Abstinence, Being Faithful, and Condom Use (ABC) among Young Women and Men Age 15-24



Note: Number of partners refers to the 12 months preceding the survey.

GDHS 2009

13.13.6 Age Mixing in Sexual Relationships among Women

In many societies, young women have sexual relationships with men who are considerably older than they are. This practice can contribute to the spread of HIV and other STIs because if a younger, HIV-negative partner has sexual intercourse with an older, HIV-positive partner, the virus can be introduced into a younger, HIV-negative cohort. To examine age differences between sexual partners, women age 15-19 who had sex in the 12 months preceding the survey with someone other than their husband or live-in partner were asked the age of such partners. In the event they did not know a partner's exact age, they were asked if the partner was older or younger than they were and, if older, whether the partner was 10 or more years older.

Table 13.19 shows the percentage of women age 15-19 who had higher-risk sexual intercourse in the past 12 months with a man who was 10 or more years older, by background characteristics.

Table 13.19 Age mixing in sexual relationships among women age 15-19

Percentage of women age 15-19 who had higher-risk sexual intercourse in the past 12 months with a man who was 10 or more years older, by background characteristics, Guyana 2009

Background characteristic	Percentage of women who had higher-risk intercourse with a man 10+ years older[1]	Number of women who had higher-risk intercourse in the past 12 months
Age		
15-17	3.5	71
18-19	9.8	104
Marital status		
Never married	3.6	156
Ever married	*	20
Knows condom source[2]		
Yes	8.2	155
No	(0.0)	21
Residence		
Total Urban	3.8	63
Georgetown (urban)	(3.7)	41
Other (urban)	(4.0)	21
Total Rural	9.1	113
Total Coastal	7.3	150
Coastal (urban)	3.8	63
Coastal (rural)	9.8	87
Total Interior	6.9	26
Education		
Primary	*	11
Secondary	5.6	159
More than secondary	*	6
Wealth quintile		
Lowest	14.4	39
Second	(8.7)	34
Middle	(2.7)	32
Fourth	(6.6)	32
Highest	(2.9)	38
Total 15-19		
2009	**7.2**	**176**
2005	8.3	87
Total 15-24[3]		
2009	**9.8**	**398**
2005	4.6	436

Note: *Ever married* includes respondents in consensual union (living together). Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

[1] Sexual intercourse with a partner who neither was a spouse nor who lived with the respondent [2] The following categories are not considered sources for condoms: friends, family members, and home.

[3] This indicator is calculated for women 15-24 and includes all partners (higher-risk and non higher-risk partners) who are older by 10 or more years.

- One in ten women age 15-19 (10 percent) reported higher-risk sex with a man 10 or more years older than themselves in the past 12 months.
- A larger proportion of women age 18-19 (10 percent) than those age 15-17 (4 percent) reported having sexual intercourse with a man 10 or more years older in the past 12 months.
- Young rural women are more likely than urban women to have sexual intercourse with a man 10 or more years their senior over the past 12 months (9 percent versus 4 percent).
- There is no clear relationship between wealth index with the likelihood of engaging in age-mixing in sexual partnerships. Differences by education cannot be analyzed due to the small number of cases.

13.13.7 Drunkenness during Sex among Young Adults

Engaging in sexual intercourse while under the influence of alcohol can impair judgment, compromise power relations, and increase risky sexual behavior. Respondents who had sex in the 12 months preceding the survey were asked (for each partner) if they or their partner drank alcohol the last time they had sexual intercourse with that partner, and whether they or their partner was drunk.

Table 13.20 shows the results by background characteristics.

- The data show that very few young people (less than 1 percent of women and 3 percent of men) reported being drunk during their last sexual intercourse, and only 1 percent of young women and 3 percent of young men said that either they or their partners were drunk.
- There is little variation by background characteristics of respondents.

Table 13.20 Drunkenness during sexual intercourse among youth

Percentage of young women and young men age 15-24 who had sexual intercourse in the past 12 months while being drunk, and percentage who had sexual intercourse in the past 12 months when drunk or with a partner who was drunk, by background characteristics, Guyana 2009

	Women 15-24			Men 15-24		
Background characteristic	Percentage who had sexual intercourse in the past 12 months when drunk	Percentage who had sexual intercourse in the past 12 months when drunk or with a partner who was drunk	Number of women	Percentage who had sexual intercourse in the past 12 months when drunk	Percentage who had sexual intercourse in the past 12 months when drunk or with partner who was drunk	Number of men
Age						
15-19	0.2	1.0	1,016	2.3	2.3	689
15-17	0.0	0.7	597	1.7	1.7	451
18-19	0.4	1.5	420	3.4	3.4	238
20-24	0.3	1.2	767	4.3	4.9	511
20-22	0.4	1.6	496	4.9	5.6	312
23-24	0.1	0.7	271	3.3	3.6	199
Marital status						
Never married	0.0	0.7	1,155	3.1	3.3	1,026
Ever married	0.5	1.9	628	3.7	4.1	174
Knows condom source[1]						
Yes	0.3	1.2	1,416	3.6	3.9	1,040
No	0.0	0.7	367	0.0	0.0	160
Residence						
Total Urban	0.0	0.2	513	3.5	3.7	374
Georgetown (urban)	0.0	0.0	339	3.2	3.2	236
Other (urban)	0.0	0.5	174	3.9	4.5	138
Total Rural	0.3	1.5	1,270	3.0	3.3	826
Total Coastal	0.2	1.0	1,586	3.3	3.5	1,075
Coastal (urban)	0.0	0.2	513	3.5	3.7	374
Coastal (rural)	0.2	1.5	1,072	3.1	3.5	701
Total Interior	0.7	1.6	198	2.2	2.2	125
Region						
Region 1	0.4	1.3	75	0.7	0.7	58
Region 2	0.0	2.4	107	1.3	1.3	61
Region 3	0.0	2.3	256	6.3	6.3	149
Region 4	0.0	0.5	770	2.3	2.6	532
Region 5	0.0	0.0	121	4.6	5.2	93
Region 6	1.0	1.9	253	3.3	3.3	177
Region 7	1.4	2.1	42	0.0	0.0	19
Region 8	0.0	0.5	33	8.6	8.6	17
Region 9	1.9	4.8	24	(6.0)	(6.0)	14
Region 10	0.0	0.0	103	2.8	3.8	80
Education						
No education	*	*	14	*	*	14
Primary	0.2	2.3	171	3.2	3.2	107
Secondary	0.2	0.8	1,465	3.4	3.6	969
More than secondary	0.0	1.6	134	1.5	2.2	110
Wealth quintile						
Lowest	0.3	2.6	304	2.5	2.5	181
Second	0.0	0.6	371	3.6	3.6	229
Middle	0.4	0.8	367	3.0	3.0	289
Fourth	0.0	1.2	380	2.4	2.6	266
Highest	0.4	0.7	363	4.2	5.2	235
Total 2009	**0.2**	**1.1**	**1,783**	**3.1**	**3.4**	**1,200**
Total 2005	0.1	1.4	842	0.7	1.2	658

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. *Ever married* includes respondents in consensual union (living together).

[1] The following categories are not considered sources for condoms: friends, family members, and home.

13.13.8 Recent HIV Testing among Youth

Young people may feel that there are barriers to accessing and using many services and facilities, particularly for sensitive concerns relating to sexual health, including sexually transmitted infections, such as HIV/AIDS. Table 13.21 shows the percentage who had an HIV test in the past 12 months and received the results of the test, among young women and young men age 15-24 who had sexual intercourse in the past 12 months, by background characteristics.

- Overall, a larger proportion of sexually active young women (43 percent) than young men (28 percent) reported having an HIV test with test results in the 12 months preceding the survey.
- Recent HIV testing is less common among youth age 15-17 than among older youth, those who are ever married than those who are never married, and those living in Rural areas compared with those living in Urban areas. It is also much more common among young people who say they know a source for condoms than for those who do not know of a condom source.
- For young women, recent HIV testing ranges from 26 percent in Region 9 to 57 percent in Region 8, while for men the number of cases is relatively small and does not allow meaningful comparisons.
- Recent HIV testing among youth is lowest among youth with no or little education and those in the lowest wealth quintile.

Table 13.21 Recent HIV tests among youth

Among young women and young men age 15-24 who had sexual intercourse in the past 12 months, the percentage who had an HIV test in the past 12 months and received the results of the test, by background characteristics, Guyana 2009

Background characteristic	Women age 15-24 who have had sex in the past 12 months: Percentage who had been tested and received results in the past 12 months	Number of women	Men age 15-24 who have had sex in the past 12 months: Percentage who had been tested and received results in the past 12 months	Number of men
Age				
15-19	42.7	337	30.2	216
15-17	36.9	113	23.3	93
18-19	45.7	224	35.5	122
20-24	43.7	602	26.7	416
20-22	45.7	369	23.5	239
23-24	40.6	233	31.1	177
Marital status				
Never married	47.4	337	30.4	462
Ever married	41.1	602	21.3	170
Knows condom source[1]				
Yes	45.6	796	28.7	601
No	31.0	143	12.6	30
Residence				
Total Urban	51.2	241	35.0	214
Georgetown (urban)	56.4	166	38.1	140
Other (urban)	39.7	75	29.1	75
Total Rural	40.7	698	24.3	417
Total Coastal	43.2	797	28.9	548
Coastal (urban)	51.2	241	35.0	214
Coastal (rural)	39.7	556	25.0	334
Total Interior	44.3	142	21.7	83
Region				
Region 1	36.7	61	12.7	45
Region 2	44.0	58	28.4	26
Region 3	38.5	126	15.3	76
Region 4	50.6	414	35.4	293
Region 5	34.2	49	(16.7)	39
Region 6	27.0	113	24.4	75
Region 7	52.0	26	(31.0)	11
Region 8	56.9	25	(25.1)	9
Region 9	26.3	14	*	6
Region 10	43.1	53	30.5	50
Education				
No education	*	12	*	10
Primary	37.5	121	12.9	64
Secondary	44.1	727	27.6	480
More than secondary	47.3	79	44.8	77
Wealth quintile				
Lowest	39.6	204	19.2	105
Second	45.6	217	26.8	122
Middle	41.0	182	25.2	141
Fourth	42.7	185	34.9	134
Highest	48.8	151	31.8	130
Total 2009	**43.4**	**939**	**27.9**	**632**
Total 2005	21.9	436	15.4	312

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. *Ever married* includes respondents in consensual union (living together).

[1] The following categories are not considered sources for condoms: friends, family members, and home.

WOMEN'S EMPOWERMENT AND DEMOGRAPHIC AND HEALTH OUTCOMES 14

The 2009 Guyana Demographic and Health Survey (2009 GDHS) collected information specific to women's empowerment. Questions about employment, a key indicator of empowerment, assessed the percentage of women who are employed, how much they earn and how much of their own and their spouse's incomes they control.

The 2009 GDHS also collected information about empowerment through questions on women's participation in household decision making, the circumstances under which the respondent thinks that a woman is justified in refusing to have sexual intercourse with her husband, and her/his attitude toward wife beating. This report uses the three indices of women's empowerment developed by DHS to measure women's and men's responses to survey questions. The first index is based on the number of household decisions in which the woman participates, the second is based on the respondent's opinion regarding the number of reasons that justify wife beating, and the third is based on the respondent's opinion of the number of circumstances under which a wife is justified in refusing to have sexual intercourse with her husband. The ranking of women on these three indices is then related to selected demographic and health outcomes, including use of contraception, ideal family size, and the use of reproductive health care services during pregnancy, childbirth, and the postnatal period.

14.1 EMPLOYMENT AND FORMS OF EARNINGS

Employment can be a source of empowerment for both women and men. It is particularly so for women if it puts them in control of the household income. In the 2009 GDHS, respondents were asked whether they were employed at the time of the survey and, if not, whether they were employed in the 12 months preceding the survey.

Table 14.1 shows the percentage of currently married women and men age 15-49 who were employed preceding the survey and the percent distribution by type of earnings they received (cash, in-kind, or both), according to age.

- Data show that just over one-third (36 percent) of currently married women age 15-49 were employed at the time of the survey or within the 12 months preceding the survey, compared with men who were employed (98 percent). Older married women are more likely to be employed than younger women; however, there are no differences by age for men.
- Among currently married respondents employed in the past 12 months, a slightly smaller proportion of women (90 percent) than men (95 percent) received earnings in cash, while similar proportions (4 percent of women and 3 percent of men) received cash and in-kind earnings. Six percent of currently married women and 1 percent of currently married men employed in the past 12 months were not paid. The proportion not paid is highest among women age 25-29 and among men age 20-24.

Table 14.1 Employment and cash earnings of currently married women and men

Percentage of currently married women and men age 15-49 who were employed at any time in the past 12 months and the percent distribution of currently married women and men employed in the past 12 months by type of earnings, according to age, Guyana 2009

	Currently married respondents:		Percent distribution of currently married respondents employed in the past 12 months, by type of earnings						
Age	Percentage employed	Number of respondents	Cash only	Cash and in-kind	In-kind only	Not paid	Missing	Total	Number of respondents
				WOMEN					
15-19	17.0	166	(79.5)	(4.9)	(14.8)	(0.9)	(0.0)	100.0	28
20-24	26.8	398	89.5	2.7	0.3	7.2	0.2	100.0	107
25-29	37.2	458	91.1	0.7	0.0	8.2	0.0	100.0	170
30-34	35.9	492	91.0	3.1	0.0	5.6	0.2	100.0	176
35-39	37.2	517	88.8	6.2	0.9	4.2	0.0	100.0	193
40-44	43.6	460	90.3	3.8	0.1	5.3	0.6	100.0	201
45-49	38.1	429	89.5	4.5	0.0	5.1	1.0	100.0	163
Total	35.6	2,920	89.8	3.6	0.6	5.6	0.3	100.0	1,038
				MEN					
15-19	*	8	*	*	*	*	*	*	8
20-24	99.0	143	92.8	2.1	0.3	4.0	0.8	100.0	142
25-29	99.0	269	95.3	3.1	0.6	1.0	0.0	100.0	266
30-34	99.2	366	95.1	3.5	0.2	1.3	0.0	100.0	363
35-39	99.6	354	94.6	3.7	0.7	1.0	0.0	100.0	352
40-44	97.9	352	95.7	2.8	0.8	0.7	0.0	100.0	345
45-49	96.5	343	92.9	3.4	2.2	1.4	0.1	100.0	331
Total	98.4	1,835	94.5	3.3	0.8	1.3	0.1	100.0	1,806

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parentheses are based on 25 to 49 unweighted cases. *Currently married* includes respondents in consensual union (living together).

14.2 CONTROL OVER WOMEN'S AND MEN'S EARNINGS

Currently married women who were employed and received cash for their work were asked who the main decision-maker is in the family regarding use of their earnings. They were also asked the relative magnitude of their earnings compared with those of their husband/partner. Women whose husbands were employed for cash were asked who usually decides how his earnings are used. Men were also asked who mainly decides how their earnings are used. These pieces of information provide insight into women's level of empowerment within the family and the extent of their control over decision making regarding the use of household income. It is expected that employment and cash earnings are more likely to empower women if they control their own earnings and perceive their earnings as important to the household relative to those of their husband/partner.

Table 14.2.1 shows the women's control over their cash earnings and the relative magnitude of their earnings relative to those of their husband/partner, for currently married women who had cash earnings in the 12 months preceding the survey.

Table 14.2.1 Control over women's cash earnings and relative magnitude of women's earnings: Women

Percent distribution of currently married women age 15-49 who received cash earnings for employment in the 12 months preceding the survey, by person who decides how wife's cash earnings are used and by whether she earns more or less than her husband, according to background characteristics, Guyana 2009

	Person who decides how the wife's cash earnings are used:						Women's cash earnings compared with husband's cash earnings:						
Background characteristic	Mainly wife	Wife and husband jointly	Mainly husband	Other	Missing	Total	More	Less	About the same	Husband/ partner has no earnings	Don't know/ missing	Total	Number of women
Age													
15-19	(74.4)	(21.1)	(2.5)	(2.1)	(0.0)	(100.0)	(4.0)	(88.6)	(7.4)	(0.0)	(0.0)	(100.0)	24
20-24	64.0	35.3	0.7	0.0	0.0	100.0	14.8	67.6	13.5	1.5	2.7	100.0	98
25-29	51.2	44.6	2.7	0.2	1.3	100.0	14.0	60.5	21.7	0.2	3.7	100.0	157
30-34	54.0	43.2	2.5	0.0	0.3	100.0	6.0	68.3	23.3	0.9	1.5	100.0	166
35-39	56.9	41.2	0.3	0.0	1.6	100.0	17.8	58.7	20.4	1.5	1.6	100.0	183
40-44	53.8	42.4	3.6	0.0	0.2	100.0	9.1	65.0	19.2	2.8	3.9	100.0	189
45-49	55.5	42.4	2.2	0.0	0.0	100.0	19.4	52.0	22.6	1.0	5.1	100.0	153
Number of living children													
0	60.5	35.9	1.2	0.0	2.5	100.0	15.9	64.3	14.4	1.4	3.9	100.0	102
1-2	60.0	38.2	1.3	0.1	0.4	100.0	12.8	60.9	21.5	0.9	3.9	100.0	426
3-4	52.7	44.9	2.0	0.0	0.4	100.0	13.2	64.5	17.8	2.6	2.0	100.0	278
5+	47.3	47.5	4.8	0.2	0.2	100.0	11.9	61.6	24.5	0.3	1.8	100.0	164
Residence													
Total Urban	66.0	32.3	1.4	0.0	0.4	100.0	11.2	70.9	14.7	1.3	2.0	100.0	321
Georgetown (urban)	67.6	30.9	1.5	0.0	0.0	100.0	10.2	71.8	14.7	0.8	2.5	100.0	211
Other (urban)	62.8	34.9	1.2	0.0	1.1	100.0	13.0	69.2	14.6	2.1	1.1	100.0	111
Total Rural	50.8	46.0	2.5	0.1	0.7	100.0	14.0	58.2	22.9	1.3	3.5	100.0	648
Total Coastal	57.8	40.4	1.2	0.0	0.6	100.0	13.3	62.3	20.0	1.4	3.0	100.0	849
Coastal (urban)	66.0	32.3	1.4	0.0	0.4	100.0	11.2	70.9	14.7	1.3	2.0	100.0	321
Coastal (rural)l	52.8	45.4	1.1	0.0	0.7	100.0	14.6	57.1	23.2	1.4	3.6	100.0	527
Total Interior	41.8	48.6	8.4	0.7	0.6	100.0	11.5	63.3	21.6	0.9	2.8	100.0	121
Region													
Region 1	44.7	41.0	13.0	1.4	0.0	100.0	6.8	67.6	19.2	1.1	5.4	100.0	35
Region 2	54.1	44.5	1.4	0.0	0.0	100.0	2.5	75.0	18.9	3.6	0.0	100.0	44
Region 3	57.7	41.6	0.7	0.0	0.0	100.0	7.0	66.9	23.6	1.8	0.8	100.0	141
Region 4	59.4	39.4	0.7	0.0	0.4	100.0	16.5	59.4	20.2	0.9	3.0	100.0	458
Region 5	57.0	39.6	0.0	0.0	3.5	100.0	6.1	65.6	21.7	1.7	4.8	100.0	48
Region 6	50.6	44.3	5.1	0.0	0.0	100.0	15.0	56.6	19.5	2.6	6.4	100.0	107
Region 7	47.5	50.0	0.0	0.0	2.5	100.0	14.3	63.2	18.4	1.6	2.5	100.0	28
Region 8	32.1	60.0	7.9	0.0	0.0	100.0	24.6	57.5	16.1	1.0	0.9	100.0	26
Region 9	17.2	63.7	17.1	2.0	0.0	100.0	5.9	45.5	45.5	0.0	3.1	100.0	17
Region 10	63.7	33.3	1.1	0.0	1.8	100.0	11.5	76.1	10.6	0.0	1.8	100.0	66
Education													
No education	*	*	*	*	*	*	*	*	*	*	*	*	14
Primary	52.4	43.5	3.6	0.3	0.2	100.0	10.9	59.7	24.5	2.8	2.2	100.0	166
Secondary	58.2	39.8	1.5	0.1	0.5	100.0	13.8	63.3	19.0	0.9	2.9	100.0	651
More than secondary	52.7	43.5	2.3	0.0	1.5	100.0	13.1	60.9	19.6	1.6	4.7	100.0	138
Wealth quintile													
Lowest	52.1	41.2	5.1	0.5	1.1	100.0	12.1	59.8	24.8	0.4	2.9	100.0	153
Second	50.0	48.4	1.3	0.0	0.2	100.0	12.0	65.2	20.6	0.8	1.5	100.0	163
Middle	59.4	38.8	1.8	0.0	0.0	100.0	13.4	66.5	16.5	1.7	1.9	100.0	159
Fourth	55.4	43.6	0.6	0.0	0.4	100.0	19.9	56.2	19.9	1.3	2.7	100.0	206
Highest	59.4	37.5	2.2	0.0	1.0	100.0	9.1	64.5	19.8	1.9	4.6	100.0	288
Total	55.8	41.4	2.1	0.1	0.6	100.0	13.1	62.4	20.2	1.3	3.0	100.0	970

Note: *Currently married* includes respondents in consensual union (living together). An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parentheses are based on 25 to 49 unweighted cases.

- More than half (56 percent) of married women who are employed say that they mainly control their cash earnings; about four in ten (41 percent) say that they and their husband jointly decide how her earnings are used; and just 2 percent say that their husband mainly controls their cash earnings. Younger women are slightly more likely than older women to control their own cash earnings. Currently married women with no children or with 1 to 2 living children are also more likely to decide themselves how their cash earnings are used than women with three or more living children.
- Overall, Urban area women (66 percent) and those living in the Coastal area (58 percent) are more likely than, respectively, Rural area women (51 percent) and women from the Interior area (42 percent) to have the main control over their own cash income. Women's control over their cash earnings is highest among women in Region 4 (59 percent) and lowest among women in Region 9 (17 percent). Differentials by education and household wealth status do not show a consistent pattern.
- More than six in ten (62 percent) currently married, employed women in Guyana say they earn less than their husband, 20 percent say they earn about the same amount, 13 percent say that they earn more than their husband, and 1 percent say that their husband has no earnings. Thus, one in three currently married, employed women earns at least as much as her husband.
- Employed women with no children (16 percent), those living in Rural areas (14 percent) and in Region 8 (25 percent), and those in the fourth wealth quintile (20 percent) are more likely than other women to earn more than their husbands.

Currently married men age 15-49 who receive cash earnings and currently married women age 15-49 whose husbands/partners receive cash earnings were asked who decides how the husband's/ partner's cash earnings are spent. Table 14.2.2 shows the percent distribution of currently married men age 15-49 who receive cash earnings and the percent distribution of currently married women 15-49 and whose husbands receive cash earnings, by person who decides how men's cash earnings are used, according to background characteristics.

- Data show that 12 percent of men and 20 percent of women say that the wife mainly decides how the husband's earnings are used. The majority of men (74 percent) and women (61 percent) say the husband and wife decide jointly how the man's cash earnings are used. Rural women and men (77 and 63 percent, respectively) are more likely than those in urban areas (66 and 54 percent, respectively) to say that decisions about how the husband's cash earnings are spent are made jointly by the husband and wife. Men in Region 5 (87 percent) and women in Region 7 (76 percent) are the most likely to say this decision is made jointly, while men and women in Region 1 (65 and 48 percent, respectively) are the least likely to say so.
- Younger men and women and men with no children and women with no children or 1 to 2 living children are more likely to say that the husband mainly decides on how the man's cash earnings are spent. Urban men and women (13 and 31 percent, respectively) are more likely than rural men and women (9 and 15 percent, respectively) to say that the husband is the main decision maker on how the man's earnings are to be used. Men and women in Region 1 (23 and 38 percent, respectively) and those with no education (32 and 38 percent, respectively) are the most likely to say that the husband mainly decides how the man's earnings are used when compared with other respondents. There is no clear pattern in the variation of this indicator by wealth quintile.

Table 14.2.2 Control over men's cash earnings

Percent distributions of currently married men age 15-49 who receive cash earnings and of currently married women 15-49 whose husbands receive cash earnings, by person who decides how men's cash earnings are used, according to background characteristics, Guyana 2009

	Men with cash earnings							Women with husbands with cash earnings						
Background characteristic	Mainly wife	Husband and wife jointly	Mainly husband	Other	Missing	Total	Number of men	Mainly wife	Husband and wife jointly	Mainly husband	Other	Missing	Total	Number of women
Age														
15-19	*	*	*	*	*	*	8	20.0	55.6	24.4	0.0	0.0	100.0	165
20-24	9.3	72.0	17.9	0.0	0.7	100.0	134	20.1	62.2	17.0	0.2	0.5	100.0	397
25-29	5.3	78.4	11.7	0.1	4.4	100.0	262	16.7	61.4	19.7	0.0	2.2	100.0	457
30-34	10.5	76.3	8.3	0.1	4.8	100.0	358	19.7	63.4	15.9	0.2	0.7	100.0	490
35-39	12.7	74.8	9.7	0.0	2.9	100.0	346	20.4	59.9	17.9	0.1	1.8	100.0	510
40-44	15.7	72.2	8.4	0.3	3.4	100.0	339	20.7	57.1	20.7	0.6	1.0	100.0	451
45-49	16.1	71.6	7.2	0.1	5.1	100.0	318	21.4	62.0	15.2	0.3	1.2	100.0	418
Number of living children														
0	11.6	68.9	14.7	0.0	4.9	100.0	233	18.6	60.5	19.1	0.0	1.9	100.0	306
1-2	9.9	76.8	8.9	0.1	4.3	100.0	751	17.3	60.5	20.6	0.3	1.3	100.0	1,247
3-4	14.6	73.8	8.1	0.3	3.3	100.0	561	22.2	61.9	15.1	0.2	0.6	100.0	923
5+	13.6	73.4	10.2	0.1	2.6	100.0	221	22.9	58.6	16.8	0.0	1.7	100.0	412
Residence														
Total Urban	9.1	66.3	13.4	0.1	11.0	100.0	378	14.0	54.1	31.0	0.1	0.8	100.0	642
Georgetown (urban)	6.7	64.5	10.8	0.0	18.0	100.0	228	10.4	50.1	39.2	0.0	0.3	100.0	388
Other (urban)	12.8	69.2	17.3	0.3	0.4	100.0	150	19.5	60.3	18.4	0.2	1.6	100.0	253
Total Rural	12.9	76.6	8.5	0.1	1.9	100.0	1,387	21.5	62.5	14.5	0.2	1.3	100.0	2,247
Total Coastal	12.7	74.8	8.8	0.1	3.6	100.0	1,555	20.7	60.2	17.7	0.2	1.2	100.0	2,533
Coastal (urban)	9.1	66.3	13.4	0.1	11.0	100.0	378	14.0	54.1	31.0	0.1	0.8	100.0	642
Coastal (rural)	13.9	77.5	7.3	0.1	1.3	100.0	1,177	23.0	62.3	13.2	0.2	1.3	100.0	1,891
Total Interior	7.1	71.4	15.8	0.3	5.4	100.0	210	13.5	63.7	21.4	0.2	1.2	100.0	355
Region														
Region 1	2.2	65.1	22.9	0.4	9.3	100.0	89	14.4	47.9	37.7	0.0	0.0	100.0	127
Region 2	10.2	82.1	7.7	0.0	0.0	100.0	99	14.7	68.4	14.9	0.6	1.4	100.0	189
Region 3	10.7	78.2	10.6	0.5	0.0	100.0	232	22.5	62.9	13.8	0.3	0.6	100.0	418
Region 4	13.5	69.2	9.7	0.0	7.7	100.0	706	19.3	55.6	23.4	0.2	1.5	100.0	1,108
Region 5	8.9	87.1	3.4	0.0	0.6	100.0	126	16.4	73.0	9.4	0.4	0.8	100.0	217
Region 6	16.0	77.6	5.8	0.1	0.4	100.0	346	26.4	59.3	13.3	0.0	1.0	100.0	516
Region 7	6.9	77.3	14.7	0.0	1.1	100.0	36	15.9	76.1	4.7	0.4	2.9	100.0	64
Region 8	11.5	70.9	15.2	0.9	1.6	100.0	32	8.5	72.1	17.5	0.0	1.9	100.0	70
Region 9	14.5	75.5	3.0	0.0	7.0	100.0	30	9.6	73.1	15.7	0.7	0.9	100.0	57
Region 10	5.4	75.9	18.7	0.0	0.0	100.0	71	20.9	63.5	14.2	0.0	1.4	100.0	120
Education														
No education	24.4	43.0	31.8	0.7	0.2	100.0	41	11.6	47.7	38.3	0.4	1.9	100.0	60
Primary	16.2	75.5	6.0	0.0	2.3	100.0	468	25.1	59.7	14.2	0.0	1.0	100.0	734
Secondary	10.4	75.5	10.1	0.2	3.8	100.0	1,127	18.6	61.5	18.6	0.3	1.1	100.0	1,924
More than secondary	7.6	70.2	10.9	0.0	11.3	100.0	129	14.2	60.2	23.2	0.0	2.4	100.0	170
Wealth quintile														
Lowest	13.4	69.8	13.5	0.1	3.2	100.0	340	21.0	61.3	16.4	0.0	1.3	100.0	552
Second	14.9	76.4	6.4	0.1	2.1	100.0	351	21.7	59.9	16.9	0.2	1.3	100.0	566
Middle	14.0	73.1	9.1	0.0	3.9	100.0	353	24.8	58.6	15.3	0.1	1.2	100.0	587
Fourth	10.2	76.4	9.6	0.4	3.4	100.0	384	17.0	61.4	20.5	0.5	0.6	100.0	599
Highest	7.9	75.9	9.4	0.0	6.8	100.0	336	14.8	62.1	21.4	0.2	1.5	100.0	583
Total	12.1	74.4	9.6	0.1	3.8	100.0	1,765	19.8	60.7	18.1	0.2	1.2	100.0	2,888

Note: *Currently married* includes respondents in consensual union (living together). An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

Table 14.3 shows, for currently married women who earned cash in the past 12 months, the person who decides how their cash earnings are used; and for currently married women whose husbands earn cash, the person who decides how their husband's cash earnings are used, according to the relative magnitude of the earnings of women and their husband. In particular, it shows whether the person who decides how women's own earnings are used and the person who decides how her husband's earnings are used are each affected and vary by whether the woman works and by the magnitude of women's earnings relative to those of her husband.

- Women who earn more than their husband or less than their husband (59 and 63 percent, respectively) are more likely to decide how their cash earnings are used than women whose cash earnings are the same as their husband's (30 percent).
- On the other hand, women who say they earn about the same amount as their husband are more likely to make joint decisions with their husband about how their cash earnings and those of their husband are used (68 and 69 percent, respectively) than women who make more than their husband (40 and 58 percent, respectively) and those who make less than their husband (35 and 59 percent, respectively).

Table 14.3 Women's control over her own earnings and over those of her husband

Percent distributions of currently married women age 15-49 with cash earnings in the past 12 months by person who decides how the wife's cash earnings are used and of currently married women age 15-49 whose husbands have cash earnings by person who decides how the husband's cash earnings are used, according to the relation between woman's and husband's cash earnings, Guyana 2009

Women's earnings relative to husband's earnings	Person who decides how wife's cash earnings are used:						Number of women with cash earnings	Person who decides how husband's cash earnings are used:						Number of women whose husbands have cash earnings
	Mainly wife	Wife and husband jointly	Mainly husband	Other	Missing	Total		Mainly wife	Wife and husband jointly	Mainly husband	Other	Missing	Total	
More than husband/ partner	58.9	40.2	0.8	0.0	0.0	100.0	127	19.8	57.8	20.8	1.6	0.0	100.0	124
Less than husband/ partner	62.9	35.0	2.0	0.1	0.0	100.0	605	16.7	59.3	24.0	0.0	0.1	100.0	605
Same as husband/ partner	29.6	67.7	2.6	0.0	0.0	100.0	196	15.2	69.0	15.1	0.0	0.7	100.0	196
Husband/partner has no cash earnings or did not work	*	*	*	*	*	*	13	na	na	na	na	na	na	na
Woman worked but has no cash earnings	na	na	na	na	na	na	na	11.2	71.8	13.1	0.0	4.0	100.0	68
Woman did not work	na	na	na	na	na	na	na	21.9	60.4	16.3	0.2	1.2	100.0	1,866
Don't know/missing	(58.9)	(14.8)	(6.7)	(0.0)	(19.6)	(100.0)	29	(5.2)	(37.6)	(35.0)	(0.0)	(22.2)	(100.0)	29
Total[1]	55.8	41.4	2.1	0.1	0.6	100.0	970	19.8	60.7	18.1	0.2	1.2	100.0	2,888

Note: *Currently married* includes respondents in consensual union (living together). An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parentheses are based on 25 to 49 unweighted cases.
na = Not applicable
[1] Excludes cases where a woman or her husband/partner has no earnings and includes cases where a woman does not know whether she earned more or less than her husband/partner

14.3 WOMEN'S PARTICIPATION IN HOUSEHOLD DECISION-MAKING

The ability to make decisions about one's own life is important to women's empowerment. In addition to information on women's control over cash earnings, the 2009 GDHS collected information from both women and men on other measures of women's empowerment. Respondents were asked about their perceptions of a women's role in household decision making, their acceptance of wife beating, and their opinions about whether a wife can deny sex to her husband for specific reasons. Such information provides insight into women's control over their environment and their attitudes toward gender roles, both of which are relevant to understanding women's ability to make independent decisions about their own health care and that of their children.

To assess women's decision-making autonomy, information was collected on their participation in four types of household decisions: respondent's own health care, making large household purchases, making household purchases for daily needs, and visiting her family or relatives. Having a final say in the decision-making process is the highest degree of autonomy. Women are considered to participate in a decision if they usually make that decision alone or jointly with their husband. Table 14.4.1 shows the percent distribution of currently married women age 15-49 by the person in the household who usually makes decisions about four types of issues affecting them.

- Guyanese women are usually involved in all four specific decisions, although the extent of their involvement depends on the issue being decided. More than half of women (54 percent) say they alone make decisions about the purchase of daily household needs, while 37 percent make this decision jointly with their husband. However, decisions about the wife's own health care, major household purchases, and visits to the wife's family or relatives are usually made jointly by the husband and wife (50, 56 and 55 percent, respectively).

Table 14.4.1 Women's participation in decision-making

Percent distribution of currently married women by person who usually makes decisions about four kinds of issues, Guyana 2009

Decision	Mainly wife	Wife and husband jointly	Mainly husband	Someone else	Other	Missing	Total	Number of women
Own health care	40.7	50.2	7.7	0.3	0.2	0.8	100.0	2,920
Major household purchases	31.6	55.5	11.6	0.5	0.1	0.6	100.0	2,920
Purchases of daily household needs	54.3	37.2	6.9	0.7	0.2	0.6	100.0	2,920
Visits to her family or relatives	36.6	54.9	7.1	0.2	0.4	0.9	100.0	2,920

Note: *Currently married* includes respondents in consensual union (living together).

In the 2009 GDHS, men were asked whether the wife, the husband, or both equally should have the greater say in five specific decisions—making major household purchases, making daily household purchases, deciding when to visit the wife's family or relatives, deciding what to do with the money the wife earns, and deciding how many children to have. Table 14.4.2 shows the percent distribution of currently married men age 15-49 by the person they think should have the greater say in making decisions about five types of issues.

- Table 14.4.2 shows that for most decisions, the majority of currently married men age 15-49 think that the husband and wife should have equal say in making decisions. This is especially true for decisions about the number of children to have (86 percent), major household purchases (76 percent), visits to the wife's family or relatives (65 percent), and what to do with the money the wife earns (53 percent).
- Fifty-six percent of married men say that the wife should have the greater say in making decisions about small household purchases, while 38 percent think the husband and wife should have equal say.

Table 14.4.2 Women's participation in decision-making according to men

Percent distribution of currently married men 15-49 by person who they think should have a greater say in making decisions about five kinds of issues, Guyana 2009

Decision	Wife	Wife and husband equally	Husband	Don't know/ depends	Missing	Total	Number of men
Major household purchases	14.3	76.2	8.8	0.6	0.1	100.0	1,835
Purchases of daily household needs	56.1	38.2	4.6	1.0	0.1	100.0	1,835
Visits to wife's family or relatives	24.8	64.6	8.3	1.9	0.4	100.0	1,835
What to do with the money wife earns	40.1	53.0	4.2	2.5	0.2	100.0	1,835
How many children to have	4.4	86.4	7.5	1.5	0.2	100.0	1,835

Note: *Currently married* includes respondents in consensual union (living together).

Table 14.5.1 shows the percentage of married women who participate in the four specific decisions—respondent's own health care, making large household purchases, making household purchases for daily needs, and visiting her family or relatives—according to background characteristics. As noted above, a woman is considered to participate in a decision if she says she usually makes the decision alone or jointly with her husband.

- About nine in ten of currently married women age 15-49 say they make decisions about their own health care (91 percent), about making purchases for daily household needs, for visits to her family or relatives (92 percent, each), and for making major household purchases (87 percent).
- Overall, eight in ten of currently married women participate in all four decisions and just 4 percent do not participate in any of the four decisions. Younger women age 15-19, those who are not employed for cash (71 percent, each) and women with no living children (76 percent) are somewhat less likely than other women to participate in all four decisions. There are no major variations in this indicator by Urban-Rural area or Coastal-Interior area residence. Among regions, currently married women in Region 1 are the least likely to participate in all four decisions (75 percent), while those in Region 5 are the most likely (89 percent).
- The proportion of women who participate in all four decisions increases with education from 59 percent among uneducated women to 86 percent among women with more than secondary education. There is no clear pattern in the variation of this indicator by wealth.

Table 14.5.1 Women's participation in decision-making by background characteristics

Percentage of currently married women age 15-49 who usually make specific decisions either by themselves or jointly with their husband, by background characteristics, Guyana 2009

Background characteristic	Specific decision: Own health care	Making major household purchases	Making purchases for daily household needs	Visits to her family or relatives	All four decisions	None of the four decisions	Number of women
Age							
15-19	87.4	80.3	87.4	90.2	70.9	3.4	166
20-24	92.6	89.2	94.6	91.8	82.3	2.3	398
25-29	89.8	87.8	92.4	89.8	82.5	5.0	458
30-34	90.4	88.5	91.0	92.3	80.9	3.6	492
35-39	91.5	86.5	91.0	92.4	79.6	3.1	517
40-44	90.7	85.6	92.4	90.5	78.7	4.1	460
45-49	92.4	87.8	89.9	92.7	80.9	3.5	429
Employment (past 12 months)							
Not employed	90.4	85.9	90.3	89.8	78.9	4.3	1,874
Employed for cash	93.5	90.1	94.8	95.9	84.0	1.5	970
Employed not for cash	82.6	87.6	90.3	85.7	71.4	5.9	65
Missing	*	*	*	*	*	*	11
Number of living children							
0	86.0	85.4	89.5	90.8	76.2	3.8	311
1-2	92.1	86.3	91.7	91.7	80.2	3.4	1,260
3-4	91.1	88.1	91.7	91.1	80.6	3.9	935
5+	90.9	88.4	92.5	92.3	82.2	3.5	414
Residence							
Total Urban	90.7	82.6	90.8	92.4	76.7	3.0	649
Georgetown (urban)	91.0	81.1	90.6	93.6	74.4	1.9	392
Other (urban)	90.3	84.9	91.1	90.6	80.1	4.8	257
Total Rural	91.0	88.4	91.8	91.2	81.2	3.8	2,271
Total Coastal	91.2	87.3	91.7	91.7	80.3	3.4	2,562
Coastal (urban)	90.7	82.6	90.8	92.4	76.7	3.0	649
Coastal (rural)	91.4	88.9	92.0	91.5	81.5	3.5	1,913
Total Interior	89.0	85.6	90.7	90.1	79.5	5.1	357
Region							
Region 1	87.9	80.7	91.2	89.6	75.4	5.4	128
Region 2	91.9	84.7	91.6	93.8	76.6	2.7	192
Region 3	93.9	91.2	96.4	93.6	84.6	0.6	424
Region 4	89.8	84.6	89.7	91.7	76.6	3.4	1,121
Region 5	97.4	94.3	96.7	92.6	88.9	1.8	218
Region 6	89.2	87.4	89.9	88.8	81.9	6.7	523
Region 7	92.2	89.3	88.9	92.0	82.4	3.0	65
Region 8	89.4	87.9	92.4	93.2	82.7	4.3	71
Region 9	87.3	83.7	87.7	86.7	80.0	8.7	57
Region 10	91.8	92.3	93.2	91.3	83.8	3.0	121
Education							
No education	69.6	69.6	80.7	83.6	58.5	10.3	62
Primary	90.8	85.5	90.6	89.7	77.6	4.1	746
Secondary	91.5	87.9	92.2	92.0	81.3	3.4	1,938
More than secondary	93.7	90.9	93.1	96.2	86.3	1.7	173
Wealth quintile							
Lowest	88.9	85.5	90.1	90.6	78.3	5.1	554
Second	91.6	86.2	92.0	90.0	78.5	2.4	576
Middle	91.9	89.1	94.0	93.1	83.6	3.3	592
Fourth	89.6	86.0	88.9	88.8	77.4	5.7	610
Highest	92.9	88.6	92.8	95.0	83.0	1.6	589
Total	91.0	87.1	91.6	91.5	80.2	3.6	2,920

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. *Currently married* includes respondents in consensual union (living together).

Table 14.5.2 shows the percentage of currently married men age 15-49 who think the wife should have the greater say or equal say with her husband on five specific kinds of decisions—making major household purchases, making daily household purchases, deciding when to visit the wife's family or relatives, deciding what to do with the money the wife earns, and deciding how many children to have.

- Similar to findings for women, about nine in ten currently married men age 15-49 think that the wife should participate, either alone or equally with her husband, in the decision about making major household purchases (91 percent), about making purchases for daily household needs (94 percent), for visits to her family or relatives (89 percent), about what to do with the money the wife makes (93 percent), and on how many children to have (91 percent).
- Overall, three quarters of currently married men (75 percent) think that the wife should participate, either alone or equally with her husband, in all five decisions, and just 1 percent think that the wife should participate in none of the five decisions, either alone or jointly with her husband.
- Patterns observed for men are similar to those for women. Younger men age 20-24 (57 percent), those who are not employed for cash (59 percent), and men with 1 to 2 living children (72 percent) are less likely than other men to think that a wife should have the greater say or an equal say with her husband for all five decisions. There are no major variations in this indicator by Urban-Rural area residence. However, a higher percentage of men in the Coastal area (76 percent) than in the Interior area (65 percent) think that a wife should have the greater say or an equal say with her husband for all five decisions. By region, men in Region 1 are the least likely to think that a wife should have the greater say or an equal say with her husband for all five decisions (44 percent), while those in Region 9 are the most likely to do so (82 percent).
- The proportion of men who say that a wife should have the greater say or an equal say with her husband for all five decisions increases steadily with education and wealth, but the increase is more pronounced by wealth. For example, 68 percent of currently married men in the lowest wealth quintile think that a wife should have the greater say or an equal say with her husband for all five decisions compared with 81 percent of men in the highest wealth quintile.

Table 14.5.2 Men's attitude toward wives' participation in decision-making

Percentage of currently married men age 15-49 who think a wife should have the greater say alone or equal say with her husband on five specific kinds of decisions, by background characteristics, Guyana 2009

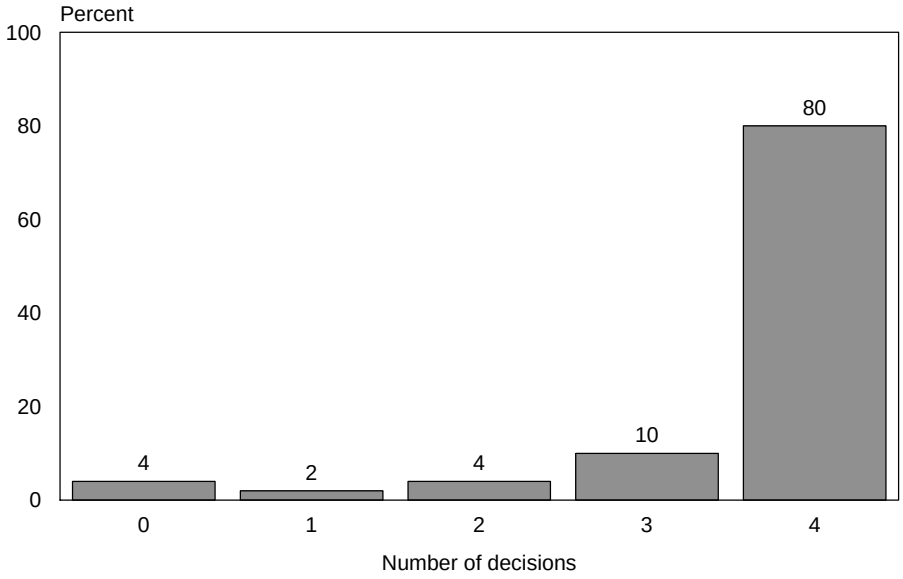
Background characteristic	Specific decision: Making major household purchases	Making purchases for daily household needs	Visits to her family or relatives	What to do with the money the wife earns	How many children to have	All five decisions	None of the five decisions	Number of men
Age								
15-19	*	*	*	*	*	*	*	8
20-24	83.2	83.7	77.0	89.3	81.1	57.2	7.0	143
25-29	86.9	93.6	88.4	90.2	89.4	74.7	2.5	269
30-34	90.8	95.8	91.4	91.0	90.2	72.5	0.2	366
35-39	93.3	95.9	90.3	94.3	94.3	78.0	0.1	354
40-44	92.1	95.2	90.4	96.3	92.2	79.0	1.0	352
45-49	91.9	94.8	91.3	94.8	91.4	77.2	0.5	343
Employment (past 12 months)								
Not employed	(90.7)	(99.0)	(98.7)	(100.0)	(97.6)	(87.0)	(0.0)	29
Employed for cash	90.9	94.4	89.4	93.2	91.2	75.0	1.0	1,765
Employed not for cash	77.8	86.1	85.2	84.0	69.9	58.6	13.0	39
Number of living children								
0	92.6	96.7	92.5	95.3	91.6	76.7	0.2	240
1-2	89.5	93.1	88.3	90.7	89.8	72.2	1.7	778
3-4	89.9	94.8	89.1	94.5	91.7	75.7	1.2	580
5+	93.2	94.4	90.7	95.3	91.0	79.3	0.9	237
Residence								
Total Urban	89.8	94.2	91.8	96.1	90.8	74.5	0.1	386
Georgetown (urban)	90.7	93.2	94.8	98.3	92.7	78.5	0.0	231
Other (urban)	88.6	95.7	87.4	92.9	88.1	68.4	0.2	155
Total Rural	90.7	94.3	88.8	92.3	90.8	74.9	1.6	1,448
Total Coastal	91.9	94.8	89.8	93.7	92.4	76.2	0.7	1,602
Coastal (urban)	89.8	94.2	91.8	96.1	90.8	74.5	0.1	386
Coastal (rural)	92.6	95.0	89.1	92.9	92.8	76.7	0.8	1,216
Total Interior	80.8	90.6	87.0	88.9	80.2	65.3	5.5	232
Region								
Region 1	64.8	84.0	77.9	80.3	60.9	43.6	12.5	90
Region 2	93.2	95.0	90.2	93.2	93.6	76.7	0.3	102
Region 3	85.7	92.9	81.5	92.0	91.5	67.3	0.6	235
Region 4	93.9	94.4	93.5	95.2	93.8	80.5	0.2	715
Region 5	89.4	93.0	86.6	92.2	87.7	75.4	4.5	136
Region 6	94.0	97.5	89.2	92.8	93.4	75.3	0.3	365
Region 7	92.6	96.1	87.6	90.4	92.7	78.6	1.6	40
Region 8	88.4	95.3	91.3	95.9	88.0	75.6	0.0	40
Region 9	88.7	94.9	95.5	95.0	94.7	82.3	2.2	40
Region 10	87.1	93.8	90.4	93.3	83.2	68.8	0.0	73
Education								
No education	(69.4)	(73.9)	(64.4)	(70.4)	(63.9)	(50.8)	(24.)	42
Primary	92.1	94.2	90.1	92.7	92.7	75.0	0.7	487
Secondary	90.3	95.1	89.7	93.8	90.6	75.4	0.8	1,171
More than secondary	93.2	93.6	92.0	95.5	94.2	76.7	0.6	135
Wealth quintile								
Lowest	86.4	90.6	85.1	88.3	82.8	68.3	4.8	372
Second	90.4	94.3	87.3	90.6	90.1	69.0	0.3	360
Middle	91.1	95.6	90.1	93.8	92.1	75.9	0.2	360
Fourth	93.2	96.0	89.8	96.0	93.8	79.8	0.9	392
Highest	91.4	94.9	95.0	96.8	95.4	81.0	0.0	350
Total	90.5	94.3	89.4	93.1	90.8	74.8	1.3	1,835

Note: *Currently married* includes respondents in consensual union (living together). An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parentheses are based on 25 to 49 unweighted cases.

Figure 14.1 shows the distribution of currently married women by the number of decisions in which they participate, either alone or jointly with their husband.

- Only 4 percent of women do not participate in any of the four types of decisions, 2 percent have a say in at least one decision, 4 percent participate in at least two decisions, 10 percent participate in at least three decisions, and 80 percent participate in all four decisions.

Figure 14.1 Number of Decisions in Which Currently Married Women Participate



Note: See Table 14.5.1 for specific decisions.

GDHS 2009

14.4 ATTITUDES TOWARD WIFE BEATING

Another measure of women's empowerment derives from the idea that gender equity is essential to empowerment. Responses that indicate a view that the beating of wives by husbands is justified reflect a low status of women. They signify acceptance of norms that give men the right to use force against women, which violates the human rights of women. Violence against women has serious consequences for their mental and physical well-being, including their reproductive and sexual health (Heise et al., 1999).

The 2009 GDHS gathered information on women's and men's attitudes toward wife beating, a proxy for women's status. Respondents who believe that a husband is justified in hitting or beating his wife for any of the specified reasons may believe women to be low in status, both absolutely and relative to the status of men. Such a perception could act as a barrier for women trying to access health care for themselves and their children and could affect women's attitudes toward contraceptive use and impact their general well-being. Respondents were asked whether a husband is justified in beating his wife under a series of circumstances:

- Wife burns the food
- Wife argues with him
- Wife goes out without telling him
- Wife neglects the children
- Wife refuses to have sex with him.

Table 14.6.1 summarizes women's attitudes toward wife beating in these five specific circumstances. Table 14.6.2 summarizes men's attitudes.

- One in six women (16 percent) thinks that a husband is justified in beating his wife for at least one of the five specified reasons. The main circumstance in which women believe wife beating is justified is if the wife neglects her children (12 percent). Furthermore, 7 percent say that wife beating is justified if the wife argues with the husband, 6 percent if the wife goes out without telling him, and 4 percent, each, if the wife refuses to have sexual intercourse with her husband or burns the food.
- Overall, women employed but not for cash (26 percent), currently married women (18 percent), those with 3 or more children (18 to 20 percent), and women living in rural areas (20 percent), the Interior area (21 percent), and Region 6 (26 percent) are more likely than other women to agree with at least one reason for wife beating.
- The percentage of women who agree with at least one reason for wife beating decreases steadily with wealth quintile, from 24 percent among women in the lowest wealth quintile to 9 percent among those in the highest wealth quintile. There is no consistent pattern of differences by education. The highest percentage of women who agree with at least one reason for wife beating is among women with primary education (26 percent), and the lowest percentage is among women with more than secondary education (3 percent).

Table 14.6.2 shows that men are slightly more likely (19 percent) than women (16 percent) to think that a husband is justified in beating his wife for any of the specified reasons. Similar to women, the main reason that men believe wife beating is justified is if the wife neglects her children (13 percent). Another 8 percent of men say that wife beating is justified if the wife argues with the husband, 7 percent say if the wife goes out without telling him, and 4 percent each say if the wife refuses to have sexual intercourse with her husband or burns the food.

- Younger men age 15-19 (25 percent), men employed not for cash (31 percent), never-married men (21 percent), men living in rural areas (22 percent), in the Interior area (27 percent), and in Regions 1 and 2 (35 percent) are more likely than other men to agree with at least one reason for wife beating.
- The percentage of men who agree with at least one reason for wife beating decreases significantly with education, from 34 percent of men with no education to 9 percent of men with more than secondary education. It also decreases with wealth quintile, from 30 percent of men in the lowest wealth quintile to 9 percent among those in the highest wealth quintile.

Table 14.6.1 Attitude toward wife beating: Women

Percentage of all women age 15-49 who agree that a husband is justified in hitting or beating his wife for specific reasons, by background characteristics, Guyana 2009

Background characteristic	Husband is justified in hitting or beating his wife if she: Burns the food	Argues with him	Goes out without telling him	Neglects the children	Refuses to have sexual intercourse with him	Percentage who agree with at least one specified reason	Number of women
Age							
15-19	3.7	5.9	4.9	12.5	3.5	17.7	1,016
20-24	2.8	6.5	5.2	10.8	3.2	14.9	767
25-29	3.8	7.6	7.9	11.3	6.0	16.3	658
30-34	3.7	5.9	5.3	11.2	3.9	14.5	643
35-39	2.9	7.6	4.7	11.4	5.2	15.6	699
40-44	3.8	7.5	7.6	12.2	6.2	17.8	624
45-49	3.8	5.9	5.3	12.2	3.2	16.6	589
Employment (past 12 months)							
Not employed	4.3	7.7	7.0	13.2	4.8	18.8	2,992
Employed for cash	2.1	4.8	3.6	8.9	3.2	12.0	1,891
Employed not for cash	5.5	11.5	10.0	21.3	13.9	26.0	93
Missing	*	*	*	*	*	*	20
Marital status							
Never married	2.8	4.2	3.6	9.1	2.6	13.4	1,540
Currently married	4.1	8.4	7.3	13.3	5.5	18.4	2,920
Formerly married	2.0	4.3	3.5	10.3	3.0	12.9	536
Number of living children							
0	2.9	5.3	4.6	10.3	2.9	15.3	1,598
1-2	2.9	6.2	5.4	10.9	4.2	14.5	1,773
3-4	4.9	8.2	6.8	14.4	6.1	19.6	1,147
5+	4.5	9.3	8.3	12.9	5.7	18.2	478
Residence							
Total Urban	1.3	2.3	1.7	6.0	1.2	8.4	1,475
Georgetown (urban)	1.2	0.8	0.3	4.8	0.4	5.7	967
Other (urban)	1.3	5.1	4.4	8.4	2.9	13.5	508
Total Rural	4.4	8.5	7.4	14.0	5.7	19.6	3,521
Total Coastal	3.2	6.1	5.4	11.5	4.0	15.8	4,495
Coastal (urban)	1.3	2.3	1.7	6.0	1.2	8.4	1,475
Coastal (rural)	4.2	8.0	7.2	14.1	5.3	19.4	3,019
Total Interior	6.1	11.3	8.7	13.6	7.6	20.7	501
Region							
Region 1	8.6	11.5	9.4	16.3	7.0	22.3	162
Region 2	3.3	7.7	7.1	12.8	5.9	19.1	293
Region 3	5.9	8.5	7.9	17.4	4.8	22.1	687
Region 4	1.8	2.6	2.1	8.3	1.5	10.0	2,168
Region 5	3.0	9.5	6.0	9.4	5.2	17.7	353
Region 6	5.6	12.4	11.9	16.8	9.4	25.5	780
Region 7	4.9	14.1	5.8	11.4	9.9	19.5	104
Region 8	4.6	11.0	13.2	13.4	6.5	21.7	95
Region 9	8.6	13.2	8.0	16.6	11.3	25.0	78
Region 10	0.4	4.1	4.4	6.4	2.3	11.9	277
Education							
No education	5.6	7.6	10.4	10.4	3.8	15.4	68
Primary	6.4	11.3	11.6	18.3	7.2	26.2	952
Secondary	3.1	6.1	4.7	11.0	4.1	15.2	3,568
More than secondary	0.0	0.7	0.7	2.6	0.4	3.1	409
Wealth quintile							
Lowest	7.2	11.4	10.2	16.2	8.0	24.4	779
Second	4.7	9.9	9.8	14.8	5.8	21.2	957
Middle	2.6	6.5	6.2	13.0	4.2	17.5	1,025
Fourth	2.5	4.5	3.2	10.2	3.3	13.2	1,084
Highest	1.7	3.0	1.3	6.1	1.7	8.5	1,151
Total	3.5	6.7	5.8	11.7	4.4	16.3	4,996

Note: *Currently married* includes women in consensual union (living together). *Formerly married* includes divorced, separated, or widowed persons. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

Table 14.6.2 Attitude toward wife beating: Men

Percentage of all men age 15-49 who agree that a husband is justified in hitting or beating his wife for specific reasons, by background characteristics, Guyana 2009

Background characteristic	Husband is justified in hitting or beating his wife if she: Burns the food	Argues with him	Goes out without telling him	Neglects the children	Refuses to have sexual intercourse with him	Percentage who agree with at least one specified reason	Number of men
Age							
15-19	4.6	8.5	8.1	18.1	4.8	25.1	689
20-24	4.7	8.3	7.2	15.2	4.3	20.2	511
25-29	3.4	5.7	6.1	10.8	2.8	16.2	462
30-34	2.8	6.3	6.3	8.6	3.7	15.0	521
35-39	4.5	7.9	5.5	13.4	2.1	20.0	470
40-44	3.2	8.4	5.8	12.1	3.7	18.6	457
45-49	3.1	9.7	7.6	12.4	2.5	17.0	413
Employment (past 12 months)							
Not employed	4.4	8.3	7.2	14.5	3.8	21.6	442
Employed for cash	3.8	7.5	6.4	12.8	3.5	18.7	3,010
Employed not for cash	3.2	23.2	21.4	25.3	5.3	30.8	64
Marital status							
Never married	4.8	7.5	6.7	15.4	4.3	21.2	1,382
Currently married	3.0	7.8	6.8	11.8	2.7	17.9	1,835
Formerly married	4.5	9.9	6.5	12.1	5.0	18.5	305
Number of living children							
0	4.8	7.4	6.6	14.7	4.4	20.6	1,621
1-2	2.5	7.9	6.1	11.3	2.4	16.5	978
3-4	3.3	9.0	7.8	13.6	3.1	20.2	662
5+	4.3	7.4	7.2	10.7	3.1	18.9	260
Residence							
Total Urban	2.3	4.6	3.4	8.5	2.3	13.2	949
Georgetown (urban)	1.8	2.9	2.0	5.2	1.4	8.4	619
Other (urban)	3.4	7.7	6.0	14.8	4.0	22.0	330
Total Rural	4.4	9.0	8.0	15.0	4.0	21.5	2,573
Total Coastal	3.6	7.0	6.5	13.0	3.2	18.3	3,126
Coastal (urban)	2.3	4.6	3.4	8.5	2.3	13.2	949
Coastal (rural)	4.2	8.0	7.8	14.9	3.6	20.6	2,176
Total Interior	5.7	14.7	8.8	15.3	6.0	26.6	396
Region							
Region 1	10.7	24.8	9.9	17.4	6.2	35.0	160
Region 2	4.1	8.5	7.0	31.1	5.0	34.9	179
Region 3	5.5	7.3	8.0	21.2	3.8	25.1	420
Region 4	1.8	4.2	3.6	7.2	1.8	11.3	1,540
Region 5	8.5	10.0	11.8	17.2	6.3	24.4	271
Region 6	5.1	13.2	11.2	16.0	4.8	25.5	587
Region 7	4.1	9.5	9.2	12.9	7.0	21.5	61
Region 8	2.8	12.6	9.1	21.6	9.0	29.5	68
Region 9	0.8	6.1	6.1	10.4	2.4	16.0	57
Region 10	1.3	2.1	4.0	7.5	2.4	11.8	178
Education							
No education	3.7	16.4	8.8	24.8	4.9	34.0	60
Primary	7.2	13.0	12.3	19.0	5.6	26.8	711
Secondary	3.3	6.8	5.8	12.1	3.1	18.0	2,459
More than secondary	0.1	2.1	1.2	6.2	2.2	8.6	292
Wealth quintile							
Lowest	6.5	14.9	12.3	20.4	5.4	30.3	663
Second	4.7	10.3	8.5	18.1	4.8	24.8	679
Middle	4.5	6.6	7.5	12.8	3.0	19.1	723
Fourth	2.2	5.7	3.8	9.9	3.1	14.5	751
Highest	1.6	2.4	2.1	5.8	1.5	8.8	705
Total	3.8	7.8	6.7	13.2	3.5	19.3	3,522

Note: Total includes 5 cases with information missing on employment that are not shown separately. *Currently married* includes men in consensual union (living together). *Formerly married* includes divorced, separated, or widowed.

14.5 ATTITUDES TOWARD REFUSING SEX WITH HUSBAND

Beliefs about whether and when a woman can refuse to have sex with her husband reflect issues of gender equity regarding sexual rights and bodily integrity. Besides yielding an important measure of empowerment, information about women's and men's attitudes toward women's sexual rights is useful for improving and monitoring reproductive health programs that depend on women's willingness and ability to control their own sexual lives.

The extent of control women have over when and with whom they have sex has important implications for outcomes such as transmission of HIV and other sexually transmitted infections. To measure beliefs about sexual empowerment, female and male respondents in the 2009 GDHS were asked whether they think it is justifiable for a wife to refuse sexual intercourse with her husband in the following circumstances: when she knows her husband has a sexually transmitted infection, when she knows her husband has sexual intercourse with other women, and when she is tired or not in the mood. These three circumstances for which women's opinions are sought have been chosen because they are effective in combining issues of women's rights and consequences for women's health. Table 14.7.1 shows the percentages of women who say that a wife is justified in refusing to have sexual intercourse with her husband for these reasons, according to various background characteristics.

- Table 14.7.1 shows that a majority of women (71 percent) agree with all three of the specified reasons for which a woman is justified in refusing sexual intercourse with her husband. More than eight in ten women agree that a wife can refuse to have sexual intercourse with her husband if she knows her husband has a sexually transmitted infection (89 percent), if she knows that her husband has intercourse with other women (85 percent), and if she is tired or not in the mood (81 percent). Only 5 percent of women agree with none of the specified reasons.
- Young women age 15-19 (66 percent) and women who are either unemployed (70 percent) or not employed for cash earnings (69 percent) are somewhat less likely than other women to agree that a wife is justified in refusing sexual intercourse with her husband for all the specified reasons. Women who live in Urban areas (78 percent) and in the Coastal area (72 percent) are more likely than Rural area women (68 percent) and women in the Interior area (62 percent) to agree with all of the specified reasons for a wife to refuse having sex with her husband. This proportion ranges from 43 percent of women in Region 9 to 77 percent of those in Region 4.
- The proportion of women who believe that a wife is justified in refusing to have sexual intercourse with her husband for all the specified reasons increases steadily with education and wealth quintile.

Table 14.7.1 Attitude toward refusing sexual intercourse with husband: Women

Percentage of all women age 15-49 who believe that a wife is justified in refusing to have sexual intercourse with her husband in specific circumstances, by background characteristics, Guyana 2009

Background characteristic	Wife is justified in refusing intercourse with her husband if she: Knows husband has a sexually transmitted disease	Knows husband has intercourse with other women	Is tired or not in the mood	Percentage who agree with all of the specified reasons	Percentage who agree with none of the specified reasons	Number of women
Age						
15-19	83.2	82.4	77.6	66.2	7.3	1,016
20-24	88.9	86.3	83.0	70.7	2.2	767
25-29	88.4	87.2	85.0	75.0	4.7	658
30-34	91.3	86.4	81.8	71.5	2.8	643
35-39	91.2	84.5	82.0	74.4	4.7	699
40-44	91.4	85.4	81.5	72.1	3.9	624
45-49	88.5	85.0	80.9	71.4	4.7	589
Employment (past 12 months)						
Not employed	87.4	83.7	80.3	69.5	5.3	2,992
Employed for cash	90.9	88.0	83.8	74.5	2.7	1,891
Employed not for cash	88.2	80.3	78.5	68.9	6.4	93
Missing	*	*	*	*	*	20
Marital status						
Never married	87.3	85.1	80.3	70.2	4.9	1,540
Currently married	89.0	85.2	82.0	72.1	4.5	2,920
Formerly married	89.9	84.8	81.6	69.7	3.5	536
Number of living children						
0	87.7	85.4	80.8	70.7	5.0	1,598
1-2	89.6	85.3	81.4	71.5	3.5	1,773
3-4	89.1	85.4	84.2	72.1	3.8	1,147
5+	86.5	83.1	77.1	70.1	8.1	478
Residence						
Total Urban	91.7	89.7	86.2	78.1	2.6	1,475
Georgetown (urban)	92.8	92.9	90.2	83.7	2.3	967
Other (urban)	89.6	83.6	78.8	67.4	3.4	508
Rural	87.3	83.2	79.4	68.3	5.3	3,521
Total Coastal	89.6	86.4	82.4	72.3	3.5	4,495
Coastal (urban)	91.7	89.7	86.2	78.1	2.6	1,475
Coastal (rural)	88.6	84.8	80.4	69.5	3.9	3,019
Total Interior	79.5	73.6	73.2	61.5	13.4	501
Region						
Region 1	77.9	70.8	71.4	63.1	17.0	162
Region 2	87.8	83.1	75.8	68.6	5.4	293
Region 3	88.4	87.5	80.3	71.3	4.2	687
Region 4	91.5	88.8	86.0	77.1	2.9	2,168
Region 5	89.7	88.0	83.0	72.5	2.4	353
Region 6	85.5	78.7	76.2	60.9	5.2	780
Region 7	89.7	78.1	82.5	71.5	6.3	104
Region 8	77.4	76.5	73.2	59.2	12.5	95
Region 9	63.6	58.1	58.5	43.0	25.7	78
Region 10	91.3	88.5	82.0	71.7	1.3	277
Education						
No education	75.3	65.7	60.9	53.1	16.5	68
Primary	85.1	79.6	73.8	63.6	8.2	952
Secondary	89.1	86.1	83.4	72.6	3.6	3,568
More than secondary	94.4	92.5	85.7	80.1	1.6	409
Wealth quintile						
Lowest	78.5	74.0	70.2	58.5	12.7	779
Second	88.7	83.4	80.2	70.2	5.2	957
Middle	88.6	88.5	83.7	71.7	2.6	1,025
Fourth	92.0	85.9	84.4	73.7	2.0	1,084
Highest	92.1	90.3	85.2	77.9	2.4	1,151
Total	88.6	85.1	81.4	71.2	4.5	4,996

Note: *Currently married* includes women in consensual union (living together). *Formerly married* includes divorced, separated, or widowed. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

Table 14.7.2 shows the percentage of men who say that a wife is justified in refusing to have sexual intercourse with her husband in specific circumstances, according to background characteristics.

Table 14.7.2 Attitude toward refusing sexual intercourse with husband: Men

Percentage of all men age 15-49 who believe that a wife is justified in refusing to have sexual intercourse with her husband in specific circumstances, by background characteristics, Guyana 2009

Background characteristic	Wife is justified in refusing intercourse with her husband if she: Knows husband has a sexually transmitted disease	Knows husband has intercourse with other women	Is tired or not in the mood	Percentage who agree with all of the specified reasons	Percentage who agree with none of the specified reasons	Number of men
Age						
15-19	83.5	77.6	80.1	63.0	5.8	689
20-24	87.7	80.1	81.8	66.2	4.7	511
25-29	89.6	82.0	82.1	69.9	3.4	462
30-34	90.1	85.5	84.1	74.7	4.0	521
35-39	90.9	83.6	84.4	73.2	4.3	470
40-44	91.7	81.7	83.0	73.5	4.0	457
45-49	87.5	84.2	85.8	72.2	4.5	413
Employment (past 12 months)						
Not employed	83.0	82.0	82.1	67.0	7.4	442
Employed for cash	89.6	82.3	83.2	70.8	3.7	3,010
Employed not for cash	73.5	63.9	71.5	49.9	15.0	64
Marital status						
Never married	85.2	78.4	80.3	63.7	5.5	1,382
Currently married	90.0	84.4	84.9	73.9	3.9	1,835
Formerly married	93.2	82.2	81.7	73.6	3.7	305
Number of living children						
0	86.2	79.7	80.9	65.9	5.5	1,621
1-2	90.7	83.8	84.9	73.9	3.5	978
3-4	90.8	83.4	84.7	73.0	3.1	662
5+	87.3	83.8	82.2	72.2	5.4	260
Residence						
Total Urban	93.9	86.3	85.4	75.6	1.7	949
Georgetown (urban)	95.8	89.7	87.3	81.4	1.5	619
Other (urban)	90.4	80.0	81.9	64.8	2.1	330
Rural	86.4	80.2	81.9	67.8	5.5	2,573
Total Coastal	88.7	82.8	84.0	71.2	4.2	3,126
Coastal (urban)	93.9	86.3	85.4	75.6	1.7	949
Coastal (rural)	86.4	81.3	83.4	69.3	5.3	2,176
Total Interior	86.1	73.9	73.3	59.3	6.9	396
Region						
Region 1	87.2	79.0	79.8	63.6	2.9	160
Region 2	86.1	76.1	70.4	50.4	3.7	179
Region 3	80.3	71.2	76.1	55.3	8.1	420
Region 4	93.0	87.8	88.0	80.4	3.0	1,540
Region 5	82.2	77.1	78.9	61.3	7.1	271
Region 6	86.9	83.3	86.5	71.2	3.8	587
Region 7	86.5	66.8	58.2	44.7	9.6	61
Region 8	76.5	64.3	60.9	50.3	14.2	68
Region 9	83.4	65.4	77.5	57.2	11.7	57
Region 10	92.2	82.6	81.5	67.6	1.8	178
Education						
No education	70.2	66.9	66.4	49.2	13.7	60
Primary	85.7	82.9	81.2	69.7	5.2	711
Secondary	89.1	80.9	83.3	69.6	4.3	2,459
More than secondary	92.8	90.0	86.4	77.1	2.2	292
Wealth quintile						
Lowest	85.9	74.2	74.1	60.1	7.2	663
Second	84.9	78.0	82.0	66.5	5.9	679
Middle	89.4	84.1	83.3	71.5	3.4	723
Fourth	89.4	85.9	88.1	73.8	2.5	751
Highest	92.0	86.0	85.6	76.6	3.8	705
Total	88.4	81.8	82.8	69.9	4.5	3,522

Note: *Currently married* includes women in consensual union (living together). *Formerly married* includes divorced, separated, or widowed. Total includes 5 men with information missing on employment that are not shown separately.

- Data for men also show that a large proportion of men, seven in ten, agree with all three of the specified circumstances under which a wife is justified in refusing to have sexual intercourse with her husband. More than eight in ten men agree that a wife can refuse to have sexual intercourse with her husband if she knows her husband has a sexually transmitted infection (88 percent), if she knows that her husband has intercourse with other women (82 percent), and if she is tired or not in the mood (83 percent). Only 5 percent of men agree with none of the specified reasons.
- Young men age 15-19 (63 percent), those who are employed not for cash (50 percent), never-married men (64 percent), and men with no children (66 percent) are less likely than other men to agree that a wife is justified in refusing sexual intercourse with her husband for all the specified reasons. Men who live in urban areas (76 percent) and in the Coastal area (71 percent) are more likely than rural men (68 percent) and men in the Interior area (59 percent) to agree with all of the specified reasons for a wife to refuse having sex with her husband. The lowest percentage of men who agree with all the specified reasons that justify a wife's refusal of sexual intercourse with her husband is among men in Region 7 (45 percent), and the highest is in Region 4 (80 percent).
- The proportion of men who believe that a wife is justified in refusing to have sexual intercourse with her husband for all the specified reasons increases with education and wealth quintile.

In the 2009 GDHS, male respondents were also asked if they thought that a husband has the right to take specific actions when his wife refuses to have sexual intercourse with him; the actions include getting angry and reprimanding her, refusing financial support, using force to have sex, and having sex with another woman. Table 14.7.3 shows the percentages of men age 15-49 who consider that a husband has the right to certain behaviors when a woman refuses to have sex with him when he wants her to, by background characteristics.

- Overall, 82 percent of men rejected all four of the specified actions. Twelve percent of men think that it is acceptable for a husband to get angry and reprimand his wife if she refuses to have sex with him; 6 percent think that it is acceptable for a husband to have sex with another woman if his wife refuses to have sex with him; 4 percent think that it is alright for a husband to refuse financial support if his wife refuses to have sexual intercourse; and 3 percent think that a husband has the right to use force to have sexual intercourse with his wife. Less than 1 percent agree with all the specified actions of the husband when the wife refuses to have sex with him.
- Differences by background characteristics are minimal; however younger men age 15-19 (76 percent), those who are either unemployed (77 percent) or not employed for cash (73 percent), formerly married men (76 percent), those in Regions 5 and 8 (74 percent), men with primary education (78 percent), and men in the poorest households (77 percent) are more likely than other men to agree that husbands have the right to take specific actions when their wife refuses to have sexual intercourse with them.

Table 14.7.3 Men's attitude toward a husband's rights when his wife refuses to have sexual intercourse

Percentage of men age 15-49 who consider that a husband has the right to certain behaviors when a woman refuses to have sex with him when he wants her to, by background characteristics, Guyana 2009

Background characteristic	When a woman refuses to have sex with her husband, he has the right to: Get angry and reprimand her	Refuse her financial support	Use force to have sex	Have sex with another woman	Percentage who agree with all of the specified behaviors	Percentage who agree with none of the specified behaviors	Number of men
Age							
15-19	16.1	8.0	2.2	9.7	0.5	75.6	689
20-24	9.4	4.4	3.8	6.7	0.4	82.9	511
25-29	9.8	3.3	3.6	5.7	0.6	84.7	462
30-34	11.3	1.5	3.3	4.5	0.0	82.8	521
35-39	10.6	2.5	2.4	4.3	0.0	85.8	470
40-44	14.2	3.9	3.5	5.3	0.5	81.2	457
45-49	9.6	3.8	1.7	5.4	0.4	84.0	413
Employment (past 12 months)							
Not employed	14.2	7.6	1.4	9.0	0.0	77.3	442
Employed for cash	11.4	3.6	3.1	5.6	0.3	82.9	3,010
Employed not for cash	14.0	5.3	5.5	14.2	3.0	73.4	64
Marital status							
Never married	12.7	6.5	2.6	9.0	0.4	79.1	1,382
Currently married	11.0	2.5	2.4	3.5	0.3	85.1	1,835
Formerly married	12.6	3.3	7.2	9.6	0.5	76.3	305
Number of living children							
0	12.1	5.6	2.6	7.8	0.4	80.2	1,621
1-2	11.0	2.9	2.9	4.3	0.4	85.3	978
3-4	12.8	2.4	3.5	5.5	0.3	81.0	662
5+	11.1	3.8	3.4	4.5	0.0	83.1	260
Residence							
Total Urban	9.3	4.0	2.1	6.0	0.3	84.5	949
Georgetown (urban)	6.2	3.5	1.9	4.7	0.2	88.6	619
Other (urban)	15.1	4.9	2.5	8.6	0.3	76.8	330
Total Rural	12.8	4.2	3.2	6.2	0.4	81.1	2,573
Total Coastal	11.7	3.9	2.7	6.0	0.3	82.2	3,126
Coastal (urban)	9.3	4.0	2.1	6.0	0.3	84.5	949
Coastal (rural)	12.8	3.8	2.9	6.1	0.4	81.1	2,176
Total Interior	12.5	6.2	4.7	7.2	0.5	80.8	396
Region							
Region 1	13.8	8.6	7.3	9.0	0.0	77.8	160
Region 2	10.4	4.8	1.6	4.6	0.0	84.1	179
Region 3	12.8	4.5	2.7	7.8	0.3	79.5	420
Region 4	8.9	2.5	1.9	3.9	0.2	87.1	1,540
Region 5	13.6	5.6	5.5	12.8	1.4	73.8	271
Region 6	18.1	5.7	4.2	6.9	0.4	75.6	587
Region 7	11.6	7.3	2.8	6.6	1.9	83.8	61
Region 8	20.4	5.4	3.9	6.1	0.2	73.6	68
Region 9	6.1	2.9	4.1	6.2	0.1	85.6	57
Region 10	9.8	4.5	0.9	8.7	0.2	80.8	178
Education							
No education	8.0	3.9	6.4	5.6	1.4	85.1	60
Primary	15.8	5.6	4.8	5.9	0.3	77.6	711
Secondary	11.3	4.0	2.3	6.0	0.3	82.8	2,459
More than secondary	7.4	2.3	2.4	8.3	0.9	85.4	292
Wealth quintile							
Lowest	16.0	6.1	5.4	8.1	0.3	76.9	663
Second	15.5	5.0	4.3	8.4	0.5	77.5	679
Middle	9.8	4.1	1.8	6.1	0.5	83.7	723
Fourth	11.7	3.5	1.2	4.9	0.4	83.0	751
Highest	6.5	2.2	2.3	3.7	0.0	88.4	705
Total	11.8	4.1	2.9	6.2	0.4	82.0	3,522

Note: *Currently married* includes men in consensual union (living together). *Formerly married* includes divorced, separated, or widowed. Total includes five men with information missing on employment that are not shown separately.

14.6 WOMEN'S EMPOWERMENT INDICATORS

The three sets of empowerment indicators, namely women's participation in making household decisions, their attitude toward wife beating, and their attitude toward a wife's right to refuse sexual intercourse with her husband, can be summarized into three separate indices. All three indices are based on women's responses.

The first index shows the number of decisions in which women participate alone or jointly with their husband/partner (see Table 14.5.1 for the list of decisions). This index ranges in value from 0 to 4 and is positively related to women's empowerment. It reflects the degree of decision-making control that women are able to exercise in areas that affect their lives and environments.

The second index is the number of reasons for which the respondent thinks that a husband is justified in beating his wife (see Table 14.6.1 for the list of reasons). This index ranges in value from 0 to 5. A lower score on this indicator is interpreted as reflecting a greater sense of entitlement and self-esteem and a higher status of women.

The final index is the number of circumstances in which the respondent feels that a woman is justified in refusing sexual intercourse with her husband or partner (see Table 14.7.1 for the list of the circumstances). This index ranges in value from 0 to 3 and is positively related to women's sense of self-esteem and empowerment. It reflects perceptions of sexual roles and women's rights over their bodies.

Table 14.8 shows these three indicators of women's empowerment and how they relate to each other. It shows the percentage of married women age 15-49 who participate in all decision making, the percentage of women who disagree with all the specified reasons for justifying wife beating, and the percentage of women who agree with all the specified reasons for a wife refusing to have sexual intercourse with her husband, by the value on each of the indicators. In general, the expectation is that women who participate in making household decisions are more likely to have gender-egalitarian beliefs.

- The findings on women's empowerment indicate that women who participate in three or four of the specified household decisions are more likely to justify their right to refuse sexual intercourse with their husband for all reasons (73 percent). However, there is no clear pattern between the number of decisions in which a woman participates and the percentage who disagree with all the reasons for justifying wife beating.
- Women who do not support wife beating for any reason at all (81 percent) and who support it for all five reasons (84 percent) are most likely to participate in all the decision making in the household when compared with those who agree with 1-4 reasons for which wife beating is justified, showing a U-shaped pattern. Women who agree with none of the reasons for which wife beating is justified are the most likely to agree with all the reasons justifying a wife refusing to have sexual intercourse with her husband (73 percent).
- Women who agree with all reasons that justify a woman's refusing to have sexual intercourse with her husband are most likely to participate in all three decisions (81 percent) and to disagree with all the reasons for wife beating (86 percent), compared with women who agree with no reasons or fewer reasons for refusing sexual intercourse with their husband.

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Table 14.8 Indicators of women's empowerment

Percentage of women age 15-49 who participate in all decision making, percentage who disagree with all of the reasons justifying wife beating, and percentage who agree with all the reasons for refusing sexual intercourse with husband, by value on each of the indicators of women's empowerment, Guyana 2009

Empowerment indicator	Currently married women: Percentage who participate in all decision making[1]	Currently married women: Number of women	Percentage who disagree with all the reasons justifying wife beating	Percentage who agree with all the reasons for refusing sexual intercourse with husband	Number of women
Number of decisions in which women participate[1]					
0	na	na	85.7	67.6	105
1-2	na	na	77.7	67.8	182
3-4	na	na	81.7	72.5	2,632
Number of reasons for which wife beating is justified[2]					
0	80.9	2,381	na	72.9	4,182
1-2	77.1	369	na	65.3	593
3-4	74.0	124	na	52.5	166
5	83.8	45	na	61.7	56
Number of reasons given for refusing to have sexual intercourse with husband[3]					
0	78.1	131	83.1	na	225
1-2	78.5	684	77.9	na	1,212
3	80.9	2,104	85.7	na	3,559

Note: *Currently married* includes women in consensual union (living together).
na = Not applicable
[1] Restricted to currently married women. See Table 14.5.1 for the list of decisions.
[2] See Table 14.6.1 for the list of reasons.
[3] See Table 14.7.1 for the list of reasons.

14.7 CURRENT USE OF CONTRACEPTION BY WOMEN'S STATUS

A woman's desire and ability to control her fertility and her choice of contraceptive method are in part affected by her status in the household and her own sense of empowerment. A woman who feels that she is unable to control her life may be less likely to feel she can make and carry out decisions about her fertility. She may also feel the need to choose methods that are less obvious or which do not depend on her husband's cooperation. Table 14.9 shows the distribution of currently married women by contraceptive method used, according to the three empowerment indicators.

- The findings indicate that there is a positive relationship between use of contraception and participation in household decision making. Current use of any modern methods of contraception is highest among women who participate in three to four household decisions (41 percent) compared with those who don't participate at all or who participate in fewer decisions (33 percent, each).
- Women who think that wife beating is not justified for any of the specified reasons are the most likely to use a modern method of contraception (41 percent), but the variation is not as pronounced.
- A positive association is seen between contraceptive use and a woman's right to refuse sexual intercourse with her husband. Women who agree with one to three reasons for a woman to refuse sexual intercourse with her husband are much more likely to use a modern contraceptive method (40 to 42 percent) than women who agree with none of the reasons (27 percent).

Table 14.9 Current use of contraception by women's status

Percent distribution of currently married women age 15-49 by current contraceptive method, according to selected indicators of women's status, Guyana 2009

Empowerment indicator	Any method	Modern method: Any modern method	Modern method: Female sterili-zation	Modern method: Temporary modern female methods[1]	Modern method: Male condom	Any traditional method	Not currently using	Total	Number of women
Number of decisions in which women participate[2]									
0	36.4	32.5	7.0	17.3	8.3	3.9	63.6	100.0	105
1-2	35.7	33.0	0.6	17.9	14.6	2.7	64.3	100.0	182
3-4	43.2	40.7	5.5	22.2	13.0	2.5	56.8	100.0	2,632
Number of reasons for which wife beating is justified[3]									
0	43.4	41.1	5.8	21.3	14.0	2.3	56.6	100.0	2,381
1-2	38.8	35.1	2.4	22.6	10.1	3.8	61.2	100.0	369
3-4	35.3	33.0	5.8	23.7	3.5	2.3	64.7	100.0	124
5	42.9	39.5	2.3	31.5	5.7	3.4	57.1	100.0	45
Number of reasons given for refusing to have sexual intercourse with husband[4]									
0	27.3	26.7	4.9	15.1	6.7	0.6	72.7	100.0	131
1-2	44.4	42.1	4.1	26.5	11.5	2.3	55.6	100.0	684
3	42.8	40.1	5.7	20.6	13.7	2.7	57.2	100.0	2,104
Total	42.5	40.0	5.3	21.7	12.9	2.5	57.5	100.0	2,920

Note: If more than one method is used, only the most effective method is considered in this tabulation. *Currently married* includes women in consensual union (living together).
[1] Pill, IUD, injectables, implants, female condom, diaphragm, foam/jelly, and lactational amenorrhea method
[2] See Table 14.5.1 for the list of decisions.
[3] See Table 14.6.1 for the list of reasons.
[4] See Table 14.7.1 for the list of reasons.

14.8 IDEAL FAMILY SIZE AND UNMET NEED BY WOMEN'S STATUS

The ability of women to make household decisions has important implications for their fertility preferences and the practice of family planning. Increases in women's status and empowerment are recognized as important in efforts to reduce fertility. A woman's ability to control her fertility and the contraceptive method she chooses are likely to be affected by her status, self-image, and sense of empowerment. Table 14.10 shows how women's ideal family size and unmet need for family planning are related to women's status indicators.

- The findings indicate that there is very little variation in the ideal family size by women's empowerment indicators. There is only some variation in the total unmet need and women's empowerment indicators but the variation does not follow a clear pattern. The unmet need is somewhat higher among women who participate in one to two household decisions (31 percent), among those that agree with three to four reasons for which wife beating is justified (34 percent), and among women who believe that there is no reason for a woman to refuse having sexual intercourse with her husband (33 percent).

Table 14.10 Women's empowerment and ideal number of children and unmet need for family planning

Mean ideal number of children for women 15-49 and the percentage of currently married women age 15-49 with an unmet need for family planning, by indicators of women's empowerment, Guyana 2009

Empowerment indicator	Mean ideal number of children[1]	Number of women	Percentage of currently married women with an unmet need for family planning[2]			Number of women
			For spacing	For limiting	Total	
Number of decisions in which women participate[3]						
0	3.0	100	9.8	17.4	27.2	105
1-2	3.2	175	9.0	21.9	30.9	182
3-4	3.0	2,559	9.5	18.9	28.4	2,632
Number of reasons for which wife beating is justified[4]						
0	2.9	4,056	9.5	18.8	28.3	2,381
1-2	2.8	581	8.0	20.3	28.2	369
3-4	2.9	164	13.4	20.7	34.1	124
5	3.1	54	8.3	17.5	25.9	45
Number of reasons given for refusing to have sexual intercourse with husband[5]						
0	2.8	207	7.2	25.3	32.5	131
1-2	2.9	1,164	11.3	15.3	26.6	684
3	2.9	3,483	9.0	19.8	28.8	2,104
Total	2.9	4,855	9.5	19.0	28.5	2,920

Note: *Currently married* includes women in consensual union (living together).
[1] Mean excludes respondents who gave non-numeric responses.
[2] See table 7.3.1 for the definition of unmet need for family planning.
[3] Restricted to currently married women. See Table 14.5.1 for the list of decisions.
[4] See Table 14.6.1 for the list of reasons.
[5] See Table 14.7.1 for the list of reasons.

14.9 REPRODUCTIVE HEALTH CARE AND WOMEN'S EMPOWERMENT STATUS

Table 14.11 examines whether women's use of antenatal, delivery, and postnatal care services from health professionals varies by level of empowerment as measured by the three indicators of women's empowerment. In societies where health care is widespread, women's empowerment may not affect their access to reproductive health services; in other societies, however, increased empowerment of women is likely to increase their ability to seek out and use health services to better meet their own reproductive health goals, including the goal of safe motherhood.

- The data show that mothers who participate in one to four household decisions have better access to maternal health services than mothers who participate in no household decisions.
- Similarly, women who believe that there is no reason for which wife beating is justified are the most likely to use antenatal (93 percent), delivery (95 percent), and postnatal (79 percent) care services.
- The use of reproductive health services is positively associated with the number of reasons given for a wife to refuse sexual intercourse with husband. Women who agree with three reasons for refusing intercourse are the most likely to have received antenatal (94 percent), delivery (96 percent), and postnatal care (79 percent).

Table 14.11 Reproductive health care by women's empowerment

Percentage of women age 15-49 with a live birth in the five years preceding the survey who received antenatal care, delivery assistance, and postnatal care from health personnel for the most recent birth, by indicators of women's empowerment, Guyana 2009

Empowerment indicator	Received antenatal care from health personnel	Received delivery assistance from health personnel	Received postnatal care from health personnel within the first two days since delivery	Number of women with a child born in the past five years
Number of decisions in which women participate				
0	84.4	84.5	73.9	46
1-2	89.8	95.2	81.2	74
3-4	92.1	94.1	75.2	1,021
Number of reasons for which wife beating is justified				
0	92.9	95.0	78.7	1,202
1-2	89.9	93.0	66.8	150
3-4	84.1	86.9	67.3	49
5	(81.6)	(89.5)	(72.0)	24
Number of reasons given for refusing to have sexual intercourse with husband				
0	66.6	69.7	38.9	67
1-2	91.8	94.0	78.4	361
3	93.9	96.2	79.0	997
Total	92.1	94.4	77.0	1,425

Note: Health personnel includes doctor, nurse/midwife, auxiliary/single-trained midwife, or medex. Figures in parentheses are based on 25 to 49 unweighted cases.
[1] Includes deliveries in a health facility and not in a health facility
[2] Restricted to currently married women. See Table 14.5.1 for the list of decisions.
[3] See Table 14.6.1 for the list of reasons.
[4] See Table 14.7.1 for the list of reasons.

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SAMPLE DESIGN APPENDIX A

The principal objective of the 2009 GDHS is to provide reliable estimates of (1) the nutritional status of children and mothers, (2) their utilization of maternal and child health services, (3) fertility and the need for family planning, (4) child mortality, and (5) knowledge and attitudes towards individuals with HIV/AIDS—among others—for the total population of the country and other selected domains.

The major domains to be distinguished in the tabulation of important characteristics for the eligible population are the following:

- Guyana in its entirety
- Urban areas (Georgetown urban and other urban, separately) and Rural areas of Guyana
- Coastal areas (Coastal urban and Coastal rural, separately) and Interior areas of Guyana
- Ten regions of Guyana

The population covered by the 2009 GDHS is defined as the universe of all women and men age 15-49 in Guyana. A probability sample of households was selected, and all women and men age 15-49 identified in the households were eligible to be interviewed.

A.1 SAMPLE FRAME

Administratively, Guyana is divided into 10 regions. For census purposes, each region is divided into enumeration areas (EAs), either urban or rural. The available list of EAs has information on the population size and number of households for each EA. This information and the available demarcated cartographic material from the last census for each EA constitute an adequate sample frame for the selection of EA as the primary sampling units for the 2009 GDHS.

A.2 SAMPLE SELECTION

The 2002 Population and Housing Census constituted the frame for the 2009 GDHS sample design. The 2009 GDHS sample of households was selected using a stratified, two-stage cluster design consisting of 330 clusters, which are required for a sample of about 6,590 households. The first-stage units (primary sampling units or PSUs) are the enumeration areas (EAs) used for the 2002 Population and Housing Census. After allocating the total sample among the major regions in the most optimal way possible, the number of EAs (clusters) in each domain region was calculated by dividing its total allocated number of households by the sample take (25 households for selection per EA).

For the first stage, in each major domain, clusters are selected systematically, with probability proportional to size. The selection is done using the following formula:

$$P_{1i} = (b\ m_i / \Sigma\ m_i)$$

where

b: number of EAs in the 2009 GDHS assigned to a given domain region

m_i: measure of size (number of households) of the ith EA

$\Sigma\ m_i$: total measure of size (total number of households) for the corresponding domain region

In each selected EA, a household listing operation was carried out prior to fieldwork, and households were selected to achieve a fixed sample take per cluster.

For the second stage, in the ith cluster in a given area combination (location by residence), a fixed number of households (c) were selected out of the total households (L_i) found in the 2009 GDHS listing process. Then the household probability in the selected i^{th} cluster can be expressed as

$$P_{2i} = (c / L_i)$$

The overall probability of the households in the ith cluster could be calculated as

$$f_i = P_{1i} * P_{2i}$$

The sampling design weight for the ith cluster is given as

$$1/f_i = 1/(P_{1i} * P_{2i})$$

A.3 SAMPLE ALLOCATION

Table A.1 shows the percent distribution of the population of Guyana by urban-rural residence for each of the 10 regions and the sample allocation for the 2009 GDHS: the number of households and the resulting number of primary sampling units.

Seventy-one percent of the population in Guyana resides in Rural areas. The Rural areas of Regions 3, 4, and 6 are the most densely populated. Regions 1, 7, 8, 9, and 10 each account for less than 4 percent of the rural population, and Region 5 accounts for 10 percent. On the other hand, Region 4 includes almost two-thirds (64 percent) of the urban population. Because of these differences, the sample was not allocated by region according to the actual distribution of the population. A minimum of 400 households were allocated to each region. The largest number of households was allocated to Region 4 (1,600) and Region 6 (1,000). Around 600-650 households were allocated to each of Regions 2, 3, and 10 for a total of 6,590 households. Out of this total, around 3,000 households were allocated to the Coastal (rural) domain.

The allocated number of clusters per domain is calculated in Table A.1 by dividing by 25 the number of households allocated for each domain, given that the sample design calls for the selection of 25 households per cluster in the second stage.

As a result of the non-proportional allocation of the number of EDs for the urban-rural domains, the household sample for the 2009 GDHS is not a self-weighted sample. Weights were calculated to ensure that the distribution of respondents (weighted percent and weighted number) reflects the actual representation at the national level.

In the second stage, 25 households were selected by systematic random sampling from the full updated list of households for each of the selected EDs for a total of 6,590 households. All women and men age 15-49 who were either permanent residents of the households in the 2009 GDHS sample or visitors who were present in the household on the night before the survey were eligible to be interviewed in the survey.

Table A.1 Sample allocation

Percent distribution of the population by urban-rural residence, the number of households allocated by main sample domains, and the number of primary sampling units allocated by main sample domains, according to region, Guyana 2009

	Population distribution		Number of households allocated				Number of primary sampling units			
Region	Urban	Rural	Coastal (urban)	Coastal (rural)	Interior	Total	Coastal (urban)	Coastal (rural)	Interior	Total
Region 1		4.4			400	400			20	20
Region 2	5.8	6.8	230	410		640	12	20		32
Region 3		19.4		650		650		33		33
Region 4	63.6	32.6	755	845		1,600	38	42		80
Region 5		9.9		500		500		25		25
Region 6	17.0	16.4	394	606		1,000	20	30		50
Region 7		3.0			400	400			20	20
Region 8		1.8			400	400			20	20
Region 9		3.7			400	400			20	20
Region 10	13.7	1.9	378		222	600	19		11	30
Total	100.0	100.0	1,757	3,011	1,822	6,590	88	151	91	330

A.4 RESPONSE RATES

The number of households selected, occupied, and interviewed, the number of eligible respondents (women and men) interviewed, and response rates by residence and according to the result of the interviews are shown in Table A.2.1. The response rates by region are shown in Table A.2.2.

- Of the 6,042 households occupied, 5,632 households were interviewed, for a response rate of 93 percent.
- In the households interviewed, a total of 5,547 eligible women were identified. Interviews were completed with 4,996 of these women, for a response rate of 90 percent.
- Of the 4,553 eligible men identified in the same households, only 3,522 men were successfully interviewed, for a response rate of 77 percent.
- The primary reason for non-response among eligible women and men was the failure to find individuals at home despite repeated visits to the household. The substantially lower response rate for men reflects the more frequent and longer absences of men from the household, principally related to employment and lifestyle activities.
- By region, the household response rate ranges from 89 percent in Region 4 to 99 percent in Region 8. The women's response rate is lowest in Region 1 (83 percent) and highest in Region 2 (95 percent). Men from Region 1 (62 percent) have the lowest response rates, while men in Region 2 (88 percent) have the highest response rates.

Table A.2.1 Sample implementation by residence

Percent distribution of households and eligible women and men in the sample by result of the interview; and household, eligible women, eligible men, and overall response rates, according to residence, Guyana 2009

	Urban-rural residence				Coastal-Interior residence				
	Urban				Coastal				
Result	Total Urban	Georgetown (urban)	Other (urban)	Total Rural	Total Coastal	Coastal (urban)	Coastal (rural)	Total Interior	Total
Selected households									
Completed (C)	85.3	78.7	90.3	89.5	87.5	85.3	88.8	90.8	88.3
Household present but no competent respondent at home (HP)	4.0	6.4	2.3	3.2	3.9	4.0	3.8	2.1	3.4
Postponed (P)	0.2	0.3	0.1	0.0	0.1	0.2	0.1	0.0	0.1
Refused (R)	3.9	5.5	2.7	2.0	3.2	3.9	2.7	0.8	2.6
Dwelling not found (DNF)	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4
Household absent (HA)	2.2	3.4	1.4	3.0	2.0	2.2	1.9	4.9	2.8
Dwelling vacant/ address not a dwelling (DV)	3.7	5.1	2.6	1.8	2.8	3.7	2.3	0.8	2.3
Dwelling destroyed (DD)	0.2	0.1	0.2	0.1	0.2	0.2	0.2	0.1	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of sampled households	1,779	760	1,019	4,597	4,714	1,779	2,935	1,662	6,376
Household response rate (HRR)[1]	90.9	86.2	94.3	94.1	92.1	90.9	92.8	96.4	93.2
Eligible women									
Completed (EWC)	91.1	90.2	91.7	89.6	91.7	91.1	92.0	85.6	90.1
Not at home (EWNH)	3.3	3.6	3.2	5.9	3.8	3.3	4.0	9.3	5.2
Postponed (EWP)	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0
Refused (EWR)	3.9	5.0	3.1	2.3	3.0	3.9	2.5	1.8	2.7
Partly completed (EWPC)	0.3	0.0	0.5	0.3	0.3	0.3	0.3	0.1	0.3
Incapacitated (EWI)	0.9	1.0	0.8	0.7	0.7	0.9	0.6	1.0	0.8
Other (EWO)	0.4	0.2	0.6	1.1	0.5	0.4	0.6	2.0	0.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	1,558	614	944	3,989	4,078	1,558	2,520	1,469	5,547
Eligible women response rate (EWRR)[2]	91.1	90.2	91.7	89.6	91.7	91.1	92.0	85.6	90.1
Overall response rate (WORR)[3]	82.8	77.7	86.5	84.4	84.4	82.8	85.4	82.6	84.0
Eligible men									
Completed (EMC)	82.4	81.2	83.1	75.5	79.8	82.4	78.4	70.2	77.4
Not at home (EMNH)	9.8	10.3	9.5	17.3	12.2	9.8	13.5	24.1	15.3
Postponed (EMP)	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.3	0.2
Refused (EMR)	5.2	6.2	4.6	4.2	5.2	5.2	5.1	2.6	4.5
Partly completed (EMPC)	0.6	0.2	0.8	0.2	0.4	0.6	0.3	0.0	0.3
Incapacitated (EMI)	1.1	1.6	0.7	1.0	1.2	1.1	1.2	0.7	1.0
Other (EMO)	0.8	0.2	1.2	1.5	1.1	0.8	1.2	2.0	1.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of men	1,230	485	745	3,323	3,378	1,230	2,148	1,175	4,553
Eligible men response rate (EMRR)	82.4	81.2	83.1	75.5	79.8	82.4	78.4	70.2	77.4
Overall response rate (MORR)	74.9	70.0	78.3	71.0	73.5	74.9	72.8	67.7	72.1

[1] Using the number of households falling into specific response categories, the household response rate (HRR) is calculated as:

$$\frac{100 * C}{C + HP + P + R + DNF}$$

[2] The eligible women response rate (EWRR) is equivalent to the percentage of interviews completed (EWC). Similarly, the response rate for men (EMRR) is EMC.

[3] The women's overall response rate (WORR) is calculated as:

$$WORR = HRR * EWRR/100$$

The men's overall response rate (MORR) is calculated similarly to that for women.

Table A.2.2 Sample implementation by region

Percent distribution of households and eligible women and men in the sample by result of the interview; and household, eligible women, and overall response rates, according to region, Guyana 2009

Result	Region 1	Region 2	Region 3	Region 4	Region 5	Region 6	Region 7	Region 8	Region 9	Region 10	Total
Selected households											
Completed (C)	95.6	92.1	87.6	82.4	92.4	90.2	91.0	98.1	84.3	85.8	88.3
Household present but no competent respondent at home (HP)	2.6	3.0	2.3	6.1	3.3	2.8	1.9	0.6	1.6	3.0	3.4
Postponed (P)	0.0	0.0	0.2	0.1	0.2	0.1	0.0	0.0	0.0	0.0	0.1
Refused (R)	0.8	1.3	4.2	4.1	2.0	2.4	2.7	0.0	0.0	2.8	2.6
Dwelling not found (DNF)	0.0	0.6	0.2	0.4	0.0	0.5	0.0	0.0	1.8	0.0	0.4
Household absent (HA)	1.0	1.8	1.4	3.3	0.8	1.2	2.5	1.3	11.8	4.5	2.8
Dwelling vacant/ address not a dwelling (DV)	0.0	1.1	3.9	3.4	1.0	2.8	1.9	0.0	0.3	3.5	2.3
Dwelling destroy (DD)	0.0	0.0	0.3	0.1	0.2	0.1	0.0	0.0	0.3	0.3	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of sampled households	387	623	645	1,600	489	977	367	308	382	598	6,376
Household response rate (HRR)[1]	96.6	94.9	92.8	88.5	94.4	94.0	95.2	99.3	96.1	93.6	93.2
Eligible women											
Completed (EWC)	83.2	94.6	92.2	89.7	93.7	92.7	87.9	84.8	88.3	86.6	90.1
Not at home (EWNH)	12.8	2.8	3.5	5.3	3.0	2.3	4.8	10.3	7.9	6.6	5.2
Postponed (EWP)	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0
Refused (EWR)	0.3	1.3	3.2	3.5	2.6	2.5	2.4	2.6	0.3	5.5	2.7
Partly completed (EWPC)	0.6	0.4	0.4	0.2	0.2	0.6	0.0	0.0	0.0	0.0	0.3
Incapacitated (EWI)	1.2	0.7	0.4	0.8	0.0	0.8	2.7	0.3	0.3	0.8	0.8
Other (EWO)	2.0	0.2	0.4	0.4	0.5	1.1	1.5	2.0	3.2	0.6	0.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	345	534	564	1,314	431	881	330	302	317	529	5,547
Eligible women response rate (EWRR)[2]	83.2	94.6	92.2	89.7	93.7	92.7	87.9	84.8	88.3	86.6	90.1
Overall response rate (WORR)[3]	80.4	89.7	85.5	79.4	88.5	87.2	83.6	84.2	84.9	81.0	84.0
Eligible men											
Completed (EMC)	62.2	88.1	77.1	77.5	81.2	79.6	74.7	68.1	74.7	77.2	77.4
Not at home (EMNH)	33.7	7.3	9.2	14.8	12.2	12.7	18.6	23.4	21.1	15.8	15.3
Postponed (EMP)	0.3	0.0	0.0	0.3	0.3	0.1	0.5	0.8	0.0	0.3	0.2
Refused (EMR)	1.0	1.8	11.6	4.5	4.6	4.8	2.7	6.5	0.8	4.0	4.5
Partly completed (EMPC)	0.0	0.5	0.7	0.4	0.0	0.3	0.0	0.0	0.0	0.8	0.3
Incapacitated (EMI)	1.0	1.6	0.7	1.9	1.0	0.3	0.9	0.8	0.0	0.8	1.0
Other (EMO)	1.7	0.7	0.7	0.7	0.8	2.2	2.7	0.4	3.4	1.3	1.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of men	288	438	423	1,111	393	771	221	248	261	399	4,553
Eligible men response rate (EMRR)	62.2	88.1	77.1	77.5	81.2	79.6	74.7	68.1	74.7	77.2	77.4
Overall response rate (MORR)	60.0	83.6	71.5	68.6	76.6	74.9	71.0	67.7	71.8	72.3	72.1

[1] Using the number of households falling into specific response categories, the household response rate (HRR) is calculated as:

$$\frac{100 * C}{C + HP + P + R + DNF}$$

[2] The eligible women response rate (EWRR) is equivalent to the percentage of interviews completed (EWC). Similarly, the response rate for men (EMRR) is EMC.

[3] The women overall response rate (WORR) is calculated as:

$$WORR = HRR * EWRR/100$$

The men overall response rate (MORR) is calculated similarly to women.

ESTIMATES OF SAMPLING ERRORS APPENDIX B

The estimates from a sample survey are affected by two types of errors: (1) non-sampling errors, and (2) sampling errors. Non-sampling 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 2009 Guyana Demographic and Health Survey (GDHS) to minimize this type of error, non-sampling 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 2009 GDHS is only one of many samples that could have been selected from the same population, using the same design and expected size. Each of these samples would yield results that differ somewhat from the results of the actual sample selected. Sampling errors are a measure of the variability between all possible samples. Although the degree of variability is not known exactly, it can be estimated from the survey results.

A sampling error is usually measured in terms of the *standard error* for a particular statistic (mean, percentage, etc.), which is the square root of the variance. The standard error can be used to calculate confidence intervals within which the true value for the population can reasonably be assumed to fall. For example, for any given statistic calculated from a sample survey, the value of that statistic will fall within a range of plus or minus two times the standard error of that statistic in 95 percent of all possible samples of identical size and design.

If the sample of respondents had been selected as a simple random sample, it would have been possible to use straightforward formulas for calculating sampling errors. However, the 2009 GDHS sample is the result of a multi-stage stratified design, and, consequently, it was necessary to use more complex formulas. The computer software used to calculate sampling errors for the 2009 GDHS is the ISSA Sampling Error Module. This module uses the Taylor linearization method of variance estimation for survey estimates that are means or proportions. The Jackknife repeated replication method is used for variance estimation of more complex statistics such as fertility and mortality rates.

The Taylor linearization method treats any percentage or average as a ratio estimate, $r = y/x$, where y represents the total sample value for variable y, and x represents the total number of cases in the group or subgroup under consideration. The variance of r is computed using the formula given below, with the standard error being the square root of the variance:

$$SE^2(r) = var(r) = \frac{1-f}{x^2}\sum_{h=1}^{H}\left[\frac{m_h}{m_{h-1}}\left(\sum_{i=1}^{m_h} z_{hi}^2 - \frac{z_h^2}{m_h}\right)\right]$$

in which $z_{hi} = y_{hi} - rx_{hi}$, and $z_h = y_h - rx_h$

where h represents the stratum which varies from *1* to H,
m_h is the total number of clusters selected in the hth stratum,
y_{hi} is the sum of the weighted values of variable y in the ith cluster in the hth stratum,
x_{hi} is the sum of the weighted number of cases in the ith cluster in the hth stratum, and
f is the overall sampling fraction, which is so small that it is ignored.

The Jackknife repeated replication method derives estimates of complex rates from each of several replications of the parent sample, and calculates standard errors for these estimates using simple formulas. Each replication considers *all but one* cluster in the calculation of the estimates. Pseudo-independent replications are thus created. In the 2009 GDHS, there were 325 non-empty clusters. Hence, 325 replications were created. The variance of a rate r is calculated as follows:

$$SE^2(r) = var(r) = \frac{1}{k(k-1)} \sum_{i=1}^{k} (r_i - r)^2$$

in which

$$r_i = kr - (k-1)r_{(i)}$$

where r is the estimate computed from the full sample of 325 clusters,
$r_{(i)}$ is the estimate computed from the reduced sample of 324 clusters (i^{th} cluster excluded), and
k is the total number of clusters.

In addition to the standard error, the design effect (DEFT) for each estimate is also calculated. The design effect 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. Relative errors and confidence limits for the estimates are also computed.

Sampling errors for the 2009 GDHS are calculated for selected variables considered to be of primary interest for the women's and men's samples. The results are presented in this appendix for the country as a whole, for urban and rural areas, and for each of the 10 regions. For each variable, the type of statistic (mean, proportion, or rate) and the base population are given in Table B.1. Tables B.2.1 to B.2.14 present the value of the statistic (R), its standard error (SE), the number of unweighted (N) and weighted (WN) cases, the design effect (DEFT), the relative standard error (SE/R), and the 95 percent confidence limits (R±2SE), for all the selected variables, except for fertility and mortality rates. The sampling errors for fertility rates for the three-year period preceding the survey are included in Table B.3. The sampling errors for mortality rates for the five-year period preceding the survey are presented in Table B.4.1 for the total population. Table B.4.1 also includes the sampling errors for the infant mortality rate for several five-year periods preceding the survey. The sampling errors for mortality rates are presented in Table B.4.2 by residence for the ten-year period preceding the survey. The DEFT is considered undefined when the standard error is zero (when the estimate is close to 0 or 1). In the case of the total fertility rate, the number of unweighted cases is not relevant, as there is no known unweighted value for woman-years of exposure to childbearing.

The confidence interval (e.g., as calculated for children ever born to women age 40-49) can be interpreted as follows: the overall average from the national sample is 3.440, and its standard error is 0.091. Therefore, to obtain the 95 percent confidence limits, one adds and subtracts twice the standard error to the sample estimate, i.e., 3.440 ± 2×0.091. There is a high probability (95 percent) that the true average number of children ever born to all women age 40 to 49 is between 3.257 and 3.633.

Table B.1 List of selected variables for sampling errors, Guyana 2009

Variable	Estimate	Base population
No education	Proportion	All women, all men
Secondary education or higher	Proportion	All women, all men
Never married	Proportion	All women, all men
Currently married/in union	Proportion	All women, all men
Had sexual intercourse before age 18	Proportion	Women age 40-49
Currently pregnant	Proportion	All women
Children ever born	Mean	All women
Children surviving	Mean	All women
Children ever born to women age 40-49	Mean	Women age 20-49
Knows any contraceptive method	Proportion	Currently married women, currently married men
Ever used any contraceptive method	Proportion	Currently married women
Currently using any contraceptive method	Proportion	Currently married women
Currently using a modern method	Proportion	Currently married women
Currently using pill	Proportion	Currently married women
Currently using IUD	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
Obtained method from public sector source	Proportion	Current users of modern methods
Wants no more children	Proportion	Currently married women
Wants to delay birth at least 2 years	Proportion	Currently married women
Ideal family size	Mean	All women, all men
Mother received tetanus injection for last birth	Proportion	Women with at least one live birth in five years before survey
Mother received two or more tetanus injections	Proportion	Women with at least one live birth in five years before survey
Mother received neonatal tetanus	Proportion	Women with at least one live birth in five years before survey
Received medical assistance at delivery	Proportion	Births occurring 1-59 months before interview
Body Mass Index (BMI) <18.5	Proportion	All women
Anemia in women	Proportion	All women
Has heard of HIV/AIDS	Proportion	All women age 15-49, all men age 15-49
Knows condom use reduces HIV/AIDS	Proportion	All women age 15-49, all men age 15-49
Knows about limiting partners to avoid AIDS	Proportion	All women age 15-49, all men age 15-49
Has comprehensive knowledge of HIV/AIDS	Proportion	All women age 15-49, all men age 15-49
Higher-risk intercourse in past 12 months (youth)	Proportion	All women age 15-24, all men age 15-24
Condom use at last higher-risk intercourse (youth)	Proportion	All women age 15-24, all men age 15-24
Had diarrhea in two weeks before survey	Proportion	Children age 0-59 months
Treated with oral rehydration salts (ORS)	Proportion	Children with diarrhea in two weeks before interview
Taken to a health provider	Proportion	Children with diarrhea in two weeks before interview
Vaccination card seen	Proportion	Children age 18-29 months
Receiving vaccinations:	Proportion	Children age 18-29 months
BCG		
DPT (3 doses)		
Polio (3 doses)		
Measles		
Pentavalent		
MMR		
Yellow fever		
Height-for-age (below -2SD)	Proportion	Children age 0-59 months
Weight-for-height (below -2SD)	Proportion	Children age 0-59 months
Weight-for-age (below -2SD)	Proportion	Children age 0-59 months
Anemia in children	Proportion	Children age 6-59 months
Fertility (three years preceding the survey)	Ratio	Births to all women in 3 and 5 years preceding the survey
Neonatal mortality	Rate	Births in 5 and 10 years preceding the survey
Postneonatal mortality	Rate	Births in 5 and 10 years preceding the survey
Infant mortality	Rate	Births in 5 and 10 years preceding the survey
Child mortality	Rate	Births in 5 and 10 years preceding the survey
Under-5 mortality	Rate	Births in 5 and 10 years preceding the survey

Table B.2.1 Sampling errors for the total sample, Guyana 2009

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence intervals: Value - 2SE (R - 2SE)	Confidence intervals: Value + 2SE (R + 2SE)
WOMEN								
No education	0.014	0.002	4,996	4,996	1.468	0.178	0.009	0.018
Secondary education or higher	0.796	0.010	4,996	4,996	1.702	0.012	0.777	0.815
Never married	0.308	0.009	4,996	4,996	1.359	0.029	0.291	0.326
Currently married/in union	0.584	0.011	4,996	4,996	1.614	0.019	0.562	0.607
Had sexual intercourse before age 18	0.431	0.012	3,980	3,980	1.549	0.028	0.407	0.456
Currently pregnant	0.043	0.004	4,996	4,996	1.536	0.103	0.034	0.052
Children ever born	1.999	0.037	4,996	4,996	1.287	0.019	1.924	2.074
Children surviving	1.894	0.036	4,996	4,996	1.311	0.019	1.822	1.966
Children ever born to women age 40-49	3.440	0.091	1,189	1,213	1.419	0.027	3.257	3.622
Knows any contraceptive method	0.988	0.002	3,006	2,920	1.212	0.002	0.983	0.993
Ever used any contraceptive method	0.749	0.011	3,006	2,920	1.450	0.015	0.726	0.772
Currently using any contraceptive method	0.425	0.012	3,006	2,920	1.324	0.028	0.401	0.449
Currently using a modern method	0.400	0.012	3,006	2,920	1.340	0.030	0.376	0.423
Currently using pill	0.092	0.007	3,006	2,920	1.329	0.076	0.078	0.106
Currently using IUD	0.073	0.006	3,006	2,920	1.323	0.086	0.061	0.086
Currently using condom	0.129	0.008	3,006	2,920	1.238	0.059	0.114	0.144
Currently using female sterilization	0.053	0.005	3,006	2,920	1.185	0.092	0.043	0.063
Currently using periodic abstinence	0.007	0.002	3,006	2,920	1.134	0.239	0.004	0.011
Obtained method from public sector source	0.486	0.018	1,541	1,619	1.425	0.037	0.449	0.522
Wants no more children	0.613	0.010	3,006	2,920	1.160	0.017	0.592	0.633
Wants to delay birth at least 2 years	0.155	0.010	3,006	2,920	1.495	0.064	0.135	0.175
Ideal family size	2.875	0.030	4,830	4,855	1.344	0.010	2.814	2.935
Mother received tetanus injection for birth	0.534	0.018	1,583	1,425	1.379	0.034	0.497	0.570
Mother received two or more tetanus injections	0.190	0.014	1,583	1,425	1.442	0.075	0.162	0.218
Mother received neonatal tetanus	0.345	0.017	1,583	1,425	1.407	0.049	0.311	0.379
Mother received medical assistance at delivery	0.919	0.008	2,178	1,886	1.099	0.009	0.902	0.936
Child had diarrhea in two weeks before survey	0.099	0.011	2,105	1,815	1.444	0.112	0.077	0.121
Treated with oral rehydration salts (ORS)	0.498	0.055	213	179	1.402	0.110	0.389	0.608
Child taken to a health provider	0.588	0.047	213	179	1.210	0.080	0.494	0.682
Vaccination card seen for children 18-29 months	0.877	0.023	469	384	1.353	0.026	0.831	0.923
Child received BCG	0.941	0.013	469	384	1.024	0.013	0.916	0.966
Received DPT (3 doses)	0.847	0.024	469	384	1.281	0.028	0.799	0.894
Received polio (3 doses)	0.700	0.027	469	384	1.149	0.039	0.646	0.755
Received measles	0.817	0.024	469	384	1.206	0.029	0.769	0.865
Fully immunized (DHS schedule)	0.634	0.028	469	384	1.117	0.044	0.579	0.690
Received MMR	0.666	0.030	469	384	1.245	0.045	0.606	0.727
Received Yellow Fever vaccine	0.790	0.024	469	384	1.143	0.030	0.742	0.838
Fully immunized (Guyana schedule)	0.474	0.030	469	384	1.173	0.064	0.414	0.535
Child: height-for-age below -2SD	0.182	0.013	1,724	1,522	1.232	0.071	0.156	0.208
Child: weight-for-height below -2SD	0.053	0.007	1,724	1,522	1.166	0.138	0.038	0.068
Child: weight-for-age below -2SD	0.105	0.011	1,724	1,522	1.282	0.102	0.083	0.126
Body Mass Index (BMI) <18.5	0.105	0.006	4,459	4,502	1.276	0.056	0.093	0.116
Anemia in children	0.393	0.019	1,615	1,349	1.368	0.049	0.354	0.431
Anemia in women	0.374	0.010	4,607	4,595	1.441	0.027	0.353	0.395
Has heard of HIV/AIDS	0.970	0.004	4,996	4,996	1.511	0.004	0.963	0.978
Knows condom use reduces HIV/AIDS	0.813	0.008	4,996	4,996	1.519	0.010	0.796	0.830
Knows about limiting partners to avoid AIDS	0.823	0.009	4,996	4,996	1.597	0.010	0.805	0.840
Has comprehensive knowledge of HIV/AIDS	0.529	0.011	4,996	4,996	1.572	0.021	0.507	0.551
Higher-risk sex past 12 months among youth	0.424	0.026	959	939	1.628	0.061	0.372	0.476
Condom use at last higher-risk sex among youth	0.558	0.029	401	398	1.168	0.052	0.500	0.616
MEN								
No education	0.017	0.005	3,522	3,522	2.099	0.269	0.008	0.026
Secondary education or higher	0.781	0.014	3,522	3,522	1.956	0.017	0.754	0.808
Never married	0.392	0.011	3,522	3,522	1.365	0.029	0.370	0.415
Currently married/in union	0.521	0.012	3,522	3,522	1.404	0.023	0.497	0.545
Had sexual intercourse before age 18	0.523	0.012	2,802	2,833	1.305	0.024	0.498	0.547
Knows at least one contraceptive method	0.992	0.002	1,884	1,835	0.966	0.002	0.987	0.996
Knows any modern method	0.989	0.002	1,884	1,835	1.027	0.002	0.984	0.994
Ever used any contraceptive method	0.805	0.012	1,884	1,835	1.365	0.016	0.780	0.830
Wants no more children	0.508	0.015	1,884	1,835	1.306	0.030	0.478	0.538
Wants to delay birth at least two years	0.141	0.010	1,884	1,835	1.253	0.071	0.121	0.161
Ideal family size	3.250	0.070	3,414	3,413	1.554	0.021	3.111	3.390
Has heard of HIV/AIDS	0.974	0.004	3,522	3,522	1.433	0.004	0.966	0.982
Knows condom use reduces HIV/AIDS	0.839	0.011	3,522	3,522	1.740	0.013	0.817	0.861
Knows about limiting partners to avoid AIDS	0.847	0.012	3,522	3,522	2.025	0.015	0.822	0.872
Has comprehensive knowledge of HIV/AIDS	0.037	0.004	3,522	3,522	1.244	0.106	0.029	0.045
Higher-risk sex past 12 months among youth	0.795	0.022	637	632	1.350	0.027	0.752	0.838
Condom use at last higher-risk sex among youth	0.782	0.020	509	502	1.076	0.025	0.743	0.822

Table B.2.2 Sampling errors for the urban sample, Guyana 2009

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence intervals: Value - 2SE (R - 2SE)	Confidence intervals: Value + 2SE (R + 2SE)
WOMEN								
No education	0.006	0.002	1,420	1,475	1.160	0.401	0.001	0.011
Secondary education or higher	0.922	0.008	1,420	1,475	1.125	0.009	0.905	0.938
Never married	0.415	0.015	1,420	1,475	1.121	0.035	0.385	0.444
Currently married/in union	0.440	0.019	1,420	1,475	1.425	0.043	0.402	0.477
Had sexual intercourse before age 18	0.386	0.022	1,126	1,168	1.540	0.058	0.341	0.431
Currently pregnant	0.030	0.005	1,420	1,475	1.088	0.164	0.020	0.040
Children ever born	1.640	0.051	1,420	1,475	1.081	0.031	1.539	1.742
Children surviving	1.554	0.050	1,420	1,475	1.122	0.032	1.454	1.653
Children ever born to women age 40-49	2.825	0.134	367	381	1.388	0.047	2.557	3.093
Knows any contraceptive method	0.998	0.001	673	649	0.702	0.001	0.995	1.000
Ever used any contraceptive method	0.827	0.016	673	649	1.106	0.019	0.795	0.860
Currently using any contraceptive method	0.430	0.019	673	649	1.005	0.045	0.392	0.468
Currently using a modern method	0.404	0.020	673	649	1.083	0.051	0.363	0.445
Currently using pill	0.045	0.009	673	649	1.122	0.199	0.027	0.063
Currently using IUD	0.079	0.013	673	649	1.259	0.166	0.053	0.105
Currently using condom	0.180	0.016	673	649	1.087	0.089	0.148	0.212
Currently using female sterilization	0.070	0.010	673	649	1.033	0.145	0.050	0.091
Currently using periodic abstinence	0.008	0.004	673	649	1.175	0.502	0.000	0.016
Obtained method from public sector source	0.462	0.032	470	513	1.406	0.070	0.397	0.527
Wants no more children	0.580	0.021	673	649	1.129	0.037	0.537	0.623
Wants to delay birth at least 2 years	0.142	0.013	673	649	0.987	0.094	0.115	0.169
Ideal family size	2.769	0.049	1,381	1,440	1.176	0.018	2.672	2.866
Mother received tetanus injection for last birth	0.688	0.029	326	346	1.149	0.042	0.630	0.746
Mother received two or more tetanus injections	0.319	0.037	326	346	1.420	0.115	0.246	0.392
Mother received neonatal tetanus	0.496	0.040	326	346	1.459	0.082	0.415	0.577
Mother received medical assistance at delivery	0.982	0.007	407	425	1.135	0.007	0.967	0.997
Child had diarrhea in two weeks before survey	0.061	0.012	392	405	0.916	0.193	0.037	0.084
Treated with oral rehydration salts (ORS)	0.122	0.058	25	25	0.861	0.478	0.005	0.239
Child taken to a health provider	0.315	0.092	25	25	0.896	0.291	0.132	0.498
Vaccination card seen for children 18-29 months	0.849	0.066	85	85	1.659	0.077	0.718	0.980
Child received BCG	0.961	0.022	85	85	1.035	0.023	0.917	1.000
Received DPT (3 doses)	0.878	0.042	85	85	1.172	0.048	0.793	0.963
Received polio (3 doses)	0.672	0.073	85	85	1.408	0.109	0.526	0.818
Received measles	0.881	0.040	85	85	1.126	0.046	0.801	0.962
Fully immunized (DHS schedule)	0.602	0.067	85	85	1.240	0.111	0.468	0.736
Received MMR	0.786	0.048	85	85	1.059	0.061	0.690	0.882
Received Yellow Fever vaccine	0.871	0.042	85	85	1.122	0.048	0.787	0.954
Fully immunized (Guyana schedule)	0.523	0.066	85	85	1.188	0.125	0.392	0.654
Child: height-for-age below -2SD	0.110	0.024	335	341	1.301	0.214	0.063	0.157
Child: weight-for-height below -2SD	0.058	0.014	335	341	1.049	0.238	0.030	0.086
Child: weight-for-age below -2SD	0.068	0.022	335	341	1.560	0.326	0.024	0.112
Body Mass Index (BMI) <18.5	0.097	0.010	1,316	1,369	1.196	0.101	0.077	0.116
Anemia in children	0.399	0.038	296	297	1.202	0.096	0.323	0.475
Anemia in women	0.375	0.017	1,309	1,336	1.243	0.045	0.341	0.408
Has heard of HIV/AIDS	0.990	0.003	1,420	1,475	1.184	0.003	0.983	0.996
Knows condom use reduces HIV/AIDS	0.904	0.010	1,420	1,475	1.289	0.011	0.884	0.924
Knows about limiting partners to avoid AIDS	0.909	0.010	1,420	1,475	1.351	0.011	0.889	0.930
Has comprehensive knowledge of HIV/AIDS	0.704	0.021	1,420	1,475	1.763	0.030	0.661	0.746
Higher-risk sex past 12 months among youth	0.670	0.033	231	241	1.065	0.049	0.604	0.736
Condom use at last higher-risk sex among youth	0.669	0.045	141	162	1.121	0.067	0.580	0.758
MEN								
No education	0.004	0.002	1,013	949	1.100	0.568	0.000	0.008
Secondary education or higher	0.909	0.012	1,013	949	1.285	0.013	0.886	0.932
Never married	0.511	0.021	1,013	949	1.357	0.042	0.468	0.554
Currently married/in union	0.407	0.021	1,013	949	1.374	0.052	0.365	0.449
Had sexual intercourse before age 18	0.576	0.021	761	727	1.161	0.036	0.534	0.617
Knows at least one contraceptive method	0.994	0.005	439	386	1.226	0.005	0.985	1.000
Knows any modern method	0.994	0.005	439	386	1.226	0.005	0.985	1.000
Ever used any contraceptive method	0.897	0.014	439	386	0.957	0.016	0.869	0.924
Wants no more children	0.420	0.032	439	386	1.361	0.076	0.355	0.484
Wants to delay birth at least two years	0.137	0.018	439	386	1.079	0.129	0.102	0.173
Ideal family size	3.151	0.102	988	923	1.313	0.032	2.948	3.354
Has heard of HIV/AIDS	0.993	0.003	1,013	949	1.012	0.003	0.988	0.998
Knows condom use reduces HIV/AIDS	0.926	0.009	1,013	949	1.111	0.010	0.908	0.945
Knows about limiting partners to avoid AIDS	0.912	0.012	1,013	949	1.397	0.014	0.887	0.936
Has comprehensive knowledge of HIV/AIDS	0.030	0.007	1,013	949	1.233	0.220	0.017	0.043
Higher-risk sex past 12 months among youth	0.896	0.022	224	214	1.089	0.025	0.852	0.941
Condom use at last higher-risk sex among youth	0.819	0.027	194	192	0.965	0.033	0.766	0.873

Table B.2.3 Sampling errors for the Georgetown urban sample, Guyana 2009

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence intervals: Value - 2SE (R - 2SE)	Confidence intervals: Value + 2SE (R + 2SE)
WOMEN								
No education	0.006	0.003	554	967	1.019	0.565	0.000	0.012
Secondary education or higher	0.952	0.009	554	967	1.002	0.010	0.934	0.970
Never married	0.426	0.019	554	967	0.919	0.045	0.387	0.465
Currently married/in union	0.405	0.025	554	967	1.206	0.062	0.355	0.455
Had sexual intercourse before age 18	0.397	0.031	439	769	1.327	0.078	0.334	0.459
Currently pregnant	0.024	0.007	554	967	1.017	0.275	0.011	0.037
Children ever born	1.528	0.064	554	967	0.932	0.042	1.400	1.657
Children surviving	1.466	0.064	554	967	0.952	0.043	1.338	1.593
Children ever born to women age 40-49	2.592	0.176	146	252	1.282	0.068	2.240	2.944
Knows any contraceptive method	1.000	na	226	392	na	na	na	na
Ever used any contraceptive method	0.849	0.023	226	392	0.950	0.027	0.804	0.894
Currently using any contraceptive method	0.435	0.026	226	392	0.782	0.059	0.383	0.487
Currently using a modern method	0.408	0.028	226	392	0.858	0.069	0.352	0.465
Currently using pill	0.026	0.012	226	392	1.095	0.445	0.003	0.049
Currently using IUD	0.098	0.020	226	392	1.022	0.207	0.057	0.138
Currently using condom	0.203	0.024	226	392	0.889	0.118	0.155	0.250
Currently using female sterilization	0.055	0.013	226	392	0.880	0.242	0.029	0.082
Currently using periodic abstinence	0.008	0.006	226	392	0.994	0.727	0.000	0.020
Obtained method from public sector source	0.415	0.043	199	348	1.235	0.104	0.329	0.502
Wants no more children	0.551	0.030	226	392	0.908	0.055	0.490	0.611
Wants to delay birth at least 2 years	0.140	0.020	226	392	0.846	0.139	0.101	0.180
Ideal family size	2.723	0.065	543	948	1.002	0.024	2.592	2.853
Mother received tetanus injection for last birth	0.797	0.039	125	223	1.089	0.049	0.720	0.875
Mother received two or more tetanus injections	0.449	0.053	125	223	1.178	0.117	0.344	0.555
Mother received neonatal tetanus	0.601	0.056	125	223	1.271	0.093	0.489	0.712
Mother received medical assistance at delivery	0.985	0.010	149	265	1.078	0.011	0.964	1.006
Child had diarrhea in two weeks before survey	0.051	0.016	143	252	0.862	0.312	0.019	0.083
Treated with oral rehydration salts (ORS)	0.000	na	7	13	na	na	na	na
Child taken to a health provider	0.000	na	7	13	na	na	na	na
Vaccination card seen for children 18-29 months	0.772	0.104	30	51	1.335	0.134	0.564	0.979
Child received BCG	0.967	0.032	30	51	0.968	0.033	0.904	1.000
Received DPT (3 doses)	0.805	0.069	30	51	0.937	0.085	0.667	0.942
Received polio (3 doses)	0.627	0.112	30	51	1.251	0.178	0.403	0.851
Received measles	0.891	0.061	30	51	1.055	0.068	0.769	1.000
Fully immunized (DHS schedule)	0.591	0.103	30	51	1.136	0.175	0.384	0.798
Received MMR	0.788	0.073	30	51	0.959	0.092	0.643	0.933
Received Yellow Fever vaccine	0.862	0.065	30	51	1.018	0.075	0.732	0.992
Fully immunized	0.489	0.100	30	51	1.081	0.205	0.289	0.689
Child: height-for-age below -2SD	0.109	0.035	117	203	1.219	0.321	0.039	0.180
Child: weight-for-height below -2SD	0.055	0.020	117	203	0.953	0.367	0.015	0.096
Child: weight-for-age below -2SD	0.075	0.035	117	203	1.431	0.465	0.005	0.145
Body Mass Index (BMI) <18.5	0.093	0.013	515	901	0.994	0.137	0.068	0.119
Anemia in children	0.403	0.059	96	170	1.068	0.146	0.286	0.521
Anemia in women	0.359	0.024	494	860	1.094	0.066	0.312	0.407
Has heard of HIV/AIDS	0.998	0.002	554	967	1.091	0.002	0.994	1.000
Knows condom use reduces HIV/AIDS	0.937	0.013	554	967	1.224	0.013	0.912	0.963
Knows about limiting partners to avoid AIDS	0.931	0.014	554	967	1.293	0.015	0.904	0.959
Has comprehensive knowledge of HIV/AIDS	0.766	0.030	554	967	1.680	0.040	0.705	0.826
Higher-risk sex past 12 months among youth	0.724	0.040	100	166	0.900	0.056	0.643	0.805
Condom use at last higher-risk sex among youth	0.653	0.058	70	120	1.013	0.089	0.537	0.769
MEN								
No education	0.003	0.003	394	619	1.056	0.997	0.000	0.009
Secondary education or higher	0.915	0.016	394	619	1.114	0.017	0.884	0.947
Never married	0.531	0.029	394	619	1.171	0.056	0.472	0.590
Currently married/in union	0.374	0.029	394	619	1.189	0.078	0.316	0.432
Had sexual intercourse before age 18	0.618	0.027	313	493	0.982	0.044	0.564	0.672
Knows at least one contraceptive method	0.993	0.007	144	231	0.988	0.007	0.979	1.000
Knows any modern method	0.993	0.007	144	231	0.988	0.007	0.979	1.000
Ever used any contraceptive method	0.947	0.018	144	231	0.942	0.019	0.912	0.983
Wants no more children	0.401	0.049	144	231	1.189	0.121	0.304	0.499
Wants to delay birth at least two years	0.127	0.027	144	231	0.951	0.208	0.074	0.180
Ideal family size	3.078	0.143	382	600	1.164	0.046	2.792	3.364
Has heard of HIV/AIDS	0.997	0.003	394	619	1.086	0.003	0.991	1.000
Knows condom use reduces HIV/AIDS	0.965	0.010	394	619	1.071	0.010	0.945	0.985
Knows about limiting partners to avoid AIDS	0.938	0.015	394	619	1.246	0.016	0.907	0.968
Has comprehensive knowledge of HIV/AIDS	0.023	0.008	394	619	1.087	0.355	0.007	0.040
Higher-risk sex past 12 months among youth	0.924	0.029	92	140	1.050	0.032	0.865	0.982
Condom use at last higher-risk sex among youth	0.788	0.036	85	129	0.805	0.046	0.717	0.860

na = Not applicable

Table B.2.4 Sampling errors for the rest of urban sample (other than Georgetown urban), Guyana 2009

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence intervals: Value - 2SE (R - 2SE)	Confidence intervals: Value + 2SE (R + 2SE)
WOMEN								
No education	0.006	0.003	866	508	1.020	0.450	0.001	0.011
Secondary education or higher	0.863	0.015	866	508	1.304	0.018	0.833	0.894
Never married	0.393	0.020	866	508	1.209	0.051	0.353	0.433
Currently married/in union	0.506	0.023	866	508	1.338	0.045	0.460	0.551
Had sexual intercourse before age 18	0.366	0.025	687	399	1.381	0.069	0.315	0.417
Currently pregnant	0.041	0.006	866	508	0.957	0.157	0.028	0.054
Children ever born	1.854	0.081	866	508	1.204	0.044	1.691	2.017
Children surviving	1.721	0.079	866	508	1.268	0.046	1.564	1.879
Children ever born to women age 40-49	3.284	0.180	221	128	1.272	0.055	2.924	3.644
Knows any contraceptive method	0.994	0.003	447	257	0.902	0.003	0.987	1.001
Ever used any contraceptive method	0.794	0.022	447	257	1.139	0.027	0.751	0.838
Currently using any contraceptive method	0.422	0.028	447	257	1.216	0.067	0.365	0.479
Currently using a modern method	0.396	0.029	447	257	1.264	0.074	0.338	0.455
Currently using pill	0.074	0.013	447	257	1.086	0.181	0.047	0.101
Currently using IUD	0.051	0.013	447	257	1.267	0.260	0.024	0.077
Currently using condom	0.146	0.018	447	257	1.080	0.124	0.110	0.182
Currently using female sterilization	0.093	0.015	447	257	1.081	0.160	0.063	0.123
Currently using periodic abstinence	0.008	0.005	447	257	1.114	0.593	0.000	0.017
Obtained method from public sector source	0.561	0.039	271	165	1.276	0.069	0.484	0.638
Wants no more children	0.625	0.027	447	257	1.169	0.043	0.571	0.679
Wants to delay birth at least 2 years	0.144	0.015	447	257	0.921	0.106	0.114	0.175
Ideal family size	2.859	0.068	838	492	1.262	0.024	2.722	2.996
Mother received tetanus injection for last birth	0.490	0.039	201	123	1.120	0.079	0.413	0.568
Mother received two or more tetanus injections	0.083	0.019	201	123	0.970	0.228	0.045	0.120
Mother received neonatal tetanus	0.308	0.047	201	123	1.433	0.152	0.214	0.401
Mother received medical assistance at delivery	0.977	0.009	258	159	0.993	0.009	0.959	0.995
Child had diarrhea in two weeks before survey	0.077	0.017	249	154	0.954	0.226	0.042	0.111
Treated with oral rehydration salts (ORS)	0.256	0.114	18	12	1.120	0.444	0.029	0.483
Child taken to a health provider	0.658	0.132	18	12	1.089	0.201	0.394	0.923
Vaccination card seen for children 18-29 months	0.965	0.026	55	34	1.082	0.027	0.914	1.000
Child received BCG	0.952	0.028	55	34	0.987	0.029	0.897	1.000
Received DPT (3 doses)	0.987	0.013	55	34	0.872	0.013	0.962	1.000
Received polio (3 doses)	0.739	0.072	55	34	1.247	0.097	0.595	0.883
Received measles	0.867	0.041	55	34	0.929	0.048	0.785	0.950
Fully immunized (DHS schedule)	0.619	0.063	55	34	0.995	0.102	0.492	0.746
Received MMR	0.783	0.051	55	34	0.936	0.065	0.681	0.884
Received Yellow Fever vaccine	0.883	0.037	55	34	0.876	0.042	0.809	0.957
Fully immunized (Guyana schedule)	0.573	0.063	55	34	0.974	0.110	0.447	0.700
Child: height-for-age below -2SD	0.111	0.027	218	138	1.168	0.239	0.058	0.164
Child: weight-for-height below -2SD	0.062	0.017	218	138	1.021	0.269	0.029	0.095
Child: weight-for-age below -2SD	0.057	0.017	218	138	1.062	0.298	0.023	0.091
Body Mass Index (BMI) <18.5	0.103	0.015	801	469	1.353	0.141	0.074	0.132
Anemia in children	0.392	0.041	200	127	1.159	0.105	0.310	0.475
Anemia in women	0.403	0.020	815	476	1.155	0.049	0.363	0.443
Has heard of HIV/AIDS	0.974	0.008	866	508	1.534	0.009	0.957	0.991
Knows condom use reduces HIV/AIDS	0.840	0.017	866	508	1.349	0.020	0.806	0.873
Knows about limiting partners to avoid AIDS	0.867	0.015	866	508	1.265	0.017	0.838	0.896
Has comprehensive knowledge of HIV/AIDS	0.585	0.022	866	508	1.299	0.037	0.542	0.629
Higher-risk sex past 12 months among youth	0.550	0.055	131	75	1.259	0.100	0.441	0.660
Condom use at last higher-risk sex among youth	0.716	0.044	71	41	0.815	0.061	0.628	0.804
MEN								
No education	0.005	0.003	619	330	0.969	0.536	0.000	0.011
Secondary education or higher	0.897	0.016	619	330	1.287	0.018	0.866	0.929
Never married	0.474	0.026	619	330	1.300	0.055	0.421	0.526
Currently married/in union	0.469	0.025	619	330	1.258	0.054	0.419	0.520
Had sexual intercourse before age 18	0.488	0.027	448	234	1.156	0.056	0.433	0.542
Knows at least one contraceptive method	0.995	0.005	295	155	1.243	0.005	0.984	1.000
Knows any modern method	0.995	0.005	295	155	1.243	0.005	0.984	1.000
Ever used any contraceptive method	0.821	0.019	295	155	0.841	0.023	0.784	0.859
Wants no more children	0.447	0.033	295	155	1.128	0.073	0.381	0.512
Wants to delay birth at least two years	0.152	0.020	295	155	0.968	0.133	0.112	0.193
Ideal family size	3.286	0.113	606	323	1.122	0.035	3.060	3.513
Has heard of HIV/AIDS	0.985	0.005	619	330	1.029	0.005	0.976	0.995
Knows condom use reduces HIV/AIDS	0.855	0.016	619	330	1.160	0.019	0.822	0.887
Knows about limiting partners to avoid AIDS	0.863	0.022	619	330	1.595	0.026	0.819	0.907
Has comprehensive knowledge of HIV/AIDS	0.043	0.011	619	330	1.342	0.256	0.021	0.064
Higher-risk sex past 12 months among youth	0.844	0.030	132	75	0.962	0.036	0.783	0.905
Condom use at last higher-risk sex among youth	0.883	0.031	109	63	1.001	0.035	0.821	0.945

Table B.2.5 Sampling errors for the Rural sample, Guyana 2009

Variable	Value (R)	Standard error (SE)	Number of cases Un-weighted (N)	Number of cases Weight-ed (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence intervals Value - 2SE (R - 2SE)	Confidence intervals Value + 2SE (R + 2SE)
WOMEN								
No education	0.017	0.003	3,576	3,521	1.506	0.193	0.010	0.023
Secondary education or higher	0.743	0.013	3,576	3,521	1.717	0.017	0.718	0.768
Never married	0.264	0.010	3,576	3,521	1.361	0.038	0.244	0.284
Currently married/in union	0.645	0.013	3,576	3,521	1.565	0.019	0.620	0.670
Had sexual intercourse before age 18	0.450	0.015	2,854	2,812	1.558	0.032	0.421	0.479
Currently pregnant	0.048	0.006	3,576	3,521	1.625	0.121	0.037	0.060
Children ever born	2.150	0.047	3,576	3,521	1.314	0.022	2.055	2.244
Children surviving	2.036	0.045	3,576	3,521	1.333	0.022	1.946	2.127
Children ever born to women age 40-49	3.721	0.114	822	832	1.412	0.031	3.492	3.949
Knows any contraceptive method	0.986	0.003	2,333	2,271	1.238	0.003	0.979	0.992
Ever used any contraceptive method	0.727	0.014	2,333	2,271	1.483	0.019	0.699	0.754
Currently using any contraceptive method	0.423	0.014	2,333	2,271	1.401	0.034	0.395	0.452
Currently using a modern method	0.398	0.014	2,333	2,271	1.404	0.036	0.370	0.427
Currently using pill	0.105	0.009	2,333	2,271	1.353	0.082	0.088	0.122
Currently using IUD	0.072	0.007	2,333	2,271	1.344	0.100	0.057	0.086
Currently using condom	0.114	0.008	2,333	2,271	1.281	0.074	0.098	0.131
Currently using female sterilization	0.048	0.005	2,333	2,271	1.236	0.114	0.037	0.059
Currently using periodic abstinence	0.007	0.002	2,333	2,271	1.122	0.272	0.003	0.011
Obtained method from public sector source	0.496	0.022	1,071	1,106	1.435	0.044	0.452	0.540
Wants no more children	0.622	0.012	2,333	2,271	1.171	0.019	0.599	0.646
Wants to delay birth at least 2 years	0.159	0.012	2,333	2,271	1.602	0.076	0.134	0.183
Ideal family size	2.919	0.038	3,449	3,415	1.415	0.013	2.844	2.994
Mother received tetanus injection for last birth	0.484	0.022	1,257	1,080	1.481	0.046	0.439	0.529
Mother received two or more tetanus injections	0.149	0.013	1,257	1,080	1.339	0.090	0.122	0.175
Mother received neonatal tetanus	0.297	0.018	1,257	1,080	1.374	0.060	0.261	0.332
Mother received medical assistance at delivery	0.901	0.010	1,771	1,462	1.088	0.011	0.880	0.921
Child had diarrhea in two weeks before survey	0.110	0.014	1,713	1,410	1.495	0.123	0.083	0.137
Treated with oral rehydration salts (ORS)	0.558	0.055	188	155	1.338	0.099	0.448	0.669
Child taken to a health provider	0.632	0.047	188	155	1.168	0.075	0.537	0.726
Vaccination card seen for children 18-29 months	0.884	0.023	384	299	1.205	0.025	0.839	0.929
Child received BCG	0.936	0.015	384	299	1.036	0.016	0.905	0.966
Received DPT (3 doses)	0.838	0.028	384	299	1.297	0.033	0.782	0.893
Received polio (3 doses)	0.709	0.028	384	299	1.059	0.040	0.652	0.765
Received measles	0.798	0.028	384	299	1.205	0.035	0.742	0.855
Fully immunized (DHS schedule)	0.643	0.030	384	299	1.073	0.047	0.583	0.703
Received MMR	0.632	0.035	384	299	1.262	0.056	0.562	0.703
Received Yellow Fever vaccine	0.767	0.028	384	299	1.131	0.036	0.711	0.822
Fully immunized (Guyana schedule)	0.461	0.034	384	299	1.179	0.074	0.393	0.529
Child: height-for-age below -2SD	0.203	0.015	1,389	1,180	1.217	0.074	0.173	0.232
Child: weight-for-height below -2SD	0.052	0.009	1,389	1,180	1.198	0.166	0.034	0.069
Child: weight-for-age below -2SD	0.115	0.012	1,389	1,180	1.228	0.105	0.091	0.139
Body Mass Index (BMI) <18.5	0.108	0.007	3,143	3,133	1.312	0.067	0.094	0.123
Anemia in children	0.391	0.022	1,319	1,052	1.421	0.057	0.346	0.435
Anemia in women	0.374	0.013	3,298	3,259	1.517	0.034	0.348	0.399
Has heard of HIV/AIDS	0.962	0.005	3,576	3,521	1.545	0.005	0.953	0.972
Knows condom use reduces HIV/AIDS	0.775	0.011	3,576	3,521	1.524	0.014	0.754	0.797
Knows about limiting partners to avoid AIDS	0.787	0.011	3,576	3,521	1.622	0.014	0.764	0.809
Has comprehensive knowledge of HIV/AIDS	0.456	0.012	3,576	3,521	1.438	0.026	0.432	0.480
Higher-risk sex past 12 months among youth	0.339	0.030	728	698	1.725	0.089	0.278	0.399
Condom use at last higher-risk sex among youth	0.481	0.037	260	236	1.179	0.076	0.408	0.555
MEN								
No education	0.022	0.006	2,509	2,573	2.092	0.279	0.010	0.034
Secondary education or higher	0.734	0.017	2,509	2,573	1.968	0.024	0.699	0.769
Never married	0.349	0.013	2,509	2,573	1.320	0.036	0.323	0.374
Currently married/in union	0.563	0.014	2,509	2,573	1.368	0.024	0.536	0.590
Had sexual intercourse before age 18	0.504	0.015	2,041	2,105	1.337	0.029	0.475	0.534
Knows at least one contraceptive method	0.991	0.002	1,445	1,448	0.913	0.002	0.986	0.996
Knows any modern method	0.988	0.003	1,445	1,448	0.991	0.003	0.983	0.994
Ever used any contraceptive method	0.780	0.015	1,445	1,448	1.379	0.019	0.750	0.810
Wants no more children	0.531	0.017	1,445	1,448	1.308	0.032	0.497	0.566
Wants to delay birth at least two years	0.142	0.012	1,445	1,448	1.287	0.083	0.118	0.165
Ideal family size	3.287	0.087	2,426	2,490	1.600	0.026	3.113	3.461
Has heard of HIV/AIDS	0.967	0.005	2,509	2,573	1.434	0.005	0.956	0.977
Knows condom use reduces HIV/AIDS	0.807	0.014	2,509	2,573	1.749	0.017	0.779	0.834
Knows about limiting partners to avoid AIDS	0.823	0.016	2,509	2,573	2.092	0.019	0.791	0.855
Has comprehensive knowledge of HIV/AIDS	0.040	0.005	2,509	2,573	1.245	0.122	0.030	0.050
Higher-risk sex past 12 months among youth	0.743	0.029	413	417	1.327	0.038	0.686	0.800
Condom use at last higher-risk sex among youth	0.759	0.027	315	310	1.132	0.036	0.705	0.814

Table B.2.6 Sampling errors for the Coastal total sample, Guyana 2009

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence intervals: Value - 2SE (R - 2SE)	Confidence intervals: Value + 2SE (R + 2SE)
WOMEN								
No education	0.010	0.002	3,738	4,495	1.198	0.195	0.006	0.014
Secondary education or higher	0.809	0.009	3,738	4,495	1.432	0.011	0.790	0.827
Never married	0.319	0.009	3,738	4,495	1.211	0.029	0.300	0.337
Currently married/in union	0.570	0.012	3,738	4,495	1.449	0.021	0.547	0.594
Had sexual intercourse before age 18	0.408	0.013	2,976	3,583	1.481	0.033	0.382	0.435
Currently pregnant	0.037	0.003	3,738	4,495	1.126	0.095	0.030	0.043
Children ever born	1.870	0.035	3,738	4,495	1.128	0.019	1.800	1.940
Children surviving	1.770	0.034	3,738	4,495	1.150	0.019	1.703	1.837
Children ever born to women age 40-49	3.236	0.091	928	1,110	1.370	0.028	3.054	3.419
Knows any contraceptive method	0.995	0.002	2,144	2,562	1.359	0.002	0.991	0.999
Ever used any contraceptive method	0.766	0.010	2,144	2,562	1.136	0.014	0.746	0.787
Currently using any contraceptive method	0.440	0.011	2,144	2,562	1.069	0.026	0.417	0.463
Currently using a modern method	0.414	0.012	2,144	2,562	1.097	0.028	0.391	0.438
Currently using pill	0.097	0.008	2,144	2,562	1.205	0.079	0.082	0.113
Currently using IUD	0.081	0.007	2,144	2,562	1.187	0.086	0.067	0.095
Currently using condom	0.139	0.008	2,144	2,562	1.115	0.060	0.122	0.155
Currently using female sterilization	0.055	0.005	2,144	2,562	1.087	0.097	0.044	0.066
Currently using periodic abstinence	0.007	0.002	2,144	2,562	1.064	0.267	0.003	0.011
Obtained method from public sector source	0.457	0.019	1,206	1,481	1.346	0.042	0.418	0.496
Wants no more children	0.605	0.011	2,144	2,562	1.061	0.019	0.583	0.627
Wants to delay birth at least 2 years	0.160	0.011	2,144	2,562	1.403	0.070	0.138	0.182
Ideal family size	2.808	0.029	3,630	4,375	1.181	0.010	2.751	2.866
Mother received tetanus injection for last birth	0.521	0.020	960	1,160	1.213	0.037	0.482	0.560
Mother received two or more tetanus injections	0.189	0.017	960	1,160	1.309	0.088	0.156	0.222
Mother received neonatal tetanus	0.334	0.020	960	1,160	1.296	0.059	0.294	0.373
Mother received medical assistance at delivery	0.962	0.006	1,229	1,477	1.060	0.006	0.949	0.974
Child had diarrhea in two weeks before survey	0.087	0.010	1,183	1,421	1.086	0.109	0.068	0.106
Treated with oral rehydration salts (ORS)	0.410	0.059	108	124	1.132	0.143	0.293	0.527
Child taken to a health provider	0.499	0.054	108	124	1.030	0.109	0.391	0.608
Vaccination card seen for children 18-29 months	0.869	0.028	251	287	1.276	0.033	0.812	0.925
Child received BCG	0.952	0.014	251	287	0.943	0.014	0.924	0.979
Received DPT (3 doses)	0.873	0.025	251	287	1.140	0.029	0.823	0.923
Received polio (3 doses)	0.703	0.034	251	287	1.147	0.049	0.635	0.772
Received measles	0.848	0.026	251	287	1.095	0.030	0.797	0.900
Fully immunized (DHS schedule)	0.638	0.035	251	287	1.125	0.055	0.568	0.709
Received MMR	0.675	0.033	251	287	1.094	0.049	0.609	0.742
Received Yellow Fever vaccine	0.819	0.027	251	287	1.079	0.033	0.764	0.873
Fully immunized (Guyana schedule)	0.464	0.037	251	287	1.157	0.081	0.389	0.539
Child: height-for-age below -2SD	0.142	0.013	1,011	1,233	1.118	0.089	0.116	0.167
Child: weight-for-height below -2SD	0.058	0.009	1,011	1,233	1.063	0.149	0.041	0.076
Child: weight-for-age below -2SD	0.102	0.012	1,011	1,233	1.149	0.116	0.078	0.125
Body Mass Index (BMI) <18.5	0.113	0.006	3,390	4,091	1.166	0.056	0.100	0.126
Anemia in children	0.385	0.021	888	1,060	1.185	0.054	0.344	0.427
Anemia in women	0.382	0.011	3,449	4,127	1.312	0.028	0.361	0.404
Has heard of HIV/AIDS	0.980	0.003	3,738	4,495	1.459	0.003	0.973	0.986
Knows condom use reduces HIV/AIDS	0.831	0.008	3,738	4,495	1.331	0.010	0.815	0.847
Knows about limiting partners to avoid AIDS	0.836	0.008	3,738	4,495	1.397	0.010	0.819	0.853
Has comprehensive knowledge of HIV/AIDS	0.542	0.011	3,738	4,495	1.383	0.021	0.520	0.565
Higher-risk sex past 12 months among youth	0.443	0.026	648	797	1.315	0.058	0.391	0.494
Condom use at last higher-risk sex among youth	0.560	0.032	280	353	1.076	0.057	0.496	0.624
MEN								
No education	0.012	0.002	2697	3126	1.127	0.196	0.007	0.017
With secondary or higher	0.792	0.014	2697	3126	1.732	0.017	0.765	0.819
Never married	0.402	0.012	2697	3126	1.263	0.030	0.378	0.426
Currently married/in union	0.513	0.013	2697	3126	1.353	0.025	0.487	0.539
Had sexual intercourse before18	0.506	0.013	2120	2499	1.241	0.027	0.479	0.533
Knows at least one method	0.995	0.002	1377	1602	1.097	0.002	0.991	0.999
Knows any modern method	0.994	0.002	1377	1602	1.125	0.002	0.989	0.999
Ever used any method	0.818	0.013	1377	1602	1.258	0.016	0.792	0.844
Wants no more children	0.510	0.016	1377	1602	1.224	0.032	0.477	0.543
Wants to delay birth at least two years	0.142	0.011	1377	1602	1.134	0.075	0.121	0.163
Ideal family size	3.139	0.059	2626	3029	1.233	0.019	3.021	3.258
Has heard of HIV/AIDS	0.977	0.004	2697	3126	1.372	0.004	0.969	0.985
Knows condom use reduces HIV/AIDS	0.856	0.009	2697	3126	1.294	0.010	0.839	0.874
Knows about limiting partners to avoid AIDS	0.860	0.011	2697	3126	1.596	0.012	0.839	0.881
Has comprehensive knowledge of HIV/AIDS	0.038	0.004	2697	3126	1.175	0.114	0.029	0.047
High-risk sex past 12 months among youth	0.805	0.022	479	548	1.199	0.027	0.762	0.848
Condom use at last higher-risk sex among youth	0.796	0.021	386	441	1.007	0.026	0.754	0.837

Table B.2.7 Sampling errors for the Coastal urban sample, Guyana 2009

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence intervals: Value - 2SE (R - 2SE)	Confidence intervals: Value + 2SE (R + 2SE)
WOMEN								
No education	0.006	0.002	1,420	1,475	1.160	0.401	0.001	0.011
Secondary education or higher	0.922	0.008	1,420	1,475	1.125	0.009	0.905	0.938
Never married	0.415	0.015	1,420	1,475	1.121	0.035	0.385	0.444
Currently married/in union	0.440	0.019	1,420	1,475	1.425	0.043	0.402	0.477
Had sexual intercourse before age 18	0.386	0.022	1,126	1,168	1.540	0.058	0.341	0.431
Currently pregnant	0.030	0.005	1,420	1,475	1.088	0.164	0.020	0.040
Children ever born	1.640	0.051	1,420	1,475	1.081	0.031	1.539	1.742
Children surviving	1.554	0.050	1,420	1,475	1.122	0.032	1.454	1.653
Children ever born to women age 40-49	2.825	0.134	367	381	1.388	0.047	2.557	3.093
Knows any contraceptive method	0.998	0.001	673	649	0.702	0.001	0.995	1.000
Ever used any contraceptive method	0.827	0.016	673	649	1.106	0.019	0.795	0.860
Currently using any contraceptive method	0.430	0.019	673	649	1.005	0.045	0.392	0.468
Currently using a modern method	0.404	0.020	673	649	1.083	0.051	0.363	0.445
Currently using pill	0.045	0.009	673	649	1.122	0.199	0.027	0.063
Currently using IUD	0.079	0.013	673	649	1.259	0.166	0.053	0.105
Currently using condom	0.180	0.016	673	649	1.087	0.089	0.148	0.212
Currently using female sterilization	0.070	0.010	673	649	1.033	0.145	0.050	0.091
Currently using periodic abstinence	0.008	0.004	673	649	1.175	0.502	0.000	0.016
Obtained method from public sector source	0.462	0.032	470	513	1.406	0.070	0.397	0.527
Wants no more children	0.580	0.021	673	649	1.129	0.037	0.537	0.623
Wants to delay birth at least 2 years	0.142	0.013	673	649	0.987	0.094	0.115	0.169
Ideal family size	2.769	0.049	1,381	1,440	1.176	0.018	2.672	2.866
Mother received tetanus injection for last birth	0.688	0.029	326	346	1.149	0.042	0.630	0.746
Mother received two or more tetanus injections	0.319	0.037	326	346	1.420	0.115	0.246	0.392
Mother received neonatal tetanus	0.496	0.040	326	346	1.459	0.082	0.415	0.577
Mother received medical assistance at delivery	0.982	0.007	407	425	1.135	0.007	0.967	0.997
Child had diarrhea in two weeks before survey	0.061	0.012	392	405	0.916	0.193	0.037	0.084
Treated with oral rehydration salts (ORS)	0.122	0.058	25	25	0.861	0.478	0.005	0.239
Child taken to a health provider	0.315	0.092	25	25	0.896	0.291	0.132	0.498
Vaccination card seen for children 18-29 months	0.849	0.066	85	85	1.659	0.077	0.718	0.980
Child received BCG	0.961	0.022	85	85	1.035	0.023	0.917	1.000
Received DPT (3 doses)	0.878	0.042	85	85	1.172	0.048	0.793	0.963
Received polio (3 doses)	0.672	0.073	85	85	1.408	0.109	0.526	0.818
Received measles	0.881	0.040	85	85	1.126	0.046	0.801	0.962
Fully immunized (DHS schedule)	0.602	0.067	85	85	1.240	0.111	0.468	0.736
Received MMR	0.786	0.048	85	85	1.059	0.061	0.690	0.882
Received Yellow Fever vaccine	0.871	0.042	85	85	1.122	0.048	0.787	0.954
Fully immunized (Guyana schedule)	0.523	0.066	85	85	1.188	0.125	0.392	0.654
Child: height-for-age below -2SD	0.110	0.024	335	341	1.301	0.214	0.063	0.157
Child: weight-for-height below -2SD	0.058	0.014	335	341	1.049	0.238	0.030	0.086
Child: weight-for-age below -2SD	0.068	0.022	335	341	1.560	0.326	0.024	0.112
Body Mass Index (BMI) <18.5	0.097	0.010	1,316	1,369	1.196	0.101	0.077	0.116
Anemia in children	0.399	0.038	296	297	1.202	0.096	0.323	0.475
Anemia in women	0.375	0.017	1,309	1,336	1.243	0.045	0.341	0.408
Has heard of HIV/AIDS	0.990	0.003	1,420	1,475	1.184	0.003	0.983	0.996
Knows condom use reduces HIV/AIDS	0.904	0.010	1,420	1,475	1.289	0.011	0.884	0.924
Knows about limiting partners to avoid AIDS	0.909	0.010	1,420	1,475	1.351	0.011	0.889	0.930
Has comprehensive knowledge of HIV/AIDS	0.704	0.021	1,420	1,475	1.763	0.030	0.661	0.746
Higher-risk sex past 12 months among youth	0.670	0.033	231	241	1.065	0.049	0.604	0.736
Condom use at last higher-risk sex among youth	0.669	0.045	141	162	1.121	0.067	0.580	0.758
MEN								
No education	0.004	0.002	1,013	949	1.100	0.568	0.000	0.008
Secondary education or higher	0.909	0.012	1,013	949	1.285	0.013	0.886	0.932
Never married	0.511	0.021	1,013	949	1.357	0.042	0.468	0.554
Currently married/in union	0.407	0.021	1,013	949	1.374	0.052	0.365	0.449
Had sexual intercourse before age 18	0.576	0.021	761	727	1.161	0.036	0.534	0.617
Knows at least one contraceptive method	0.994	0.005	439	386	1.226	0.005	0.985	1.000
Knows any modern method	0.994	0.005	439	386	1.226	0.005	0.985	1.000
Ever used any contraceptive method	0.897	0.014	439	386	0.957	0.016	0.869	0.924
Wants no more children	0.420	0.032	439	386	1.361	0.076	0.355	0.484
Wants to delay birth at least two years	0.137	0.018	439	386	1.079	0.129	0.102	0.173
Ideal family size	3.151	0.102	988	923	1.313	0.032	2.948	3.354
Has heard of HIV/AIDS	0.993	0.003	1,013	949	1.012	0.003	0.988	0.998
Knows condom use reduces HIV/AIDS	0.926	0.009	1,013	949	1.111	0.010	0.908	0.945
Knows about limiting partners to avoid AIDS	0.912	0.012	1,013	949	1.397	0.014	0.887	0.936
Has comprehensive knowledge of HIV/AIDS	0.030	0.007	1,013	949	1.233	0.220	0.017	0.043
Higher-risk sex past 12 months among youth	0.896	0.022	224	214	1.089	0.025	0.852	0.941
Condom use at last higher-risk sex among youth	0.819	0.027	194	192	0.965	0.033	0.766	0.873

Table B.2.8 Sampling errors for the Coastal rural sample, Guyana 2009

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence intervals: Value - 2SE (R - 2SE)	Confidence intervals: Value + 2SE (R + 2SE)
WOMEN								
No education	0.012	0.003	2,318	3,019	1.173	0.220	0.007	0.017
Secondary education or higher	0.754	0.012	2,318	3,019	1.383	0.016	0.729	0.778
Never married	0.272	0.011	2,318	3,019	1.169	0.040	0.250	0.293
Currently married/in union	0.634	0.014	2,318	3,019	1.351	0.021	0.607	0.661
Had sexual intercourse before age 18	0.419	0.017	1,850	2,415	1.447	0.040	0.386	0.452
Currently pregnant	0.040	0.005	2,318	3,019	1.114	0.114	0.031	0.049
Children ever born	1.982	0.045	2,318	3,019	1.122	0.023	1.892	2.073
Children surviving	1.876	0.043	2,318	3,019	1.136	0.023	1.789	1.962
Children ever born to women age 40-49	3.451	0.117	561	729	1.328	0.034	3.216	3.686
Knows any contraceptive method	0.995	0.003	1,471	1,913	1.381	0.003	0.989	1.000
Ever used any contraceptive method	0.746	0.013	1,471	1,913	1.108	0.017	0.720	0.771
Currently using any contraceptive method	0.444	0.014	1,471	1,913	1.072	0.031	0.416	0.472
Currently using a modern method	0.418	0.014	1,471	1,913	1.088	0.033	0.390	0.446
Currently using pill	0.115	0.010	1,471	1,913	1.173	0.085	0.096	0.135
Currently using IUD	0.082	0.008	1,471	1,913	1.155	0.101	0.065	0.098
Currently using condom	0.125	0.010	1,471	1,913	1.117	0.077	0.106	0.144
Currently using female sterilization	0.050	0.006	1,471	1,913	1.102	0.125	0.038	0.063
Currently using periodic abstinence	0.007	0.002	1,471	1,913	1.024	0.316	0.003	0.012
Obtained method from public sector source	0.454	0.024	736	969	1.309	0.053	0.406	0.503
Wants no more children	0.613	0.013	1,471	1,913	1.031	0.021	0.587	0.640
Wants to delay birth at least 2 years	0.166	0.014	1,471	1,913	1.464	0.086	0.137	0.194
Ideal family size	2.827	0.036	2,249	2,934	1.188	0.013	2.756	2.899
Mother received tetanus injection for last birth	0.451	0.023	634	815	1.180	0.052	0.404	0.498
Mother received two or more tetanus injections	0.133	0.016	634	815	1.191	0.121	0.101	0.165
Mother received neonatal tetanus	0.265	0.021	634	815	1.212	0.080	0.222	0.308
Mother received medical assistance at delivery	0.954	0.008	822	1,053	1.023	0.009	0.937	0.970
Child had diarrhea in two weeks before survey	0.098	0.013	791	1,015	1.108	0.129	0.072	0.123
Treated with oral rehydration salts (ORS)	0.482	0.067	83	99	1.095	0.138	0.349	0.615
Child taken to a health provider	0.545	0.061	83	99	0.998	0.112	0.423	0.667
Vaccination card seen for children 18-29 months	0.877	0.029	166	202	1.075	0.033	0.819	0.935
Child received BCG	0.948	0.017	166	202	0.903	0.018	0.913	0.982
Received DPT (3 doses)	0.871	0.031	166	202	1.115	0.035	0.810	0.933
Received polio (3 doses)	0.716	0.038	166	202	1.022	0.052	0.641	0.791
Received measles	0.834	0.032	166	202	1.069	0.039	0.769	0.899
Fully immunized (DHS schedule)	0.654	0.041	166	202	1.060	0.063	0.572	0.736
Received MMR	0.629	0.043	166	202	1.097	0.068	0.543	0.714
Received Yellow Fever vaccine	0.797	0.034	166	202	1.049	0.043	0.728	0.866
Fully immunized (Guyana schedule)	0.439	0.046	166	202	1.150	0.105	0.347	0.531
Child: height-for-age below -2SD	0.154	0.015	676	892	1.059	0.098	0.124	0.184
Child: weight-for-height below -2SD	0.058	0.011	676	892	1.047	0.185	0.037	0.080
Child: weight-for-age below -2SD	0.115	0.014	676	892	1.046	0.122	0.087	0.143
Body Mass Index (BMI) <18.5	0.121	0.008	2,074	2,722	1.149	0.068	0.105	0.138
Anemia in children	0.380	0.024	592	763	1.163	0.064	0.331	0.429
Anemia in women	0.386	0.014	2,140	2,791	1.328	0.036	0.358	0.414
Has heard of HIV/AIDS	0.975	0.005	2,318	3,019	1.460	0.005	0.965	0.984
Knows condom use reduces HIV/AIDS	0.795	0.011	2,318	3,019	1.282	0.014	0.774	0.817
Knows about limiting partners to avoid AIDS	0.800	0.011	2,318	3,019	1.358	0.014	0.777	0.822
Has comprehensive knowledge of HIV/AIDS	0.463	0.012	2,318	3,019	1.174	0.026	0.439	0.487
Higher-risk sex past 12 months among youth	0.344	0.032	417	556	1.388	0.094	0.279	0.408
Condom use at last higher-risk sex among youth	0.467	0.043	139	191	1.022	0.093	0.381	0.554
MEN								
No education	0.016	0.003	1,684	2,176	1.083	0.209	0.009	0.022
Secondary education or higher	0.741	0.018	1,684	2,176	1.718	0.025	0.704	0.777
Never married	0.354	0.014	1,684	2,176	1.198	0.039	0.326	0.382
Currently married/in union	0.559	0.016	1,684	2,176	1.294	0.028	0.527	0.590
Had sexual intercourse before age 18	0.477	0.017	1,359	1,772	1.239	0.035	0.443	0.510
Knows at least one contraceptive method	0.995	0.002	938	1,216	1.051	0.002	0.991	1.000
Knows any modern method	0.994	0.003	938	1,216	1.082	0.003	0.988	0.999
Ever used any contraceptive method	0.793	0.016	938	1,216	1.245	0.021	0.760	0.826
Wants no more children	0.539	0.019	938	1,216	1.181	0.036	0.501	0.578
Wants to delay birth at least two years	0.144	0.013	938	1,216	1.124	0.090	0.118	0.169
Ideal family size	3.134	0.073	1,638	2,107	1.187	0.023	2.989	3.279
Has heard of HIV/AIDS	0.970	0.006	1,684	2,176	1.338	0.006	0.959	0.982
Knows condom use reduces HIV/AIDS	0.826	0.012	1,684	2,176	1.277	0.014	0.802	0.849
Knows about limiting partners to avoid AIDS	0.838	0.014	1,684	2,176	1.609	0.017	0.809	0.867
Has comprehensive knowledge of HIV/AIDS	0.041	0.006	1,684	2,176	1.132	0.133	0.030	0.052
Higher-risk sex past 12 months among youth	0.747	0.031	255	334	1.144	0.042	0.684	0.809
Condom use at last higher-risk sex among youth	0.777	0.031	192	249	1.017	0.039	0.716	0.839

Table B.2.9 Sampling errors for the Interior sample, Guyana 2009

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence intervals: Value - 2SE (R - 2SE)	Confidence intervals: Value + 2SE (R + 2SE)
WOMEN								
No education	0.045	0.015	1,258	501	2.494	0.325	0.016	0.074
Secondary education or higher	0.682	0.044	1,258	501	3.375	0.065	0.593	0.770
Never married	0.215	0.024	1,258	501	2.077	0.112	0.167	0.263
Currently married/in union	0.713	0.029	1,258	501	2.309	0.041	0.654	0.772
Had sexual intercourse before age 18	0.638	0.022	1,004	397	1.441	0.034	0.594	0.681
Currently pregnant	0.100	0.027	1,258	501	3.193	0.270	0.046	0.154
Children ever born	3.156	0.110	1,258	501	1.349	0.035	2.935	3.377
Children surviving	3.002	0.110	1,258	501	1.403	0.037	2.783	3.222
Children ever born to women age 40-49	5.629	0.273	261	103	1.524	0.048	5.083	6.175
Knows any contraceptive method	0.937	0.015	862	357	1.761	0.016	0.908	0.966
Ever used any contraceptive method	0.625	0.048	862	357	2.907	0.077	0.529	0.721
Currently using any contraceptive method	0.314	0.043	862	357	2.691	0.136	0.229	0.399
Currently using a modern method	0.293	0.041	862	357	2.661	0.141	0.210	0.375
Currently using pill	0.050	0.011	862	357	1.439	0.214	0.028	0.071
Currently using IUD	0.018	0.005	862	357	1.167	0.294	0.007	0.029
Currently using condom	0.058	0.011	862	357	1.427	0.195	0.036	0.081
Currently using female sterilization	0.036	0.009	862	357	1.352	0.238	0.019	0.053
Currently using periodic abstinence	0.008	0.003	862	357	1.147	0.441	0.001	0.015
Obtained method from public sector source	0.793	0.025	335	137	1.110	0.031	0.743	0.842
Wants no more children	0.669	0.029	862	357	1.805	0.043	0.611	0.727
Wants to delay birth at least 2 years	0.119	0.011	862	357	1.017	0.094	0.097	0.142
Ideal family size	3.479	0.104	1,200	481	1.692	0.030	3.271	3.687
Mother received tetanus injection for last birth	0.587	0.041	623	265	2.140	0.070	0.505	0.669
Mother received two or more tetanus injections	0.196	0.025	623	265	1.571	0.128	0.146	0.246
Mother received neonatal tetanus	0.394	0.025	623	265	1.295	0.064	0.344	0.445
Mother received medical assistance at delivery	0.765	0.027	949	409	1.663	0.036	0.710	0.819
Child had diarrhea in two weeks before survey	0.141	0.031	922	395	2.436	0.218	0.079	0.202
Treated with oral rehydration salts (ORS)	0.695	0.058	105	55	1.404	0.084	0.578	0.812
Child taken to a health provider	0.785	0.039	105	55	1.021	0.049	0.708	0.863
Vaccination card seen for children 18-29 months	0.900	0.032	218	97	1.636	0.035	0.836	0.963
Child received BCG	0.910	0.032	218	97	1.756	0.035	0.846	0.975
Received DPT (3 doses)	0.768	0.045	218	97	1.664	0.059	0.677	0.859
Received polio (3 doses)	0.693	0.036	218	97	1.174	0.051	0.621	0.764
Received measles	0.724	0.042	218	97	1.456	0.058	0.640	0.808
Fully immunized (DHS schedule)	0.621	0.034	218	97	1.072	0.055	0.553	0.690
Received MMR	0.639	0.063	218	97	2.020	0.098	0.514	0.765
Received Yellow Fever vaccine	0.704	0.038	218	97	1.298	0.055	0.627	0.781
Fully immunized (Guyana schedule)	0.507	0.046	218	97	1.391	0.090	0.416	0.598
Child: height-for-age below -2SD	0.353	0.020	713	289	1.075	0.056	0.314	0.392
Child: weight-for-height below -2SD	0.031	0.009	713	289	1.365	0.275	0.014	0.048
Child: weight-for-age below -2SD	0.117	0.024	713	289	2.007	0.206	0.069	0.165
Body Mass Index (BMI) <18.5	0.022	0.005	1,069	411	1.140	0.237	0.012	0.032
Anemia in children	0.419	0.045	727	289	2.316	0.108	0.329	0.509
Anemia in women	0.300	0.035	1,158	468	2.582	0.115	0.231	0.369
Has heard of HIV/AIDS	0.887	0.017	1,258	501	1.891	0.019	0.853	0.921
Knows condom use reduces HIV/AIDS	0.655	0.032	1,258	501	2.421	0.050	0.590	0.719
Knows about limiting partners to avoid AIDS	0.708	0.035	1,258	501	2.760	0.050	0.637	0.779
Has comprehensive knowledge of HIV/AIDS	0.414	0.040	1,258	501	2.879	0.097	0.334	0.494
Higher-risk sex past 12 months among youth	0.318	0.075	311	142	2.823	0.235	0.169	0.468
Condom use at last higher-risk sex among youth	0.540	0.054	121	45	1.183	0.100	0.432	0.648
MEN								
No education	0.056	0.030	825	396	3.782	0.541	0.000	0.117
Secondary education or higher	0.696	0.046	825	396	2.857	0.066	0.605	0.788
Never married	0.318	0.024	825	396	1.496	0.076	0.269	0.366
Currently married/in union	0.587	0.018	825	396	1.046	0.031	0.551	0.622
Had sexual intercourse before age 18	0.651	0.036	682	334	1.979	0.056	0.579	0.723
Knows at least one contraceptive method	0.968	0.009	507	232	1.150	0.009	0.950	0.986
Knows any modern method	0.959	0.012	507	232	1.337	0.012	0.935	0.983
Ever used any contraceptive method	0.713	0.030	507	232	1.500	0.042	0.653	0.774
Wants no more children	0.491	0.032	507	232	1.459	0.066	0.426	0.556
Wants to delay birth at least two years	0.130	0.028	507	232	1.859	0.213	0.075	0.186
Ideal family size	4.128	0.263	788	383	2.111	0.064	3.602	4.655
Has heard of HIV/AIDS	0.946	0.012	825	396	1.568	0.013	0.922	0.971
Knows condom use reduces HIV/AIDS	0.704	0.047	825	396	2.940	0.066	0.610	0.797
Knows about limiting partners to avoid AIDS	0.744	0.054	825	396	3.568	0.073	0.635	0.852
Has comprehensive knowledge of HIV/AIDS	0.032	0.008	825	396	1.381	0.265	0.015	0.049
Higher-risk sex past 12 months among youth	0.730	0.067	158	83	1.885	0.092	0.596	0.864
Condom use at last higher-risk sex among youth	0.685	0.048	123	61	1.144	0.070	0.588	0.781

Table B.2.10 Sampling errors for the Region 1 sample, Guyana 2009

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence intervals: Value - 2SE (R - 2SE)	Confidence intervals: Value + 2SE (R + 2SE)
WOMEN								
No education	0.108	0.032	287	162	1.734	0.294	0.045	0.172
Secondary education or higher	0.437	0.079	287	162	2.684	0.180	0.280	0.595
Never married	0.156	0.051	287	162	2.400	0.330	0.053	0.259
Currently married/in union	0.790	0.065	287	162	2.690	0.082	0.660	0.920
Had sexual intercourse before age 18	0.712	0.024	229	123	0.799	0.034	0.664	0.760
Currently pregnant	0.152	0.069	287	162	3.253	0.454	0.014	0.290
Children ever born	3.458	0.226	287	162	1.211	0.065	3.006	3.910
Children surviving	3.324	0.230	287	162	1.268	0.069	2.865	3.783
Children ever born to women age 40-49	5.742	0.488	59	27	1.301	0.085	4.767	6.717
Knows any contraceptive method	0.986	0.008	207	128	0.968	0.008	0.971	1.000
Ever used any contraceptive method	0.551	0.092	207	128	2.667	0.168	0.366	0.736
Currently using any contraceptive method	0.222	0.081	207	128	2.807	0.366	0.060	0.385
Currently using a modern method	0.207	0.077	207	128	2.722	0.371	0.053	0.360
Currently using pill	0.080	0.033	207	128	1.736	0.409	0.015	0.146
Currently using IUD	0.011	0.008	207	128	1.139	0.761	0.000	0.027
Currently using condom	0.034	0.016	207	128	1.290	0.478	0.001	0.067
Currently using female sterilization	0.022	0.011	207	128	1.046	0.490	0.000	0.043
Currently using periodic abstinence	0.003	0.003	207	128	0.829	1.049	0.000	0.009
Obtained method from public sector source	0.723	0.067	67	31	1.214	0.092	0.589	0.857
Wants no more children	0.682	0.066	207	128	2.024	0.096	0.551	0.814
Wants to delay birth at least 2 years	0.098	0.017	207	128	0.818	0.173	0.064	0.132
Ideal family size	3.663	0.231	273	156	1.758	0.063	3.202	4.124
Mother received tetanus injection for last birth	0.646	0.074	151	103	2.089	0.115	0.497	0.794
Mother received two or more tetanus injections	0.130	0.023	151	103	0.844	0.178	0.084	0.177
Mother received neonatal tetanus	0.382	0.033	151	103	0.834	0.087	0.316	0.448
Mother received medical assistance at delivery	0.772	0.046	234	164	1.560	0.060	0.680	0.864
Child had diarrhea in two weeks before survey	0.197	0.053	227	157	1.898	0.268	0.092	0.303
Treated with oral rehydration salts (ORS)	0.756	0.049	30	31	0.911	0.065	0.657	0.855
Child taken to a health provider	0.801	0.031	30	31	0.629	0.038	0.739	0.862
Vaccination card seen for children 18-29 months	0.915	0.054	55	42	1.662	0.059	0.807	1.000
Child received BCG	0.939	0.040	55	42	1.439	0.043	0.858	1.000
Received DPT (3 doses)	0.699	0.063	55	42	1.173	0.091	0.572	0.825
Received polio (3 doses)	0.641	0.038	55	42	0.664	0.060	0.564	0.717
Received measles	0.650	0.051	55	42	0.916	0.079	0.547	0.753
Fully immunized (DHS schedule)	0.578	0.034	55	42	0.580	0.059	0.510	0.647
Received MMR	0.474	0.069	55	42	1.152	0.144	0.337	0.611
Received Yellow Fever vaccine	0.621	0.052	55	42	0.907	0.084	0.517	0.724
Fully immunized (Guyana schedule)	0.360	0.049	55	42	0.868	0.137	0.261	0.458
Child: height-for-age below -2SD	0.393	0.028	178	116	0.850	0.071	0.337	0.449
Child: weight-for-height below -2SD	0.030	0.017	178	116	1.474	0.572	0.000	0.063
Child: weight-for-age below -2SD	0.155	0.037	178	116	1.662	0.238	0.081	0.229
Body Mass Index (BMI) <18.5	0.023	0.012	255	125	1.186	0.519	0.000	0.047
Anemia in children	0.508	0.073	201	121	2.189	0.144	0.362	0.655
Anemia in women	0.350	0.079	278	158	2.753	0.225	0.193	0.507
Has heard of HIV/AIDS	0.879	0.030	287	162	1.574	0.035	0.818	0.939
Knows condom use reduces HIV/AIDS	0.604	0.066	287	162	2.268	0.109	0.473	0.735
Knows about limiting partners to avoid AIDS	0.639	0.074	287	162	2.601	0.116	0.491	0.787
Has comprehensive knowledge of HIV/AIDS	0.334	0.072	287	162	2.577	0.215	0.191	0.478
Higher-risk sex past 12 months among youth	0.169	0.090	83	61	2.181	0.533	0.000	0.350
Condom use at last higher-risk sex among youth	0.548	0.134	24	10	1.294	0.245	0.279	0.816
MEN								
No education	0.121	0.050	179	160	2.065	0.417	0.020	0.222
Secondary education or higher	0.611	0.079	179	160	2.173	0.130	0.452	0.769
Never married	0.334	0.052	179	160	1.463	0.155	0.230	0.437
Currently married/in union	0.562	0.032	179	160	0.869	0.058	0.497	0.626
Had sexual intercourse before age 18	0.658	0.078	142	134	1.958	0.119	0.501	0.814
Knows at least one contraceptive method	1.000	na	97	90	na	na	na	na
Knows any modern method	1.000	na	97	90	na	na	na	na
Ever used any contraceptive method	0.688	0.046	97	90	0.966	0.066	0.597	0.779
Wants no more children	0.469	0.055	97	90	1.087	0.118	0.358	0.579
Wants to delay birth at least two years	0.057	0.034	97	90	1.441	0.600	0.000	0.125
Ideal family size	4.275	0.568	170	154	1.678	0.133	3.140	5.411
Has heard of HIV/AIDS	0.958	0.016	179	160	1.089	0.017	0.925	0.990
Knows condom use reduces HIV/AIDS	0.618	0.073	179	160	2.015	0.119	0.472	0.765
Knows about limiting partners to avoid AIDS	0.646	0.086	179	160	2.413	0.134	0.473	0.819
Has comprehensive knowledge of HIV/AIDS	0.019	0.011	179	160	1.136	0.620	0.000	0.042
Higher-risk sex past 12 months among youth	0.699	0.103	51	45	1.585	0.147	0.493	0.905
Condom use at last higher-risk sex among youth	0.661	0.067	41	32	0.902	0.102	0.526	0.796

na = Not applicable

Table B.2.11 Sampling errors for the Region 2 sample, Guyana 2009

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence intervals: Value - 2SE (R - 2SE)	Confidence intervals: Value + 2SE (R + 2SE)
WOMEN								
Urban residence	0.277	0.026	505	293	1.303	0.094	0.225	0.329
No education	0.028	0.013	505	293	1.795	0.471	0.002	0.054
Secondary education or higher	0.721	0.032	505	293	1.626	0.045	0.656	0.786
Never married	0.279	0.024	505	293	1.203	0.086	0.231	0.327
Currently married/in union	0.656	0.029	505	293	1.356	0.044	0.599	0.714
Had sexual intercourse before age 18	0.471	0.030	391	222	1.202	0.065	0.410	0.532
Currently pregnant	0.037	0.008	505	293	0.947	0.214	0.021	0.053
Children ever born	2.206	0.117	505	293	1.207	0.053	1.973	2.439
Children surviving	2.123	0.116	505	293	1.258	0.055	1.891	2.356
Children ever born to women age 40-49	3.721	0.243	141	78	1.253	0.065	3.234	4.207
Knows any contraceptive method	0.994	0.006	332	192	1.420	0.006	0.982	1.000
Ever used any contraceptive method	0.700	0.034	332	192	1.332	0.048	0.633	0.767
Currently using any contraceptive method	0.408	0.037	332	192	1.386	0.092	0.333	0.483
Currently using a modern method	0.382	0.036	332	192	1.362	0.095	0.309	0.455
Currently using pill	0.057	0.013	332	192	1.054	0.235	0.030	0.084
Currently using IUD	0.096	0.021	332	192	1.302	0.220	0.054	0.138
Currently using condom	0.087	0.013	332	192	0.848	0.151	0.061	0.114
Currently using female sterilization	0.086	0.019	332	192	1.250	0.224	0.047	0.124
Currently using periodic abstinence	0.007	0.005	332	192	1.062	0.707	0.000	0.016
Obtained method from public sector source	0.653	0.052	150	89	1.329	0.079	0.549	0.757
Wants no more children	0.699	0.028	332	192	1.114	0.040	0.643	0.755
Wants to delay birth at least 2 years	0.102	0.019	332	192	1.121	0.183	0.064	0.139
Ideal family size	2.930	0.078	473	275	1.108	0.027	2.774	3.087
Mother received tetanus injection for last birth	0.566	0.065	133	80	1.551	0.115	0.435	0.697
Mother received two or more tetanus injections	0.213	0.053	133	80	1.486	0.248	0.107	0.319
Mother received neonatal tetanus	0.398	0.052	133	80	1.217	0.130	0.294	0.501
Mother received medical assistance at delivery	0.879	0.033	179	108	1.194	0.037	0.814	0.944
Child had diarrhea in two weeks before survey	0.075	0.041	175	106	1.765	0.538	0.000	0.156
Vaccination card seen for children 18-29 months	0.929	0.052	45	27	1.087	0.056	0.825	1.000
Child received BCG	0.937	0.051	45	27	1.100	0.054	0.835	1.000
Received DPT (3 doses)	0.929	0.052	45	27	1.087	0.056	0.825	1.000
Received polio (3 doses)	0.937	0.051	45	27	1.100	0.054	0.835	1.000
Received measles	0.792	0.073	45	27	1.139	0.092	0.646	0.939
Fully immunized (DHS schedule)	0.792	0.073	45	27	1.139	0.092	0.646	0.939
Received MMR	0.792	0.073	45	27	1.139	0.092	0.646	0.939
Received Yellow Fever vaccine	0.816	0.065	45	27	1.044	0.079	0.687	0.946
Fully immunized (Guyana schedule)	0.754	0.073	45	27	1.083	0.096	0.609	0.900
Child: height-for-age below -2SD	0.184	0.027	149	96	0.922	0.148	0.129	0.239
Child: weight-for-height below -2SD	0.099	0.031	149	96	1.111	0.310	0.038	0.160
Child: weight-for-age below -2SD	0.116	0.020	149	96	0.845	0.176	0.075	0.157
Body Mass Index (BMI) <18.5	0.098	0.014	468	273	1.023	0.143	0.070	0.126
Anemia in children	0.501	0.047	150	97	1.135	0.094	0.407	0.595
Anemia in women	0.405	0.025	494	287	1.128	0.061	0.356	0.455
Has heard of HIV/AIDS	0.967	0.012	505	293	1.521	0.013	0.942	0.991
Knows condom use reduces HIV/AIDS	0.795	0.020	505	293	1.089	0.025	0.756	0.834
Knows about limiting partners to avoid AIDS	0.849	0.017	505	293	1.050	0.020	0.816	0.883
Has comprehensive knowledge of HIV/AIDS	0.461	0.024	505	293	1.060	0.051	0.414	0.508
Higher-risk sex past 12 months among youth	0.266	0.054	93	58	1.169	0.202	0.158	0.374
Condom use at last higher-risk sex among youth	0.620	0.094	27	15	0.993	0.152	0.432	0.809
MEN								
Urban residence	0.352	0.033	386	179	1.347	0.093	0.287	0.418
No education	0.013	0.007	386	179	1.251	0.555	0.000	0.028
Secondary education or higher	0.668	0.037	386	179	1.538	0.055	0.595	0.742
Never married	0.394	0.028	386	179	1.108	0.070	0.339	0.449
Currently married/in union	0.570	0.028	386	179	1.120	0.050	0.513	0.626
Had sexual intercourse before age 18	0.431	0.032	300	141	1.101	0.073	0.368	0.494
Knows at least one contraceptive method	1.000	na	214	102	na	na	na	na
Knows any modern method	1.000	na	214	102	na	na	na	na
Ever used any contraceptive method	0.757	0.034	214	102	1.150	0.045	0.690	0.825
Wants no more children	0.656	0.025	214	102	0.782	0.039	0.605	0.707
Wants to delay birth at least two years	0.125	0.023	214	102	1.008	0.182	0.080	0.171
Ideal family size	3.075	0.126	383	178	1.252	0.041	2.822	3.327
Has heard of HIV/AIDS	0.989	0.006	386	179	1.057	0.006	0.978	1.000
Knows condom use reduces HIV/AIDS	0.862	0.024	386	179	1.360	0.028	0.814	0.910
Knows about limiting partners to avoid AIDS	0.889	0.018	386	179	1.119	0.020	0.853	0.925
Has comprehensive knowledge of HIV/AIDS	0.055	0.013	386	179	1.119	0.236	0.029	0.081
Higher-risk sex past 12 months among youth	0.722	0.056	58	26	0.950	0.078	0.609	0.835
Condom use at last higher-risk sex among youth	0.759	0.087	43	19	1.314	0.114	0.586	0.933

na = Not applicable

Table B.2.12 Sampling errors for the Region 3 sample, Guyana 2009

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence intervals: Value - 2SE (R - 2SE)	Confidence intervals: Value + 2SE (R + 2SE)
WOMEN								
No education	0.012	0.005	520	687	0.998	0.390	0.003	0.022
Secondary education or higher	0.764	0.023	520	687	1.239	0.030	0.718	0.810
Never married	0.283	0.019	520	687	0.982	0.069	0.244	0.322
Currently married/in union	0.617	0.019	520	687	0.879	0.030	0.579	0.654
Had sexual intercourse before age 18	0.362	0.034	417	546	1.426	0.093	0.294	0.429
Currently pregnant	0.028	0.008	520	687	1.092	0.285	0.012	0.043
Children ever born	1.885	0.069	520	687	0.815	0.037	1.746	2.024
Children surviving	1.784	0.071	520	687	0.891	0.040	1.641	1.927
Children ever born to women age 40-49	3.661	0.337	119	153	1.698	0.092	2.987	4.335
Knows any contraceptive method	0.993	0.007	322	424	1.470	0.007	0.980	1.000
Ever used any contraceptive method	0.768	0.021	322	424	0.894	0.027	0.726	0.811
Currently using any contraceptive method	0.496	0.024	322	424	0.847	0.048	0.449	0.543
Currently using a modern method	0.463	0.025	322	424	0.884	0.053	0.414	0.512
Currently using pill	0.134	0.021	322	424	1.122	0.159	0.091	0.176
Currently using IUD	0.099	0.016	322	424	0.985	0.166	0.066	0.132
Currently using condom	0.148	0.019	322	424	0.939	0.126	0.111	0.186
Currently using female sterilization	0.035	0.009	322	424	0.914	0.267	0.016	0.054
Currently using periodic abstinence	0.018	0.007	322	424	0.916	0.381	0.004	0.031
Obtained method from public sector source	0.395	0.055	181	241	1.499	0.138	0.286	0.504
Wants no more children	0.554	0.033	322	424	1.193	0.060	0.488	0.620
Wants to delay birth at least 2 years	0.232	0.045	322	424	1.927	0.196	0.141	0.323
Ideal family size	2.967	0.094	503	665	1.306	0.032	2.778	3.155
Mother received tetanus injection for last birth	0.287	0.045	141	189	1.194	0.158	0.196	0.377
Mother received two or more tetanus injections	0.055	0.024	141	189	1.238	0.432	0.007	0.103
Mother received neonatal tetanus	0.177	0.038	141	189	1.171	0.213	0.102	0.253
Mother received medical assistance at delivery	0.946	0.019	172	234	1.048	0.020	0.907	0.984
Child had diarrhea in two weeks before survey	0.095	0.026	168	229	1.128	0.279	0.042	0.148
Treated with oral rehydration salts (ORS)	0.713	0.093	17	22	0.819	0.130	0.528	0.899
Child taken to a health provider	0.646	0.100	17	22	0.831	0.155	0.445	0.847
Vaccination card seen for children 18-29 months	0.797	0.076	40	57	1.230	0.095	0.646	0.948
Child received BCG	0.930	0.038	40	57	0.978	0.041	0.854	1.000
Received DPT (3 doses)	0.776	0.082	40	57	1.292	0.106	0.612	0.940
Received polio (3 doses)	0.513	0.097	40	57	1.277	0.190	0.318	0.708
Received measles	0.768	0.077	40	57	1.188	0.100	0.615	0.921
Fully immunized (DHS schedule)	0.446	0.100	40	57	1.314	0.224	0.246	0.645
Received MMR	0.658	0.080	40	57	1.100	0.121	0.499	0.817
Received Yellow Fever vaccine	0.776	0.076	40	57	1.196	0.098	0.623	0.928
Fully immunized (Guyana schedule)	0.342	0.108	40	57	1.492	0.316	0.126	0.558
Child: height-for-age below -2SD	0.089	0.020	155	217	0.934	0.228	0.049	0.130
Child: weight-for-height below -2SD	0.061	0.023	155	217	0.983	0.379	0.015	0.107
Child: weight-for-age below -2SD	0.072	0.023	155	217	0.943	0.321	0.026	0.119
Body Mass Index (BMI) <18.5	0.119	0.021	473	629	1.391	0.174	0.077	0.160
Anemia in children	0.339	0.048	122	168	1.145	0.142	0.243	0.436
Anemia in women	0.392	0.026	464	605	1.136	0.066	0.340	0.444
Has heard of HIV/AIDS	0.993	0.004	520	687	0.949	0.004	0.986	1.000
Knows condom use reduces HIV/AIDS	0.833	0.025	520	687	1.519	0.030	0.784	0.883
Knows about limiting partners to avoid AIDS	0.830	0.023	520	687	1.366	0.027	0.785	0.875
Has comprehensive knowledge of HIV/AIDS	0.529	0.028	520	687	1.280	0.053	0.473	0.585
Higher-risk sex past 12 months among youth	0.353	0.053	94	126	1.079	0.152	0.246	0.460
Condom use at last higher-risk sex among youth	0.577	0.095	34	44	1.100	0.164	0.388	0.766
MEN								
No education	0.017	0.008	326	420	1.062	0.442	0.002	0.033
Secondary education or higher	0.810	0.031	326	420	1.412	0.038	0.749	0.872
Never married	0.349	0.033	326	420	1.261	0.095	0.283	0.416
Currently married/in union	0.560	0.032	326	420	1.172	0.058	0.496	0.625
Had sexual intercourse before age 18	0.447	0.041	260	334	1.321	0.091	0.365	0.529
Knows at least one contraceptive method	0.995	0.004	183	235	0.893	0.004	0.987	1.000
Knows any modern method	0.995	0.004	183	235	0.893	0.004	0.987	1.000
Ever used any contraceptive method	0.831	0.026	183	235	0.953	0.032	0.778	0.884
Wants no more children	0.577	0.039	183	235	1.056	0.067	0.499	0.654
Wants to delay birth at least two years	0.105	0.022	183	235	0.981	0.213	0.060	0.149
Ideal family size	3.438	0.212	319	411	1.022	0.062	3.013	3.862
Has heard of HIV/AIDS	0.948	0.018	326	420	1.496	0.019	0.912	0.985
Knows condom use reduces HIV/AIDS	0.752	0.022	326	420	0.926	0.029	0.708	0.797
Knows about limiting partners to avoid AIDS	0.760	0.035	326	420	1.488	0.046	0.690	0.831
Has comprehensive knowledge of HIV/AIDS	0.055	0.018	326	420	1.414	0.326	0.019	0.090
Higher-risk sex past 12 months among youth	0.785	0.052	61	76	0.986	0.067	0.680	0.890
Condom use at last higher-risk sex among youth	0.609	0.058	48	59	0.821	0.096	0.492	0.726

Table B.2.13 Sampling errors for the Region 4 sample, Guyana 2009 (Zhuzhi: why the highlights??? Please delete)

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence intervals: Value - 2SE (R - 2SE)	Confidence intervals: Value + 2SE (R + 2SE)
WOMEN								
No education	0.009	0.003	1,179	2,168	0.952	0.298	0.003	0.014
Secondary education or higher	0.869	0.013	1,179	2,168	1.368	0.015	0.842	0.896
Never married	0.345	0.015	1,179	2,168	1.087	0.044	0.315	0.375
Currently married/in union	0.517	0.020	1,179	2,168	1.375	0.039	0.477	0.557
Had sexual intercourse before age 18	0.422	0.022	934	1,724	1.383	0.053	0.377	0.467
Currently pregnant	0.038	0.006	1,179	2,168	1.061	0.155	0.027	0.050
Children ever born	1.731	0.059	1,179	2,168	1.117	0.034	1.613	1.848
Children surviving	1.648	0.057	1,179	2,168	1.138	0.035	1.533	1.762
Children ever born to women age 40-49	2.993	0.133	290	537	1.175	0.044	2.727	3.258
Knows any contraceptive method	0.995	0.003	603	1,121	1.230	0.003	0.988	1.000
Ever used any contraceptive method	0.784	0.017	603	1,121	1.020	0.022	0.750	0.818
Currently using any contraceptive method	0.411	0.020	603	1,121	0.980	0.048	0.372	0.450
Currently using a modern method	0.387	0.020	603	1,121	0.989	0.051	0.348	0.427
Currently using pill	0.068	0.010	603	1,121	0.995	0.151	0.047	0.088
Currently using IUD	0.075	0.010	603	1,121	0.955	0.137	0.055	0.096
Currently using condom	0.165	0.015	603	1,121	1.023	0.094	0.134	0.196
Currently using female sterilization	0.046	0.008	603	1,121	0.992	0.184	0.029	0.063
Currently using periodic abstinence	0.005	0.003	603	1,121	1.071	0.595	0.000	0.012
Obtained method from public sector source	0.394	0.031	390	713	1.264	0.080	0.331	0.456
Wants no more children	0.567	0.017	603	1,121	0.852	0.030	0.532	0.601
Wants to delay birth at least 2 years	0.157	0.015	603	1,121	1.027	0.097	0.127	0.188
Ideal family size	2.754	0.044	1,152	2,115	1.042	0.016	2.666	2.843
Mother received tetanus injection for last birth	0.659	0.030	287	534	1.068	0.045	0.599	0.718
Mother received two or more tetanus injections	0.294	0.031	287	534	1.163	0.107	0.231	0.357
Mother received neonatal tetanus	0.430	0.034	287	534	1.167	0.079	0.362	0.499
Mother received medical assistance at delivery	0.983	0.007	355	666	0.974	0.007	0.970	0.996
Child had diarrhea in two weeks before survey	0.070	0.013	341	637	0.960	0.188	0.044	0.097
Treated with oral rehydration salts (ORS)	0.235	0.111	25	45	1.288	0.471	0.014	0.456
Child taken to a health provider	0.300	0.094	25	45	1.010	0.312	0.113	0.488
Vaccination card seen for children 18-29 months	0.842	0.055	63	115	1.186	0.065	0.733	0.952
Child received BCG	0.986	0.014	63	115	0.948	0.015	0.957	1.000
Received DPT (3 doses)	0.876	0.040	63	115	0.958	0.046	0.795	0.956
Received polio (3 doses)	0.770	0.059	63	115	1.100	0.076	0.653	0.887
Received measles	0.894	0.040	63	115	1.034	0.045	0.813	0.975
Fully immunized (DHS schedule)	0.722	0.060	63	115	1.051	0.083	0.603	0.841
Received MMR	0.697	0.060	63	115	1.036	0.087	0.576	0.817
Received Yellow Fever vaccine	0.843	0.045	63	115	0.984	0.054	0.752	0.934
Fully immunized (Guyana schedule)	0.481	0.068	63	115	1.070	0.141	0.346	0.617
Child: height-for-age below -2SD	0.164	0.024	296	548	1.044	0.143	0.117	0.211
Child: weight-for-height below -2SD	0.055	0.014	296	548	1.031	0.256	0.027	0.084
Child: weight-for-age below -2SD	0.113	0.019	296	548	1.012	0.166	0.075	0.150
Body Mass Index (BMI) <18.5	0.113	0.009	1,089	1,998	0.906	0.077	0.096	0.130
Anemia in children	0.347	0.037	244	452	1.132	0.107	0.273	0.422
Anemia in women	0.355	0.018	1,094	2,013	1.236	0.050	0.319	0.391
Has heard of HIV/AIDS	0.994	0.002	1,179	2,168	1.012	0.002	0.989	0.998
Knows condom use reduces HIV/AIDS	0.854	0.012	1,179	2,168	1.128	0.014	0.831	0.877
Knows about limiting partners to avoid AIDS	0.849	0.014	1,179	2,168	1.299	0.016	0.822	0.877
Has comprehensive knowledge of HIV/AIDS	0.598	0.018	1,179	2,168	1.286	0.031	0.561	0.634
Higher-risk sex past 12 months among youth	0.536	0.039	228	414	1.182	0.073	0.458	0.614
Condom use at last higher-risk sex among youth	0.571	0.043	121	222	0.950	0.075	0.485	0.657
MEN								
No education	0.009	0.003	861	1,540	1.049	0.372	0.002	0.016
Secondary education or higher	0.819	0.023	861	1,540	1.746	0.028	0.773	0.865
Never married	0.441	0.019	861	1,540	1.147	0.044	0.402	0.479
Currently married/in union	0.464	0.022	861	1,540	1.283	0.047	0.421	0.508
Had sexual intercourse before age 18	0.565	0.020	695	1,242	1.058	0.035	0.525	0.605
Knows at least one contraceptive method	0.993	0.004	387	715	0.941	0.004	0.985	1.000
Knows any modern method	0.993	0.004	387	715	0.941	0.004	0.985	1.000
Ever used any contraceptive method	0.865	0.023	387	715	1.345	0.027	0.818	0.911
Wants no more children	0.433	0.028	387	715	1.127	0.066	0.376	0.490
Wants to delay birth at least two years	0.152	0.017	387	715	0.946	0.114	0.118	0.187
Ideal family size	3.063	0.087	832	1,487	1.178	0.029	2.888	3.238
Has heard of HIV/AIDS	0.991	0.004	861	1,540	1.188	0.004	0.984	0.999
Knows condom use reduces HIV/AIDS	0.934	0.009	861	1,540	1.043	0.009	0.916	0.951
Knows about limiting partners to avoid AIDS	0.931	0.010	861	1,540	1.176	0.011	0.910	0.951
Has comprehensive knowledge of HIV/AIDS	0.029	0.006	861	1,540	0.959	0.188	0.018	0.040
Higher-risk sex past 12 months among youth	0.851	0.026	169	293	0.961	0.031	0.798	0.904
Condom use at last higher-risk sex among youth	0.831	0.028	145	249	0.899	0.034	0.774	0.887

Table B.2.14 Sampling errors for the Region 5 sample, Guyana 2009

Variable	Value (R)	Standard error (SE)	Number of cases Un-weighted (N)	Number of cases Weight-ed (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence intervals Value - 2SE (R - 2SE)	Confidence intervals Value + 2SE (R + 2SE)
WOMEN								
No education	0.016	0.012	404	353	1.849	0.724	0.000	0.039
Secondary education or higher	0.693	0.041	404	353	1.804	0.060	0.610	0.776
Never married	0.304	0.027	404	353	1.156	0.087	0.251	0.357
Currently married/in union	0.616	0.031	404	353	1.277	0.050	0.554	0.678
Had sexual intercourse before age 18	0.400	0.034	329	288	1.241	0.084	0.333	0.467
Currently pregnant	0.051	0.011	404	353	0.982	0.211	0.030	0.073
Children ever born	2.047	0.124	404	353	1.247	0.060	1.799	2.295
Children surviving	1.899	0.104	404	353	1.134	0.055	1.692	2.106
Children ever born to women age 40-49	3.357	0.303	98	89	1.324	0.090	2.750	3.964
Knows any contraceptive method	0.996	0.004	246	218	0.991	0.004	0.988	1.000
Ever used any contraceptive method	0.804	0.022	246	218	0.864	0.027	0.760	0.848
Currently using any contraceptive method	0.484	0.034	246	218	1.068	0.070	0.416	0.552
Currently using a modern method	0.464	0.035	246	218	1.086	0.075	0.395	0.534
Currently using pill	0.138	0.039	246	218	1.751	0.279	0.061	0.215
Currently using IUD	0.109	0.025	246	218	1.239	0.226	0.060	0.159
Currently using condom	0.109	0.021	246	218	1.062	0.194	0.067	0.152
Currently using female sterilization	0.050	0.013	246	218	0.953	0.266	0.023	0.076
Currently using periodic abstinence	0.000	na	246	218	na	na	na	na
Obtained method from public sector source	0.623	0.040	126	116	0.934	0.065	0.542	0.704
Wants no more children	0.632	0.029	246	218	0.928	0.045	0.574	0.689
Wants to delay birth at least 2 years	0.152	0.026	246	218	1.135	0.171	0.100	0.204
Ideal family size	2.974	0.093	400	350	1.258	0.031	2.787	3.160
Mother received tetanus injection for last birth	0.493	0.041	118	105	0.895	0.083	0.411	0.575
Mother received two or more tetanus injections	0.070	0.027	118	105	1.156	0.388	0.016	0.125
Mother received neonatal tetanus	0.265	0.046	118	105	1.127	0.174	0.173	0.357
Mother received medical assistance at delivery	0.948	0.026	160	139	1.218	0.027	0.896	0.999
Child had diarrhea in two weeks before survey	0.136	0.036	149	129	1.209	0.263	0.065	0.208
Treated with oral rehydration salts (ORS)	0.396	0.123	20	18	1.103	0.311	0.149	0.642
Child taken to a health provider	0.608	0.103	20	18	0.859	0.169	0.402	0.814
Vaccination card seen for children 18-29 months	0.814	0.065	35	29	0.953	0.080	0.684	0.944
Child received BCG	0.815	0.073	35	29	1.070	0.090	0.669	0.961
Received DPT (3 doses)	0.740	0.074	35	29	0.961	0.100	0.591	0.888
Received polio (3 doses)	0.346	0.074	35	29	0.881	0.214	0.198	0.495
Received measles	0.690	0.080	35	29	0.975	0.115	0.531	0.849
Fully immunized (DHS schedule)	0.290	0.071	35	29	0.884	0.244	0.149	0.432
Received MMR	0.575	0.096	35	29	1.090	0.167	0.383	0.766
Received Yellow Fever vaccine	0.658	0.077	35	29	0.914	0.117	0.505	0.811
Fully immunized (Guyana schedule)	0.290	0.071	35	29	0.884	0.244	0.149	0.432
Child: height-for-age below -2SD	0.099	0.031	115	101	1.065	0.318	0.036	0.162
Child: weight-for-height below -2SD	0.035	0.015	115	101	0.908	0.448	0.004	0.065
Child: weight-for-age below -2SD	0.084	0.031	115	101	1.093	0.368	0.022	0.147
Body Mass Index (BMI) <18.5	0.124	0.022	331	291	1.208	0.177	0.080	0.167
Anemia in children	0.494	0.063	99	87	1.108	0.128	0.368	0.621
Anemia in women	0.492	0.043	359	316	1.631	0.087	0.406	0.578
Has heard of HIV/AIDS	0.923	0.026	404	353	1.984	0.029	0.870	0.975
Knows condom use reduces HIV/AIDS	0.761	0.025	404	353	1.195	0.033	0.711	0.812
Knows about limiting partners to avoid AIDS	0.752	0.024	404	353	1.122	0.032	0.704	0.800
Has comprehensive knowledge of HIV/AIDS	0.442	0.039	404	353	1.595	0.089	0.363	0.521
Higher-risk sex past 12 months among youth	0.372	0.084	59	49	1.321	0.226	0.204	0.539
Condom use at last higher-risk sex among youth	0.214	0.073	22	18	0.817	0.341	0.068	0.361
MEN								
No education	0.014	0.007	319	271	1.044	0.486	0.000	0.028
Secondary education or higher	0.730	0.030	319	271	1.208	0.041	0.670	0.791
Never married	0.398	0.029	319	271	1.049	0.072	0.340	0.455
Currently married/in union	0.503	0.030	319	271	1.054	0.059	0.444	0.562
Had sexual intercourse before age 18	0.504	0.034	249	217	1.069	0.067	0.436	0.571
Knows at least one contraceptive method	1.000	na	157	136	na	na	na	na
Knows any modern method	1.000	na	157	136	na	na	na	na
Ever used any contraceptive method	0.793	0.032	157	136	0.997	0.041	0.728	0.858
Wants no more children	0.560	0.046	157	136	1.159	0.082	0.468	0.653
Wants to delay birth at least two years	0.166	0.028	157	136	0.931	0.167	0.110	0.221
Ideal family size	3.254	0.178	313	263	1.245	0.055	2.898	3.611
Has heard of HIV/AIDS	0.939	0.019	319	271	1.433	0.020	0.901	0.978
Knows condom use reduces HIV/AIDS	0.775	0.031	319	271	1.312	0.040	0.714	0.837
Knows about limiting partners to avoid AIDS	0.747	0.042	319	271	1.709	0.056	0.664	0.831
Has comprehensive knowledge of HIV/AIDS	0.035	0.011	319	271	1.023	0.301	0.014	0.056
Higher-risk sex past 12 months among youth	0.758	0.105	46	39	1.638	0.138	0.549	0.967
Condom use at last higher-risk sex among youth	0.897	0.047	39	30	0.952	0.052	0.803	0.991

na = Not applicable

Table B.2.15 Sampling errors for the Region 6 sample, Guyana 2009

Variable	Value (R)	Standard error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence intervals Value - 2SE (R - 2SE)	Confidence intervals Value + 2SE (R + 2SE)
WOMEN								
No education	0.005	0.002	817	780	0.960	0.466	0.000	0.010
Secondary education or higher	0.727	0.019	817	780	1.188	0.025	0.690	0.764
Never married	0.260	0.020	817	780	1.282	0.076	0.221	0.300
Currently married/in union	0.671	0.024	817	780	1.476	0.036	0.623	0.720
Had sexual intercourse before age 18	0.397	0.023	660	635	1.221	0.059	0.350	0.443
Currently pregnant	0.030	0.005	817	780	0.882	0.175	0.020	0.041
Children ever born	2.026	0.063	817	780	0.987	0.031	1.901	2.152
Children surviving	1.902	0.058	817	780	0.977	0.030	1.786	2.017
Children ever born to women age 40-49	3.231	0.157	214	209	1.265	0.049	2.917	3.544
Knows any contraceptive method	0.997	0.002	521	523	0.688	0.002	0.994	1.000
Ever used any contraceptive method	0.719	0.025	521	523	1.279	0.035	0.668	0.769
Currently using any contraceptive method	0.443	0.020	521	523	0.937	0.046	0.403	0.484
Currently using a modern method	0.417	0.023	521	523	1.044	0.054	0.372	0.462
Currently using pill	0.135	0.017	521	523	1.102	0.122	0.102	0.168
Currently using IUD	0.071	0.019	521	523	1.710	0.272	0.032	0.109
Currently using condom	0.098	0.015	521	523	1.174	0.157	0.067	0.128
Currently using female sterilization	0.070	0.014	521	523	1.253	0.201	0.042	0.098
Currently using periodic abstinence	0.005	0.003	521	523	0.975	0.598	0.000	0.011
Obtained method from public sector source	0.476	0.029	241	240	0.885	0.060	0.419	0.533
Wants no more children	0.688	0.020	521	523	1.002	0.030	0.647	0.729
Wants to delay birth at least 2 years	0.130	0.012	521	523	0.821	0.093	0.106	0.154
Ideal family size	2.617	0.049	798	761	1.093	0.019	2.519	2.716
Mother received tetanus injection for last birth	0.355	0.039	199	194	1.162	0.110	0.277	0.433
Mother received two or more tetanus injections	0.122	0.023	199	194	0.975	0.186	0.077	0.168
Mother received neonatal tetanus	0.231	0.031	199	194	1.045	0.136	0.168	0.293
Mother received medical assistance at delivery	0.957	0.014	257	253	1.122	0.014	0.929	0.984
Child had diarrhea in two weeks before survey	0.108	0.023	249	245	1.046	0.214	0.062	0.154
Treated with oral rehydration salts (ORS)	0.438	0.115	27	26	1.050	0.263	0.208	0.668
Child taken to a health provider	0.524	0.130	27	26	1.182	0.247	0.265	0.783
Vaccination card seen for children 18-29 months	1.000	na	45	43	na	na	na	na
Child received BCG	0.982	0.017	45	43	0.875	0.018	0.948	1.000
Received DPT (3 doses)	1.000	0.000	45	43	na	na	na	na
Received polio (3 doses)	0.912	0.038	45	43	0.895	0.042	0.836	0.988
Received measles	0.952	0.032	45	43	1.009	0.034	0.888	1.000
Fully immunized (DHS schedule)	0.847	0.060	45	43	1.119	0.071	0.726	0.967
Received MMR	0.545	0.058	45	43	0.774	0.106	0.430	0.660
Received Yellow Fever vaccine	0.890	0.048	45	43	1.033	0.054	0.793	0.986
Fully immunized (Guyana schedule)	0.481	0.049	45	43	0.663	0.103	0.382	0.580
Child: height-for-age below -2SD	0.148	0.026	208	208	1.023	0.177	0.095	0.200
Child: weight-for-height below -2SD	0.063	0.019	208	208	1.023	0.308	0.024	0.102
Child: weight-for-age below -2SD	0.121	0.035	208	208	1.334	0.291	0.051	0.191
Body Mass Index (BMI) <18.5	0.120	0.017	738	701	1.407	0.141	0.086	0.153
Anemia in children	0.411	0.037	197	199	1.069	0.090	0.337	0.485
Anemia in women	0.390	0.022	752	711	1.218	0.056	0.346	0.433
Has heard of HIV/AIDS	0.956	0.011	817	780	1.565	0.012	0.934	0.979
Knows condom use reduces HIV/AIDS	0.796	0.021	817	780	1.488	0.026	0.754	0.838
Knows about limiting partners to avoid AIDS	0.811	0.019	817	780	1.391	0.024	0.773	0.849
Has comprehensive knowledge of HIV/AIDS	0.433	0.020	817	780	1.174	0.047	0.392	0.473
Higher-risk sex past 12 months among youth	0.224	0.044	116	113	1.137	0.197	0.136	0.312
Condom use at last higher-risk sex among youth	0.420	0.099	32	25	1.122	0.237	0.222	0.619
MEN								
No education	0.017	0.006	614	587	1.098	0.333	0.006	0.029
Secondary education or higher	0.734	0.026	614	587	1.461	0.036	0.682	0.786
Never married	0.308	0.022	614	587	1.200	0.073	0.263	0.353
Currently married/in union	0.621	0.024	614	587	1.220	0.039	0.573	0.669
Had sexual intercourse before age 18	0.405	0.030	497	485	1.344	0.073	0.346	0.465
Knows at least one contraceptive method	0.995	0.004	368	365	1.000	0.004	0.987	1.000
Knows any modern method	0.989	0.006	368	365	1.149	0.006	0.977	1.000
Ever used any contraceptive method	0.729	0.024	368	365	1.022	0.033	0.681	0.776
Wants no more children	0.595	0.033	368	365	1.300	0.056	0.528	0.662
Wants to delay birth at least two years	0.139	0.025	368	365	1.380	0.180	0.089	0.189
Ideal family size	2.961	0.116	594	567	1.317	0.039	2.728	3.193
Has heard of HIV/AIDS	0.974	0.008	614	587	1.250	0.008	0.958	0.990
Knows condom use reduces HIV/AIDS	0.755	0.028	614	587	1.598	0.037	0.700	0.811
Knows about limiting partners to avoid AIDS	0.778	0.038	614	587	2.239	0.048	0.703	0.853
Has comprehensive knowledge of HIV/AIDS	0.051	0.010	614	587	1.132	0.197	0.031	0.071
Higher-risk sex past 12 months among youth	0.629	0.075	86	75	1.432	0.119	0.479	0.779
Condom use at last higher-risk sex among youth	0.695	0.063	56	47	1.015	0.091	0.569	0.821

na = Not applicable

Table B.2.16 Sampling errors for the Region 7 sample, Guyana 2009

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence intervals: Value - 2SE (R - 2SE)	Confidence intervals: Value + 2SE (R + 2SE)
WOMEN								
No education	0.013	0.007	290	104	1.031	0.520	0.000	0.027
Secondary education or higher	0.830	0.030	290	104	1.350	0.036	0.771	0.890
Never married	0.310	0.029	290	104	1.077	0.095	0.251	0.369
Currently married/in union	0.623	0.028	290	104	0.965	0.044	0.568	0.678
Had sexual intercourse before age 18	0.604	0.054	225	80	1.660	0.090	0.496	0.713
Currently pregnant	0.089	0.030	290	104	1.765	0.332	0.030	0.149
Children ever born	2.570	0.180	290	104	1.186	0.070	2.211	2.930
Children surviving	2.421	0.174	290	104	1.224	0.072	2.074	2.768
Children ever born to women age 40-49	5.374	0.653	59	23	1.896	0.121	4.068	6.680
Knows any contraceptive method	0.999	0.001	183	65	0.349	0.001	0.998	1.000
Ever used any contraceptive method	0.718	0.046	183	65	1.380	0.064	0.626	0.810
Currently using any contraceptive method	0.346	0.051	183	65	1.458	0.148	0.244	0.449
Currently using a modern method	0.298	0.060	183	65	1.777	0.202	0.178	0.419
Currently using pill	0.022	0.013	183	65	1.200	0.586	0.000	0.049
Currently using IUD	0.052	0.019	183	65	1.139	0.360	0.015	0.090
Currently using condom	0.087	0.024	183	65	1.168	0.280	0.038	0.136
Currently using female sterilization	0.016	0.009	183	65	0.934	0.549	0.000	0.033
Currently using periodic abstinence	0.032	0.014	183	65	1.102	0.449	0.003	0.061
Obtained method from public sector source	0.636	0.052	81	27	0.960	0.081	0.533	0.739
Wants no more children	0.619	0.028	183	65	0.786	0.046	0.562	0.675
Wants to delay birth at least 2 years	0.150	0.030	183	65	1.118	0.197	0.091	0.209
Ideal family size	3.037	0.111	282	100	1.139	0.037	2.816	3.259
Mother received tetanus injection for last birth	0.542	0.058	133	48	1.346	0.107	0.425	0.658
Mother received two or more tetanus injections	0.244	0.061	133	48	1.634	0.250	0.122	0.367
Mother received neonatal tetanus	0.445	0.057	133	48	1.308	0.127	0.332	0.558
Mother received medical assistance at delivery	0.906	0.035	183	65	1.409	0.039	0.836	0.977
Child had diarrhea in two weeks before survey	0.089	0.027	177	62	1.050	0.299	0.036	0.142
Treated with oral rehydration salts (ORS)	0.351	0.087	17	6	0.632	0.248	0.177	0.525
Child taken to a health provider	0.548	0.162	17	6	1.058	0.296	0.223	0.873
Vaccination card seen for children 18-29 months	0.891	0.075	37	12	1.392	0.084	0.741	1.000
Child received BCG	0.931	0.058	37	12	1.329	0.062	0.816	1.000
Received DPT (3 doses)	0.831	0.080	37	12	1.234	0.096	0.671	0.990
Received polio (3 doses)	0.812	0.079	37	12	1.167	0.097	0.655	0.970
Received measles	0.810	0.078	37	12	1.159	0.097	0.653	0.967
Fully immunized (DHS schedule)	0.792	0.077	37	12	1.099	0.097	0.638	0.946
Received MMR	0.810	0.078	37	12	1.159	0.097	0.653	0.967
Received Yellow Fever vaccine	0.793	0.061	37	12	0.877	0.077	0.671	0.916
Fully immunized (Guyana schedule)	0.743	0.079	37	12	1.053	0.107	0.584	0.902
Child: height-for-age below -2SD	0.250	0.046	146	47	1.157	0.185	0.157	0.342
Child: weight-for-height below -2SD	0.002	0.002	146	47	0.565	1.044	0.000	0.007
Child: weight-for-age below -2SD	0.034	0.014	146	47	0.849	0.406	0.006	0.062
Body Mass Index (BMI) <18.5	0.013	0.008	242	85	1.082	0.606	0.000	0.029
Anemia in children	0.349	0.039	133	44	0.902	0.112	0.271	0.427
Anemia in women	0.272	0.056	258	92	1.996	0.204	0.161	0.383
Has heard of HIV/AIDS	0.949	0.026	290	104	2.038	0.028	0.897	1.000
Knows condom use reduces HIV/AIDS	0.799	0.055	290	104	2.327	0.069	0.689	0.908
Knows about limiting partners to avoid AIDS	0.812	0.052	290	104	2.260	0.064	0.708	0.916
Has comprehensive knowledge of HIV/AIDS	0.536	0.052	290	104	1.760	0.096	0.433	0.639
Higher-risk sex past 12 months among youth	0.508	0.061	77	26	1.072	0.121	0.385	0.631
Condom use at last higher-risk sex among youth	0.507	0.114	35	13	1.335	0.226	0.278	0.736
MEN								
No education	0.004	0.004	165	61	0.805	1.028	0.000	0.011
Secondary education or higher	0.713	0.075	165	61	2.130	0.105	0.563	0.864
Never married	0.330	0.029	165	61	0.795	0.089	0.271	0.388
Currently married/in union	0.648	0.029	165	61	0.767	0.044	0.591	0.705
Had sexual intercourse before age 18	0.623	0.055	133	49	1.293	0.088	0.514	0.732
Knows at least one contraceptive method	0.997	0.003	103	40	0.556	0.003	0.992	1.000
Knows any modern method	0.954	0.037	103	40	1.777	0.038	0.881	1.000
Ever used any contraceptive method	0.776	0.077	103	40	1.855	0.099	0.623	0.929
Wants no more children	0.434	0.044	103	40	0.898	0.102	0.346	0.522
Wants to delay birth at least two years	0.308	0.035	103	40	0.760	0.113	0.238	0.377
Ideal family size	4.109	0.257	163	60	1.128	0.063	3.594	4.624
Has heard of HIV/AIDS	0.916	0.058	165	61	2.683	0.063	0.800	1.000
Knows condom use reduces HIV/AIDS	0.759	0.093	165	61	2.776	0.122	0.574	0.945
Knows about limiting partners to avoid AIDS	0.787	0.108	165	61	3.386	0.138	0.570	1.000
Has comprehensive knowledge of HIV/AIDS	0.043	0.023	165	61	1.439	0.529	0.000	0.089
Higher-risk sex past 12 months among youth	0.801	0.108	32	11	1.511	0.135	0.584	1.000
Condom use at last higher-risk sex among youth	0.643	0.089	26	9	0.924	0.138	0.466	0.820

Table B.2.17 Sampling errors for the Region 8 sample, Guyana 2009

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence intervals: Value - 2SE (R - 2SE)	Confidence intervals: Value + 2SE (R + 2SE)
WOMEN								
No education	0.004	0.003	256	95	0.830	0.781	0.000	0.011
Secondary education or higher	0.818	0.037	256	95	1.518	0.045	0.744	0.891
Never married	0.177	0.037	256	95	1.533	0.207	0.104	0.251
Currently married/in union	0.748	0.040	256	95	1.484	0.054	0.668	0.829
Had sexual intercourse before age 18	0.573	0.054	197	76	1.515	0.093	0.466	0.680
Currently pregnant	0.088	0.013	256	95	0.757	0.153	0.061	0.115
Children ever born	3.234	0.148	256	95	0.775	0.046	2.938	3.529
Children surviving	2.997	0.116	256	95	0.658	0.039	2.765	3.229
Children ever born to women age 40-49	6.418	0.789	47	20	1.666	0.123	4.840	7.997
Knows any contraceptive method	0.906	0.039	185	71	1.806	0.043	0.828	0.984
Ever used any contraceptive method	0.787	0.068	185	71	2.248	0.086	0.651	0.922
Currently using any contraceptive method	0.438	0.046	185	71	1.246	0.104	0.347	0.529
Currently using a modern method	0.438	0.046	185	71	1.246	0.104	0.347	0.529
Currently using pill	0.031	0.015	185	71	1.213	0.504	0.000	0.061
Currently using IUD	0.015	0.013	185	71	1.436	0.850	0.000	0.041
Currently using condom	0.064	0.023	185	71	1.294	0.365	0.017	0.111
Currently using female sterilization	0.068	0.020	185	71	1.089	0.297	0.028	0.109
Currently using periodic abstinence	0.000	na	185	71	na	na	na	na
Obtained method from public sector source	0.899	0.042	86	38	1.282	0.047	0.816	0.983
Wants no more children	0.608	0.060	185	71	1.656	0.098	0.488	0.727
Wants to delay birth at least 2 years	0.138	0.015	185	71	0.605	0.111	0.107	0.169
Ideal family size	3.697	0.192	234	88	1.077	0.052	3.314	4.080
Mother received tetanus injection for last birth	0.713	0.039	136	47	0.964	0.054	0.636	0.790
Mother received two or more tetanus injections	0.399	0.062	136	47	1.465	0.155	0.276	0.523
Mother received neonatal tetanus	0.553	0.080	136	47	1.873	0.145	0.392	0.713
Mother received medical assistance at delivery	0.721	0.081	210	72	1.995	0.113	0.559	0.884
Child had diarrhea in two weeks before survey	0.155	0.024	202	71	0.956	0.153	0.108	0.203
Treated with oral rehydration salts (ORS)	0.780	0.097	32	11	1.269	0.125	0.585	0.974
Child taken to a health provider	0.915	0.054	32	11	1.051	0.059	0.807	1.000
Vaccination card seen for children 18-29 months	0.874	0.057	60	21	1.296	0.065	0.760	0.989
Child received BCG	0.849	0.095	60	21	1.993	0.112	0.659	1.000
Received DPT (3 doses)	0.874	0.057	60	21	1.296	0.065	0.760	0.989
Received polio (3 doses)	0.820	0.071	60	21	1.374	0.086	0.679	0.961
Received measles	0.768	0.100	60	21	1.763	0.130	0.568	0.967
Fully immunized (DHS schedule)	0.702	0.108	60	21	1.757	0.154	0.485	0.919
Received MMR	0.763	0.101	60	21	1.763	0.132	0.561	0.964
Received Yellow Fever vaccine	0.783	0.073	60	21	1.315	0.093	0.638	0.928
Fully immunized (Guyana schedule)	0.652	0.115	60	21	1.784	0.177	0.421	0.882
Child: height-for-age below -2SD	0.496	0.034	141	46	0.737	0.068	0.428	0.564
Child: weight-for-height below -2SD	0.032	0.023	141	46	1.480	0.701	0.000	0.078
Child: weight-for-age below -2SD	0.145	0.064	141	46	1.838	0.440	0.017	0.273
Body Mass Index (BMI) <18.5	0.017	0.012	211	78	1.323	0.693	0.000	0.041
Anemia in children	0.300	0.062	141	43	1.241	0.206	0.176	0.424
Anemia in women	0.244	0.057	232	88	2.033	0.233	0.131	0.358
Has heard of HIV/AIDS	0.853	0.063	256	95	2.853	0.074	0.726	0.979
Knows condom use reduces HIV/AIDS	0.615	0.104	256	95	3.413	0.169	0.407	0.823
Knows about limiting partners to avoid AIDS	0.747	0.090	256	95	3.306	0.121	0.567	0.927
Has comprehensive knowledge of HIV/AIDS	0.511	0.111	256	95	3.554	0.218	0.288	0.734
Higher-risk sex past 12 months among youth	0.355	0.148	62	25	2.414	0.417	0.059	0.651
Condom use at last higher-risk sex among youth	0.464	0.102	23	9	0.959	0.220	0.260	0.668
MEN								
No education	0.027	0.015	169	68	1.194	0.550	0.000	0.057
Secondary education or higher	0.743	0.039	169	68	1.152	0.052	0.665	0.820
Never married	0.225	0.041	169	68	1.281	0.183	0.142	0.307
Currently married/in union	0.579	0.054	169	68	1.415	0.093	0.471	0.687
Had sexual intercourse before age 18	0.743	0.064	137	59	1.721	0.087	0.614	0.872
Knows at least one contraceptive method	0.930	0.037	108	40	1.484	0.039	0.856	1.000
Knows any modern method	0.924	0.037	108	40	1.458	0.041	0.849	0.998
Ever used any contraceptive method	0.679	0.096	108	40	2.126	0.141	0.487	0.871
Wants no more children	0.433	0.085	108	40	1.777	0.197	0.263	0.603
Wants to delay birth at least two years	0.107	0.045	108	40	1.515	0.423	0.016	0.198
Ideal family size	3.934	0.311	148	63	1.328	0.079	3.312	4.555
Has heard of HIV/AIDS	0.935	0.032	169	68	1.695	0.034	0.871	1.000
Knows condom use reduces HIV/AIDS	0.675	0.073	169	68	2.015	0.108	0.530	0.821
Knows about limiting partners to avoid AIDS	0.714	0.084	169	68	2.421	0.118	0.546	0.883
Has comprehensive knowledge of HIV/AIDS	0.041	0.019	169	68	1.214	0.450	0.004	0.079
Higher-risk sex past 12 months among youth	0.700	0.136	30	9	1.597	0.194	0.428	0.972
Condom use at last higher-risk sex among youth	0.610	0.107	22	6	1.001	0.175	0.397	0.823

na = Not applicable

Table B.2.18 Sampling errors for the Region 9 sample, Guyana 2009

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence intervals: Value - 2SE (R - 2SE)	Confidence intervals: Value + 2SE (R + 2SE)
WOMEN								
No education	0.023	0.014	280	78	1.535	0.597	0.000	0.051
Secondary education or higher	0.711	0.040	280	78	1.458	0.056	0.631	0.790
Never married	0.225	0.029	280	78	1.170	0.130	0.167	0.284
Currently married/in union	0.739	0.034	280	78	1.285	0.046	0.671	0.806
Had sexual intercourse before age 18	0.564	0.037	235	66	1.138	0.065	0.490	0.638
Currently pregnant	0.060	0.021	280	78	1.484	0.353	0.018	0.102
Children ever born	3.249	0.280	280	78	1.755	0.086	2.688	3.810
Children surviving	3.188	0.266	280	78	1.701	0.083	2.657	3.720
Children ever born to women age 40-49	5.323	0.400	66	19	1.229	0.075	4.523	6.123
Knows any contraceptive method	0.756	0.055	201	57	1.804	0.072	0.647	0.866
Ever used any contraceptive method	0.338	0.077	201	57	2.296	0.227	0.185	0.492
Currently using any contraceptive method	0.186	0.045	201	57	1.620	0.240	0.097	0.275
Currently using a modern method	0.150	0.036	201	57	1.413	0.238	0.079	0.222
Currently using pill	0.023	0.010	201	57	0.980	0.453	0.002	0.044
Currently using IUD	0.005	0.005	201	57	1.029	1.000	0.000	0.016
Currently using condom	0.046	0.018	201	57	1.212	0.390	0.010	0.082
Currently using female sterilization	0.016	0.008	201	57	0.945	0.518	0.000	0.033
Currently using periodic abstinence	0.006	0.006	201	57	1.068	0.994	0.000	0.017
Obtained method from public sector source	0.895	0.044	41	12	0.908	0.049	0.806	0.983
Wants no more children	0.691	0.051	201	57	1.558	0.074	0.589	0.793
Wants to delay birth at least 2 years	0.118	0.030	201	57	1.316	0.254	0.058	0.178
Ideal family size	3.664	0.176	270	74	1.552	0.048	3.313	4.016
Mother received tetanus injection for last birth	0.443	0.056	137	38	1.314	0.127	0.331	0.555
Mother received two or more tetanus injections	0.192	0.039	137	38	1.167	0.205	0.113	0.271
Mother received neonatal tetanus	0.352	0.043	137	38	1.050	0.122	0.266	0.438
Mother received medical assistance at delivery	0.570	0.051	221	62	1.221	0.089	0.469	0.672
Child had diarrhea in two weeks before survey	0.093	0.028	218	61	1.096	0.297	0.038	0.148
Treated with oral rehydration salts (ORS)	0.470	0.177	21	6	1.254	0.376	0.116	0.823
Child taken to a health provider	0.656	0.164	21	6	1.112	0.250	0.327	0.984
Vaccination card seen for children 18-29 months	0.838	0.065	46	13	1.194	0.078	0.707	0.968
Child received BCG	0.835	0.048	46	13	0.865	0.057	0.740	0.930
Received DPT (3 doses)	0.599	0.055	46	13	0.760	0.092	0.489	0.710
Received polio (3 doses)	0.411	0.056	46	13	0.768	0.136	0.299	0.523
Received measles	0.677	0.071	46	13	1.018	0.104	0.536	0.818
Fully immunized (DHS schedule)	0.346	0.049	46	13	0.702	0.143	0.247	0.445
Received MMR	0.627	0.071	46	13	0.996	0.114	0.485	0.770
Received Yellow Fever vaccine	0.610	0.073	46	13	1.012	0.120	0.464	0.756
Fully immunized (Guyana schedule)	0.329	0.055	46	13	0.789	0.167	0.219	0.438
Child: height-for-age below -2SD	0.331	0.052	163	47	1.385	0.158	0.226	0.435
Child: weight-for-height below -2SD	0.045	0.013	163	47	0.826	0.283	0.020	0.070
Child: weight-for-age below -2SD	0.115	0.026	163	47	0.960	0.225	0.063	0.167
Body Mass Index (BMI) <18.5	0.025	0.010	238	68	0.975	0.387	0.006	0.045
Anemia in children	0.324	0.059	169	49	1.483	0.182	0.206	0.442
Anemia in women	0.213	0.051	259	73	2.010	0.239	0.111	0.315
Has heard of HIV/AIDS	0.776	0.038	280	78	1.524	0.049	0.700	0.852
Knows condom use reduces HIV/AIDS	0.547	0.049	280	78	1.658	0.090	0.448	0.646
Knows about limiting partners to avoid AIDS	0.605	0.034	280	78	1.164	0.056	0.537	0.673
Has comprehensive knowledge of HIV/AIDS	0.307	0.057	280	78	2.080	0.187	0.192	0.422
Higher-risk sex past 12 months among youth	0.390	0.054	55	14	0.820	0.140	0.281	0.499
Condom use at last higher-risk sex among youth	0.532	0.104	22	6	0.954	0.195	0.324	0.739
MEN								
No education	0.005	0.004	195	57	0.813	0.820	0.000	0.013
Secondary education or higher	0.732	0.048	195	57	1.504	0.065	0.637	0.828
Never married	0.250	0.025	195	57	0.796	0.099	0.200	0.299
Currently married/in union	0.692	0.030	195	57	0.897	0.043	0.632	0.751
Had sexual intercourse before age 18	0.618	0.052	168	48	1.372	0.083	0.515	0.721
Knows at least one contraceptive method	0.890	0.024	141	40	0.918	0.027	0.841	0.938
Knows any modern method	0.887	0.024	141	40	0.906	0.027	0.839	0.935
Ever used any contraceptive method	0.598	0.052	141	40	1.245	0.086	0.495	0.701
Wants no more children	0.622	0.063	141	40	1.531	0.101	0.497	0.748
Wants to delay birth at least two years	0.107	0.026	141	40	0.989	0.241	0.055	0.159
Ideal family size	4.126	0.193	191	56	1.042	0.047	3.740	4.512
Has heard of HIV/AIDS	0.923	0.014	195	57	0.734	0.015	0.895	0.951
Knows condom use reduces HIV/AIDS	0.762	0.036	195	57	1.165	0.047	0.691	0.833
Knows about limiting partners to avoid AIDS	0.836	0.030	195	57	1.115	0.035	0.777	0.896
Has comprehensive knowledge of HIV/AIDS	0.062	0.014	195	57	0.814	0.228	0.033	0.090
Higher-risk sex past 12 months among youth	0.703	0.120	20	6	1.149	0.171	0.462	0.944
Condom use at last higher-risk sex among youth	0.865	0.099	13	5	1.001	0.114	0.668	1.063

Table B.2.19 Sampling errors for the Region 10 sample, Guyana 2009

Variable	Value (R)	Standard error (SE)	Number of cases Un-weighted (N)	Number of cases Weight-ed (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence intervals Value - 2SE (R - 2SE)	Confidence intervals Value + 2SE (R + 2SE)
WOMEN								
No education	0.005	0.003	458	277	1.105	0.761	0.000	0.012
Secondary education or higher	0.919	0.017	458	277	1.320	0.018	0.885	0.952
Never married	0.414	0.029	458	277	1.258	0.070	0.356	0.472
Currently married/in union	0.435	0.032	458	277	1.377	0.073	0.371	0.498
Had sexual intercourse before age 18	0.468	0.042	363	218	1.615	0.091	0.383	0.552
Currently pregnant	0.046	0.010	458	277	1.065	0.227	0.025	0.067
Children ever born	2.186	0.124	458	277	1.155	0.057	1.938	2.433
Children surviving	2.043	0.111	458	277	1.108	0.054	1.821	2.266
Children ever born to women age 40-49	3.999	0.368	96	58	1.363	0.092	3.263	4.735
Knows any contraceptive method	0.999	0.001	206	121	0.490	0.001	0.997	1.000
Ever used any contraceptive method	0.866	0.019	206	121	0.804	0.022	0.828	0.905
Currently using any contraceptive method	0.504	0.036	206	121	1.040	0.072	0.432	0.577
Currently using a modern method	0.482	0.039	206	121	1.114	0.081	0.404	0.560
Currently using pill	0.064	0.013	206	121	0.748	0.200	0.038	0.089
Currently using IUD	0.023	0.016	206	121	1.479	0.669	0.000	0.054
Currently using condom	0.164	0.028	206	121	1.079	0.170	0.109	0.220
Currently using female sterilization	0.119	0.023	206	121	1.021	0.194	0.073	0.165
Currently using periodic abstinence	0.012	0.009	206	121	1.137	0.733	0.000	0.029
Obtained method from public sector source	0.727	0.035	178	112	1.035	0.048	0.658	0.797
Wants no more children	0.638	0.047	206	121	1.403	0.074	0.544	0.732
Wants to delay birth at least 2 years	0.148	0.029	206	121	1.186	0.199	0.089	0.207
Ideal family size	3.129	0.081	445	270	1.009	0.026	2.967	3.291
Mother received tetanus injection for last birth	0.521	0.034	148	88	0.815	0.065	0.454	0.589
Mother received two or more tetanus injections	0.043	0.016	148	88	0.983	0.385	0.010	0.075
Mother received neonatal tetanus	0.275	0.051	148	88	1.388	0.186	0.173	0.378
Mother received medical assistance at delivery	0.942	0.030	207	124	1.627	0.032	0.881	1.000
Child had diarrhea in two weeks before survey	0.064	0.018	199	118	0.878	0.279	0.028	0.099
Treated with oral rehydration salts (ORS)	0.391	0.175	12	7	1.062	0.448	0.041	0.740
Child taken to a health provider	0.763	0.138	12	7	1.078	0.181	0.487	1.000
Vaccination card seen for children 18-29 months	0.966	0.030	43	26	1.099	0.031	0.905	1.000
Child received BCG	0.983	0.017	43	26	0.881	0.018	0.948	1.000
Received DPT (3 doses)	0.995	0.005	43	26	0.494	0.005	0.984	1.000
Received polio (3 doses)	0.682	0.085	43	26	1.190	0.124	0.513	0.852
Received measles	0.905	0.039	43	26	0.872	0.043	0.826	0.983
Fully immunized (DHS schedule)	0.622	0.081	43	26	1.088	0.130	0.460	0.783
Received MMR	0.900	0.040	43	26	0.874	0.045	0.819	0.980
Received Yellow Fever vaccine	0.901	0.039	43	26	0.862	0.044	0.822	0.980
Fully immunized (Guyana schedule)	0.617	0.081	43	26	1.091	0.132	0.454	0.779
Child: height-for-age below -2SD	0.138	0.034	173	96	1.141	0.246	0.070	0.205
Child: weight-for-height below -2SD	0.041	0.015	173	96	1.005	0.369	0.011	0.072
Child: weight-for-age below -2SD	0.054	0.022	173	96	1.079	0.401	0.011	0.097
Body Mass Index (BMI) <18.5	0.068	0.011	414	253	0.871	0.158	0.047	0.090
Anemia in children	0.411	0.041	159	88	0.919	0.100	0.329	0.493
Anemia in women	0.397	0.024	417	254	1.022	0.062	0.349	0.446
Has heard of HIV/AIDS	0.995	0.003	458	277	0.924	0.003	0.988	1.000
Knows condom use reduces HIV/AIDS	0.847	0.021	458	277	1.267	0.025	0.805	0.890
Knows about limiting partners to avoid AIDS	0.890	0.018	458	277	1.250	0.021	0.853	0.927
Has comprehensive knowledge of HIV/AIDS	0.628	0.027	458	277	1.199	0.043	0.574	0.682
Higher-risk sex past 12 months among youth	0.656	0.070	92	53	1.414	0.107	0.516	0.797
Condom use at last higher-risk sex among youth	0.745	0.045	61	35	0.797	0.060	0.656	0.835
MEN								
No education	0.003	0.003	308	178	0.952	0.989	0.000	0.009
Secondary education or higher	0.934	0.015	308	178	1.095	0.017	0.903	0.965
Never married	0.530	0.040	308	178	1.406	0.076	0.450	0.610
Currently married/in union	0.409	0.039	308	178	1.404	0.096	0.331	0.488
Had sexual intercourse before age 18	0.574	0.032	221	126	0.958	0.056	0.510	0.637
Knows at least one contraceptive method	0.997	0.003	126	73	0.656	0.003	0.990	1.000
Knows any modern method	0.997	0.003	126	73	0.656	0.003	0.990	1.000
Ever used any contraceptive method	0.936	0.020	126	73	0.896	0.021	0.897	0.975
Wants no more children	0.341	0.044	126	73	1.028	0.128	0.254	0.428
Wants to delay birth at least two years	0.175	0.036	126	73	1.064	0.207	0.103	0.248
Ideal family size	3.792	0.151	301	174	1.040	0.040	3.490	4.094
Has heard of HIV/AIDS	0.987	0.007	308	178	1.124	0.007	0.972	1.000
Knows condom use reduces HIV/AIDS	0.888	0.019	308	178	1.068	0.022	0.850	0.926
Knows about limiting partners to avoid AIDS	0.920	0.017	308	178	1.115	0.019	0.885	0.954
Has comprehensive knowledge of HIV/AIDS	0.011	0.006	308	178	1.006	0.541	0.000	0.023
Higher-risk sex past 12 months among youth	0.915	0.031	84	50	0.998	0.033	0.854	0.976
Condom use at last higher-risk sex among youth	0.897	0.036	76	46	1.030	0.040	0.824	0.969

Table B.3 Sampling errors for fertility rates for the three-year period before the survey, Guyana 2009

Residence and region	Value (R)	Standard error (SE)	Weighted number of cases (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence intervals Value-2SE (R-2SE)	Value+2SE (R+2SE)
Residence							
Total Urban	2.132	0.152	4,127	1.106	0.071	1.828	2.436
Georgetown (urban)	2.013	0.210	2,722	0.973	0.104	1.594	2.432
Other (urban)	2.295	0.176	1,404	1.030	0.077	1.943	2.646
Total Rural	3.032	0.161	11,672	1.457	0.053	2.710	3.353
Total Coastal	2.404	0.097	12,609	1.140	0.040	2.210	2.597
Coastal (urban)	2.132	0.152	4,127	1.106	0.071	1.828	2.436
Coastal (rural)	2.528	0.122	8,482	1.117	0.048	2.283	2.773
Total Interior	5.998	0.519	1,424	2.545	0.087	4.959	7.037
Region							
Region1	6.948	1.356	444	3.457	0.195	4.237	9.659
Region2	2.690	0.329	855	1.292	0.122	2.033	3.348
Region3	2.424	0.198	1,921	0.917	0.082	2.028	2.82
Region4	2.314	0.164	6,211	1.090	0.071	1.985	2.642
Region5	2.955	0.309	976	0.995	0.105	2.337	3.574
Region6	2.265	0.203	2,363	1.109	0.090	1.860	2.671
Region7	4.935	0.515	296	1.284	0.104	3.905	5.966
Region8	6.066	0.180	275	0.821	0.030	5.705	6.427
Region9	5.738	0.745	227	1.526	0.130	4.248	7.227
Region10	2.984	0.326	759	1.260	0.109	2.332	3.636
Total	2.777	0.124	14,033	1.585	0.045	2.528	3.026

Note: The weighted number of cases refers to the weighted women-years of exposure in the three-year period preceding the survey, roughly three times the number of women.

Table B.4.1 Sampling errors for mortality rates for the five-year period preceding the survey and for the infant mortality rates by five-year periods, Guyana 2009

Rate/Period	Value (R)	Standard error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence intervals Value-2SE (R-2SE)	Value+2SE (R+2SE)
FIVE YEARS PRECEDING THE SURVEY								
Neonatal	25.125	4.262	2,184	1,894	1.143	0.170	16.602	33.649
Postneonatal	12.497	3.376	2,185	1,895	1.277	0.270	5.746	19.248
Infant ($_1q_0$)	37.622	5.423	2,186	1,896	1.214	0.144	26.777	48.468
Child ($_4q_1$)	2.769	1.036	2,185	1,895	0.914	0.374	0.696	4.841
Under five ($_5q_0$)	40.287	5.516	2,188	1,898	1.214	0.137	29.254	51.320
INFANT MORTALITY FOR FIVE-YEAR PERIODS								
0-4	37.622	5.423	2,186	1,896	1.214	0.144	26.777	48.468
5-9	32.272	4.372	2,360	2,100	1.091	0.135	23.529	41.016
10-14	38.486	5.028	2,352	2,132	1.153	0.131	28.430	48.543

Table B.4.2 Sampling errors for mortality for the ten-year period preceding the survey, by residence, Guyana 2009

Residence	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence intervals: Value-2SE (R-2SE)	Confidence intervals: Value+2SE (R+2SE)
Neonatal mortality	**22.095**	**2.600**	**4,542**	**3,993**	**1.079**	**0.118**	**16.894**	**27.296**
Total Urban	25.671	5.846	875	911	1.092	0.228	13.980	37.362
Total Rural	21.036	2.902	3,667	3,082	1.081	0.138	15.232	26.841
Total Coastal	24.198	3.058	2,667	3,219	0.987	0.126	18.081	30.314
Coastal (urban)	*25.671*	*5.846*	*875*	*911*	*1.092*	*0.228*	*13.980*	*37.362*
Coastal (rural)	*23.616*	*3.611*	*1,792*	*2,308*	*0.944*	*0.153*	*16.393*	*30.839*
Total Interior	13.321	3.739	1,875	774	1.473	0.281	5.842	20.799
Postneonatal mortality	**12.716**	**2.130**	**4,543**	**3,994**	**1.140**	**0.168**	**8.456**	**16.976**
Total Urban	19.402	5.837	877	912	1.130	0.301	7.727	31.076
Total Rural	10.700	2.142	3,666	3,081	1.146	0.200	6.415	14.984
Total Coastal	12.562	2.401	2,668	3,219	1.061	0.191	7.760	17.364
Coastal (urban)	*19.402*	*5.837*	*877*	*912*	*1.130*	*0.301*	*7.727*	*31.076*
Coastal (rural)	*9.816*	*2.362*	*1,791*	*2,307*	*1.014*	*0.241*	*5.092*	*14.540*
Total Interior	13.382	4.960	1,875	774	1.803	0.371	3.462	23.301
Infant mortality ($_1q_0$)	**34.811**	**3.431**	**4,544**	**3,994**	**1.099**	**0.099**	**27.950**	**41.673**
Total Urban	45.073	9.807	877	912	1.247	0.218	25.459	64.687
Total Rural	31.736	3.355	3,667	3,082	1.018	0.106	25.026	38.446
Total Coastal	36.760	4.147	2,669	3,220	1.050	0.113	28.467	45.054
Coastal (urban)	*45.073*	*9.807*	*877*	*912*	*1.247*	*0.218*	*25.459*	*64.687*
Coastal (rural)	*33.432*	*4.280*	*1,792*	*2,308*	*0.944*	*0.128*	*24.873*	*41.991*
Total Interior	26.702	4.367	1,875	774	1.160	0.164	17.968	35.437
Child mortality	**4.600**	**1.239**	**4,547**	**3,999**	**1.174**	**0.269**	**2.121**	**7.079**
Total Urban	0.521	0.524	875	911	0.673	1.004	0.000	1.569
Total Rural	5.840	1.605	3,672	3,088	1.193	0.275	2.631	9.050
Total Coastal	4.603	1.435	2,670	3,224	1.120	0.312	1.733	7.474
Coastal (urban)	*0.521*	*0.524*	*875*	*911*	*0.673*	*1.004*	*0.000*	*1.569*
Coastal (rural)	*6.207*	*1.982*	*1,795*	*2,313*	*1.088*	*0.319*	*2.244*	*10.170*
Total Interior	4.530	2.016	1,877	775	1.316	0.445	0.498	8.562
Under five mortality	**39.251**	**3.619**	**4,550**	**4001**	**1.085**	**0.092**	**32.014**	**46.488**
Total Urban	45.571	9.799	877	912	1.243	0.215	25.973	65.168
Total Rural	37.391	3.709	3,673	3088	1.019	0.099	29.973	44.809
Total Coastal	41.194	4.384	2,673	3226	1.039	0.106	32.425	49.963
Coastal (urban)	45.571	9.799	877	912	1.243	0.215	25.973	65.168
Coastal (rural)	39.432	4.767	1,796	2313	0.947	0.121	29.899	48.965
Total Interior	31.112	4.113	1,877	775	1.043	0.132	22.885	39.338

Note: Post-neonatal mortality is the difference between infant and neonatal mortality.

DATA QUALITY TABLES APPENDIX C

The following tables are included in this appendix to examine the quality of some of the data collected in the 2009 GDHS:

- Table C.1 contains the single-year age distribution of the de facto household population by sex. The purpose of the table is to examine the age structure obtained in the 2009 GDHS for evidence of heaping, especially ages ending in 0 and 5, and to examine the age limits of eligibility for interview, comparing women with men.

- Tables C.2.1 and C.2.2 contain the age distribution of the eligible respondents. The purpose of these tables is to detect both displacement of respondents out of the eligible age range and differential response rates by age.

- Table C.3 shows completeness of reporting of basic indicators. The purpose of this table is to examine the amount of missing information for certain key indicators. High levels of missing data may indicate that the non-missing data are biased or of poor quality.

- Table C.4 shows the distribution of births by calendar years. The purpose of the table is to examine the impact of omission of births in the five years preceding the survey and the transfer of births across calendar year boundaries. If large amounts of omission are suspected, then care should be used in interpreting current fertility and mortality levels and trends. Both omission and transference are indicative of poor fieldwork and the quality of the data from other parts of the questionnaire may be affected.

- Table C.5 contains information on the reporting of age at death in days and Table C.6 on the reporting of age at death in months. The purposes of these tables are to examine the possible omission of neonatal and early neonatal deaths and to examine the effects of heaping of age at death.

- Tables C.7.1 and C.7.2 show the 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—based on the old NCHS/CDC/WHO International Reference Population.

Table C.1 Household age distribution

Single-year age distribution of the de facto household population by sex (weighted), Guyana 2009

	Female		Male			Female		Male	
Age	Number	Percentage	Number	Percentage	Age	Number	Percentage	Number	Percentage
0	205	1.9	224	2.3	37	161	1.5	119	1.2
1	198	1.8	191	1.9	38	162	1.5	141	1.4
2	244	2.2	213	2.1	39	150	1.4	110	1.1
3	180	1.6	193	1.9	40	146	1.3	122	1.2
4	209	1.9	209	2.1	41	116	1.1	87	0.9
5	178	1.6	213	2.2	42	139	1.3	144	1.5
6	205	1.9	271	2.7	43	134	1.2	118	1.2
7	212	1.9	260	2.6	44	128	1.2	135	1.4
8	262	2.4	241	2.4	45	150	1.4	121	1.2
9	305	2.8	241	2.4	46	137	1.2	86	0.9
10	241	2.2	226	2.3	47	126	1.1	88	0.9
11	267	2.4	250	2.5	48	129	1.2	133	1.3
12	240	2.2	244	2.5	49	116	1.1	77	0.8
13	262	2.4	279	2.8	50	152	1.4	121	1.2
14	249	2.3	322	3.2	51	94	0.9	83	0.8
15	239	2.2	242	2.4	52	115	1.0	91	0.9
16	243	2.2	202	2.0	53	122	1.1	127	1.3
17	187	1.7	148	1.5	54	98	0.9	95	1.0
18	203	1.9	178	1.8	55	94	0.9	92	0.9
19	254	2.3	144	1.5	56	92	0.8	88	0.9
20	201	1.8	132	1.3	57	96	0.9	87	0.9
21	211	1.9	153	1.5	58	90	0.8	78	0.8
22	168	1.5	139	1.4	59	68	0.6	73	0.7
23	147	1.3	119	1.2	60	65	0.6	68	0.7
24	153	1.4	140	1.4	61	46	0.4	45	0.5
25	155	1.4	122	1.2	62	55	0.5	63	0.6
26	151	1.4	106	1.1	63	54	0.5	57	0.6
27	161	1.5	116	1.2	64	56	0.5	48	0.5
28	125	1.1	141	1.4	65	46	0.4	53	0.5
29	144	1.3	142	1.4	66	34	0.3	38	0.4
30	171	1.6	161	1.6	67	53	0.5	45	0.5
31	161	1.5	132	1.3	68	59	0.5	36	0.4
32	124	1.1	131	1.3	69	42	0.4	46	0.5
33	123	1.1	95	1.0	70+	445	4.0	293	2.9
34	141	1.3	125	1.3	DK/MS	15	0.1	19	0.2
35	140	1.3	121	1.2					
36	148	1.3	128	1.3	Total	10,992	100.0	9,924	100.0

DK/MS = Don’t know/missing

Table C.2.1 Age distribution of eligible and interviewed women

Five-year age distribution of the de facto household population of women age 10-54, and of interviewed women age 15-49, and percentage of eligible women who were interviewed (weighted), by five-year age groups, Guyana 2009

Age group	Household population of women age 10-54	Interviewed women age 15-49		Percentage of eligible women interviewed
		Number	Percent	
10-14	1,258	na	na	na
15-19	1,127	1,023	20.4	90.8
20-24	879	765	15.2	86.9
25-29	736	672	13.4	91.4
30-34	720	646	12.9	89.7
35-39	761	707	14.1	92.9
40-44	663	614	12.2	92.6
45-49	658	589	11.8	89.5
50-54	582	na	na	na
15-49	5,545	5,017	100.0	90.5

Note: The de facto population includes all residents and nonresidents who stayed in the household the night before 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

Five-year age distribution of the de facto household population of men age 10-54, and of interviewed men age 15-49, and percentage of eligible men who were interviewed (weighted), by five-year age groups, Guyana 2009

Age group	Household population of men age 10-54	Interviewed men age 15-49		Percentage of eligible men interviewed
		Number	Percent	
10-14	1,322	na	na	na
15-19	915	707	19.8	77.3
20-24	682	514	14.4	75.4
25-29	628	475	13.3	75.7
30-34	643	505	14.1	78.5
35-39	618	487	13.6	78.9
40-44	607	479	13.4	79.0
45-49	506	408	11.4	80.7
50-54	518	na	na	na
15-49	4,599	3,576	100.0	77.8

Note: The de facto population includes all residents and nonresidents who stayed in the household the night before 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 questions (weighted), Guyana 2009

Subject	Reference group	Percentage with missing information	Number of cases
Birth date	Births in 15 years preceding the survey		
Month only		1.0	6,109
Month and year		0.5	6,109
Age at death	Deceased children born in the last 15 years	0.0	246
Age/date at first union[1]			
Women	Ever married women age 15-49	1.6	3,456
Men	Ever married men age 15-49	1.8	2,140
Respondent's education			
Women	All women age 15-49	0.2	4,996
Men	All men age 15-49	0.3	3,522
Diarrhea in past 2 weeks	Living children 0-59 months	1.6	1,815
Anthropometry	Living children 0-59 months from Household Questionnaire		
Height		14.8	2,059
Weight		13.8	2,059
Height or weight		14.9	2,059
Anemia			
Children	Living children 6-59 from Household Questionnaire	10.0	1,831
Women	All women 15-49 from the Household Questionnaire	8.9	5,545
Men	All men 15-49 from the Household Questionnaire	20.5	4,599

[1] Both year and age missing

Table C.4 Births by calendar years

Number of births, percentage with complete birth date, sex ratio at birth, and calendar year ratio, by calendar year, according to living, dead, and total children (weighted), Guyana 2009

	Number of births			Percentage of births with complete birth date[1]			Sex ratio at birth[2]			Calendar year ratio[3]		
Calendar year	Living	Dead	Total	Living	Dead	Total	Living	Dead	Total	Living	Dead	Total
2009	120	1	122	100.0	83.0	99.8	98.9	0.0	96.7	na	na	na
2008	399	16	415	100.0	85.4	99.4	108.0	128.4	108.8	na	na	na
2007	379	19	398	100.0	100.0	100.0	87.9	463.9	94.2	99.8	156.4	101.6
2006	359	9	368	99.6	87.7	99.3	95.2	119.1	95.7	105.6	47.6	102.6
2005	302	18	320	100.0	100.0	100.0	111.1	279.3	116.4	82.8	161.9	85.1
2004	370	13	383	100.0	83.9	99.5	95.7	31.5	92.5	107.7	72.8	106.0
2003	385	18	403	98.7	87.5	98.2	116.6	36.9	111.2	101.0	114.9	101.5
2002	393	18	411	99.0	91.6	98.7	128.8	58.6	124.3	98.5	125.8	99.5
2001	413	11	424	99.0	86.7	98.7	118.3	103.7	117.8	101.4	79.6	100.6
2000	422	10	432	99.3	60.9	98.4	86.4	128.5	87.2	103.5	60.0	101.8
2005-2009	1,560	63	1,623	99.9	94.2	99.7	99.7	208.3	102.4	na	na	na
2000-2004	1,983	70	2,054	99.2	84.1	98.7	107.8	58.5	105.6	na	na	na
1995-1999	2,057	102	2,159	98.6	80.4	97.7	100.1	134.7	101.5	na	na	na
1990-1994	1,673	97	1,770	98.4	84.3	97.6	101.3	155.4	103.7	na	na	na
1989 or earlier	2,188	194	2,383	98.6	87.9	97.7	93.2	129.3	95.7	na	na	na
All	9,461	527	9,988	98.9	86.1	98.2	100.2	128.0	101.4	na	na	na

na = Not applicable
[1] Both year and month of birth given
[2] $(B_m/B_f)*100$, where B_m and B_f are the numbers of male and female births, respectively
[3] $[2B_x/(B_{x-1}+B_{x+1})]*100$, where B_x is the number births in calendar year *x*

Table C.5 Reporting of age at death in days

Distribution of reported deaths under 1 month by age at death in days and the percentage of neonatal deaths reported to occur at age 0-6 days, for five year periods of birth preceding the survey (weighted), Guyana 2009

Age at death (days)	Number of years preceding the survey				Total
	0-4	5-9	10-14	15-19	0-19
<1 day	17	7	4	17	45
1	8	14	16	18	56
2	9	4	15	2	30
3	3	6	3	3	16
4	3	1	4	0	8
5	1	1	2	1	5
6	0	3	4	0	7
7	2	1	0	1	4
8	0	1	0	0	1
9	0	0	5	2	7
10	0	0	1	0	1
11	0	0	1	0	1
12	0	0	0	1	1
13	0	1	0	0	1
14	1	1	0	1	3
17	0	0	0	1	1
21	0	0	1	1	2
23	0	0	1	0	1
30	0	0	0	0	0
Total 0-30	44	40	59	47	190
Percent early neonatal[1]	90.8	89.2	82.4	87.1	87.0

[1] Percent early neonatal = 0-6 days/0-30 days

Table C.6 Reporting of age at death in months

Distribution of reported deaths under age 2 by age at death in months and the percentage of infant deaths reported to occur at under 1 month, for five-year periods of birth preceding the survey (weighted), Guyana 2009

Age at death (months)	Number of years preceding the survey				Total
	0-4	5-9	10-14	15-19	0-19
< 1 month[1]	44	40	59	47	190
1	3	3	3	4	12
2	0	4	2	9	14
3	2	2	3	1	7
4	6	2	2	1	10
5	0	3	2	2	8
6	0	3	2	4	9
7	2	4	1	2	9
8	0	1	2	2	5
9	2	2	2	1	6
10	0	1	0	0	2
11	4	0	1	1	7
12	0	1	0	0	1
18	0	0	0	0	0
22	0	0	0	2	2
23	0	0	0	0	0
24+	0	0	1	1	2
1 Year	0	0	1	1	2
Total 0-11	63	65	78	73	279
Percent neonatal [2]	69.4	62.3	75.2	64.5	68.1

[1] <1 month includes deaths under one month reported in days
[2] Percent neonatal = under one month/under one year

Table C.7.1 Nutritional status of children by NCHS/CDC/WHO International Reference Population, according to demographic characteristics

Percentage of children under 5 classified as malnourished according to three anthropometric indices of nutritional status: height-for-age, weight-for-height, and weight-for-age, by demographic characteristics, based on the NCHS/CDC/WHO International Reference Population Guyana 2009

	Height-for-age (Stunted)			Weight-for-height (Wasted)				Weight-for-age (Underweight)				
Characteristic	Percentage below -3 SD	Percentage below -2 SD[1]	Mean Z-score -SD	Percentage below -3 SD	Percentage below -2 SD[1]	Percentage above -2 SD	Mean Z-score -SD	Percentage below -3 SD	Percentage below -2 SD[1]	Percentage above -2 SD	Mean Z-score -SD	Number of children under 5 years
Age in months												
<6	1.9	8.7	-0.3	2.6	6.1	7.9	0.2	0.0	4.5	5.1	-0.1	102
6-8	5.3	14.5	-0.5	0.0	4.6	9.2	0.1	2.0	6.5	4.0	-0.4	81
9-11	8.1	19.6	-0.9	0.6	9.7	12.3	0.0	5.3	18.3	7.1	-0.7	73
12-17	3.8	16.5	-1.0	0.2	7.4	3.4	-0.3	2.4	21.2	2.0	-0.9	153
18-23	5.3	17.7	-1.0	1.4	9.3	4.0	-0.2	2.7	15.6	4.2	-0.7	148
24-35	6.0	14.7	-0.7	0.5	3.4	4.4	-0.2	1.6	12.9	3.3	-0.6	351
36-47	2.7	13.7	-0.6	0.4	3.4	4.0	-0.2	0.2	11.1	2.9	-0.6	296
48-59	4.2	15.2	-0.7	0.1	4.7	2.4	-0.3	1.2	12.0	1.2	-0.7	326
Sex												
Male	4.0	14.3	-0.7	0.9	6.7	2.9	-0.3	1.5	14.6	2.8	-0.7	752
Female	4.9	15.5	-0.7	0.3	3.7	6.3	-0.1	1.6	11.1	3.4	-0.5	778
Birth interval in months[2]												
First birth[3]	4.4	13.5	-0.7	0.1	4.2	6.3	-0.2	1.9	11.8	3.4	-0.6	424
<24	3.8	20.1	-0.8	0.0	6.0	3.5	-0.3	2.1	16.6	3.1	-0.8	252
24-47	5.6	16.8	-0.9	1.6	6.1	5.3	-0.2	1.6	13.7	1.4	-0.8	380
48+	4.2	10.7	-0.4	0.5	5.4	3.9	-0.0	0.7	9.2	4.3	-0.3	318
Size at birth[2]												
Very small	7.3	30.9	-1.2	0.0	12.7	0.9	-0.7	6.2	31.8	1.5	-1.3	89
Small	6.3	18.1	-1.0	1.2	4.2	2.2	-0.6	1.6	20.6	0.8	-1.1	209
Average or larger	4.0	12.9	-0.6	0.5	4.7	5.9	-0.1	1.2	9.2	3.5	-0.5	1,046
Missing	(2.6)	(19.7)	(-0.7)	(1.0)	(11.7)	(5.0)	(-0.3)	(1.1)	(19.8)	(5.0)	(-0.8)	29
Mother's interview status												
Interviewed	4.6	15.0	-0.7	0.6	5.3	5.0	-0.2	1.6	12.6	3.0	-0.6	1,374
Not interviewed												
In household	5.9	19.0	-0.5	0.0	5.8	2.0	-0.0	0.0	7.1	4.8	-0.4	53
Not in the household[4]	2.9	11.9	-0.7	0.8	3.4	1.2	-0.4	1.9	18.5	3.3	-0.7	103
Mother's nutritional status[5]												
Thin (BMI<18.5	3.7	24.2	-1.1	1.7	11.8	4.3	-0.5	3.7	25.2	3.1	-1.1	105
Normal (BMI 18.5-24.9)	4.9	17.6	-0.8	0.8	6.6	3.7	-0.4	1.7	15.4	1.3	-0.8	621
Overweight (obese BMI ≥25)	4.4	11.0	-0.5	0.2	2.8	6.1	0.1	1.1	7.7	4.8	-0.3	658
Missing	3.5	17.4	-0.7	0.0	10.2	3.0	-0.2	0.0	9.0	1.8	-0.6	42
Total	4.5	14.9	-0.7	0.6	5.2	4.6	-0.2	1.5	12.8	3.1	-0.6	1,530

Note: Table is based on children who slept in the household the night before the interview. Each of the indices is expressed in standard deviation units -SD from the median of the NCHS/CDC/WHO International Reference Population. Table is based on children with valid dates of birth (month and year) and valid measurement of both height and weight. Figures in parentheses are based on 25-49 unweighted cases.

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

[2] Excludes children whose mothers were not interviewed

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

[4] Includes children whose mothers are dead

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

Table C.7.2 Nutritional status of children by NCHS/CDC/WHO International Reference Population according to socioeconomic characteristics

Percentage of children under 5 classified as malnourished according to three anthropometric indices of nutritional status: height-for-age, weight-for-height, and weight-for-age, by socioeconomic characteristics, based on the NCHS/CDC/WHO International Reference Population Guyana 2009

	Height-for-age (Stunted)			Weight-for-height (Wasted)				Weight-for-age (Underweight)				
Characteristic	Percentage below -3 SD	Percentage below -2 SD[1]	Mean Z-score -SD	Percentage below -3 SD	Percentage below -2 SD[1]	Percentage above -2 SD	Mean Z-score -SD	Percentage below -3 SD	Percentage below -2 SD[1]	Percentage above -2 SD	Mean Z-score -SD	Number of children under 5 years
Residence												
Total Urban	3.6	9.2	-0.5	0.7	4.8	6.6	-0.2	2.0	9.2	4.1	-0.5	344
Georgetown (urban)	5.0	9.5	-0.6	0.7	4.5	7.1	-0.1	2.9	9.4	2.9	-0.5	204
Other (urban)	1.5	8.7	-0.3	0.9	5.3	5.9	-0.3	0.6	8.8	5.9	-0.4	140
Total Rural	4.7	16.6	-0.8	0.5	5.3	4.0	-0.2	1.4	13.9	2.8	-0.7	1,186
Total Coastal	3.0	11.5	-0.6	0.6	5.7	4.8	-0.2	1.5	12.1	3.1	-0.6	1,239
Coastal (urban)	3.6	9.2	-0.5	0.7	4.8	6.6	-0.2	2.0	9.2	4.1	-0.5	344
Coastal (rural)	2.8	12.4	-0.6	0.5	6.1	4.1	-0.3	1.4	13.2	2.7	-0.6	896
Total Interior	10.8	29.4	-1.2	0.6	2.9	3.8	0.0	1.5	15.8	3.0	-0.7	290
Region												
Region 1	14.2	35.3	-1.3	1.2	3.2	2.8	-0.0	1.9	20.2	1.7	-0.8	116
Region 2	3.2	16.3	-0.8	1.2	7.4	4.5	-0.2	1.6	11.4	3.8	-0.7	96
Region 3	2.0	7.5	-0.5	0.0	5.6	2.2	-0.3	0.6	8.1	2.3	-0.6	217
Region 4	3.1	12.4	-0.6	1.1	6.2	6.9	-0.1	1.6	12.7	2.7	-0.6	551
Region 5	2.4	7.2	-0.5	0.0	3.3	2.4	-0.5	0.8	12.9	1.8	-0.8	100
Region 6	4.5	14.7	-0.7	0.0	6.2	3.1	-0.4	3.2	17.1	4.6	-0.7	211
Region 7	3.3	18.8	-0.8	0.0	0.6	5.9	0.2	0.0	5.0	3.4	-0.3	46
Region 8	15.5	39.5	-1.6	0.0	2.6	0.5	-0.1	2.7	22.7	3.8	-1.1	47
Region 9	8.8	24.9	-1.3	1.0	5.0	7.5	0.2	1.7	11.9	4.3	-0.7	47
Region 10	2.7	9.3	-0.4	0.0	2.2	4.9	-0.1	0.0	6.5	4.9	-0.4	98
Mother's education[2]												
No education	12.0	17.3	-1.0	3.9	19.6	1.0	-0.6	6.8	23.5	1.4	-1.1	46
Primary	6.6	23.9	-1.0	0.1	3.3	3.3	-0.3	2.6	18.6	1.7	-0.9	303
Secondary	3.9	13.4	-0.6	0.6	5.1	5.7	-0.1	1.1	10.6	3.6	-0.6	980
More than secondary	2.4	4.4	-0.2	0.0	7.0	3.5	-0.0	0.0	6.0	2.5	-0.2	96
Wealth quintile												
Lowest	8.0	24.8	-1.2	1.5	5.1	3.0	-0.2	2.4	18.1	1.8	-0.9	414
Second	4.9	15.4	-0.8	0.1	6.6	4.8	-0.3	2.0	14.4	1.7	-0.8	347
Middle	2.5	9.3	-0.5	0.6	4.3	5.5	-0.2	1.0	12.1	3.5	-0.5	295
Fourth	0.7	9.7	-0.2	0.0	4.9	4.7	-0.2	0.0	9.0	6.1	-0.3	249
Highest	4.1	9.0	-0.4	0.2	4.6	6.0	-0.0	1.5	5.6	3.7	-0.3	225
Total	4.5	14.9	-0.7	0.6	5.2	4.6	-0.2	1.5	12.8	3.1	-0.6	1,530

Note: Table is based on children who slept in the household the night before the interview. Each of the indices is expressed in standard deviation units -SD from the median of the NCHS/CDC/WHO International Reference Population. Table is based on children with valid dates of birth (month and year) and valid measurement of both height and weight.

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

[2] For women who are not interviewed, information is taken from the Household Questionnaire. Children whose mothers are not listed in the Household Questionnaire are excluded.

SURVEY PERSONNEL APPENDIX D

COORDINATION

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Pamela Nauth, Training and Fieldwork
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Zhuzhi Moore, Report Reviewer
Nancy Johnson, Editor
Kaye Mitchell, Report Production
Christopher Gramer, Report Cover

QUESTIONNAIRES

APPENDIX E

GUYANA DEMOGRAPHIC AND HEALTH SURVEY 2009
HOUSEHOLD QUESTIONNAIRE

MINISTRY OF HEALTH **BUREAU OF STATISTICS**

IDENTIFICATION

PLACE NAME _____

NAME OF HOUSEHOLD HEAD _____

CLUSTER NUMBER . . . . . .

GDHS HOUSEHOLD NUMBER . . . . . .

VILLAGE/WARD NUMBER . . . . . .

REGION . . . . . .

TYPE OF PLACE (GEORGETOWN=1, OTHER URBAN=2, RURAL=3) . . . . . .

INTERVIEWER VISITS

	1	2	3	FINAL VISIT
DATE	_____	_____	_____	DAY . . . . .
				MONTH . . . . .
				YEAR 2 0 0 9
INTERVIEWER'S NAME	_____	_____	_____	INT. NUMBER
RESULT*				RESULT . . . . .
NEXT VISIT: DATE	_____	_____		TOTAL NUMBER OF VISITS . . . . .
TIME	_____	_____		

*RESULT CODES:

1 COMPLETED
2 NO HOUSEHOLD MEMBER AT HOME OR NO COMPETENT RESPONDENT AT HOME AT TIME OF VISIT
3 ENTIRE HOUSEHOLD ABSENT FOR EXTENDED PERIOD OF TIME
4 POSTPONED
5 REFUSED
6 DWELLING VACANT OR ADDRESS NOT A DWELLING
7 DWELLING DESTROYED
8 DWELLING NOT FOUND
9 OTHER _____ (SPECIFY)

TOTAL PERSONS IN HOUSEHOLD

TOTAL ELIGIBLE WOMEN . . . . . .

TOTAL ELIGIBLE MEN . . . . . .

LINE NO. OF RESPONDENT TO HOUSEHOLD QUESTIONNAIRE

LANGUAGE

LANGUAGE CODES: 1=ENGLISH, 2=OTHER

LANGUAGE OF INTERVIEW _____

LANGUAGE OF RESPONDENT _____

WAS A TRANSLATOR USED? (1=YES; 2=NO) . . . . . .

SUPERVISOR	FIELD EDITOR	OFFICE EDITOR	KEYED BY
NAME _____	NAME _____		
DATE _____	DATE _____		

INTRODUCTION AND CONSENT

Hello. My name is _____ and I am working with the Bureau of Statistics of Guyana. We are conducting a national survey about various health issues. We would very much appreciate your participation in this survey. The interview usually takes between 20 and 30 minutes to complete.

As part of the survey we would first like to ask some questions about your household. All the answers you give will be confidential. Participation in the survey is completely voluntary. If we should come to any question you don't want to answer, just let me know and I will go on to the next question; or you can stop the interview at any time. However, we hope you will participate in the survey since your views are important.

At this time, do you want to ask me anything about the survey? May I begin the interview now?

SIGNATURE OF INTERVIEWER: _____ DATE: _____

RESPONDENT AGREES TO BE INTERVIEWED . . . . . 1 ↓ RESPONDENT DOES NOT AGREE TO BE INTERVIEWED 2 → END

HOUSEHOLD SCHEDULE

							IF AGE 15 OR OLDER				IF AGE 18-59 YEARS
LINE NO.	**USUAL RESIDENTS AND VISITORS**	**RELATIONSHIP TO HEAD OF HOUSEHOLD**	**SEX**	**RESIDENCE**		**AGE**	**MARITAL STATUS**	**ELIGIBILITY**			**SICK PERSON**
	Please give me the names of the persons who usually live in your household and guests of the household who stayed here last night, starting with the head of the household. **AFTER LISTING** THE NAMES AND RECORDING THE RELATIONSHIP AND SEX FOR EACH PERSON, **ASK QUESTIONS 2A-2C** TO BE SURE THAT THE LISTING IS COMPLETE. THEN ASK APPROPRIATE QUESTIONS IN COLUMNS 5-32 FOR EACH PERSON.	What is the relationship of (NAME) to the head of the household? SEE CODES BELOW.	Is (NAME) male or female?	Does (NAME) usually live here?	Did (NAME) stay here last night?	How old is (NAME)?	What is (NAME)'s current marital status? 1 = MARRIED OR LIVING TOGETHER 2 = DIVORCED/ SEPARATED 3 = WIDOWED 4 = NEVER-MARRIED AND NEVER LIVED TOGETHER	CIRCLE LINE NUMBER IF WOMAN AGE IS **15-49**	CIRCLE LINE NUMBER IF MEN AGE IS **15-49**	CIRCLE LINE NUMBER IF CHILD AGE IS **0-5**	Has (NAME) been very sick for at least 3 months during the past 12 months, that is (NAME) was too sick to work or do normal activities?
(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**	**(10)**	**(11)**	**(12)**
			M F	**Y N**	**Y N**	**IN YEARS**					**Y N DK**
01			1 2	1 2	1 2			**01**	**01**	**01**	1 2 8
02			1 2	1 2	1 2			**02**	**02**	**02**	1 2 8
03			1 2	1 2	1 2			**03**	**03**	**03**	1 2 8
04			1 2	1 2	1 2			**04**	**04**	**04**	1 2 8
05			1 2	1 2	1 2			**05**	**05**	**05**	1 2 8
06			1 2	1 2	1 2			**06**	**06**	**06**	1 2 8
07			1 2	1 2	1 2			**07**	**07**	**07**	1 2 8
08			1 2	1 2	1 2			**08**	**08**	**08**	1 2 8
09			1 2	1 2	1 2			**09**	**09**	**09**	1 2 8
10			1 2	1 2	1 2			**10**	**10**	**10**	1 2 8
11			1 2	1 2	1 2			**11**	**11**	**11**	1 2 8

2A) Just to make sure that I have a complete listing. Are there any other persons such as small children or infants that we have not listed? YES → ADD TO TABLE NO

2B) Are there any other people who may not be members of your family, such as domestic servants, lodgers, or friends who usually live here? YES → ADD TO TABLE NO

2C) Are there any guests or temporary visitors staying here, or anyone else who stayed here last night, who have not been listed? YES → ADD TO TABLE NO

CODES FOR Q. 3: RELATIONSHIP TO HEAD OF HOUSEHOLD

01 = HEAD
02 = WIFE OR HUSBAND
03 = SON OR DAUGHTER
04 = SON-IN-LAW OR DAUGHTER-IN-LAW
05 = GRANDCHILD
06 = PARENT
07 = PARENT-IN-LAW
08 = BROTHER OR SISTER
09 = NIECE/NEPHEW BY BLOOD
10 = NIECE/NEPHEW BY MARRIAGE
11 = OTHER RELATIVE
12 = ADOPTED/FOSTER/ STEPCHILD
13 = NOT RELATED
98 = DON'T KNOW

	IF AGE 0-17 YEARS								IF AGE 0-17 YEARS	
LINE NO.	SURVIVORSHIP AND RESIDENCE OF BIOLOGICAL PARENTS								BROTHERS AND SISTERS	
	Is (NAME)'s natural mother alive?	Does (NAME)'s natural mother usually lives in this household or was she a guest last night? IF YES: What is her name? RECORD MOTHER'S LINE NUMBER. IF NO, RECORD '00'.	**ASK ONLY, IF MOTHER NOT LISTED IN HOUSEHOLD COL. (14)='00'** Has (NAME)'s mother been very sick for at least 3 months during the past 12 months, that is, she was too sick to work or do normal activities?	Is (NAME)'s natural father alive?	Does (NAME)'s natural father usually lives in this household or was he a guest last night? IF YES: What is his name? RECORD FATHER'S LINE NUMBER. IF NO, RECORD '00'.	**ASK ONLY, IF FATHER NOT LISTED IN HOUSEHOLD COL. (17)='00'** Has (NAME)'s father been very sick for at least 3 months during the past 12 months, that is, he was too sick to work or do normal activities?	**MOTHER AND/ OR FATHER DEAD/ SICK** CIRCLE LINE NUMBER IF CHILD'S MOTHER AND/OR FATHER HAS DIED (Q.13 OR 16=NO) OR BEEN SICK (Q.15 OR 18=YES).	**BOTH PARENTS ALIVE** IF YES TO Q.13 AND Q. 16 (BOTH ALIVE), CIRCLE '1'. FOR ALL OTHER CASES, CIRCLE '2'.	Does (NAME) have any brothers or sisters under age 18 who have the same mother and the same father?	Do any of these brothers and sisters under age 18 not live in this household?
	(13)	**(14)**	**(15)**	**(16)**	**(17)**	**(18)**	**(19)**	**(20)**	**(21)**	**(22)**
	Y N DK		Y N DK	Y N DK		Y N DK			Y N DK	Y N
01	1 2 8 GO TO 16		1 2 8	1 2 8 GO TO 19		1 2 8	**01**	1 2 GO TO 23	1 2 8 GO TO 23	1 2
02	1 2 8 GO TO 16		1 2 8	1 2 8 GO TO 19		1 2 8	**02**	1 2 GO TO 23	1 2 8 GO TO 23	1 2
03	1 2 8 GO TO 16		1 2 8	1 2 8 GO TO 19		1 2 8	**03**	1 2 GO TO 23	1 2 8 GO TO 23	1 2
04	1 2 8 GO TO 16		1 2 8	1 2 8 GO TO 19		1 2 8	**04**	1 2 GO TO 23	1 2 8 GO TO 23	1 2
05	1 2 8 GO TO 16		1 2 8	1 2 8 GO TO 19		1 2 8	**05**	1 2 GO TO 23	1 2 8 GO TO 23	1 2
06	1 2 8 GO TO 16		1 2 8	1 2 8 GO TO 19		1 2 8	**06**	1 2 GO TO 23	1 2 8 GO TO 23	1 2
07	1 2 8 GO TO 16		1 2 8	1 2 8 GO TO 19		1 2 8	**07**	1 2 GO TO 23	1 2 8 GO TO 23	1 2
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09	1 2 8 GO TO 16		1 2 8	1 2 8 GO TO 19		1 2 8	**09**	1 2 GO TO 23	1 2 8 GO TO 23	1 2
10	1 2 8 GO TO 16		1 2 8	1 2 8 GO TO 19		1 2 8	**10**	1 2 GO TO 23	1 2 8 GO TO 23	1 2
11	1 2 8 GO TO 16		1 2 8	1 2 8 GO TO 19		1 2 8	**11**	1 2 GO TO 23	1 2 8 GO TO 23	1 2

	IF AGE 5 YEARS OR OLDER		IF AGE 5-24 YEARS				IF AGE 0-4 YEARS
LINE NO.	EVER ATTENDED SCHOOL		CURRENT/RECENT SCHOOL ATTENDANCE				BIRTH REGIS-TRATION
	Has (NAME) ever attended school?	What is the highest level of education (NAME) has attended? SEE CODES BELOW. What is the highest year (NAME) completed at that level? SEE CODES BELOW.	Did (NAME) attend school at any time during the (2008-2009) school year?	During this school year, what level and year is/was (NAME) attending? SEE CODES BELOW.	Did (NAME) attend school at any time during the previous school year, that is, (2007-2008)?	During that school year, what level and year did (NAME) attend? SEE CODES BELOW.	Does (NAME) have a birth certificate? IF NO, PROBE: Has (NAME)'s birth ever been registered with the civil authority? CODES: 1 = HAS CERTIFICATE 2 = REGISTERED 3 = NEITHER 8 = DON'T KNOW
(1)	(23)	(24)	(25)	(26)	(27)	(28)	(32)
	Y N	LEVEL YEAR	Y N	LEVEL YEAR	Y N	LEVEL YEAR	
01	1 2 ↓ GO TO 32		1 2 ↓ GO TO 27		1 2 ↓ GO TO 32		
02	1 2 ↓ GO TO 32		1 2 ↓ GO TO 27		1 2 ↓ GO TO 32		
03	1 2 ↓ GO TO 32		1 2 ↓ GO TO 27		1 2 ↓ GO TO 32		
04	1 2 ↓ GO TO 32		1 2 ↓ GO TO 27		1 2 ↓ GO TO 32		
05	1 2 ↓ GO TO 32		1 2 ↓ GO TO 27		1 2 ↓ GO TO 32		
06	1 2 ↓ GO TO 32		1 2 ↓ GO TO 27		1 2 ↓ GO TO 32		
07	1 2 ↓ GO TO 32		1 2 ↓ GO TO 27		1 2 ↓ GO TO 32		
08	1 2 ↓ GO TO 32		1 2 ↓ GO TO 27		1 2 ↓ GO TO 32		
09	1 2 ↓ GO TO 32		1 2 ↓ GO TO 27		1 2 ↓ GO TO 32		
10	1 2 ↓ GO TO 32		1 2 ↓ GO TO 27		1 2 ↓ GO TO 32		
11	1 2 ↓ GO TO 32		1 2 ↓ GO TO 27		1 2 ↓ GO TO 32		

CODES FOR Qs. 24, 26, AND 28: EDUCATION

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YEARS COMPLETED
00 = LESS THAN 1 YEAR COMPLETED
(USE '00' FOR Q. 24 ONLY. THIS CODE IS NOT ALLOWED FOR QS. 26 AND 28)
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HOUSEHOLD SCHEDULE

							IF AGE 15 OR OLDER				IF AGE 18-59 YEARS
LINE NO.	**USUAL RESIDENTS AND VISITORS**	**RELATIONSHIP TO HEAD OF HOUSEHOLD**	**SEX**	**RESIDENCE**		**AGE**	**MARITAL STATUS**	**ELIGIBILITY**			**SICK PERSON**
	Please give me the names of the persons who usually live in your household and guests of the household who stayed here last night, starting with the head of the household. **AFTER LISTING** THE NAMES AND RECORDING THE RELATIONSHIP AND SEX FOR EACH PERSON, **ASK QUESTIONS 2A-2C** TO BE SURE THAT THE LISTING IS COMPLETE. THEN ASK APPROPRIATE QUESTIONS IN COLUMNS 5-32 FOR EACH PERSON.	What is the relationship of (NAME) to the head of the household? SEE CODES BELOW.	Is (NAME) male or female?	Does (NAME) usually live here?	Did (NAME) stay here last night?	How old is (NAME)?	What is (NAME)'s current marital status? 1 = MARRIED OR LIVING TOGETHER 2 = DIVORCED/ SEPARATED 3 = WIDOWED 4 = NEVER-MARRIED AND NEVER LIVED TOGETHER	CIRCLE LINE NUMBER IF WOMAN AGE IS **15-49**	CIRCLE LINE NUMBER IF MEN AGE IS **15-49**	CIRCLE LINE NUMBER IF CHILD AGE IS **0-5**	Has (NAME) been very sick for at least 3 months during the past 12 months, that is (NAME) was too sick to work or do normal activities?
(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**	**(10)**	**(11)**	**(12)**
			M F	**Y N**	**Y N**	**IN YEARS**					**Y N DK**
12			1 2	1 2	1 2			**12**	**12**	**12**	1 2 8
13			1 2	1 2	1 2			**13**	**13**	**13**	1 2 8
14			1 2	1 2	1 2			**14**	**14**	**14**	1 2 8
15			1 2	1 2	1 2			**15**	**15**	**15**	1 2 8
16			1 2	1 2	1 2			**16**	**16**	**16**	1 2 8
17			1 2	1 2	1 2			**17**	**17**	**17**	1 2 8
18			1 2	1 2	1 2			**18**	**18**	**18**	1 2 8
19			1 2	1 2	1 2			**19**	**19**	**19**	1 2 8
20			1 2	1 2	1 2			**20**	**20**	**20**	1 2 8
21			1 2	1 2	1 2			**21**	**21**	**21**	1 2 8
22			1 2	1 2	1 2			**22**	**22**	**22**	1 2 8

TICK HERE IF CONTINUATION SHEET USED ☐

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	IF AGE 0-17 YEARS								IF AGE 0-17 YEARS	
LINE NO.	SURVIVORSHIP AND RESIDENCE OF BIOLOGICAL PARENTS								BROTHERS AND SISTERS	
	Is (NAME)'s natural mother alive?	Does (NAME)'s natural mother usually lives in this household or was she a guest last night? IF YES: What is her name? RECORD MOTHER'S LINE NUMBER. IF NO, RECORD '00'.	**ASK ONLY, IF MOTHER NOT LISTED IN HOUSEHOLD COL. (14)='00'** Has (NAME)'s mother been very sick for at least 3 months during the past 12 months, that is, she was too sick to work or do normal activities?	Is (NAME)'s natural father alive?	Does (NAME)'s natural father usually lives in this household or was he a guest last night? IF YES: What is his name? RECORD FATHER'S LINE NUMBER. IF NO, RECORD '00'.	**ASK ONLY, IF FATHER NOT LISTED IN HOUSEHOLD COL. (17)='00'** Has (NAME)'s father been very sick for at least 3 months during the past 12 months, that is, he was too sick to work or do normal activities?	**MOTHER AND/ OR FATHER DEAD/ SICK** CIRCLE LINE NUMBER IF CHILD'S MOTHER AND/OR FATHER HAS DIED (Q.13 OR 16=NO) OR BEEN SICK (Q.15 OR 18=YES).	**BOTH PARENTS ALIVE** IF YES TO Q.13 AND Q. 16 (BOTH ALIVE), CIRCLE '1'. FOR ALL OTHER CASES, CIRCLE '2'.	Does (NAME) have any brothers or sisters under age 18 who have the same mother and the same father?	Do any of these brothers and sisters under age 18 not live in this household?
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	Y N DK		Y N DK	Y N DK		Y N DK			Y N DK	Y N
12	1 2 8 GO TO 16		1 2 8	1 2 8 GO TO 19		1 2 8	**12**	1 2 GO TO 23	1 2 8 GO TO 23	1 2
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21	1 2 8 GO TO 16		1 2 8	1 2 8 GO TO 19		1 2 8	**21**	1 2 GO TO 23	1 2 8 GO TO 23	1 2
22	1 2 8 GO TO 16		1 2 8	1 2 8 GO TO 19		1 2 8	**22**	1 2 GO TO 23	1 2 8 GO TO 23	1 2

	IF AGE 5 YEARS OR OLDER		IF AGE 5-24 YEARS				IF AGE 0-4 YEARS
LINE NO.	EVER ATTENDED SCHOOL		CURRENT/RECENT SCHOOL ATTENDANCE				BIRTH REGIS-TRATION
	Has (NAME) ever attended school?	What is the highest level of education (NAME) has attended? SEE CODES BELOW. What is the highest year (NAME) completed at that level? SEE CODES BELOW.	Did (NAME) attend school at any time during the (2008-2009) school year?	During this school year, what level and year is/was (NAME) attending? SEE CODES BELOW.	Did (NAME) attend school at any time during the previous school year, that is, (2007-2008)?	During that school year, what level and year did (NAME) attend? SEE CODES BELOW.	Does (NAME) have a birth certificate? IF NO, PROBE: Has (NAME)'s birth ever been registered with the civil authority? CODES: 1 = HAS CERTIFICATE 2 = REGISTERED 3 = NEITHER 8 = DON'T KNOW
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	Y N	LEVEL YEAR	Y N	LEVEL YEAR	Y N	LEVEL YEAR	
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14	1 2 ↓ GO TO 32		1 2 ↓ GO TO 27		1 2 ↓ GO TO 32		
15	1 2 ↓ GO TO 32		1 2 ↓ GO TO 27		1 2 ↓ GO TO 32		
16	1 2 ↓ GO TO 32		1 2 ↓ GO TO 27		1 2 ↓ GO TO 32		
17	1 2 ↓ GO TO 32		1 2 ↓ GO TO 27		1 2 ↓ GO TO 32		
18	1 2 ↓ GO TO 32		1 2 ↓ GO TO 27		1 2 ↓ GO TO 32		
19	1 2 ↓ GO TO 32		1 2 ↓ GO TO 27		1 2 ↓ GO TO 32		
20	1 2 ↓ GO TO 32		1 2 ↓ GO TO 27		1 2 ↓ GO TO 32		
21	1 2 ↓ ↓ GO TO 32		1 2 ↓ GO TO 27		1 2 ↓ GO TO 32		
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(USE '00' FOR Q. 24 ONLY. THIS CODE IS NOT ALLOWED FOR QS. 26 AND 28)
98 = DON'T KNOW

HOUSEHOLD CHARACTERISTICS

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
101	What is the main source of drinking water for members of your household?	**PIPED WATER** PIPED INTO DWELLING . . . . . 11 PIPED TO YARD/PLOT . . . . . 12 PUBLIC TAP/STANDPIPE . . . . . 13 TUBE WELL OR BOREHOLE . . . . . 21 **DUG WELL** PROTECTED WELL . . . . . 31 UNPROTECTED WELL . . . . . 32 **WATER FROM SPRING** PROTECTED SPRING . . . . . 41 UNPROTECTED SPRING . . . . . 42 RAINWATER . . . . . 51 TANKER TRUCK . . . . . 61 CART WITH SMALL TANK . . . . . 71 SURFACE WATER (RIVER/DAM/LAKE/POND/ STREAM/CANAL/IRRIGATION CHANNEL) . . . . . 81 BOTTLED WATER . . . . . 91 OTHER _____ 96 (SPECIFY)	105B 103 105B 103 **102** 103
102	What is the main source of water used by your household for other purposes such as cooking and handwashing?	**PIPED WATER** PIPED INTO DWELLING . . . . . 11 PIPED TO YARD/PLOT . . . . . 12 PUBLIC TAP/STANDPIPE . . . . . 13 **TUBE WELL OR BOREHOLE** . . . . . 21 **DUG WELL** PROTECTED WELL . . . . . 31 UNPROTECTED WELL . . . . . 32 **WATER FROM SPRING** PROTECTED SPRING . . . . . 41 UNPROTECTED SPRING . . . . . 42 RAINWATER . . . . . 51 TANKER TRUCK . . . . . 61 CART WITH SMALL TANK . . . . . 71 SURFACE WATER (RIVER/DAM/LAKE/POND/ STREAM/CANAL/IRRIGATION CHANNEL) . . . . . 81 OTHER _____ 96 (SPECIFY)	105A 105B
103	Where is that water source located?	IN OWN DWELLING . . . . . 1 IN OWN YARD/PLOT . . . . . 2 ELSEWHERE 3	105A
104	How long does it take to go there, get water, and come back?	MINUTES . . . . . [ ][ ][ ] DON'T KNOW 998	
105	Who is the main person who usually goes to this source to fetch the water for your household?	ADULT WOMAN . . . . . 1 ADULT MAN . . . . . 2 FEMALE CHILD UNDER 15 YEARS OLD . . . . . 3 MALE CHILD UNDER 15 YEARS OLD . . . . . 4 OTHER _____ 6 (SPECIFY)	
105A	How would you describe the quality and color of water you obtain for cooking and handwashing? Anything else? RECORD ALL MENTIONED	CLEAR/NO SMELL . . . . . A BROWN/REDISH . . . . . B SMELLY . . . . . C YELLOW . . . . . D TURBID . . . . . E STALE . . . . . F COAGULATES LATER . . . . . G OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
105B	Do you use anything to store the water? IF YES, ASK: What exactly do you use? RECORD ALL MENTIONED	NOTHING . . . . . A JAR . . . . . B BLACK TANK . . . . . C DRUM . . . . . D POT . . . . . E BUCKET . . . . . F BOTTLE . . . . . G OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z	
106	Do you do anything to the water to make it safer to drink?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 107A
107	What do you usually do to make the water safer to drink? Anything else? RECORD ALL MENTIONED.	BOIL . . . . . A ADD BLEACH/CHLORINE . . . . . B STRAIN THROUGH A CLOTH . . . . . C USE WATER FILTER (CERAMIC/ SAND/COMPOSITE/ETC.) . . . . . D SOLAR DISINFECTION . . . . . E LET IT STAND AND SETTLE . . . . . F OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z	
107A	Do you think it is necessary to do anything to the water to make it safer (to drink)?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
107B	Where does the waste water from the kitchen, sinks and bath flow?	SEPTIC TANK/CESSPIT . . . . . 1 PIPED SEWER SYSTEM . . . . . 2 YARD . . . . . 3 CANAL/RIVER/OCEAN . . . . . 4 TRENCH/DRAIN/GUTTER . . . . . 5 DON'T KNOW 8	
108	What kind of toilet facility do members of your household usually use?	**FLUSH OR POUR FLUSH TOILET** FLUSH TO PIPED SEWER SYTEM . . . . . 11 FLUSH TO SEPTIC TANK . . . . . 12 FLUSH TO PIT (LATRINE) . . . . . 13 FLUSH TO SOMEWHERE ELSE . . . . . 14 FLUSH, DON'T KNOW WHERE . . . . . 15 **PIT LATRINE** VENTILATED IMPROVED PIT LATRINE . . . . . 21 PIT LATRINE WITH SLAB . . . . . 22 OPEN PIT . . . . . 23 COMPOSTING TOILET . . . . . 31 BUCKET TOILET . . . . . 41 HANGING TOILET/HANGING LATRINE . . . . . 51 NO FACILITY/BUSH/FIELD . . . . . 61 OTHER _____ 96 (SPECIFY)	→ 109 → 109 → 110A
108A	How do you get rid of toilet waste?	YARD . . . . . 1 CANAL/RIVER/OCEAN . . . . . 2 CESSPIT . . . . . 3 TRENCH/DRAIN/GUTTER . . . . . 4 OTHER _____ 6 (SPECIFY) DON'T KNOW 8	
109	Do you share this toilet facility with other households?	YES . . . . . 1 NO 2	→ 110A
110	How many households use this toilet facility?	NO. OF HOUSEHOLDS IF LESS THAN 10 . . . . . [0][ ] 10 OR MORE HOUSEHOLDS . . . . . 95 DON'T KNOW 98	
110A	How does your household usually dispose of its garbage or rubbish?	COLLECTION BY PUBLIC SERVICE . . . . . 01 COLLECTION BY PRIVATE SERVICE . . . . . 02 BURYING/COMPOSTING GARBAGE . . . . . 03 DUMPING IN CANAL/RIVER . . . . . 04 BURNING THE GARBAGE . . . . . 05 DUMPING ON WASTE LAND . . . . . 06 OTHER _____ 96 (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
110B	CHECK 110A: COLLECTION BY PUBLIC OR PRIVATE SERVICE CIRCLED CODE '01' OR '02' CIRCLED CODE '01' OR '02' **NOT** CIRCLED		111
110C	How often is garbage/rubbish collected?	ONCE A WEEK . . . . . 1 TWICE A WEEK . . . . . 2 ONCE EVERY TWO WEEKS . . . . . 3 MONTHLY . . . . . 4 NO SCHEDULE . . . . . 5 DON'T KNOW 8	
110D	Do you pay anything for this service? IF 'YES', ASK: Who do you pay to?	FREE/PUBLIC SERVICE . . . . . 1 PAID DIRECTLY TO COLLECTOR . . . . . 2 DON'T KNOW 8	
111	Does your household have:	**YES NO**	
	a) Electricity?	a) ELECTRICITY 1 2	
	b) A radio?	b) RADIO 1 2	
	c) A cell phone?	c) CELL TELEPHONE 1 2	
	d) A land-line telephone?	d) LAND-LINE TELEPHONE 1 2	
	e) A refrigerator?	e) REFRIGERATOR 1 2	
	f) A clock?	f) CLOCK 1 2	
	g) A black/white television?	g) BLACK/WHITE TELEVISION 1 2	
	h) A color television?	h) COLOR TELEVISION 1 2	
	i) A freezer?	i) FREEZER 1 2	
	j) An electric generator?	j) GENERATOR 1 2	
	k) A fan?	k) FAN 1 2	
	l) An air-conditioner	l) AIR-CONDITIONER 1 2	
	m) Washing machine?	m) WASHING MACHINE 1 2	
	n) Computer?	n) COMPUTER 1 2	
	o) Digital photo-camera?	o) DIGITAL CAMERA 1 2	
	p) Non-digital photo-camera?	p) NON-DIGITAL CAMERA 1 2	
	q) A VHS player?	q) VHS PLAYER 1 2	
	r) A DVD player?	r) DVD PLAYER 1 2	
	s) A bed?	s) BED 1 2	
	t) A vanity?	t) VANITY 1 2	
	u) A wall divider?	u) WALL DIVIDER 1 2	
112	What type of fuel does your household mainly use for cooking?	ELECTRICITY . . . . . 01 LPG . . . . . 02 NATURAL GAS . . . . . 03 BIOGAS . . . . . 04 KEROSENE . . . . . 05 COAL, LIGNITE . . . . . 06 CHARCOAL . . . . . 07 WOOD . . . . . 08 STRAW/SHRUBS/GRASS . . . . . 09 AGRICULTURAL CROP . . . . . 10 ANIMAL DUNG . . . . . 11 NO FOOD COOKED IN HOUSEHOLD . . . . . 95 OTHER _____ 96 (SPECIFY)	115 117
113	In this household, is food cooked on an open fire, an open stove, closed stove, fireside or coal-pot?	OPEN FIRE . . . . . 1 OPEN STOVE . . . . . 2 CLOSED STOVE WITH CHIMNEY . . . . . 3 FIRE-SIDE . . . . . 4 COAL POT . . . . . 5 OTHER _____ 6 (SPECIFY)	115
114	Does this (fire/stove) have a chimney, a hood, or neither of these?	CHIMNEY . . . . . 1 HOOD . . . . . 2 NEITHER 3	
115	Is the cooking usually done in the house, in a separate building, or outdoors?	IN THE HOUSE . . . . . 1 IN A SEPARATE BUILDING . . . . . 2 OUTDOORS . . . . . 3 OTHER _____ 6 (SPECIFY)	117
116	Do you have a separate room which is used as a kitchen?	YES . . . . . 1 NO 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
117	**MAIN** MATERIAL OF THE FLOOR. RECORD OBSERVATION.	**NATURAL FLOOR** EARTH/SAND . . . . . 11 DUNG . . . . . 12 **RUDIMENTARY FLOOR** WOOD PLANKS . . . . . 21 PALM/BAMBOO . . . . . 22 **FINISHED FLOOR** PARQUET OR POLISHED WOOD . . . . . 31 VINYL OR ASPHALT STRIPS . . . . . 32 CERAMIC TILES . . . . . 33 CEMENT . . . . . 34 CARPET . . . . . 35 OTHER _____ 96 (SPECIFY)	
118	**MAIN** MATERIAL OF THE ROOF. RECORD OBSERVATION.	**NATURAL ROOFING** NO ROOF . . . . . 11 THATCH/PALM LEAF . . . . . 12 SOD . . . . . 13 **RUDIMENTARY ROOFING** RUSTIC MAT . . . . . 21 PALM/BAMBOO . . . . . 22 WOOD PLANKS . . . . . 23 CARDBOARD . . . . . 24 **FINISHED ROOFING** METAL . . . . . 31 WOOD . . . . . 32 CALAMINE/CEMENT FIBER . . . . . 33 CERAMIC TILES . . . . . 34 CEMENT . . . . . 35 ROOFING SHINGLES . . . . . 36 OTHER _____ 96 (SPECIFY)	
119	**MAIN** MATERIAL OF THE EXTERIOR WALLS. RECORD OBSERVATION.	**NATURAL WALLS** NO WALLS . . . . . 11 CANE/PALM/TRUNKS . . . . . 12 DIRT . . . . . 13 **RUDIMENTARY WALLS** BAMBOO WITH MUD . . . . . 21 STONE WITH MUD . . . . . 22 UNCOVERED ADOBE . . . . . 23 PLYWOOD . . . . . 24 CARDBOARD . . . . . 25 REUSED WOOD . . . . . 26 **FINISHED WALLS** CEMENT . . . . . 31 STONE WITH LIME/CEMENT . . . . . 32 BRICKS . . . . . 33 CEMENT BLOCKS . . . . . 34 COVERED ADOBE . . . . . 35 WOOD PLANKS/SHINGLES . . . . . 36 OTHER _____ 96 (SPECIFY)	
120	How many rooms in this household are used for sleeping?	ROOMS . . . . . [ ][ ]	
121	Does any member of this household own: a) A watch? b) A bicycle? c) A motorcycle or motor scooter? d) An animal-drawn cart? e) A car, truck or mini-van? f) A boat with a motor? g) A boat without a motor?	YES / NO a) WATCH . . . . . 1 / 2 b) BICYCLE . . . . . 1 / 2 c) MOTORCYCLE/SCOOTER . . . . . 1 / 2 d) ANIMAL-DRAWN CART . . . . . 1 / 2 e) CAR/TRUCK/MINI-VAN . . . . . 1 / 2 f) BOAT WITH MOTOR . . . . . 1 / 2 g) BOAT WITHOUT MOTOR . . . . . 1 / 2	
121A	Do mice or rats appear in the dwelling? IF 'YES', ASK: How often?	NEVER . . . . . 1 AT LEAST ONCE A WEEK . . . . . 2 AT LEAST ONCE A MONTH . . . . . 3 ONCE IN A QUARTER . . . . . 4 AT LEAST ONCE A YEAR . . . . . 5 LESS THAN ONCE A YEAR . . . . . 6 DON'T KNOW 8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
122	Does any member of this household own any agricultural land?	YES . . . . . 1 NO 2	→ 124
123	How many acres of agricultural land do members of this household own?	ACRES . . . . . [ ][ ] 95 OR MORE ACRES . . . . . 95 DON'T KNOW 98	
124	Does this household own any livestock, herds, other farm animals, or poultry?	YES . . . . . 1 NO 2	→ 126
125	How many of the following animals does this household own? IF NONE, ENTER '00'. IF 95 OR MORE, ENTER '95'. IF UNKNOWN, ENTER '98'. a) Cows or bulls? b) Horses, donkeys, or mules? c) Goats? d) Sheep? e) Chickens, ducks, turkeys and other poultrty?	a) COWS/BULLS . . . . . [ ][ ] b) HORSES/DONKEYS/MULES . . . . . [ ][ ] c) GOATS . . . . . [ ][ ] d) SHEEP . . . . . [ ][ ] e) POULTRY . . . . . [ ][ ]	
126	Does any member of this household have a bank account?	YES . . . . . 1 NO 2	
126A	Have you or any member of this household received any information from anyone on what to do in the event of flood?	YES . . . . . 1 NO 2	→ 126C
126B	Where did this information come from? Anywhere else? CIRCLE ALL MENTIONED	TV . . . . . A NEWSPAPERS . . . . . B LEAFLETS . . . . . C FIELDWORKERS . . . . . D RADIO . . . . . E OTHER _____ X (SPECIFY) DON'T KNOW/NOT SURE . . . . . Z	
126C	In the event of flood where would you and other household members go?	NEAREST EMERGENCY SHELTER . . . . . 11 FAMILY MEMBERS OUT OF AFFECTED AREA . . . . . 12 FRIENDS OUT OF AFFECTED AREA . . . . . 13 COMMUNITY CENTER . . . . . 14 HIGHER LANDS . . . . . 15 REMAIN IN THE HOUSE . . . . . 16 OTHER _____ 96 (SPECIFY)	
126D	Now I would like to ask you a few questions about persons in this household Has any member of your household ever been injured or died in a road traffic accident? IF YES, SPECIFY: INJURED OR DIED	YES, INJURED . . . . . 1 YES, DIED . . . . . 2 NO . . . . . 3 DON'T KNOW 8	
126E	Has any member of your household ever attempted or committed suicide? IF YES, SPECIFY: ATTEMPTED OR COMMITTED.	YES, ATTEMPTED . . . . . 1 YES, COMMITTED . . . . . 2 NO . . . . . 3 DON'T KNOW 8	 → 127 → 127
126F	Is/was this person a male or a female?	MALE . . . . . 1 FEMALE 2	
126G	How old was this person when this happened?	AGE IN COMPLETED YEARS . . . . . [ ][ ]	
127	Now I would like to ask you questions about mosquito nets. Does your household have any mosquito nets that can be used while sleeping?	YES . . . . . 1 NO 2	→ 138
128	How many mosquito nets does your household have? IF 7 OR MORE NETS, RECORD '7'.	NUMBER OF NETS . . . . . [ ]	

		NET #1	NET #2	NET #3
129	ASK THE RESPONDENT TO SHOW YOU THE NETS IN THE HOUSEHOLD. IF MORE THAN 3 NETS, USE ADDITIONAL QUESTIONNAIRE(S).	OBSERVED . . . . . 1 NOT OBSERVED . . . 2	OBSERVED . . . . . 1 NOT OBSERVED . . . 2	OBSERVED . . . . . 1 NOT OBSERVED . . . 2
130	How many months ago did your household obtain the mosquito net? IF LESS THAN ONE MONTH, RECORD '00'.	MONTHS AGO . . . . . [ ][ ] 37 OR MORE MONTHS AGO . . . . . 95 NOT SURE 98	MONTHS AGO . . . . . [ ][ ] 37 OR MORE MONTHS AGO . . . . . 95 NOT SURE 98	MONTHS AGO . . . . . [ ][ ] 37 OR MORE MONTHS AGO . . . . . 95 NOT SURE 98
131	OBSERVE OR ASK THE BRAND/ TYPE OF MOSQUITO NET.	**'PERMANENT' NET** DURANET . . . . . 11 OLYSET . . . . . 12 LONG LASTING INSECTICIDAL IMPREGNATED. . . 13 OTHER/DK BRAND . 16 **(SKIP TO 135)** **'PRETREATED' NET** MOH NET . . . . . 21 **(SKIP TO 133)** OTHER/DK BRAND . 26 **OTHER** . . . . . 96 DK BRAND 98	**'PERMANENT' NET** DURANET . . . . . 11 OLYSET . . . . . 12 LONG LASTING INSECTICIDAL IMPREGNATED. . . 13 OTHER/DK BRAND . 16 **(SKIP TO 135)** **'PRETREATED' NET** MOH NET . . . . . 21 **(SKIP TO 133)** OTHER/DK BRAND . 26 **OTHER** . . . . . 96 DK BRAND 98	**'PERMANENT' NET** DURANET . . . . . 11 OLYSET . . . . . 12 LONG LASTING INSECTICIDAL IMPREGNATED. . . 13 OTHER/DK BRAND . 16 **(SKIP TO 135)** **'PRETREATED' NET** MOH NET . . . . . 21 **(SKIP TO 133)** OTHER/DK BRAND . 26 **OTHER** . . . . . 96 DK BRAND 98
132	When you got the net, was it treated with an insecticide to kill or repel mosquitos?	YES . . . . . 1 NO . . . . . 2 NOT SURE 8	YES . . . . . 1 NO . . . . . 2 NOT SURE 8	YES . . . . . 1 NO . . . . . 2 NOT SURE 8
133	Since you got the mosquito net, was it ever soaked or dipped in a liquid to kill or repel mosquitos?	YES . . . . . 1 NO . . . . . 2 **(SKIP TO 135)** NOT SURE 8	YES . . . . . 1 NO . . . . . 2 **(SKIP TO 135)** NOT SURE 8	YES . . . . . 1 NO . . . . . 2 **(SKIP TO 135)** NOT SURE 8
134	How many months ago was the net last soaked or dipped? IF LESS THAN ONE MONTH, RECORD '00'.	MONTHS AGO . . . . . [ ][ ] 25 OR MORE MONTHS AGO . . . . . 95 NOT SURE 98	MONTHS AGO . . . . . [ ][ ] 25 OR MORE MONTHS AGO . . . . . 95 NOT SURE 98	MONTHS AGO . . . . . [ ][ ] 25 OR MORE MONTHS AGO . . . . . 95 NOT SURE 98
135	Did anyone sleep under this mosquito net last night?	YES . . . . . 1 NO . . . . . 2 **(SKIP TO 137)** NOT SURE 8	YES . . . . . 1 NO . . . . . 2 **(SKIP TO 137)** NOT SURE 8	YES . . . . . 1 NO . . . . . 2 **(SKIP TO 137)** NOT SURE 8

		NET #1	NET #2	NET #3
136	Who slept under this mosquito net last night? RECORD THE PERSON'S LINE NUMBER FROM THE HOUSEHOLD SCHEDULE.	NAME_____ LINE NUMBER . . . . . [ ][ ]	NAME_____ LINE NUMBER . . . . . [ ][ ]	NAME_____ LINE NUMBER . . . . . [ ][ ]
		NAME_____ LINE NUMBER . . . . . [ ][ ]	NAME_____ LINE NUMBER . . . . . [ ][ ]	NAME_____ LINE NUMBER . . . . . [ ][ ]
		NAME_____ LINE NUMBER . . . . . [ ][ ]	NAME_____ LINE NUMBER . . . . . [ ][ ]	NAME_____ LINE NUMBER . . . . . [ ][ ]
		NAME_____ LINE NUMBER . . . . . [ ][ ]	NAME_____ LINE NUMBER . . . . . [ ][ ]	NAME_____ LINE NUMBER . . . . . [ ][ ]
137		GO BACK TO 129 FOR NEXT NET; OR, IF NO MORE NETS, GO TO 138.	GO BACK TO 129 FOR NEXT NET; OR, IF NO MORE NETS, GO TO 138.	GO TO 129 IN FIRST COLUMN OF A NEW QUESTIONNAIRE; OR, IF NO MORE NETS, GO TO 138.
138	ASK RESPONDENT FOR A TEASPOONFUL OF COOKING SALT. TEST SALT FOR IODINE USING THE **IODATE** TEST KIT FIRST. IF THE RESULT IS NEGATIVE, TEST AGAIN USING THE **IODIDE** TEST KIT RECORD PPM (PARTS PER MILLION)		0 PPM (NO IODINE) . . . . . 1 BELOW 15 PPM . . . . . 2 15 PPM AND ABOVE . . . . . 3 NO SALT IN HH . . . . . 4 SALT NOT TESTED _____ 6 (SPECIFY REASON)	

WEIGHT, HEIGHT, AND HEMOGLOBIN MEASUREMENT
CHILDREN AGE 0-5 YEARS

501	CHECK COLUMN **11** IN THE HH SCHEDULE. RECORD THE LINE NUMBER AND NAME FOR ALL ELIGIBLE CHILDREN 0-5 YEARS IN QUESTION **502**. IF MORE THAN SIX CHILDREN, USE ADDITIONAL QUESTIONNAIRE(S). A FINAL OUTCOME MUST BE RECORDED FOR THE WEIGHT AND HEIGHT MEASUREMENT IN **508** AND FOR THE ANEMIA PROCEDURE IN **513**			
		CHILD 1	**CHILD 2**	**CHILD 3**
502	NAME FROM COLUMN 2 IN HOUSEHOLD SCHEDULE LINE NUMBER FROM COLUMN 11 IN HOUSEHOLD SCHEDULE	NAME _____ LINE NUMBER . . . . . [ ][ ]	NAME _____ LINE NUMBER . . . . . [ ][ ]	NAME _____ LINE NUMBER . . . . . [ ][ ]
503	IF MOTHER INTERVIEWED, COPY MONTH AND YEAR FROM BIRTH HISTORY AND ASK DAY; IF MOTHER NOT INTERVIEWED, ASK: What is (CHILD'S NAME) birth date?	DAY . . . . . [ ][ ] MONTH . . . . . [ ][ ] YEAR . . . [2][0][0][ ]	DAY . . . . . [ ][ ] MONTH . . . . . [ ][ ] YEAR . . . [2][0][0][ ]	DAY . . . . . [ ][ ] MONTH . . . . . [ ][ ] YEAR . . . [2][0][0][ ]
504	CHECK 503: CHILD BORN IN JANUARY 2004 OR LATER?	YES . . . . . 1 NO . . . . . 2 (GO TO **503** FOR NEXT CHILD OR, IF NO MORE GO TO **515**)	YES . . . . . 1 NO . . . . . 2 (GO TO **503** FOR NEXT CHILD OR, IF NO MORE GO TO **515**)	YES . . . . . 1 NO . . . . . 2 (GO TO **503** FOR NEXT CHILD OR, IF NO MORE GO TO **515**)
505	WEIGHT IN KILOGRAMS	KG. . . . . [ ][ ] . [ ]	KG. . . . . [ ][ ] . [ ]	KG. . . . . [ ][ ] . [ ]
506	HEIGHT IN CENTIMETERS	CM. . . . [ ][ ][ ] . [ ]	CM. . . . [ ][ ][ ] . [ ]	CM. . . . [ ][ ][ ] . [ ]
507	MEASURED LYING DOWN OR STANDING UP?	LYING DOWN . . . . . 1 STANDING UP 2	LYING DOWN . . . . . 1 STANDING UP 2	LYING DOWN . . . . . 1 STANDING UP 2
508	RESULT OF WEIGHT AND HEIGHT MEASUREMENT	MEASURED . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER 6	MEASURED . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER 6	MEASURED . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER 6
509	CHECK 503: IS CHILD AGE 0-5 MONTHS, I.E., WAS CHILD BORN IN MONTH OF INTERVIEW OR FIVE PREVIOUS MONTHS?	0-5 MONTHS . . . . . 1 (GO TO **503** FOR NEXT CHILD OR, IF NO MORE GO TO **515**) OLDER 2	0-5 MONTHS . . . . . 1 (GO TO **503** FOR NEXT CHILD OR, IF NO MORE GO TO **515**) OLDER 2	0-5 MONTHS . . . . . 1 (GO TO **503** FOR NEXT CHILD OR, IF NO MORE GO TO **515**) OLDER 2
510	LINE NUMBER OF PARENT/OTHER ADULT RESPONSIBLE FOR THE CHILD (COLUMN 1 IN THE HH SCHEDULE). RECORD '00' IF NOT LISTED.	LINE NUMBER . . . . . [ ][ ]	LINE NUMBER . . . . . [ ][ ]	LINE NUMBER . . . . . [ ][ ]
511	READ CONSENT STATEMENT TO PARENT/OTHER ADULT RESPONSIBLE FOR CHILD. CIRCLE CODE AND SIGN.	GRANTED . . . . . 1 _____ (SIGN) REFUSED . . . . . 2 **(IF REFUSED, GO TO 513)**	GRANTED . . . . . 1 _____ (SIGN) REFUSED . . . . . 2 **(IF REFUSED, GO TO 513)**	GRANTED . . . . . 1 _____ (SIGN) REFUSED . . . . . 2 **(IF REFUSED, GO TO 513)**
512	RECORD HEMOGLOBIN LEVEL HERE AND IN THE ANEMIA PAMPHLET.	G/DL . . . . . [ ][ ] . [ ]	G/DL . . . . . [ ][ ] . [ ]	G/DL . . . . . [ ][ ] . [ ]
513	RECORD RESULT CODE OF HEMOGLOBIN MEASUREMENT	MEASURED . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER 6	MEASURED . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER 6	MEASURED . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER 6
514		GO BACK TO **503** IN NEXT COLUMN IN THIS QUESTIONNAIRE OR IN THE FIRST COLUMN OF ADDITIONAL QUESTIONNAIRE(S); IF NO MORE CHILDREN, **GO TO 515**.		

CONSENT STATEMENT FOR ANEMIA FOR CHILDREN

As part of this survey, we are asking people all over the country to take an anemia test. Anemia is a serious health problem that usually results from poor nutrition, infection, or chronic disease. This survey will assist the government to develop programs to prevent and treat anemia.

We request that all children born in 2004 or later participate in the anemia testing part of this survey and give a few drops of blood from a finger. The equipment used in taking the blood is clean and completely safe. It has never been used before and will be thrown away after each test.

The blood will be tested for anemia immediately, and the result told to you right away. The result will be kept confidential.

Do you have any questions?

You can say yes to the test, or you can say no. It is up to you to decide.
Will you allow (NAME(S) OF CHILD(REN) to participate in the anemia test?

		CHILD 4	CHILD 5	CHILD 6
502	NAME FROM COLUMN 2 IN HOUSEHOLD SCHEDULE LINE NUMBER FROM COLUMN 11 IN HOUSEHOLD SCHEDULE	NAME _____ LINE NUMBER . . . . . [ ][ ]	NAME _____ LINE NUMBER . . . . . [ ][ ]	NAME _____ LINE NUMBER . . . . . [ ][ ]
503	IF MOTHER INTERVIEWED, COPY MONTH AND YEAR FROM BIRTH HISTORY AND ASK DAY; IF MOTHER NOT INTERVIEWED, ASK: What is (CHILD'S NAME) birth date?	DAY . . . . . [ ][ ] MONTH . . . . . [ ][ ] YEAR . . . [2][0][0][ ]	DAY . . . . . [ ][ ] MONTH . . . . . [ ][ ] YEAR . . . [2][0][0][ ]	DAY . . . . . [ ][ ] MONTH . . . . . [ ][ ] YEAR . . . [2][0][0][ ]
504	CHECK 503: CHILD BORN IN JANUARY 2004 OR LATER	YES . . . . . 1 NO . . . . . 2 (GO TO **503** FOR NEXT CHILD OR, IF NO MORE, GO TO **515**)	YES . . . . . 1 NO . . . . . 2 (GO TO **503** FOR NEXT CHILD OR, IF NO MORE, GO TO **515**)	YES . . . . . 1 NO . . . . . 2 (GO TO **503** FOR NEXT CHILD OR, IF NO MORE, GO TO **515**)
505	WEIGHT IN KILOGRAMS	KG. . . . . [ ][ ] . [ ]	KG. . . . . [ ][ ] . [ ]	KG. . . . . [ ][ ] . [ ]
506	HEIGHT IN CENTIMETERS	CM. . . . [ ][ ][ ] . [ ]	CM. . . . [ ][ ][ ] . [ ]	CM. . . . [ ][ ][ ] . [ ]
507	MEASURED LYING DOWN OR STANDING UP?	LYING DOWN . . . . . 1 STANDING UP 2	LYING DOWN . . . . . 1 STANDING UP 2	LYING DOWN . . . . . 1 STANDING UP 2
508	RESULT OF WEIGHT AND HEIGHT MEASUREMENT	MEASURED . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER 6	MEASURED . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER 6	MEASURED . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER 6
509	CHECK 503: IS CHILD AGE 0-5 MONTHS, I.E., WAS CHILD BORN IN MONTH OF INTERVIEW OR FIVE PREVIOUS MONTHS?	0-5 MONTHS . . . . . 1 (GO TO **503** FOR NEXT CHILD OR, IF NO MORE, GO TO **515**) OLDER 2	0-5 MONTHS . . . . . 1 (GO TO **503** FOR NEXT CHILD OR, IF NO MORE, GO TO **515**) OLDER 2	0-5 MONTHS . . . . . 1 (GO TO **503** FOR NEXT CHILD OR, IF NO MORE, GO TO **515**) OLDER 2
510	LINE NUMBER OF PARENT/OTHER ADULT RESPONSIBLE FOR THE CHILD (COLUMN 1 IN THE HH SCHEDULE). RECORD '00' IF NOT LISTED.	LINE NUMBER . . . . . [ ][ ]	LINE NUMBER . . . . . [ ][ ]	LINE NUMBER . . . . . [ ][ ]
511	READ CONSENT STATEMENT TO PARENT/OTHER ADULT RESPONSIBLE FOR CHILD. CIRCLE CODE AND SIGN.	GRANTED . . . . . 1 _____ (SIGN) REFUSED . . . . . 2 **(IF REFUSED, GO TO 513)**	GRANTED . . . . . 1 _____ (SIGN) REFUSED . . . . . 2 **(IF REFUSED, GO TO 513)**	GRANTED . . . . . 1 _____ (SIGN) REFUSED . . . . . 2 **(IF REFUSED, GO TO 513)**
512	RECORD HEMOGLOBIN LEVEL HERE AND IN THE ANEMIA PAMPHLET.	G/DL . . . . . [ ][ ] . [ ]	G/DL . . . . . [ ][ ] . [ ]	G/DL . . . . . [ ][ ] . [ ]
513	RECORD RESULT CODE OF HEMOGLOBIN MEASUREMENT	MEASURED . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER 6	MEASURED . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER 6	MEASURED . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER 6
514		GO BACK TO **503** IN NEXT COLUMN IN THIS QUESTIONNAIRE OR IN THE FIRST COLUMN OF ADDITIONAL QUESTIONNAIRE(S); IF NO MORE CHILDREN, **GO TO 515**.		

WEIGHT, HEIGHT, AND HEMOGLOBIN MEASUREMENT
WOMEN 15-49

515	CHECK COLUMN **9** IN THE HOUSEHOLD SCHEDULE. RECORD THE LINE NUMBER AND NAME FOR ALL ELIGIBLE WOMEN IN **516**. IF THERE ARE MORE THAN THREE WOMEN, USE ADDITIONAL QUESTIONNAIRE(S). A FINAL OUTCOME MUST BE RECORDED FOR THE WEIGHT AND HEIGHT MEASUREMENT IN **519**, AND FOR THE ANEMIA TEST PROCEDURE IN **528**.			
		WOMAN 1	**WOMAN 2**	**WOMAN 3**
516	NAME FROM COLUMN 2 IN THE HH SCHEDULE LINE NUMBER FROM COLUMN 9 IN THE HH SCHEDULE	NAME _____ LINE NUMBER . . . . . [ ][ ]	NAME _____ LINE NUMBER . . . . . [ ][ ]	NAME _____ LINE NUMBER . . . . . [ ][ ]
517	WEIGHT IN KILOGRAMS	KG. . . . . [ ][ ][ ].[ ]	KG. . . . . [ ][ ][ ].[ ]	KG. . . . . [ ][ ][ ].[ ]
518	HEIGHT IN CENTIMETERS	CM. . . . . [ ][ ][ ].[ ]	CM. . . . . [ ][ ][ ].[ ]	CM. . . . . [ ][ ][ ].[ ]
519	RESULT OF WEIGHT AND HEIGHT MEASUREMENT	MEASURED . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER 6	MEASURED . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER 6	MEASURED . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER 6
520	AGE: CHECK COLUMN 7 IN THE HH SCHEDULE	15-17 YEARS . . . . . 1 18-49 YEARS . . . . . 2 **(GO TO 523)** ↵	15-17 YEARS . . . . . 1 18-49 YEARS . . . . . 2 **(GO TO 523)** ↵	15-17 YEARS . . . . . 1 18-49 YEARS . . . . . 2 **(GO TO 523)** ↵
521	MARITAL STATUS: CHECK COLUMN 8 IN THE HH SCHEDULE	CODE 4 (NEVER IN UNION) . . . . . 1 OTHER . . . . . 2 **(GO TO 523)** ↵	CODE 4 (NEVER IN UNION) . . . . . 1 OTHER . . . . . 2 **(GO TO 523)** ↵	CODE 4 (NEVER IN UNION) . . . . . 1 OTHER . . . . . 2 **(GO TO 523)** ↵
522	RECORD LINE NUMBER OF PARENT/OTHER ADULT RESPONSIBLE FOR ADOLESCENT. (COLUMN 1 IN THE HOUSEHOLD SCHEDULE). RECORD '00' IF NOT LISTED.	LINE NUMBER OF PARENT OR OTHER RESPONSIBLE ADULT . [ ][ ]	LINE NUMBER OF PARENT OR OTHER RESPONSIBLE ADULT . [ ][ ]	LINE NUMBER OF PARENT OR OTHER RESPONSIBLE ADULT . [ ][ ]
523	READ ANEMIA TEST CONSENT STATEMENT. FOR NEVER-IN-UNION WOMEN AGE 15-17, ASK CONSENT FROM PARENT/OTHER ADULT IDENTIFIED IN 522 BEFORE ASKING RESPONDENT'S CONSENT.	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 RESPONDENT REFUSED . . . . . 3 _____ (SIGN) **(IF REFUSED, GO TO 530D).**	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 RESPONDENT REFUSED . . . . . 3 _____ (SIGN) **(IF REFUSED, GO TO 530D).**	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 RESPONDENT REFUSED . . . . . 3 _____ (SIGN) **(IF REFUSED, GO TO 530D).**

CONSENT STATEMENT FOR ANEMIA TEST

READ CONSENT STATEMENT TO EACH RESPONDENT. CIRCLE CODE '1' IN 523 IF RESPONDENT CONSENTS TO THE ANEMIA TEST AND CODE '3' IF SHE REFUSES.

FOR NEVER-IN-UNION WOMEN AGE 15-17, ASK CONSENT FROM THE PARENT OR OTHER ADULT IDENTIFIED AS RESPONSIBLE FOR THE ADOLESCENT (SEE QUESTION 522) BEFORE ASKING THE ADOLESCENT FOR HER CONSENT. CIRCLE CODE '2' IN 523 IF THE PARENT (OTHER ADULT) REFUSES. CONDUCT THE TEST ONLY IF BOTH THE PARENT (OTHER ADULT) AND THE ADOLESCENT CONSENT.

As part of this survey, we are asking people all over the country to take an anemia test. Anemia is a serious health problem that usually results from poor nutrition, infection, or chronic disease. This survey will assist the government to develop programs to prevent and treat anemia.

For the anemia testing, we will need a few drops of blood from a finger. The equipment used in taking the blood is clean and completely safe. It has never been used before and will be thrown away after each test.

The blood will be tested for anemia immediately, and the result told to you right away. The result will be kept confidential.

Do you have any questions?

You can say yes to the test, or you can say no. It is up to you to decide.
Will you (allow NAME OF ADOLESCENT to) take the anemia test?

		WOMAN 1	WOMAN 2	WOMAN 3
	NAME FROM 516 LINE NUMBER FROM 516	NAME _____ LINE NUMBER . . . . . [ ][ ]	NAME _____ LINE NUMBER . . . . . [ ][ ]	NAME _____ LINE NUMBER . . . . . [ ][ ]
524	PREGNANCY STATUS: CHECK QUESTION 226 IN WOMAN'S QUESTIONNAIRE OR ASK: Are you pregnant?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
526	CHECK **523** AND PREPARE EQUIPMENT AND SUPPLIES FOR THE TEST(S) FOR WHICH CONSENT HAS BEEN OBTAINED AND PROCEED WITH THE TEST. A FINAL OUTCOME FOR THE THE ANEMIA TEST PROCEDURE MUST BE RECORDED IN **528** FOR EACH ELIGIBLE WOMAN EVEN IF SHE WAS NOT PRESENT, REFUSED, OR COULD NOT BE TESTED FOR SOME OTHER REASON.			
527	RECORD HEMOGLOBIN LEVEL HERE AND IN ANEMIA PAMPHLET	G/DL . . . . . [ ][ ].[ ]	G/DL . . . . . [ ][ ].[ ]	G/DL . . . . . [ ][ ].[ ]
528	RECORD RESULT CODE OF HEMOGLOBIN MEASUREMENT.	MEASURED . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER 6	MEASURED . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER 6	MEASURED . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER 6
530D	GO BACK TO **517** IN NEXT COLUMN IN THIS QUESTIONNAIRE OR IN THE FIRST COLUMN OF ADDITIONAL QUESTIONNAIRES. IF NO MORE WOMEN, **GO TO 531.**			

WEIGHT, HEIGHT, AND HEMOGLOBIN MEASUREMENT
MEN 15-49

531	CHECK COLUMN **10** IN THE HH SCHEDULE. RECORD THE LINE NUMBER AND NAME FOR ALL ELIGIBLE MEN IN **532**. IF THERE ARE MORE THAN THREE MEN, USE ADDITIONAL QUESTIONNAIRE(S). A FINAL OUTCOME MUST BE RECORDED FOR THE WEIGHT AND HEIGHT MEASUREMENT IN **535**, AND FOR THE ANEMIA TEST PROCEDURE IN **543.**			
		MAN 1	**MAN 2**	**MAN 3**
532	NAME FROM COLUMN 2 IN THE HH SCHEDULE LINE NUMBER FROM COLUMN 9 IN THE HH SCHEDULE	NAME _____ LINE NUMBER . . . . . [ ][ ]	NAME _____ LINE NUMBER . . . . . [ ][ ]	NAME _____ LINE NUMBER . . . . . [ ][ ]
533	WEIGHT IN KILOGRAMS	KG. . . . . [ ][ ][ ].[ ]	KG. . . . . [ ][ ][ ].[ ]	KG. . . . . [ ][ ][ ].[ ]
534	HEIGHT IN CENTIMETERS	CM. . . . . [ ][ ][ ].[ ]	CM. . . . . [ ][ ][ ].[ ]	CM. . . . . [ ][ ][ ].[ ]
535	RESULT OF WEIGHT AND HEIGHT MEASUREMENT	MEASURED . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER 6	MEASURED . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER 6	MEASURED . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER 6
536	AGE: CHECK COLUMN 7 IN THE HH SCHEDULE	15-17 YEARS . . . . . 1 18-49 YEARS . . . . . 2 **(GO TO 539)**	15-17 YEARS . . . . . 1 18-49 YEARS . . . . . 2 **(GO TO 539)**	15-17 YEARS . . . . . 1 18-49 YEARS . . . . . 2 **(GO TO 539)**
537	MARITAL STATUS: CHECK COLUMN 8 IN THE HH SCHEDULE	CODE 4 (NEVER IN UNION) . . . . . 1 OTHER . . . . . 2 **(GO TO 539)**	CODE 4 (NEVER IN UNION) . . . . . 1 OTHER . . . . . 2 **(GO TO 539)**	CODE 4 (NEVER IN UNION) . . . . . 1 OTHER . . . . . 2 **(GO TO 539)**
538	RECORD LINE NUMBER OF PARENT/OTHER ADULT RESPONSIBLE FOR ADOLESCENT. (COLUMN 1 IN THE HOUSEHOLD SCHEDULE). RECORD '00' IF NOT LISTED.	LINE NUMBER OF PARENT OR OTHER RESPONSIBLE ADULT . [ ][ ]	LINE NUMBER OF PARENT OR OTHER RESPONSIBLE ADULT . [ ][ ]	LINE NUMBER OF PARENT OR OTHER RESPONSIBLE ADULT . [ ][ ]
539	READ ANEMIA TEST CONSENT STATEMENT. FOR NEVER-IN-UNION MEN AGE 15-17, ASK CONSENT FROM PARENT/OTHER ADULT IDENTIFIED IN 538 BEFORE ASKING RESPONDENT'S CONSENT.	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 RESPONDENT REFUSED . . . . . 3 _____ (SIGN) **(IF REFUSED, GO TO 545D).**	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 RESPONDENT REFUSED . . . . . 3 _____ (SIGN) **(IF REFUSED, GO TO 545D).**	GRANTED . . . . . 1 PARENT/OTHER RESPONSIBLE ADULT REFUSED . . . . . 2 RESPONDENT REFUSED . . . . . 3 _____ (SIGN) **(IF REFUSED, GO TO 545D).**

CONSENT STATEMENT FOR ANEMIA TEST

READ CONSENT STATEMENT TO EACH RESPONDENT. CIRCLE CODE '1' IN **539** IF RESPONDENT CONSENTS TO THE ANEMIA TEST AND CODE '3' IF SHE REFUSES.

FOR NEVER-IN-UNION MEN AGE 15-17, ASK CONSENT FROM THE PARENT OR OTHER ADULT IDENTIFIED AS RESPONSIBLE FOR THE ADOLESCENT (SEE QUESTION 538) BEFORE ASKING THE ADOLESCENT FOR HER CONSENT. CIRCLE CODE '2' IN 539 IF THE PARENT (OTHER ADULT) REFUSES. CONDUCT THE TEST ONLY IF BOTH THE PARENT (OTHER ADULT) AND THE ADOLESCENT CONSENT.

As part of this survey, we are asking people all over the country to take an anemia test. Anemia is a serious health problem that usually results from poor nutrition, infection, or chronic disease. This survey will assist the government to develop programs to prevent and treat anemia.

For the anemia testing, we will need a few drops of blood from a finger. The equipment used in taking the blood is clean and completely safe. It has never been used before and will be thrown away after each test.

The blood will be tested for anemia immediately, and the result told to you right away. The result will be kept confidential.

Do you have any questions?

You can say yes to the test, or you can say no. It is up to you to decide.
Will you (allow NAME OF ADOLESCENT to) take the anemia test?

		MAN 1	MAN 2	MAN 3
	NAME FROM 532 LINE NUMBER FROM 532	NAME _____ LINE NUMBER . . . . . [ ][ ]	NAME _____ LINE NUMBER . . . . . [ ][ ]	NAME _____ LINE NUMBER . . . . . [ ][ ]
541	CHECK **539** AND PREPARE EQUIPMENT AND SUPPLIES FOR THE TEST(S) FOR WHICH CONSENT HAS BEEN OBTAINED AND PROCEED WITH THE TEST. A FINAL OUTCOME FOR THE THE ANEMIA TEST PROCEDURE MUST BE RECORDED IN **543** FOR EACH ELIGIBLE MAN EVEN IF HE WAS NOT PRESENT, REFUSED, OR COULD NOT BE TESTED FOR SOME OTHER REASON.			
542	RECORD HEMOGLOBIN LEVEL HERE AND IN ANEMIA PAMPHLET	G/DL . . . . . [ ][ ].[ ]	G/DL . . . . . [ ][ ].[ ]	G/DL . . . . . [ ][ ].[ ]
543	RECORD RESULT CODE OF HEMOGLOBIN MEASUREMENT.	MEASURED . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER 6	MEASURED . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER 6	MEASURED . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER 6
545D	GO BACK TO **532** IN NEXT COLUMN IN THIS QUESTIONNAIRE OR IN THE FIRST COLUMN OF ADDITIONAL QUESTIONNAIRES. IF NO MORE MEN, **END INTERVIEW.**			

INTERVIEWER'S OBSERVATIONS

TO BE FILLED IN AFTER COMPLETING INTERVIEW

COMMENTS ABOUT RESPONDENT:

COMMENTS ON SPECIFIC QUESTIONS:

ANY OTHER COMMENTS:

SUPERVISOR'S OBSERVATIONS

NAME OF SUPERVISOR: _____ DATE: _____

EDITOR'S OBSERVATIONS

NAME OF EDITOR: _____ DATE: _____

GUYANA DEMOGRAPHIC AND HEALTH SURVEY 2009
WOMAN'S QUESTIONNAIRE

MINISTRY OF HEALTH **BUREAU OF STATISTICS**

IDENTIFICATION

PLACE NAME _____

NAME OF HOUSEHOLD HEAD _____

CLUSTER NUMBER . . . . . [ ][ ][ ]

GDHS HOUSEHOLD NUMBER . . . . . [ ][ ][ ]

VILLAGE/WARD NUMBER . . . . . [ ][ ][ ]

REGION . . . . . [ ][ ]

TYPE OF PLACE (GEORGETOWN=1, OTHER URBAN=2, RURAL=3) . . . . . [ ]

NAME AND LINE NUMBER OF WOMAN _____ [ ][ ]

INFORMATION ON IMMUNIZATION OF CHILDREN
TO BE COLLECTED AT HEALTH FACILITY (YES=1, NO=2) . . . . . [ ]

INTERVIEWER VISITS

	1	2	3	FINAL VISIT
DATE	_____	_____	_____	DAY . . . . . [ ][ ]
				MONTH . . . . . [ ][ ]
				YEAR 2 0 0 9
INTERVIEWER'S NAME	_____	_____	_____	INT. NUMBER [ ][ ][ ]
RESULT*	[ ]	[ ]	[ ]	RESULT . . . . . [ ]
NEXT VISIT: DATE	_____	_____		TOTAL NUMBER OF VISITS . . . . . [ ]
TIME	_____	_____		

*RESULT CODES:

1	COMPLETED	4	REFUSED		
2	NOT AT HOME	5	PARTLY COMPLETED	7	OTHER _____ (SPECIFY)
3	POSTPONED	6	INCAPACITATED		

LANGUAGE

LANGUAGE CODES:
1=ENGLISH, 2=OTHER

LANGUAGE OF INTERVIEW _____ . . . . . [ ]

LANGUAGE OF RESPONDENT _____ . . . . . [ ]

WAS A TRANSLATOR USED? (1=YES; 2=NO) . . . . . [ ]

SUPERVISOR	FIELD EDITOR	OFFICE EDITOR	KEYED BY
NAME _____ [ ][ ]	NAME _____ [ ][ ]	[ ][ ]	[ ][ ]
DATE _____	DATE _____		

SECTION 1 - RESPONDENT'S BACKGROUND

INTRODUCTION AND CONSENT

INFORMED CONSENT

Hello. My name is _____ and I am working with the Bureau of Statistcs of Guyana. We are conducting a national health survey. We would very much appreciate your participation in this survey. I would like to ask you about some important health issues. This information will help the government to plan health services. The survey usually takes around 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

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
101	RECORD THE START TIME.	HOUR . . . . . [ ][ ] MINUTES . . . . . [ ][ ]	
102	How long have you been living continuously in (NAME OF CURRENT PLACE OF RESIDENCE)? IF LESS THAN ONE YEAR, RECORD '00' YEARS.	YEARS . . . . . [ ][ ] ALWAYS . . . . . 95 VISITOR 96	→ 104
103	Just before you moved here, did you live in a city, in a town, or in the countryside?	CITY . . . . . 1 TOWN . . . . . 2 COUNTRYSIDE 3	
104	In the last 12 months, on how many separate occasions have you traveled away from your home community and slept away?	NUMBER OF TRIPS . . . . . [ ][ ] NONE 00	→ 106
105	In the last 12 months, have you been away from your home community for more than one month at a time?	YES . . . . . 1 NO 2	
106	In what month and year were you born?	MONTH . . . . . [ ][ ] DON'T KNOW MONTH . . . . . 98 YEAR . . . . . [ ][ ][ ][ ] DON'T KNOW YEAR 9998	
107	How old were you at your last birthday? COMPARE AND CORRECT 106 AND/OR 107 IF INCONSISTENT.	AGE IN COMPLETED YEARS [ ][ ]	
108	Have you ever attended school?	YES . . . . . 1 NO 2	→ 112
109	What is the highest level of schooling you attended: nursery, primary, secondary, or higher?	NURSERY . . . . . 1 PRIMARY . . . . . 2 SECONDARY . . . . . 3 HIGHER 4	
110	What is the highest year you completed at that level? RECORD '00' IF LESS THAN ONE YEAR COMPLETED AT THAT LEVEL.	YEAR . . . . . [ ][ ]	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
111	CHECK 109: NURSERY OR PRIMARY → SECONDARY OR HIGHER → 115		
112	Now I would like you to read this sentence to me. SHOW SENTENCES AT THE BOTTOM TO RESPONDENT. IF RESPONDENT CANNOT READ WHOLE SENTENCE, PROBE: Can you read any part of the sentence to me?	CANNOT READ AT ALL . . . . . 1 ABLE TO READ ONLY PARTS OF SENTENCE . . . . . 2 ABLE TO READ WHOLE SENTENCE. . 3 NO CARD WITH REQUIRED LANGUAGE _____ 4 (SPECIFY LANGUAGE) BLIND/VISUALLY IMPAIRED 5	
113	Have you ever participated in a literacy program or any other program that involves learning to read or write (not including nursery or primary school)?	YES . . . . . 1 NO 2	
114	CHECK 112: CODE '2', '3' OR '4' CIRCLED → CODE '1' OR '5' CIRCLED → 116		
115	Do you read a newspaper or magazine almost every day, at least once a week, less than once a week, or not at all?	ALMOST EVERY DAY . . . . . 1 AT LEAST ONCE A WEEK . . . . . 2 LESS THAN ONCE A WEEK . . . . . 3 NOT AT ALL 4	
116	Do you listen to the radio almost every day,	ALMOST EVERY DAY . . . . . 1 AT LEAST ONCE A WEEK . . . . . 2 LESS THAN ONCE A WEEK . . . . . 3 NOT AT ALL 4	
117	Do you watch television almost every day, at least once a week, less than once a week, or not at all?	ALMOST EVERY DAY . . . . . 1 AT LEAST ONCE A WEEK . . . . . 2 LESS THAN ONCE A WEEK . . . . . 3 NOT AT ALL 4	
118	What is your religion?	CHRISTIAN . . . . . 1 HINDU . . . . . 2 MUSLIM . . . . . 3 RASTAFARIAN . . . . . 4 NOT RELIGIOUS . . . . . 5 OTHER _____ 6 SPECIFY	
119	Which ethnic group do you belong to?	AFRICAN . . . . . 01 INDIAN . . . . . 02 AMERINDIAN . . . . . 03 PORTUGUESE . . . . . 04 CHINESE . . . . . 05 MIXED . . . . . 06 OTHER _____ 96 SPECIFY	

SENTENCES FOR Q.112

1. The child is reading a book.

2. The rains came late this year.

3. Parents must care for their children.

4. Farming is hard work.

SECTION 2. REPRODUCTION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
201	Now I would like to ask about all the births you have had during your life. Have you ever given birth?	YES . . . . . 1 NO . . . . . 2 →	206
202	Do you have any sons or daughters to whom you have given birth who are now living with you?	YES . . . . . 1 NO . . . . . 2 →	204
203	How many sons live with you? And how many daughters live with you? IF NONE, RECORD '00'.	SONS AT HOME . . . . . [ ][ ] DAUGHTERS AT HOME . . . . . [ ][ ]	
204	Do you have any sons or daughters to whom you have given birth who are alive but do not live with you?	YES . . . . . 1 NO . . . . . 2 →	206
205	How many sons are alive but do not live with you? And how many daughters are alive but do not live with you? IF NONE, RECORD '00'.	SONS ELSEWHERE . . . . . [ ][ ] DAUGHTERS ELSEWHERE . [ ][ ]	
206	Have you ever given birth to a boy or girl who was born alive but later died? IF NO, PROBE: Any baby who cried or showed signs of life but did not survive?	YES . . . . . 1 NO . . . . . 2 →	208
207	How many boys have died? And how many girls have died? IF NONE, RECORD '00'.	BOYS DEAD . . . . . [ ][ ] GIRLS DEAD . . . . . [ ][ ]	
208	SUM ANSWERS TO 203, 205, AND 207, AND ENTER TOTAL. IF NONE, RECORD '00'.	TOTAL . . . . . [ ][ ]	
209	CHECK 208: Just to make sure that I have this right: you have had in TOTAL _____ births during your life. Is that correct? YES ↓ NO → PROBE AND CORRECT 201-208 AS NECESSARY.		
210	CHECK 208: ONE OR MORE BIRTHS ↓ NO BIRTHS →		226

BIRTH HISTORY

211 Now I would like to record the names of all your births, whether still alive or not, starting with the first one you had.
RECORD NAMES OF ALL THE BIRTHS IN 212. RECORD TWINS AND TRIPLETS ON SEPARATE LINES.
(IF THERE ARE MORE THAN 12 BIRTHS, USE AN ADDITIONAL QUESTIONNAIRE, STARTING WITH THE SECOND LINE, AND ADJUST LINE NUMBERS).

212 What name was given to your (first/next) baby? INCLUDE LAST NAME (NAME)	213 Were any of these births twins?	214 Is (NAME) a boy or a girl?	215 In what month and year was (NAME) born? PROBE: What is his/her birthday?	216 Is (NAME) still alive?	217 IF ALIVE: How old was (NAME) at his/her last birthday? RECORD AGE IN COM-PLETED YEARS.	218 IF ALIVE: Is (NAME) living with you?	219 IF ALIVE: RECORD HOUSE-HOLD LINE NUMBER OF CHILD (RECORD '00' IF CHILD IS NOT LISTED IN HOUSE-HOLD).	220 IF DEAD: How old was (NAME) when he/she died? IF '1 YR', PROBE: How many months old was (NAME)? RECORD DAYS IF LESS THAN 1 MONTH; MONTHS IF LESS THAN TWO YEARS; OR YEARS.	221 Were there any other live births between (NAME OF PREVIOUS BIRTH) and (NAME), including any children who died after birth?
01	SING.... 1 MULT... 2	BOY,,,. 1 GIRL,,, 2	MONTH [ ][ ] YEAR [ ][ ][ ][ ]	YES . . 1 NO . . . 2 → 220	AGE IN YEARS [ ][ ]	YES . . . . 1 NO 2	LINE NUMBER [ ][ ] → (NEXT BIRTH)	DAYS . . . . 1 MONTHS . . 2 YEARS . . . 3 [ ][ ]	
02	SING.... 1 MULT... 2	BOY,,,. 1 GIRL,,, 2	MONTH [ ][ ] YEAR [ ][ ][ ][ ]	YES . . 1 NO . . . 2 → 220	AGE IN YEARS [ ][ ]	YES . . . . 1 NO 2	LINE NUMBER [ ][ ] → (GO TO 221)	DAYS . . . . 1 MONTHS . . 2 YEARS . . . 3 [ ][ ]	YES . . . . 1 ADD↲ BIRTH NO . . . . . 2 NEXT↲ BIRTH
03	SING.... 1 MULT... 2	BOY,,,. 1 GIRL,,, 2	MONTH [ ][ ] YEAR [ ][ ][ ][ ]	YES . . 1 NO . . . 2 → 220	AGE IN YEARS [ ][ ]	YES . . . . 1 NO 2	LINE NUMBER [ ][ ] → (GO TO 221)	DAYS . . . . 1 MONTHS . . 2 YEARS . . . 3 [ ][ ]	YES . . . . 1 ADD↲ BIRTH NO . . . . . 2 NEXT↲ BIRTH
04	SING.... 1 MULT... 2	BOY,,,. 1 GIRL,,, 2	MONTH [ ][ ] YEAR [ ][ ][ ][ ]	YES . . 1 NO . . . 2 → 220	AGE IN YEARS [ ][ ]	YES . . . . 1 NO 2	LINE NUMBER [ ][ ] → (GO TO 221)	DAYS . . . . 1 MONTHS . . 2 YEARS . . . 3 [ ][ ]	YES . . . . 1 ADD↲ BIRTH NO . . . . . 2 NEXT↲ BIRTH
05	SING.... 1 MULT... 2	BOY,,,. 1 GIRL,,, 2	MONTH [ ][ ] YEAR [ ][ ][ ][ ]	YES . . 1 NO . . . 2 → 220	AGE IN YEARS [ ][ ]	YES . . . . 1 NO 2	LINE NUMBER [ ][ ] → (GO TO 221)	DAYS . . . . 1 MONTHS . . 2 YEARS . . . 3 [ ][ ]	YES . . . . 1 ADD↲ BIRTH NO . . . . . 2 NEXT↲ BIRTH
06	SING.... 1 MULT... 2	BOY,,,. 1 GIRL,,, 2	MONTH [ ][ ] YEAR [ ][ ][ ][ ]	YES . . 1 NO . . . 2 → 220	AGE IN YEARS [ ][ ]	YES . . . . 1 NO 2	LINE NUMBER [ ][ ] → (GO TO 221)	DAYS . . . . 1 MONTHS . . 2 YEARS . . . 3 [ ][ ]	YES . . . . 1 ADD↲ BIRTH NO . . . . . 2 NEXT↲ BIRTH
07	SING.... 1 MULT... 2	BOY,,,. 1 GIRL,,, 2	MONTH [ ][ ] YEAR [ ][ ][ ][ ]	YES . . 1 NO . . . 2 → 220	AGE IN YEARS [ ][ ]	YES . . . . 1 NO 2	LINE NUMBER [ ][ ] → (GO TO 221)	DAYS . . . . 1 MONTHS . . 2 YEARS . . . 3 [ ][ ]	YES . . . . 1 ADD↲ BIRTH NO . . . . . 2 NEXT↲ BIRTH

212 What name was given to your (first/next) baby? INCLUDE LAST NAME (NAME)	213 Were any of these births twins?	214 Is (NAME) a boy or a girl?	215 In what month and year was (NAME) born? PROBE: What is his/her birthday?	216 Is (NAME) still alive?	217 **IF ALIVE:** How old was (NAME) at his/her last birthday? RECORD AGE IN COMPLETED YEARS.	218 **IF ALIVE:** Is (NAME) living with you?	219 **IF ALIVE:** RECORD HOUSEHOLD LINE NUMBER OF CHILD (RECORD '00' IF CHILD IS NOT LISTED IN HOUSEHOLD).	220 **IF DEAD:** How old was (NAME) when he/she died? IF '1 YR', PROBE: How many months old was (NAME)? RECORD DAYS IF LESS THAN 1 MONTH; MONTHS IF LESS THAN TWO YEARS; OR YEARS.	221 Were there any other live births between (NAME OF PREVIOUS BIRTH) and (NAME), including any children who died after birth?
08	SING.... 1 MULT... 2	BOY,,,. 1 GIRL,,, 2	MONTH [ ][ ] YEAR [ ][ ][ ][ ]	YES . . 1 NO . . . 2 → **220**	AGE IN YEARS [ ][ ]	YES . . . . 1 NO 2	LINE NUMBER [ ][ ] → **(GO TO 221)**	DAYS . . . . 1 MONTHS . . 2 YEARS . . . 3 [ ][ ]	YES . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH
09	SING.... 1 MULT... 2	BOY,,,. 1 GIRL,,, 2	MONTH [ ][ ] YEAR [ ][ ][ ][ ]	YES . . 1 NO . . . 2 → **220**	AGE IN YEARS [ ][ ]	YES . . . . 1 NO 2	LINE NUMBER [ ][ ] → **(GO TO 221)**	DAYS . . . . 1 MONTHS . . 2 YEARS . . . 3 [ ][ ]	YES . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH
10	SING.... 1 MULT... 2	BOY,,,. 1 GIRL,,, 2	MONTH [ ][ ] YEAR [ ][ ][ ][ ]	YES . . 1 NO . . . 2 → **220**	AGE IN YEARS [ ][ ]	YES . . . . 1 NO 2	LINE NUMBER [ ][ ] → **(GO TO 221)**	DAYS . . . . 1 MONTHS . . 2 YEARS . . . 3 [ ][ ]	YES . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH
11	SING.... 1 MULT... 2	BOY,,,. 1 GIRL,,, 2	MONTH [ ][ ] YEAR [ ][ ][ ][ ]	YES . . 1 NO . . . 2 → **220**	AGE IN YEARS [ ][ ]	YES . . . . 1 NO 2	LINE NUMBER [ ][ ] → **(GO TO 221)**	DAYS . . . . 1 MONTHS . . 2 YEARS . . . 3 [ ][ ]	YES . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH
12	SING.... 1 MULT... 2	BOY,,,. 1 GIRL,,, 2	MONTH [ ][ ] YEAR [ ][ ][ ][ ]	YES . . 1 NO . . . 2 → **220**	AGE IN YEARS [ ][ ]	YES . . . . 1 NO 2	LINE NUMBER [ ][ ] → **(GO TO 221)**	DAYS . . . . 1 MONTHS . . 2 YEARS . . . 3 [ ][ ]	YES . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH

222	Have you had any live births since the birth of (NAME OF LAST BIRTH)? IF YES, RECORD BIRTH(S) IN BIRTH HISTORY TABLE.	YES . . . . . 1 NO 2
223	COMPARE **208** WITH NUMBER OF BIRTHS IN HISTORY ABOVE AND MARK: NUMBERS ARE SAME [ ] NUMBERS ARE DIFFERENT [ ] → (PROBE AND RECONCILE) CHECK: FOR EACH BIRTH: YEAR OF BIRTH IS RECORDED. . . . . [ ] FOR EACH BIRTH SINCE JANUARY 2004: MONTH AND YEAR OF BIRTH ARE RECORDED. . . . . [ ] FOR EACH LIVING CHILD: CURRENT AGE IS RECORDED. . . . . [ ] FOR EACH DEAD CHILD: AGE AT DEATH IS RECORDED. . . . . [ ] FOR AGE AT DEATH 12 MONTHS OR 1 YEAR: PROBE TO DETERMINE EXACT NUMBER OF MONTHS . . . . [ ]	
224	CHECK **215** AND ENTER THE NUMBER OF BIRTHS IN 2004 OR LATER. IF NONE, RECORD '0' AND SKIP TO **226**. . . . . [ ]	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
225	FOR EACH BIRTH SINCE JANUARY 2004, ENTER 'B' IN THE MONTH OF BIRTH IN THE CALENDAR. WRITE THE NAME OF THE CHILD TO THE LEFT OF THE 'B' CODE. FOR EACH BIRTH, ASK THE NUMBER OF MONTHS THE PREGNANCY LASTED AND RECORD 'P' IN EACH OF THE PRECEDING MONTHS ACCORDING TO THE DURATION OF PREGNANCY. (NOTE: THE NUMBER OF 'P's MUST BE ONE LESS THAN THE NUMBER OF MONTHS THAT THE PREGNANCY LASTED.)		
226	Are you pregnant now?	YES . . . . . 1 NO . . . . . 2 UNSURE 8	→ 229
227	How many months pregnant are you? RECORD NUMBER OF COMPLETED MONTHS. ENTER 'P's IN THE CALENDAR, BEGINNING WITH THE MONTH OF INTERVIEW AND FOR THE TOTAL NUMBER OF COMPLETED MONTHS.	MONTHS . . . . . [ ][ ]	
228	At the time you became pregnant, did you want to become pregnant then, did you want to wait until later, or did you not want to have any (more) children at all?	THEN . . . . . 1 LATER . . . . . 2 NOT AT ALL 3	
229	Have you ever had a pregnancy that you lost either by miscarriage, or abortion, or which ended in a stillbirth?	YES . . . . . 1 NO 2	→ 237
230	When did the last such pregnancy end?	MONTH . . . . . [ ][ ] YEAR . . . . . [ ][ ][ ][ ]	
231	CHECK 230: LAST PREGNANCY ENDED IN JANUARY 2004 OR LATER ↓ LAST PREGNANCY ENDED BEFORE JANUARY 2004 → 237		
232	How many months pregnant were you when the last such pregnancy ended? RECORD NUMBER OF COMPLETED MONTHS. ENTER 'T' IN THE CALENDAR IN THE MONTH THAT THE PREGNANCY TERMINATED AND 'P' FOR THE REMAINING NUMBER OF COMPLETED MONTHS.	MONTHS . . . . . [ ][ ]	
233	Since January 2004, have you had any other pregnancies that did not result in a live birth?	YES . . . . . 1 NO 2	→ 235
234	ASK THE DATE AND THE DURATION OF PREGNANCY FOR EACH EARLIER NON-LIVE BIRTH PREGNANCY BACK TO JANUARY 2004. ENTER 'T' IN THE CALENDAR IN THE MONTH THAT EACH PREGNANCY TERMINATED AND 'P' FOR THE REMAINING NUMBER OF COMPLETED MONTHS.		
235	Did you have any miscarriages, abortions or stillbirths that ended before 2004?	YES . . . . . 1 NO 2	→ 237
236	When did the last such pregnancy that terminated before 2004 end?	MONTH . . . . . [ ][ ] YEAR . . . . . [ ][ ][ ][ ]	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
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, are there certain days when a woman is more likely to become pregnant if she has sexual relations?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 301
239	Is this time just before her period begins, during her period, right after her period has ended, or halfway between two periods?	JUST BEFORE HER PERIOD BEGINS . . . . . 1 DURING HER PERIOD . . . . . 2 RIGHT AFTER HER PERIOD HAS ENDED . . . . . 3 HALFWAY BETWEEN TWO PERIODS . . . . . 4 OTHER _____ 6 (SPECIFY) DON'T KNOW 8	

SECTION 3. CONTRACEPTION

301	Now I would like to talk about family planning - the various ways or methods that a couple can use to delay or avoid a pregnancy. Which ways or methods have you heard about? FOR METHODS NOT MENTIONED SPONTANEOUSLY, ASK: Have you ever heard of (METHOD)? CIRCLE CODE 1 IN 301 FOR EACH METHOD MENTIONED SPONTANEOUSLY. THEN PROCEED DOWN COLUMN 301, READING THE NAME AND DESCRIPTION OF EACH METHOD NOT MENTIONED SPONTANEOUSLY. CIRCLE CODE 1 IF METHOD IS RECOGNIZED, AND CODE 2 IF NOT RECOGNIZED. THEN, FOR EACH METHOD WITH CODE 1 CIRCLED IN 301, ASK 302.		302 Have you ever used (METHOD)?
01	**Female sterilization/Tie-off** Women can have an operation to avoid having any more children.	YES . . . . . 1 NO 2	Have you ever had an operation to avoid having any more children? YES . . . . . 1 NO 2
02	**Male sterilization** Men can have an operation to avoid having any more children.	YES . . . . . 1 NO 2	Have you ever had a partner who had an operation to avoid having any more children? YES . . . . . 1 NO 2
03	**Pill** Women can take a pill every day to avoid becoming pregnant.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
04	**IUD/Coil** Women can have a loop or coil placed inside them by a doctor or a nurse.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
05	**Injectables** Women can have an injection by a health provider that stops them from becoming pregnant for one or more months.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
06	**Implants** Women can have several small rods placed in their upper arm by a doctor or nurse which can prevent pregnancy for one or more years.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
07	**Condom** Men can put a rubber sheath on their penis before sexual intercourse.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
08	**Female condom** Women can place a sheath in their vagina before sexual intercourse.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
09	**Diaphragm** Women can place a thin flexible disk in their vagina before sexual intercourse.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
10	**Foam/Jelly/Spermicides** Women can place a suppository, jelly, or cream in their vagina before sexual intercourse.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
11	**Lactational Amenorrhea method (LAM)** DO NOT EXPLAIN	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
12	**Rhythm/Save method** Every month that a woman is sexually active she can avoid pregnancy by not having sexual intercourse on the days of the month she is most likely to get pregnant.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
13	**Withdrawal** Men can be careful and pull out before climax	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
14	**Emergency contraception** As an emergency measure after unprotected sexual intercourse, women can take special pills at any time within days to prevent pregnancy.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
15	**OTHER METHODS** Have you heard of any other ways or methods that women or men can use to avoid pregnancy?	YES . . . . . 1 _____ (SPECIFY) _____ (SPECIFY) NO 2	YES . . . . . 1 NO . . . . . 2 YES . . . . . 1 NO 2
303	CHECK 302: NOT A SINGLE "YES" (NEVER USED) ☐ ↓ AT LEAST ONE "YES" (EVER USED) ☐ → 307		

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
304	Have you ever used anything or tried in any way to delay or avoid getting pregnant?	YES . . . . . 1 NO 2	→ 306
305	ENTER '0' IN THE CALENDAR IN EACH BLANK MONTH.		
305A	SKIP TO 333		
306	What have you used or done? CORRECT 302 AND 303 (AND 301 IF NECESSARY).		
307	Now I would like to ask you about the first time that you did something or used a method to avoid getting pregnant. How many living children did you have at that time, if any? IF NONE, RECORD '00'.	NUMBER OF CHILDREN . . . . . [ ][ ]	
308	CHECK 302 (01): WOMAN NOT STERILIZED ↓ WOMAN STERILIZED →		311A
309	CHECK 226: NOT PREGNANT OR UNSURE ↓ PREGNANT →		322
310	Are you currently doing something or using any method to delay or avoid getting pregnant?	YES . . . . . 1 NO 2	→ 322
311 311A	Which method are you using? CIRCLE ALL MENTIONED. IF MORE THAN ONE METHOD MENTIONED, FOLLOW SKIP INSTRUCTION FOR HIGHEST METHOD IN LIST. CIRCLE 'A' FOR FEMALE STERILIZATION.	FEMALE STERILIZATION . . . . . A MALE STERILIZATION . . . . . B PILL . . . . . **C** IUD . . . . . D INJECTABLES . . . . . E IMPLANTS . . . . . F CONDOM . . . . . **G** FEMALE CONDOM . . . . . H DIAPHRAGM . . . . . I FOAM/JELLY . . . . . J LACTATIONAL AMEN. METHOD . . . . . K RHYTHM METHOD . . . . . L WITHDRAWAL . . . . . M OTHER _____ X (SPECIFY)	→ 316 → **312** → 315 → **312** → 315 → 319A
312	CHECK IF CODE 'C' FOR PILL IS CIRCLED IN 311. YES (USING PILL) ↓ May I see the package of pills you are using? NO (USING CONDOM BUT NOT PILL) ↓ May I see the package of condoms you are using? RECORD NAME OF BRAND IF PACKAGE SEEN.	PACKAGE SEEN . . . . . 1 BRAND NAME: [ ][ ] _____ (SPECIFY) PACKAGE NOT SEEN 2	→ 314
313	Do you know the brand name of the (pills/condoms) you are using? RECORD NAME OF BRAND.	BRAND NAME _____ [ ][ ] (SPECIFY) DON'T KNOW 98	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
314	How many (pill cycles/condoms) did you get the last time?	NUMBER OF PILL CYCLES/CONDOMS . . . [ ][ ][ ] DON'T KNOW 998	
315	The last time you obtained (HIGHEST METHOD ON LIST IN 311), how much did you pay in total, including the cost of the method and any consultation you may have had?	COST . . . . . [ ][ ][ ][ ] FREE . . . . . 9995 DON'T KNOW 9998	→ 319A
316	In what facility did the sterilization take place? PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. IF UNABLE TO DETERMINE IF HOSPITAL OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	**PUBLIC SECTOR** GOVT. HOSPITAL . . . . . 11 GOVT. HEALTH CENTER . . . . . 12 FAMILY PLANNING CLINIC . . . . . 13 MOBILE/OUTREACH CLINIC . . . . . 14 OTHER PUBLIC _____ 16 (SPECIFY) **PRIVATE MEDICAL SECTOR** PRIVATE HOSPITAL/CLINIC . . . . . 21 PRIVATE DOCTOR'S OFFICE . . . . . 23 PVT. MATERNITY HOME . . . . . 24 OTHER PRIVATE MEDICAL _____ 26 (SPECIFY) **OTHER** _____ 96 (SPECIFY) DON'T KNOW 98	
317	CHECK 311/311A: CODE 'A' CIRCLED → Before your sterilization operation, were you told that you would not be able to have any (more) children because of the operation? CODE 'A' NOT CIRCLED → Before the sterilization operation, was your husband/partner told that he would not be able to have any (more) children because of the operation?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
318	How much did you (your husband/partner) pay in total for the sterilization, including any consultation you (he) may have had?	COST . . . . . [ ][ ][ ][ ][ ][ ] FREE . . . . . 999995 DON'T KNOW 999998	
319	In what month and year was the sterilization performed?		
319A	Since what month and year have you been using (CURRENT METHOD) without stopping? PROBE: For how long have you been using (CURRENT METHOD) now without stopping?	MONTH . . . . . [ ][ ] YEAR . . . . . [ ][ ][ ][ ]	
320	CHECK **319/319A**, **215** AND **230**: ANY BIRTH OR PREGNANCY TERMINATION AFTER MONTH AND YEAR OF START OF USE OF CONTRACEPTION IN **319/319A** — YES → ; NO → GO BACK TO **319/319A**, PROBE AND RECORD MONTH AND YEAR AT START OF CONTINUOUS USE OF CURRENT METHOD (MUST BE AFTER LAST BIRTH OR PREGNANCY TERMINATION).		

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
321	CHECK 319/319A: YEAR IS **2004** OR LATER ENTER CODE FOR METHOD USED IN MONTH OF INTERVIEW IN THE **CALENDAR** AND IN EACH MONTH BACK TO THE DATE STARTED USING. **THEN CONTINUE WITH 322**	YEAR IS **2003** OR EARLIER ENTER CODE FOR METHOD USED IN MONTH OF INTERVIEW IN THE **CALENDAR** AND EACH MONTH BACK TO JANUARY **2004** **THEN SKIP TO** → **331**	
322	I would like to ask you some questions about the times you or your partner may have used a method to avoid getting pregnant during the last few years. USE **CALENDAR** TO PROBE FOR EARLIER PERIODS OF USE AND NONUSE, STARTING WITH MOST RECENT USE, BACK TO JANUARY 2004. USE NAMES OF CHILDREN, DATES OF BIRTH, AND PERIODS OF PREGNANCY AS REFERENCE POINTS. ENTER METHOD USE CODE OR '0' FOR NONUSE IN EACH BLANK MONTH. ILLUSTRATIVE QUESTIONS: * When was the last time you used a method? Which method was that? * When did you start using that method? How long after the birth of (NAME)? * How long did you use the method then?		
323	CHECK 311/311A: CIRCLE METHOD CODE: IF MORE THAN ONE METHOD CODE CIRCLED IN **311/311A**, CIRCLE CODE FOR HIGHEST METHOD IN LIST.	NO CODE CIRCLED . . . . . 00 FEMALE STERILIZATION . . . . . 01 MALE STERILIZATION . . . . . 02 PILL . . . . . 03 IUD . . . . . 04 INJECTABLES . . . . . 05 IMPLANTS . . . . . 06 CONDOM . . . . . 07 FEMALE CONDOM . . . . . 08 DIAPHRAGM . . . . . 09 FOAM/JELLY . . . . . 10 LACTATIONAL AMEN. METHOD . . . 11 RHYTHM METHOD . . . . . 12 WITHDRAWAL . . . . . 13 OTHER METHOD 96	→ 333 → 326 → 335 → 324A → 324A → 335 → 335
324	Where did you obtain (CURRENT METHOD) when you started using it? IF UNABLE TO DETERMINE IF HOSPITAL OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	**PUBLIC SECTOR** GOVT. HOSPITAL . . . . . 11 GOVT. HEALTH CENTER . . . . . 12 GOVT. HEALTH POST . . . . . 13 FAMILY PLANNING CLINIC . . . . . 14 MOBILE/OUTREACH CLINIC . . . 15 COMMUNITY HEALTH WORKER . 16 OTHER PUBLIC _____ 17 (SPECIFY)	
324A	Where did you learn how to use the rhythm/lactational amenorhea method? IF UNABLE TO DETERMINE IF HOSPITAL OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	**PRIVATE MEDICAL SECTOR** PRIVATE HOSPITAL/CLINIC . . . 21 PHARMACY . . . . . 22 PRIVATE DOCTOR . . . . . 23 MOBILE CLINIC . . . . . 24 PVT. MATERNITY HOME . . . . . 25 OTHER PRIVATE MEDICAL _____ 26 (SPECIFY) **OTHER SOURCE** SHOP/MARKET/GAS STATION . . . 31 CHURCH . . . . . 32 FRIEND/RELATIVE . . . . . 33 NGO . . . . . 34 CONDOM VENDING MACHINE . . . . . 35 **OTHER** _____ 96 (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
325	CHECK 311/311A: CIRCLE METHOD CODE: IF MORE THAN ONE METHOD CODE CIRCLED IN **311/311A,** CIRCLE CODE FOR HIGHEST METHOD IN LIST.	PILL . . . . . 03 IUD . . . . . 04 INJECTABLES . . . . . 05 IMPLANTS . . . . . 06 CONDOM . . . . . 07 FEMALE CONDOM . . . . . 08 DIAPHRAGM . . . . . 09 FOAM/JELLY . . . . . 10 LACTATIONAL AMEN. METHOD . . . 11 RHYTHM METHOD 12	 → 332 → 329 → 329 → 329 → 335 → 335
326	You obtained (CURRENT METHOD FROM **323**) from (SOURCE OF METHOD FROM **316** OR **324**) in (DATE FROM **319/319A**). At that time, were you told about side effects or problems you might have with the method?	YES . . . . . 1 NO 2	→ 328
327	Were you ever told by a health or family planning worker about side effects or problems you might have with the method?	YES . . . . . 1 NO 2	 → 329
328	Were you told what to do if you experienced side effects or problems?	YES . . . . . 1 NO 2	
329	CHECK 326: CODE '1' CIRCLED → At that time, were you told about other methods of family planning that you you could use? CODE '1' NOT CIRCLED → When you obtained (CURRENT METHOD FROM **323**) from (SOURCE OF METHOD FROM **316** OR **324**) were you told about other methods of family planning that you could use?	YES . . . . . 1 NO 2	→ 331
330	Were you ever told by a health or family planning worker about other methods of family planning that you could use?	YES . . . . . 1 NO 2	
331	CHECK 311/311A: CIRCLE METHOD CODE: IF MORE THAN ONE METHOD CODE CIRCLED IN **311/311A**, CIRCLE CODE FOR HIGHEST METHOD IN LIST.	FEMALE STERILIZATION . . . . . 01 MALE STERILIZATION . . . . . 02 PILL . . . . . 03 IUD . . . . . 04 INJECTABLES . . . . . 05 IMPLANTS . . . . . 06 CONDOM . . . . . 07 FEMALE CONDOM . . . . . 08 DIAPHRAGM . . . . . 09 FOAM/JELLY . . . . . 10 LACTATIONAL AMEN. METHOD . . . 11 RHYTHM METHOD . . . . . 12 WITHDRAWAL . . . . . 13 OTHER METHOD 96	→ 335 → 335

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
332	Where did you obtain (CURRENT METHOD) the last time? PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. IF UNABLE TO DETERMINE IF HOSPITAL OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	**PUBLIC SECTOR** GOVT. HOSPITAL . . . . . 11 GOVT. HEALTH CENTER . . . . . 12 GOVT. HEALTH POST . . . . . 13 FAMILY PLANNING CLINIC . . . . . 14 MOBILE/OUTREACH CLINIC . . . 15 COMMUNITY HEALTH WORKER . 16 OTHER PUBLIC _____ 17 (SPECIFY) **PRIVATE MEDICAL SECTOR** PRIVATE HOSPITAL/CLINIC . . . 21 PHARMACY . . . . . 22 PRIVATE DOCTOR . . . . . 23 MOBILE CLINIC . . . . . 24 PVT. MATERNITY HOME . . . . . 25 OTHER PRIVATE MEDICAL_____ 26 (SPECIFY) **OTHER SOURCE** SHOP/MARKET/GAS STATION . . . 31 CHURCH . . . . . 32 FRIEND/RELATIVE . . . . . 33 NGO . . . . . 34 CONDOM VENDING MACHINE . 35 **OTHER** _____ 96 (SPECIFY)	→ 335
333	Do you know of a place where you can obtain a method of family planning?	YES . . . . . 1 NO 2	→ 335
334	Where is that? Any other place? PROBE TO IDENTIFY EACH TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE(S). IF UNABLE TO DETERMINE IF HOSPITAL OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S))	**PUBLIC SECTOR** GOVT. HOSPITAL . . . . . A GOVT. HEALTH CENTER . . . . . B GOVT. HEALTH POST . . . . . C FAMILY PLANNING CLINIC . . . . . D MOBILE/OUTREACH CLINIC . . . . . E COMMUNITY HEALTH WORKER . F OTHER PUBLIC _____ G (SPECIFY) **PRIVATE MEDICAL SECTOR** PRIVATE HOSPITAL/CLINIC . . . . . H PHARMACY . . . . . I PRIVATE DOCTOR . . . . . J MOBILE CLINIC . . . . . K PVT. MATERNITY HOME . . . . . L OTHER PRIVATE MEDICAL_____ M (SPECIFY) **OTHER SOURCE** SHOP/MARKET/GAS STATION . . . N CHURCH . . . . . O FRIEND/RELATIVE . . . . . P NGO . . . . . Q CONDOM VENDING MACHINE . R **OTHER** _____ X (SPECIFY)	
335	In the last 12 months, were you visited by anyone who talked to you about family planning?	YES . . . . . 1 NO 2	
336	In the last 12 months, have you visited a health facility for care for yourself (or your children)?	YES . . . . . 1 NO 2	→ 401
337	Did any staff member at the health facility speak to you about family planning methods?	YES . . . . . 1 NO 2	

SECTION 4. PREGNANCY AND POSTNATAL CARE

401	CHECK 224: ONE OR MORE BIRTHS IN 2004 OR LATER ☐ / NO BIRTHS IN 2004 OR LATER ☐ → 576	
402	CHECK 215: ENTER IN THE TABLE THE LINE NUMBER, NAME, AND SURVIVAL STATUS OF EACH BIRTH IN 2004 OR LATER. ASK THE QUESTIONS ABOUT ALL OF THESE BIRTHS. **BEGIN WITH THE LAST BIRTH.** (IF THERE ARE MORE THAN 3 BIRTHS, USE **LAST 2 COLUMNS** OF ADDITIONAL QUESTIONNAIRES). Now I would like to ask you some questions about the health of all your children born in the last five years. (We will talk about each separately.)	

403	LINE NUMBER FROM 212 (BIRTH HISTORY)	**LAST BIRTH** LINE NUMBER ☐☐	**NEXT-TO-LAST BIRTH** LINE NUMBER ☐☐	**SECOND-FROM-LAST BIRTH** LINE NUMBER ☐☐
404	FROM **212** IN BIRTH HISTORY FROM **216** IN BIRTH HISTORY	NAME _____ LIVING ☐ DEAD ☐	NAME _____ LIVING ☐ DEAD ☐	NAME _____ LIVING ☐ DEAD ☐
405	At the time you became pregnant with (NAME), did you want to become pregnant then, did you want to wait until later, or did you not want to have any (more) children at all?	THEN . . . . . 1 (SKIP TO 407) LATER . . . . . 2 NOT AT ALL . . . . . 3 (SKIP TO 407)	THEN . . . . . 1 (SKIP TO 432) LATER . . . . . 2 NOT AT ALL . . . . . 3 (SKIP TO 432)	THEN . . . . . 1 (SKIP TO 432) LATER . . . . . 2 NOT AT ALL . . . . . 3 (SKIP TO 432)
406	How much longer would you have liked to wait?	MONTHS . . . . . 1 ☐☐ YEARS . . . . . 2 ☐☐ DON'T KNOW 998	MONTHS . . . . . 1 ☐☐ YEARS . . . . . 2 ☐☐ DON'T KNOW 998	MONTHS . . . . . 1 ☐☐ YEARS . . . . . 2 ☐☐ DON'T KNOW 998
407	Did you see anyone for antenatal care for this pregnancy? IF YES: Whom did you see? Anyone else? PROBE TO IDENTIFY EACH TYPE OF PERSON AND RECORD ALL MENTIONED.	**HEALTH PERSONNEL** DOCTOR . . . . . A NURSE/MIDWIFE . . . . . B AUXILIARY/SINGLE TRAINED MIDWIFE . . . C MEDEX . . . . . D **OTHER PERSON** TRADITIONAL BIRTH ATTENDANT . . . . . E COMMUNITY/VILLAGE HEALTH WORKER . . . F RELATIVE/FRIEND . . . . . G OTHER _____ X (SPECIFY) NO ONE . . . . . Y **(SKIP TO 414)**		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
408	Where did you receive antenatal care for this pregnancy? Anywhere else? PROBE TO IDENTIFY TYPE(S) OF SOURCE(S) AND CIRCLE THE APPROPRIATE CODE(S). IF UNABLE TO DETERMINE IF A HOSPITAL OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S))	**HOME** YOUR HOME . . . . . A OTHER HOME . . . . . B **PUBLIC SECTOR** GOVT. HOSPITAL . . . . . C GOVT. HEALTH CENTER . . . . . D GOVT. HEALTH POST . . . E OTHER PUBLIC _____ F (SPECIFY) **PRIVATE MED. SECTOR** PVT. HOSPITAL/ CLINIC . . . . . G PVT. MATERNITY HOME . . . . . H OTHER PRIVATE MED. _____ I (SPECIFY) HOSPITAL/CLINIC ABROAD . . . . . J **OTHER**_____ X (SPECIFY)		
409	How many months pregnant were you when you first received antenatal care for this pregnancy?	MONTHS . . . . . [ ][ ] DON'T KNOW 98		
410	How many times did you receive antenatal care during this pregnancy?	NUMBER OF TIMES . . . . . [ ][ ] DON'T KNOW 98		
411	As part of your antenatal care during this pregnancy, were any of the following done at least once? a) Were you weighed? b) Was your blood pressure measured? c) Did you give a urine sample? d) Did you give a blood sample?	**YES** **NO** WEIGHT . . . . . 1 2 BP . . . . . 1 2 URINE . . . . . 1 2 BLOOD 1 2		
412	During (any of) your antenatal care visit(s), were you told about the signs of pregnancy complications?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 414) ← DON'T KNOW 8		
413	Were you told where to go if you had any of these complications?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8		
414	During this pregnancy, were you given an injection in the top of the arm or sholder to prevent the baby from getting tetanus, that is, fits/convulsions after birth?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 417) ← DON'T KNOW 8		
415	During this pregnancy, how many times did you get this tetanus injection?	TIMES . . . . . [ ] DON'T KNOW 8		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
416	CHECK 415:	2 OR MORE TIMES ☐ (SKIP TO 421) OTHER ☐		
417	At any time before this pregnancy, did you receive any tetanus injections, either to protect yourself or another baby?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 421) DON'T KNOW 8		
418	Before this pregnancy, how many other times did you receive a tetanus injection? IF 7 OR MORE TIMES, RECORD '7'.	TIMES . . . . . ☐☐ DON'T KNOW 8		
419	In what month and year did you receive the last tetanus injection before this pregnancy?	MONTH . . . . . ☐☐ DK MONTH . . . . . 98 YEAR . . . ☐☐☐☐ (SKIP TO 421) DK YEAR 9998		
420	How many years ago did you receive that tetanus injection?	YEARS AGO . . . . . ☐☐		
421	During this pregnancy, were you given or did you buy any iron tablets, iron syrup or sprinkles? SHOW TABLETS/SYRUP/SPRINKLES	YES . . . . . 1 NO . . . . . 2 (SKIP TO 423) DON'T KNOW 8		
422	During the whole pregnancy, for how many days did you take the tablets, syrup or sprinkles? IF ANSWER IS NOT NUMERIC, PROBE FOR APPROXIMATE NUMBER OF DAYS.	DAYS . . . . . ☐☐☐ DON'T KNOW 998		
423	During this pregnancy, did you take any drug for intestinal worms?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8		
424	During this pregnancy, did you have difficulty with your vision during daylight?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8		
425	During this pregnancy, did you suffer from night blindness	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8		
425A	During this pregnancy, did you suffer from fever at any time?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 426) DON'T KNOW 8		
425B	Did you seek advice or treatment for the illness from any source?	YES . . . . . 1 NO 2		
425C	Did you get tested to see if you had malaria?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 425E)		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
425D	Where did you get tested for malaria? PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. IF UNABLE TO DETERMINE IF HOSPITAL OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	**PUBLIC SECTOR** GOVT HOSPITAL . . . . . 11 GOVT HEALTH CENTER . . . . . 12 GOVT HEALTH POST . . . 13 MOBILE CLINIC . . . . . 14 COMMUNITY HEALTH WORKER . . . . . 15 OTHER PUBLIC _____ 16 (SPECIFY) **PRIVATE MEDICAL SECTOR** PVT HOSPITAL/ CLINIC . . . . . 21 PHARMACY . . . . . 22 PVT DOCTOR . . . . . 23 MOBILE CLINIC . . . . . 24 OTHER PRIVATE MED. _____ 26 (SPECIFY) **OTHER** _____ 96 (SPECIFY)		
425E	At any time during the illness, did you take any drugs for the illness?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 426) ←		
425F	What drugs did you take? Any other drugs? RECORD ALL MENTIONED.	**ANTIMALARIAL DRUGS** SP/FANSIDAR . . . . . A CHLOROQUINE . . . . . B MEFLOQUINE . . . . . C QUININE . . . . . D COARTEM . . . . . E ARTESUNATE/ ARTINATE . . . . . F PRIMAQUINE . . . . . G OTHER ANTIMALARIAL _____ H (SPECIFY) **ANTIBIOTIC DRUGS** PILL/SYRUP . . . . . I INJECTION . . . . . J **OTHER DRUGS** ASPIRIN . . . . . K ACETAMINOPHEN/ PARACETAMOL/ PANADOL . . . . . L IBUPROFEN . . . . . M **OTHER** _____ X (SPECIFY) DON'T KNOW . . . . . Z		
426	During this pregnancy, did you take any drugs to keep you from getting malaria?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 432) ← DON'T KNOW 8		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
427	What drugs did you take? RECORD ALL MENTIONED. IF TYPE OF DRUG IS NOT DETERMINED, SHOW TYPICAL ANTIMALARIAL DRUGS TO RESPONDENT.	SP/FANSIDAR . . . . . A CHLOROQUINE . . . . . B MEFLOQUINE . . . . . C QUININE . . . . . D OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z		
428	CHECK 427: SP/FANSIDAR TAKEN FOR MALARIA PREVENTION.	CODE 'A' CIRCLED ☐ CODE 'A' NOT CIRCLED ☐ (SKIP TO 432)		
429	How many times did you take (SP/Fansidar) during this pregnancy?	TIMES . . . . . ☐☐		
430	CHECK 407: ANTENATAL CARE FROM HEALTH PERSONNEL DURING THIS PREGNANCY	CODE 'A', 'B', 'C' OR 'D' CIRCLED ☐ OTHER ☐ (SKIP TO 432)		
431	Did you get the (SP/Fansidar) during any antenatal care visit, during another visit to a health facility or from another source?	ANTENATAL VISIT . . . . . 1 ANOTHER FACILITY VISIT . . . . . 2 OTHER SOURCE 6		
432	When (NAME) was born, was he/she very large, larger than average, average, smaller than average, or very small?	VERY LARGE . . . . . 1 LARGER THAN AVERAGE . . . . . 2 AVERAGE . . . . . 3 SMALLER THAN AVERAGE . . . . . 4 VERY SMALL . . . . . 5 DON'T KNOW 8	VERY LARGE . . . . . 1 LARGER THAN AVERAGE . . . . . 2 AVERAGE . . . . . 3 SMALLER THAN AVERAGE . . . . . 4 VERY SMALL . . . . . 5 DON'T KNOW 8	VERY LARGE . . . . . 1 LARGER THAN AVERAGE . . . . . 2 AVERAGE . . . . . 3 SMALLER THAN AVERAGE . . . . . 4 VERY SMALL . . . . . 5 DON'T KNOW 8
433	Was (NAME) weighed at birth?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 435) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 435) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 435) DON'T KNOW 8
434	How much did (NAME) weigh? RECORD WEIGHT IN KILOGRAMS FROM HEALTH CARD, IF AVAILABLE.	KG FROM CARD 1 ☐.☐☐☐ KG FROM RECALL 2 ☐.☐☐☐ DON'T KNOW 99.998	KG FROM CARD 1 ☐.☐☐☐ KG FROM RECALL 2 ☐.☐☐☐ DON'T KNOW 99.998	KG FROM CARD 1 ☐.☐☐☐ KG FROM RECALL 2 ☐.☐☐☐ DON'T KNOW 99.998
435	Who assisted during the delivery of (NAME)? Anyone else? PROBE FOR THE TYPE(S) OF PERSON(S) AND RECORD ALL MENTIONED. IF RESPONDENT SAYS NO ONE ASSISTED, PROBE TO DETERMINE WHETHER ANY ADULTS WERE PRESENT AT THE DELIVERY.	**HEALTH PERSONNEL** DOCTOR . . . . . A NURSE/MIDWIFE . . . . . B AUXILIARY/SINGLE TRAINED MIDWIFE . . . C MEDEX . . . . . D **OTHER PERSON** TRADITIONAL BIRTH ATTENDANT . . . . . E RELATIVE/FRIEND . . . . . F OTHER _____ X (SPECIFY) NO ONE . . . . . Y	**HEALTH PERSONNEL** DOCTOR . . . . . A NURSE/MIDWIFE . . . . . B AUXILIARY/SINGLE TRAINED MIDWIFE . . . C MEDEX . . . . . D **OTHER PERSON** TRADITIONAL BIRTH ATTENDANT . . . . . E RELATIVE/FRIEND . . . . . F OTHER _____ X (SPECIFY) NO ONE . . . . . Y	**HEALTH PERSONNEL** DOCTOR . . . . . A NURSE/MIDWIFE . . . . . B AUXILIARY/SINGLE TRAINED MIDWIFE . . . C MEDEX . . . . . D **OTHER PERSON** TRADITIONAL BIRTH ATTENDANT . . . . . E RELATIVE/FRIEND . . . . . F OTHER _____ X (SPECIFY) NO ONE . . . . . Y

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
436	Where did you give birth to (NAME)? PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. IF UNABLE TO DETERMINE IF A HOSPITAL OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	**HOME** YOUR HOME . . . . . 11 (SKIP TO 443) OTHER HOME . . . . . 12 **PUBLIC SECTOR** GOVT. HOSPITAL . . . . . 21 GOVT. HEALTH CENTER . . . . . 22 GOVT. HEALTH POST . . . 23 OTHER PUBLIC _____ 26 (SPECIFY) **PRIVATE MED. SECTOR** PVT. HOSPITAL/ CLINIC . . . . . 31 PVT. MATERNITY HOME . . . . . 32 OTHER PRIVATE MED. _____ 36 (SPECIFY) **HOSPITAL/CLINIC ABROAD** . . . . . 41 **OTHER** _____ 96 (SPECIFY) (SKIP TO 443)	**HOME** YOUR HOME . . . . . 11 (SKIP TO 444) OTHER HOME . . . . . 12 **PUBLIC SECTOR** GOVT. HOSPITAL . . . . . 21 GOVT. HEALTH CENTER . . . . . 22 GOVT. HEALTH POST . . . 23 OTHER PUBLIC _____ 26 (SPECIFY) **PRIVATE MED. SECTOR** PVT. HOSPITAL/ CLINIC . . . . . 31 PVT. MATERNITY HOME . . . . . 32 OTHER PRIVATE MED. _____ 36 (SPECIFY) **HOSPITAL/CLINIC ABROAD** . . . . . 41 OTHER _____ 96 (SPECIFY) (SKIP TO 444)	**HOME** YOUR HOME . . . . . 11 (SKIP TO 444) OTHER HOME . . . . . 12 **PUBLIC SECTOR** GOVT. HOSPITAL . . . . . 21 GOVT. HEALTH CENTER . . . . . 22 GOVT. HEALTH POST . . . 23 OTHER PUBLIC _____ 26 (SPECIFY) **PRIVATE MED. SECTOR** PVT. HOSPITAL/ CLINIC . . . . . 31 PVT. MATERNITY HOME . . . . . 32 OTHER PRIVATE MED. _____ 36 (SPECIFY) **HOSPITAL/CLINIC ABROAD** . . . . . 41 OTHER _____ 96 (SPECIFY) (SKIP TO 444)
437	How long after (NAME) was delivered did you stay there? IF LESS THAN ONE DAY, RECORD HOURS. IF LESS THAN ONE WEEK, RECORD DAYS.	HOURS . . . . . 1 [ ][ ] DAYS . . . . . 2 [ ][ ] WEEKS . . . . . 3 [ ][ ] DON'T KNOW 998	HOURS . . . . . 1 [ ][ ] DAYS . . . . . 2 [ ][ ] WEEKS . . . . . 3 [ ][ ] DON'T KNOW 998	HOURS . . . . . 1 [ ][ ] DAYS . . . . . 2 [ ][ ] WEEKS . . . . . 3 [ ][ ] DON'T KNOW 998
438	Was (NAME) delivered by caesarean section?	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
439	Before you were discharged after (NAME) was born, did any health care provider check on your health?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 442)	YES . . . . . 1 (SKIP TO 455) NO 2	YES . . . . . 1 (SKIP TO 455) NO 2
440	How long after delivery did the first check take place? IF LESS THAN ONE DAY, RECORD HOURS. IF LESS THAN ONE WEEK, RECORD DAYS.	HOURS . . . . . 1 [ ][ ] DAYS . . . . . 2 [ ][ ] WEEKS . . . . . 3 [ ][ ] DON'T KNOW 998		
441	Who checked on your health at that time? PROBE FOR MOST QUALIFIED PERSON.	**HEALTH PERSONNEL** DOCTOR . . . . . 11 NURSE/MIDWIFE . . . . . 12 AUXILIARY/SINGLE TRAINED . . . . . 13 MEDEX . . . . . 14 **OTHER PERSON** TRADITIONAL BIRTH ATTENDANT . . . . . 21 COMMUNITY/VILLAGE HEALTH WORKER . . . 22 **OTHER** _____ 96 (SPECIFY) (SKIP TO 454)		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
442	After you were discharged, did any health care provider or a traditional birth attendant check on your health?	YES . . . . . 1 (SKIP TO 445) NO . . . . . 2 (SKIP TO 454)	YES . . . . . 1 (SKIP TO 455) NO 2	YES . . . . . 1 (SKIP TO 455) NO 2
443	Why didn't you deliver in a health facility? PROBE: Any other reason? RECORD ALL MENTIONED.	COST TOO MUCH . . . . . A FACILITY NOT OPEN . . . . . B TOO FAR/ NO TRANS-PORTATION . . . . . C DON'T TRUST FACILITY/ POOR QUALITY SERVICE . . . . . D NO FEMALE PROVIDER AT FACILITY . . . . . E HUSBAND/FAMILY DID NOT ALLOW . . . . . F NOT NECESSARY . . . . . G NOT CUSTOMARY . . . . . H OTHER _____ X (SPECIFY)		
444	After (NAME) was born, did any health care provider or a traditional birth attendant check on your health?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 449)	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
445	How long after delivery did the first check take place? IF LESS THAN ONE DAY, RECORD HOURS. IF LESS THAN ONE WEEK, RECORD DAYS.	HOURS . . . . . 1 DAYS . . . . . 2 WEEKS . . . . . 3 DON'T KNOW 998		
446	Who checked on your health at that time? PROBE FOR MOST QUALIFIED PERSON.	**HEALTH PERSONNEL** DOCTOR . . . . . 11 NURSE/MIDWIFE . . . . . 12 AUXILIARY/SINGLE TRAINED MIDWIFE . . . 13 MEDEX . . . . . 14 **OTHER PERSON** TRADITIONAL BIRTH ATTENDANT . . . . . 21 COMMUNITY/VILLAGE HEALTH WORKER . . . 22 **OTHER** _____ 96 (SPECIFY)		
447	Where did this first check take place? PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. IF UNABLE TO DETERMINE IF A HOSPITAL OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	**HOME** YOUR HOME . . . . . 11 OTHER HOME . . . . . 12 **PUBLIC SECTOR** GOVT. HOSPITAL . . . . . 21 GOVT. HEALTH CENTER . . . . . 22 GOVT. HEALTH POST . . . 23 OTHER PUBLIC _____ 26 (SPECIFY) **PRIVATE MED. SECTOR** PVT. HOSPITAL/ CLINIC . . . . . 31 PVT. MATERNITY HOME . . . . . 32 OTHER PRIVATE MED. _____ 36 (SPECIFY) **HOSPITAL/CLINIC ABROAD** . . . . . 41 **OTHER** _____ 96 (SPECIFY)		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
448	CHECK 442:	YES → (SKIP TO 454) NOT ASKED →		
449	In the two months after (NAME) was born, did any health care provider or a traditional birth attendant check on his/her health?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 454) DON'T KNOW 8		
450	How many hours, days or weeks after the birth of (NAME) did the first check take place? IF LESS THAN ONE DAY, RECORD HOURS. IF LESS THAN ONE WEEK, RECORD DAYS.	HOURS AFTER BIRTH . . . . . 1 [ ][ ] DAYS AFTER BIRTH . . . . . 2 [ ][ ] WEEKS AFTER BIRTH . . . . . 3 [ ][ ] DON'T KNOW 998		
451	Who checked on (NAME)'s health at that time? PROBE FOR MOST QUALIFIED PERSON.	**HEALTH PERSONNEL** DOCTOR . . . . . 11 NURSE/MIDWIFE . . . . . 12 AUXILIARY/SINGLE TRAINED MIDWIFE . . . 13 MEDEX . . . . . 14 **OTHER PERSON** TRADITIONAL BIRTH ATTENDANT . . . . . 21 COMMUNITY/VILLAGE HEALTH WORKER . . . 22 **OTHER**_____ 96 (SPECIFY)		
452	Where did this first check of (NAME) take place? PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. IF UNABLE TO DETERMINE IF A HOSPITAL OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	**HOME** YOUR HOME . . . . . 11 OTHER HOME . . . . . 12 **PUBLIC SECTOR** GOVT. HOSPITAL . . . . . 21 GOVT. HEALTH CENTER . . . . . 22 GOVT. HEALTH POST . . . . . 23 OTHER PUBLIC _____ 26 (SPECIFY) **PRIVATE MED. SECTOR** PVT. HOSPITAL/ CLINIC . . . . . 31 PVT. MATERNITY HOME . . . . . 32 OTHER PRIVATE MED. _____ 36 (SPECIFY) **OTHER**_____ 96 (SPECIFY)		
454	Has your menstrual period returned since the birth of (NAME)?	YES . . . . . 1 (SKIP TO 456) NO . . . . . 2 (SKIP TO 457)		
455	Did your period return between the birth of (NAME) and your next pregnancy?		YES . . . . . 1 NO . . . . . 2 (SKIP TO 459)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 459)
456	For how many months after the birth of (NAME) did you not have a period?	MONTHS . . . . . [ ][ ] DON'T KNOW 98	MONTHS . . . . . [ ][ ] DON'T KNOW 98	MONTHS . . . . . [ ][ ] DON'T KNOW 98

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
457	CHECK 226: CHECK PREGNANCY STATUS	NOT PREG-NANT PREGNANT OR UNSURE (SKIP TO 459)		
458	Have you begun to have sexual intercourse again since the birth of (NAME)?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 460)		
459	For how many months after the birth of (NAME) did you not have sexual intercourse?	MONTHS . . . . . [ ][ ] DON'T KNOW 98	MONTHS . . . . . [ ][ ] DON'T KNOW 98	MONTHS . . . . . [ ][ ] DON'T KNOW 98
460	Did you ever breastfeed (NAME)?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 467)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 467)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 467)
461	How long after birth did you first put (NAME) to the breast? IF LESS THAN 1 HOUR, RECORD '00' HOURS. IF LESS THAN 24 HOURS, RECORD HOURS. OTHERWISE, RECORD DAYS.	IMMEDIATELY . . . . . 000 HOURS . . . . . 1 DAYS . . . . . 2 [ ][ ] [ ][ ]		
462	In the first three days after delivery, was (NAME) given anything to drink other than breast milk?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 464)		
463	What was (NAME) given to drink? Anything else? RECORD ALL LIQUIDS MENTIONED.	MILK (OTHER THAN BREAST MILK) . . . . . A PLAIN WATER . . . . . B SUGAR OR GLUCOSE WATER . . . . . C GRIPE WATER . . . . . D SUGAR-SALT-WATER SOLUTION . . . . . E FRUIT JUICE . . . . . F INFANT FORMULA . . . . . G TEA/INFUSIONS . . . . . H HONEY . . . . . I OTHER _____ X (SPECIFY)		
464	CHECK 404: CHECK IF CHILD IS LIVING OR DEAD	LIVING DEAD (SKIP TO 466)		
465	Are you still breastfeeding (NAME)?	YES . . . . . 1 (SKIP TO 468) NO 2		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
466	For how many months did you breastfeed (NAME)?	MONTHS . . . . . [ ][ ] DON'T KNOW 98	MONTHS . . . . . [ ][ ] STILL BREASTFEEDING . . . 95 DON'T KNOW 98	MONTHS . . . . . [ ][ ] STILL BREASTFEEDING . . . 95 DON'T KNOW 98
467	CHECK 404: CHECK IF CHILD IS LIVING OR DEAD	LIVING [ ] → (SKIP TO 470) DEAD [ ] → (GO BACK TO 405 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 501)	LIVING [ ] → (SKIP TO 470) DEAD [ ] → (GO BACK TO 405 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 501)	LIVING [ ] → (SKIP TO 470) DEAD [ ] → (GO BACK TO 405 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE BIRTHS, GO TO 501)
468	How many times did you breastfeed last night between sunset and sunrise? IF ANSWER IS NOT NUMERIC, PROBE FOR APPROXIMATE NUMBER.	NUMBER OF NIGHTTIME FEEDINGS . . . . . [ ][ ]		
469	How many times did you breastfeed yesterday during the daylight hours? IF ANSWER IS NOT NUMERIC, PROBE FOR APPROXIMATE NUMBER.	NUMBER OF DAYLIGHT FEEDINGS . . . . . [ ][ ]		
470	Did (NAME) drink anything from a bottle with a nipple yesterday or last night?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
471		GO BACK TO 405 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 501.	GO BACK TO 405 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 501.	GO BACK TO 405 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE BIRTHS, GO TO 501.

SECTION 5. CHILD IMMUNIZATION AND HEALTH; AND CHILD'S AND WOMAN'S NUTRITION

501	ENTER IN THE TABLE THE LINE NUMBER, NAME, AND SURVIVAL STATUS OF EACH BIRTH IN 2004 OR LATER. ASK THE QUESTIONS ABOUT ALL OF THESE BIRTHS. **BEGIN WITH THE LAST BIRTH.** (IF THERE ARE MORE THAN 3 BIRTHS, USE LAST 2 COLUMNS OF ADDITIONAL QUESTIONNAIRES).			
502	LINE NUMBER FROM 212 (BIRTH HISTORY)	**LAST BIRTH** LINE NUMBER	**NEXT-TO-LAST BIRTH** LINE NUMBER	**SECOND-FROM-LAST BIRTH** LINE NUMBER .....
503	NAME FROM 212 SURVIVAL STATUS FROM 216	NAME _____ LIVING DEAD (GO TO 503 IN NEXT COLUMN OR, IF NO MORE BIRTHS, GO TO 573)	NAME _____ LIVING DEAD (GO TO 503 IN NEXT COLUMN OR, IF NO MORE BIRTHS, GO TO 573)	NAME _____ LIVING DEAD (GO TO 503 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE, OR IF NO MORE BIRTHS, GO TO 573)
504	Do you have a card where (NAME'S) vaccinations are written down? IF YES: May I see it please? IF NOT AVAILABLE, PROBE IF IT IS AT THE HEALTH FACILITY	YES, SEEN ..... 1 (SKIP TO 506) YES, NOT AVAILABLE AT HOME/ HEALTH FACILITY ..... 2 (SKIP TO 508) CARD AT HEALTH FACILITY ... 3 (SKIP TO 507A) NO CARD AT ALL 4	YES, SEEN ..... 1 (SKIP TO 506) YES, NOT AVAILABLE AT HOME/ HEALTH FACILITY ..... 2 (SKIP TO 508) CARD AT HEALTH FACILITY ... 3 (SKIP TO 507A) NO CARD AT ALL 4	YES, SEEN ..... 1 (SKIP TO 506) YES, NOT AVAILABLE AT HOME/ HEALTH FACILITY ... 2 (SKIP TO 508) CARD AT HEALTH FACILITY .. 3 (SKIP TO 507A) NO CARD AT ALL 4
505	Did you ever have a vaccination card for (NAME)?	YES ..... 1 (SKIP TO 508) NO 2	YES ..... 1 (SKIP TO 508) NO 2	YES ..... 1 (SKIP TO 508) NO 2

506 (1) COPY VACCINATION DATE FOR EACH VACCINE FROM THE CARD.
(2) WRITE '44' IN 'DAY' COLUMN IF CARD SHOWS THAT A VACCINATION WAS GIVEN, BUT NO DATE IS RECORDED.

	LAST BIRTH DAY	LAST BIRTH MONTH	LAST BIRTH YEAR	NEXT-TO-LAST BIRTH DAY	NEXT-TO-LAST BIRTH MONTH	NEXT-TO-LAST BIRTH YEAR	SECOND-FROM-LAST BIRTH DAY	SECOND-FROM-LAST BIRTH MONTH	SECOND-FROM-LAST BIRTH YEAR
BCG/TUBERCULOSIS / BCG/TB / BCG/TB									
PENTAVALENT(Hib/HepB/DPT) 1st DOSE / PENT. 1 / PENT. 1									
PENTAVALENT(Hib/HepB/DPT) 2nd DOSE / PENT. 2 / PENT. 2									
PENTAVALENT(Hib/HepB/DPT) 3rd DOSE / PENT. 3 / PENT. 3									
FIRST DPT BOOSTER / FIRST DPT BOOSTER / FIRST DPT BOOSTER									
SECOND DPT BOOSTER / SECOND DPT BOOSTER / SECOND DPT BOOSTER									
POLIO (OPV) 1ST DOSE / P1 / P1									
POLIO (OPV) 2ND DOSE / P2 / P2									
POLIO (OPV) 3RD DOSE / P3 / P3									
MEASLES, MUMPS, RUBELLA (MMR) 1 / MMR1 / MMR1									
MEASLES, MUMPS, RUBELLA (MMR) 2 / MMR2 / MMR2									
YELLOW FEVER / YELLOW FEVER / YELLOW FEVER									
MEASLES / MEASLES / MEASLES									
RUBELLA / RUBELLA / RUBELLA									

506A	CHECK 506:	BCG/TB TO THE END ALL RECORDED (GO TO 510) OTHER	BCG/TB TO THE END ALL RECORDED (GO TO 510) OTHER	BCG/TB TO THE END ALL RECORDED (GO TO 510) OTHER

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
507	Has (NAME) received any vaccinations that are not recorded on this card, including vaccinations received in a national immunization campaign or an outreach event? RECORD 'YES' ONLY IF RESPONDENT MENTIONS BCG/TB, PENT/Hib/HepB, POLIO 1-3, DPT BOOSTERS, YELLOW FEVER AND/OR MMR VACCINES.	YES ..... 1 (PROBE FOR VACCINATIONS AND WRITE '66' IN THE CORRESPONDING DAY COLUMN IN 506) **(SKIP TO 510)** NO ..... 2 (SKIP TO 510) DON'T KNOW 8	YES ..... 1 (PROBE FOR VACCINATIONS AND WRITE '66' IN THE CORRESPONDING DAY COLUMN IN 506) **(SKIP TO 510)** NO ..... 2 (SKIP TO 510) DON'T KNOW 8	YES ..... 1 (PROBE FOR VACCINATIONS AND WRITE '66' IN THE CORRESPONDING DAY COLUMN IN 506) **(SKIP TO 510)** NO ..... 2 (SKIP TO 510) DON'T KNOW 8
507A	CARD FOR (NAME) IS AT HEALTH FACILITY.	MARK COVER PAGE INDICATING THAT VISIT TO HEALTH FACILITY IS REQUIRED.	MARK COVER PAGE INDICATING THAT VISIT TO HEALTH FACILITY IS REQUIRED.	MARK COVER PAGE INDICATING THAT VISIT TO HEALTH FACILITY IS REQUIRED.
508	Did (NAME) ever receive any vaccinations to prevent him/her from getting diseases, including vaccinations received in a national immunization campaign or an outreach event?	YES ..... 1 NO ..... 2 (SKIP TO 516) DON'T KNOW 8	YES ..... 1 NO ..... 2 (SKIP TO 516) DON'T KNOW 8	YES ..... 1 NO ..... 2 (SKIP TO 516) DON'T KNOW 8
509	Please tell me if (NAME) received any of the following vaccinations:			
509A	A BCG/TB vaccination against tuberculosis, that is, an injection in the shoulder or thigh that usually causes a scar?	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES .. .. 1 NO .. .. 2 DON'T KNOW 8
509B	Polio vaccine, that is, drops in the mouth?	YES ..... 1 NO ..... 2 (SKIP TO 509E) DON'T KNOW 8	YES ..... 1 NO ..... 2 (SKIP TO 509E) DON'T KNOW 8	YES ..... 1 NO ..... 2 (SKIP TO 509E) DON'T KNOW 8
509C	Was the first polio vaccine received in the first two weeks after birth or later?	FIRST 2 WEEKS ..... 1 LATER 2	FIRST 2 WEEKS ..... 1 LATER.. 2	FIRST 2 WEEKS ..... 1 LATER 2
509D	How many times was the polio vaccine received?	NUMBER OF TIMES ..... [ ]	NUMBER OF TIMES ..... [ ]	NUMBER OF TIMES ..... [ ]
509E	A Pentavalent(Hib/HepB/DPT) vaccination that is, an injection given in the thigh, sometimes at the same time as polio drops?	YES ..... 1 NO ..... 2 (SKIP TO 509G) DON'T KNOW 8	YES ..... 1 NO ..... 2 (SKIP TO 509G) DON'T KNOW 8	YES ..... 1 NO ..... 2 (SKIP TO 509G) DON'T KNOW 8
509F	How many times was a Pentavalent (Hib/HepB/DPT) vaccination received?	NUMBER OF TIMES ..... [ ]	NUMBER OF TIMES ..... [ ]	NUMBER OF TIMES ..... [ ]
509G	A DPT booster?	YES ..... 1 NO ..... 2 (SKIP TO 509I) DON'T KNOW 8	YES ..... 1 NO ..... 2 (SKIP TO 509I) DON'T KNOW 8	YES ..... 1 NO ..... 2 (SKIP TO 509I) DON'T KNOW 8
509H	How many times was a DPT booster received?	NUMBER OF TIMES ..... [ ]	NUMBER OF TIMES ..... [ ]	NUMBER OF TIMES ..... [ ]
509I	An MMR injection that is, a shot in the arm at the age of 12 months or older - to prevent him/her from getting measles, mumps and rubella?	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8
509J	An MMR injection at the age of 3 years 9 months?	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8
509K	A Yellow fever vaccination to prevent baby from getting yellow fever?	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8
510	Were any of the vaccinations (NAME) received during the last two years given as part of a vaccination week or an outreach event?	YES ..... 1 NO ..... 2 NO VACCINATION IN THE LAST 2 YEARS ..... 3 DON'T KNOW ..... 8 **(SKIP TO 516)**	YES ..... 1 NO ..... 2 NO VACCINATION IN THE LAST 2 YEARS ..... 3 DON'T KNOW ..... 8 **(SKIP TO 516)**	YES ..... 1 NO ..... 2 NO VACCINATION IN THE LAST 2 YEARS ..... 3 DON'T KNOW ..... 8 **(SKIP TO 516)**

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
511	At which vaccination week or an outreach event did (NAME) receive vaccinations? RECORD ALL CAMPAIGNS MENTIONED.	VACCINATION WEEK (APRIL 2008) ..... A VACCINATION WEEK (APRIL 2007) ..... B OUTREACH EVENT '08 ..... C OUTREACH EVENT '07 ..... D OTHER _____ X (SPECIFY)	VACCINATION WEEK (APRIL 2008) ..... A VACCINATION WEEK (APRIL 2007) ..... B OUTREACH EVENT '08 ..... C OUTREACH EVENT '07 ..... D OTHER _____ X (SPECIFY)	VACCINATION WEEK (APRIL 2008) ..... A VACCINATION WEEK (APRIL 2007) ..... B OUTREACH EVENT '08 ..... C OUTREACH EVENT '07 ..... D OTHER _____ X (SPECIFY)
516	In the last seven days, did (NAME) take iron pills, sprinkles with iron, or iron syrup (like this/any of these)? SHOW COMMON TYPES OF PILLS/SPRINKLES/SYRUPS.	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8
517	Has (NAME) taken any drug for intestinal worms in the last six months?	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8
518	Has (NAME) had diarrhea in the last 2 weeks?	YES ..... 1 NO ..... 2 (SKIP TO 533) ←┤ DON'T KNOW 8	YES ..... 1 NO ..... 2 (SKIP TO 533) ←┤ DON'T KNOW 8	YES ..... 1 NO ..... 2 (SKIP TO 533) ←┤ DON'T KNOW 8
519	Was there any blood in the stools?	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8
520	Now I would like to know how much (NAME) was given to drink during the diarrhea (including breastmilk). Was he/she given less than usual to drink, about the same amount, or more than usual to drink? IF LESS, PROBE: Was he/she given much less than usual to drink or somewhat less?	MUCH LESS ..... 1 SOMEWHAT LESS ..... 2 ABOUT THE SAME ..... 3 MORE ..... 4 NOTHING TO DRINK ..... 5 DON'T KNOW 8	MUCH LESS ..... 1 SOMEWHAT LESS ..... 2 ABOUT THE SAME ..... 3 MORE ..... 4 NOTHING TO DRINK ..... 5 DON'T KNOW 8	MUCH LESS ..... 1 SOMEWHAT LESS ..... 2 ABOUT THE SAME ..... 3 MORE ..... 4 NOTHING TO DRINK ..... 5 DON'T KNOW 8
521	When (NAME) had diarrhea, was he/she given less than usual to eat, about the same amount, more than usual, or nothing to eat? IF LESS, PROBE: Was he/she given much less than usual to eat or somewhat less?	MUCH LESS ..... 1 SOMEWHAT LESS ..... 2 ABOUT THE SAME ..... 3 MORE ..... 4 STOPPED FOOD ..... 5 NEVER GAVE FOOD ..... 6 DON'T KNOW 8	MUCH LESS ..... 1 SOMEWHAT LESS ..... 2 ABOUT THE SAME ..... 3 MORE ..... 4 STOPPED FOOD ..... 5 NEVER GAVE FOOD ..... 6 DON'T KNOW 8	MUCH LESS ..... 1 SOMEWHAT LESS ..... 2 ABOUT THE SAME ..... 3 MORE ..... 4 STOPPED FOOD ..... 5 NEVER GAVE FOOD ..... 6 DON'T KNOW 8
522	Did you seek advice or treatment for the diarrhea from any source?	YES ..... 1 NO ..... 2 (SKIP TO 527) ←┘	YES ..... 1 NO ..... 2 (SKIP TO 527) ←┘	YES .. .. 1 NO .. .. 2 (SKIP TO 527) ←┘
523	Where did you seek advice or treatment? Anywhere else? PROBE TO IDENTIFY EACH TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE(S). IF UNABLE TO DETERMINE IF A HOSPITAL OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S))	**PUBLIC SECTOR** GOVT HOSPITAL ..... A GOVT HEALTH CENTER .. B GOVT HEALTH POST ..... C MOBILE/OUTREACH CLINIC ..... D COMMUNITY HEALTH WORKER ..... E OTHER PUBLIC _____ F (SPECIFY) **PRIVATE MEDICAL SECTOR** PVT. HOSPITAL/ CLINIC .. G PHARMACY ..... H PVT DOCTOR ..... I MOBILE CLINIC ..... J FIELDWORKER ..... K OTHER PRIVATE MED. _____ L (SPECIFY) **OTHER SOURCE** SHOP ..... M TRADITIONAL PRACTITIONER ..... N **OTHER** _____ X (SPECIFY)	**PUBLIC SECTOR** GOVT HOSPITAL ..... A GOVT HEALTH CENTER .. B GOVT HEALTH POST ..... C MOBILE/OUTREACH CLINIC ..... D COMMUNITY HEALTH WORKER ..... E OTHER PUBLIC _____ F (SPECIFY) **PRIVATE MEDICAL SECTOR** PVT. HOSPITAL/ CLINIC .. G PHARMACY ..... H PVT DOCTOR ..... I MOBILE CLINIC ..... J FIELDWORKER ..... K OTHER PRIVATE MED. _____ L (SPECIFY) **OTHER SOURCE** SHOP ..... M TRADITIONAL PRACTITIONER ..... N **OTHER** _____ X (SPECIFY)	**PUBLIC SECTOR** GOVT HOSPITAL ..... A GOVT HEALTH CENTER .. B GOVT HEALTH POST ..... C MOBILE/OUTREACH C CLINIC ..... D COMMUNITY HEALTH W WORKER ..... E OTHER PUBLIC _____ F (SPECIFY) **PRIVATE MEDICAL SECTOR** PVT. HOSPITAL/ CLINIC .. G PHARMACY ..... H PVT DOCTOR ..... I MOBILE CLINIC ..... J FIELDWORKER ..... K OTHER PRIVATE MED. _____ L (SPECIFY) **OTHER SOURCE** SHOP ..... M TRADITIONAL PRACTITIONER ..... N **OTHER** _____ X (SPECIFY)

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
524	CHECK 523:	TWO OR MORE CODES CIRCLED ☐ ↓ ONLY ONE CODE CIRCLED ☐ → (SKIP TO 526)	TWO OR MORE CODES CIRCLED ☐ ↓ ONLY ONE CODE CIRCLED ☐ → (SKIP TO 526)	TWO OR MORE CODES CIRCLED ☐ ↓ ONLY ONE CODE CIRCLED ☐ → (SKIP TO 526)
525	Where did you first seek advice or treatment? USE LETTER CODE FROM 523.	FIRST PLACE ..... ☐	FIRST PLACE ..... ☐	FIRST PLACE ..... ☐
526	How many days after the diarrhea began did you first seek advice or treatment for (NAME)? IF THE SAME DAY, RECORD '00'.	DAYS ..... ☐☐	DAYS ..... ☐☐	DAYS ..... ☐☐
527	Does (NAME) still have diarrhea?	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8
528	Was he/she given any of the following to drink at any time since he/she started having the diarrhea: a) A fluid made from a special ORS packet solution? b) A pre-packaged ORS readymade liquid e.g. pedialite? c) A government-recommended homemade fluid i.e. sugar/salt water mixture?	YES NO DK FLUID FROM ORS PKT. ..... 1 2 8 ORS LQD. ..... 1 2 8 HOMEMADE FLUID 1 2 8	YES NO DK FLUID FROM ORS PKT. ..... 1 2 8 ORS LQD. ..... 1 2 8 HOMEMADE FLUID 1 2 8	YES NO DK FLUID FROM ORS PKT. ..... 1 2 8 ORS LQD. ..... 1 2 8 HOMEMADE FLUID 1 2 8
529	Was anything (else) given to treat the diarrhea?	YES ..... 1 NO ..... 2 (SKIP TO 533) ←┤ DON'T KNOW 8	YES ..... 1 NO ..... 2 (SKIP TO 533) ←┤ DON'T KNOW 8	YES ..... 1 NO ..... 2 (SKIP TO 533) ←┤ DON'T KNOW 8
530	What (else) was given to treat the diarrhea? Anything else? RECORD ALL TREATMENTS GIVEN.	**PILL OR SYRUP** ANTIBIOTIC ..... A ANTIMOTILITY ..... B ZINC ..... C OTHER (NOT ANTIBIOTIC, ANTIMOTILITY, OR ZINC ..... D UNKNOWN PILL OR SYRUP ..... E **INJECTION** ANTIBIOTIC ..... F NON-ANTIBIOTIC ..... G UNKNOWN INJECTION ..... H (IV) INTRAVENOUS ..... I HOME REMEDY/HERBAL MEDICINE ..... J **OTHER** _____ X (SPECIFY)	**PILL OR SYRUP** ANTIBIOTIC ..... A ANTIMOTILITY ..... B ZINC ..... C OTHER (NOT ANTIBIOTIC, ANTIMOTILITY, OR ZINC ..... D UNKNOWN PILL OR SYRUP ..... E **INJECTION** ANTIBIOTIC ..... F NON-ANTIBIOTIC ..... G UNKNOWN INJECTION ..... H (IV) INTRAVENOU ..... I HOME REMEDY/HERBAL MEDICINE ..... J **OTHER** _____ X (SPECIFY)	**PILL OR SYRUP** ANTIBIOTIC ..... A ANTIMOTILITY ..... B ZINC ..... C OTHER (NOT ANTIBIOTIC, ANTIMOTILITY, OR ZINC ..... D UNKNOWN PILL OR SYRUP ..... E **INJECTION** ANTIBIOTIC ..... F NON-ANTIBIOTIC ..... G UNKNOWN INJECTION ..... H (IV) INTRAVENOU ..... I HOME REMEDY/HERBAL MEDICINE ..... J **OTHER** _____ X (SPECIFY)
533	Has (NAME) been ill with a fever at any time in the last 2 weeks?	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8
534	Has (NAME) had an illness with a cough at any time in the last 2 weeks?	YES ..... 1 NO ..... 2 (SKIP TO 537) ←┤ DON'T KNOW 8	YES ..... 1 NO ..... 2 (SKIP TO 537) ←┤ DON'T KNOW 8	YES ..... 1 NO ..... 2 (SKIP TO 537) ←┤ DON'T KNOW 8

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
535	When (NAME) had an illness with a cough, did he/she breathe faster than usual with short, rapid breaths or have difficulty breathing?	YES ..... 1 NO ..... 2 (SKIP TO 538) DON'T KNOW 8	YES ..... 1 NO ..... 2 (SKIP TO 538) DON'T KNOW 8	YES ..... 1 NO ..... 2 (SKIP TO 538) DON'T KNOW 8
536	Was the fast or difficult breathing due to a problem in the chest or to a blocked or runny nose?	CHEST ONLY ..... 1 NOSE ONLY ..... 2 BOTH ..... 3 OTHER _____ 6 (SPECIFY) DON'T KNOW ..... 8 **(SKIP TO 538)**	CHEST ONLY ..... 1 NOSE ONLY ..... 2 BOTH ..... 3 OTHER _____ 6 (SPECIFY) DON'T KNOW ..... 8 **(SKIP TO 538)**	CHEST ONLY ..... 1 NOSE ONLY ..... 2 BOTH ..... 3 OTHER _____ 6 (SPECIFY) DON'T KNOW ..... 8 **(SKIP TO 538)**
537	CHECK 533: HAD FEVER?	YES NO OR DK (GO BACK TO **503** IN NEXT COLUMN OR, IF NO MORE BIRTHS, GO TO **573**	YES NO OR DK (GO BACK TO **503** IN NEXT COLUMN OR, IF NO MORE BIRTHS, GO TO **573**	YES NO OR DK (GO BACK TO **503** IN NEXT COLUMN OR, IF NO MORE BIRTHS, GO TO **573**
538	Now I would like to know how much (NAME) was given to drink (including breastmilk) during the illness with a (fever/cough). Was he/she given less than usual to drink, about the same amount, or more than usual to drink? IF LESS, PROBE: Was he/she given much less than usual to drink or somewhat less?	MUCH LESS ..... 1 SOMEWHAT LESS ..... 2 ABOUT THE SAME ..... 3 MORE ..... 4 NOTHING TO DRINK ..... 5 DON'T KNOW 8	MUCH LESS ..... 1 SOMEWHAT LESS ..... 2 ABOUT THE SAME ..... 3 MORE ..... 4 NOTHING TO DRINK ..... 5 DON'T KNOW 8	MUCH LESS ..... 1 SOMEWHAT LESS ..... 2 ABOUT THE SAME ..... 3 MORE ..... 4 NOTHING TO DRINK ..... 5 DON'T KNOW 8
539	When (NAME) had a (fever/cough), was he/she given less than usual to eat, about the same amount, more than usual, or nothing to eat? IF LESS, PROBE: Was he/she given much less than usual to eat or somewhat less?	MUCH LESS ..... 1 SOMEWHAT LESS ..... 2 ABOUT THE SAME ..... 3 MORE ..... 4 STOPPED FOOD ..... 5 NEVER GAVE FOOD ..... 6 DON'T KNOW 8	MUCH LESS ..... 1 SOMEWHAT LESS ..... 2 ABOUT THE SAME ..... 3 MORE ..... 4 STOPPED FOOD ..... 5 NEVER GAVE FOOD ..... 6 DON'T KNOW 8	MUCH LESS ..... 1 SOMEWHAT LESS ..... 2 ABOUT THE SAME ..... 3 MORE ..... 4 STOPPED FOOD ..... 5 NEVER GAVE FOOD ..... 6 DON'T KNOW 8
540	Did you seek advice or treatment for the illness from any source?	YES ..... 1 NO ..... 2 (SKIP TO 545)	YES ..... 1 NO ..... 2 (SKIP TO 545)	YES ..... 1 NO ..... 2 (SKIP TO 545)
541	Where did you seek advice or treatment? Anywhere else? PROBE TO IDENTIFY EACH TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE(S). IF UNABLE TO DETERMINE IF A HOSPITAL OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S))	**PUBLIC SECTOR** GOVT HOSPITAL ..... A GOVT HEALTH CENTER .. B GOVT HEALTH POST ..... C MOBILE/OUTREACH CLINIC ..... D COMMUNITY HEALTH WORKER ..... E OTHER PUBLIC _____ F (SPECIFY) **PRIVATE MEDICAL SECTOR** PVT. HOSPITAL/ CLINIC .. G PHARMACY ..... H PVT DOCTOR ..... I MOBILE CLINIC ..... J FIELDWORKER ..... K OTHER PRIVATE MED. _____ L (SPECIFY) **OTHER SOURCE** SHOP ..... M TRADITIONAL PRACTITIONER ..... N **OTHER** _____ X (SPECIFY)	**PUBLIC SECTOR** GOVT HOSPITAL ..... A GOVT HEALTH CENTER .. B GOVT HEALTH POST ..... C MOBILE/OUTREACH CLINIC ..... D COMMUNITY HEALTH WORKER ..... E OTHER PUBLIC _____ F (SPECIFY) **PRIVATE MEDICAL SECTOR** PVT. HOSPITAL/ CLINIC .. G PHARMACY ..... H PVT DOCTOR ..... I MOBILE CLINIC ..... J FIELDWORKER ..... K OTHER PRIVATE MED. _____ L (SPECIFY) **OTHER SOURCE** SHOP ..... M TRADITIONAL PRACTITIONER ..... N **OTHER** _____ X (SPECIFY)	**PUBLIC SECTOR** GOVT HOSPITAL ..... A GOVT HEALTH CENTER .. B GOVT HEALTH POST ..... C MOBILE/OUTREACH CLINIC ..... D COMMUNITY HEALTH WORKER ..... E OTHER PUBLIC _____ F (SPECIFY) **PRIVATE MEDICAL SECTOR** PVT. HOSPITAL/ CLINIC .. G PHARMACY ..... H PVT DOCTOR ..... I MOBILE CLINIC ..... J FIELDWORKER ..... K OTHER PRIVATE MED. _____ L (SPECIFY) **OTHER SOURCE** SHOP ..... M TRADITIONAL PRACTITIONER ..... N **OTHER** _____ X (SPECIFY)

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
542	CHECK 541:	TWO OR MORE CODES CIRCLED ☐ / ONLY ONE CODE CIRCLED ☐ (SKIP TO 544)	TWO OR MORE CODES CIRCLED ☐ / ONLY ONE CODE CIRCLED ☐ (SKIP TO 544)	TWO OR MORE CODES CIRCLED ☐ / ONLY ONE CODE CIRCLED ☐ (SKIP TO 544)
543	Where did you first seek advice or treatment? USE LETTER CODE FROM 541.	FIRST PLACE ..... ☐	FIRST PLACE ..... ☐	FIRST PLACE ..... ☐
544	How many days after the illness began did you first seek advice or treatment for (NAME)? IF THE SAME DAY, RECORD '00'.	DAYS ..... ☐☐	DAYS ..... ☐☐	DAYS ..... ☐☐
545	Is (NAME) still sick with a (fever/ cough)?	FEVER ONLY ..... 1 COUGH ONLY ..... 2 BOTH FEVER AND COUGH .. 3 NO, NEITHER ..... 4 DON'T KNOW 8	FEVER ONLY ..... 1 COUGH ONLY ..... 2 BOTH FEVER AND COUGH .. 3 NO, NEITHER ..... 4 DON'T KNOW 8	FEVER ONLY ..... 1 COUGH ONLY ..... 2 BOTH FEVER AND COUGH .. 3 NO, NEITHER ..... 4 DON'T KNOW 8
546	At any time during the illness, did (NAME) take any drugs for the illness?	YES ..... 1 NO ..... 2 (GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 573) DON'T KNOW 8	YES ..... 1 NO ..... 2 (GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 573) DON'T KNOW 8	YES ..... 1 NO ..... 2 (GO TO 503 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE BIRTHS, GO TO 573) DON'T KNOW 8
547	What drugs did (NAME) take? Any other drugs? RECORD ALL MENTIONED.	**ANTIMALARIAL DRUGS** SP/FANSIDAR ..... A CHLOROQUINE ..... B MEFLOQUINE ..... C QUININE ..... D COARTEM ..... E ARTESUNATE/ ARTINATE ..... F PRIMAQUINE ..... G OTHER ANTIMALARIAL _____ H (SPECIFY) **ANTIBIOTIC DRUGS** PILL/SYRUP ..... I INJECTION ..... J **OTHER DRUGS** ASPIRIN ..... K ACETAMINOPHEN/ PARACETAMOL/ PANADOL ..... L IBUPROFEN ..... M SYRUP/ELIXIR ..... N **OTHER** _____ X (SPECIFY) DON'T KNOW ..... Z	**ANTIMALARIAL DRUGS** SP/FANSIDAR ..... A CHLOROQUINE ..... B MEFLOQUINE ..... C QUININE ..... D COARTEM ..... E ARTESUNATE/ ARTINATE ..... F PRIMAQUINE ..... G OTHER ANTIMALARIAL _____ H (SPECIFY) **ANTIBIOTIC DRUGS** PILL/SYRUP ..... I INJECTION ..... J **OTHER DRUGS** ASPIRIN ..... K ACETAMINOPHEN/ PARACETAMOL/ PANADOL ..... L IBUPROFEN ..... M SYRUP/ELIXIR ..... N **OTHER** _____ X (SPECIFY) DON'T KNOW ..... Z	**ANTIMALARIAL DRUGS** SP/FANSIDAR ..... A CHLOROQUINE ..... B MEFLOQUINE ..... C QUININE ..... D COARTEM ..... E ARTESUNATE/ ARTINATE ..... F PRIMAQUINE ..... G OTHER ANTIMALARIAL _____ H (SPECIFY) **ANTIBIOTIC DRUGS** PILL/SYRUP ..... I INJECTION ..... J **OTHER DRUGS** ASPIRIN ..... K ACETAMINOPHEN/ PARACETAMOL/ PANADOL ..... L IBUPROFEN ..... M SYRUP/ELIXIR ..... N **OTHER** _____ X (SPECIFY) DON'T KNOW ..... Z
548	CHECK 547: ANY CODE A-I CIRCLED?	YES ☐ / NO ☐ (GO BACK TO 503 IN NEXT COLUMN; OR IF NO MORE BIRTHS, GO TO 573)	YES ☐ / NO ☐ (GO BACK TO 503 IN NEXT COLUMN; OR IF NO MORE BIRTHS, GO TO 573)	YES ☐ / NO ☐ (GO TO 503 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE BIRTHS, GO TO 573)
549	Did you already have (NAME OF DRUG FROM 547) at home when the child became ill? ASK SEPARATELY FOR EACH OF THE DRUGS 'A' THROUGH 'I' THAT THE CHILD IS RECORDED AS HAVING TAKEN IN 547. IF YES FOR ANY DRUG, CIRCLE CODE FOR THAT DRUG IF NO FOR ALL DRUGS,CIRCLE 'Y'.	**ANTIMALARIAL DRUGS** SP/FANSIDAR ..... A CHLOROQUINE ..... B MEFLOQUINE ..... C QUININE ..... D COARTEM ..... E ARTESUNATE/ARTINATE.. F PRIMAQUINE ..... G OTHER ANTIMALARIAL .. H **ANTIBIOTIC PILL/SYRUP** ..... I NO DRUG AT HOME ..... Y	**ANTIMALARIAL DRUGS** SP/FANSIDAR ..... A CHLOROQUINE ..... B MEFLOQUINE ..... C QUININE ..... D COARTEM ..... E ARTESUNATE/ARTINATE.. F PRIMAQUINE ..... G OTHER ANTIMALARIAL .. H **ANTIBIOTIC PILL/SYRUP** ..... I NO DRUG AT HOME ..... Y	**ANTIMALARIAL DRUGS** SP/FANSIDAR ..... A CHLOROQUINE ..... B MEFLOQUINE ..... C QUININE ..... D COARTEM ..... E ARTESUNATE/ARTINATE.. F PRIMAQUINE ..... G OTHER ANTIMALARIAL .. H **ANTIBIOTIC PILL/SYRUP** ..... I NO DRUG AT HOME ..... Y

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
550	CHECK 547: ANY CODE A-H CIRCLED?	YES ☐ NO ☐ (GO BACK TO 503 IN NEXT COLUMN; OR IF NO MORE BIRTHS, GO 573)	YES ☐ NO ☐ (GO BACK TO 503 IN NEXT COLUMN; OR IF NO MORE BIRTHS, GO 573)	YES ☐ NO ☐ (GO TO 503 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE BIRTHS, GO TO 573)
551	CHECK 547: SP/FANSIDAR ('A') GIVEN	CODE 'A' CIRCLED ☐ CODE 'A' NOT CIRCLED ☐ (SKIP TO 554)	CODE 'A' CIRCLED ☐ CODE 'A' NOT CIRCLED ☐ (SKIP TO 554)	CODE 'A' CIRCLED ☐ CODE 'A' NOT CIRCLED ☐ (SKIP TO 554)
552	How long after the fever started did (NAME) first take **SP/Fansidar?**	SAME DAY ..... 0 NEXT DAY ..... 1 TWO DAYS AFTER FEVER .. 2 THREE DAYS AFTER FEVER ..... 3 FOUR OR MORE DAYS AFTER FEVER ..... 4 DON'T KNOW 8	SAME DAY ..... 0 NEXT DAY ..... 1 TWO DAYS AFTER FEVER .. 2 THREE DAYS AFTER FEVER ..... 3 FOUR OR MORE DAYS AFTER FEVER ..... 4 DON'T KNOW 8	SAME DAY ..... 0 NEXT DAY ..... 1 TWO DAYS AFTER FEVER .. 2 THREE DAYS AFTER FEVER ..... 3 FOUR OR MORE DAYS AFTER FEVER ..... 4 DON'T KNOW 8
553	For how many days did (NAME) take the SP/Fansidar? IF 7 DAYS OR MORE, RECORD '7'	DAYS ..... ☐ DON'T KNOW 8	DAYS ..... ☐ DON'T KNOW 8	DAYS ..... ☐ DON'T KNOW 8
554	CHECK 547: CHLOROQUINE ('B') GIVEN	CODE 'B' CIRCLED ☐ CODE 'B' NOT CIRCLED ☐ (SKIP TO 557)	CODE 'B' CIRCLED ☐ CODE 'B' NOT CIRCLED ☐ (SKIP TO 557)	CODE 'B' CIRCLED ☐ CODE 'B' NOT CIRCLED ☐ (SKIP TO 557)
555	How long after the fever started did (NAME) first take **chloroquine?**	SAME DAY ..... 0 NEXT DAY ..... 1 TWO DAYS AFTER FEVER .. 2 THREE DAYS AFTER FEVER ..... 3 FOUR OR MORE DAYS AFTER FEVER ..... 4 DON'T KNOW 8	SAME DAY ..... 0 NEXT DAY ..... 1 TWO DAYS AFTER FEVER .. 2 THREE DAYS AFTER FEVER ..... 3 FOUR OR MORE DAYS AFTER FEVER ..... 4 DON'T KNOW 8	SAME DAY ..... 0 NEXT DAY ..... 1 TWO DAYS AFTER FEVER .. 2 THREE DAYS AFTER FEVER ..... 3 FOUR OR MORE DAYS AFTER FEVER ..... 4 DON'T KNOW 8
556	For how many days did (NAME) take the chloroquine? IF 7 DAYS OR MORE, RECORD '7'	DAYS ..... ☐ DON'T KNOW 8	DAYS ..... ☐ DON'T KNOW 8	DAYS ..... ☐ DON'T KNOW 8
557	CHECK 547: MEFLOQUINE ('C') GIVEN	CODE 'C' CIRCLED ☐ CODE 'C' NOT CIRCLED ☐ (SKIP TO 560)	CODE 'C' CIRCLED ☐ CODE 'C' NOT CIRCLED ☐ (SKIP TO 560)	CODE 'C' CIRCLED ☐ CODE 'C' NOT CIRCLED ☐ (SKIP TO 560)
558	How long after the fever started did (NAME) first take **Mefloquine**?	SAME DAY ..... 0 NEXT DAY ..... 1 TWO DAYS AFTER FEVER .. 2 THREE DAYS AFTER FEVER ..... 3 FOUR OR MORE DAYS AFTER FEVER ..... 4 DON'T KNOW 8	SAME DAY ..... 0 NEXT DAY ..... 1 TWO DAYS AFTER FEVER .. 2 THREE DAYS AFTER FEVER ..... 3 FOUR OR MORE DAYS AFTER FEVER ..... 4 DON'T KNOW 8	SAME DAY ..... 0 NEXT DAY ..... 1 TWO DAYS AFTER FEVER .. 2 THREE DAYS AFTER FEVER ..... 3 FOUR OR MORE DAYS AFTER FEVER ..... 4 DON'T KNOW 8
559	For how many days did (NAME) take the Mefloquine? IF 7 DAYS OR MORE, RECORD '7'	DAYS ..... ☐ DON'T KNOW 8	DAYS ..... ☐ DON'T KNOW 8	DAYS ..... ☐ DON'T KNOW 8

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
560	CHECK 547: QUININE ('D') GIVEN	CODE 'D' CIRCLED → (SKIP TO 563) CODE 'D' NOT CIRCLED → (SKIP TO 563)	CODE 'D' CIRCLED → (SKIP TO 563) CODE 'D' NOT CIRCLED → (SKIP TO 563)	CODE 'D' CIRCLED → (SKIP TO 563) CODE 'D' NOT CIRCLED → (SKIP TO 563)
561	How long after the fever started did (NAME) first take **quinine**?	SAME DAY ..... 0 NEXT DAY ..... 1 TWO DAYS AFTER FEVER .. 2 THREE DAYS AFTER FEVER ..... 3 FOUR OR MORE DAYS AFTER FEVER ..... 4 DON'T KNOW 8	SAME DAY ..... 0 NEXT DAY ..... 1 TWO DAYS AFTER FEVER .. 2 THREE DAYS AFTER FEVER ..... 3 FOUR OR MORE DAYS AFTER FEVER ..... 4 DON'T KNOW 8	SAME DAY ..... 0 NEXT DAY ..... 1 TWO DAYS AFTER FEVER .. 2 THREE DAYS AFTER FEVER ..... 3 FOUR OR MORE DAYS AFTER FEVER ..... 4 DON'T KNOW 8
562	For how many days did (NAME) take the quinine? IF 7 DAYS OR MORE, RECORD '7'	DAYS ..... [ ] DON'T KNOW 8	DAYS ..... [ ] DON'T KNOW 8	DAYS ..... [ ] DON'T KNOW 8
563	CHECK 547: COARTEM ('E') GIVEN	CODE 'E' CIRCLED → (SKIP TO 566) CODE 'E' NOT CIRCLED → (SKIP TO 566)	CODE 'E' CIRCLED → (SKIP TO 566) CODE 'E' NOT CIRCLED → (SKIP TO 566)	CODE 'E' CIRCLED → (SKIP TO 566) CODE 'E' NOT CIRCLED → (SKIP TO 566)
564	How long after the fever started did (NAME) first take **Coartem?**	SAME DAY ..... 0 NEXT DAY ..... 1 TWO DAYS AFTER FEVER .. 2 THREE DAYS AFTER FEVER ..... 3 FOUR OR MORE DAYS AFTER FEVER ..... 4 DON'T KNOW 8	SAME DAY ..... 0 NEXT DAY ..... 1 TWO DAYS AFTER FEVER .. 2 THREE DAYS AFTER FEVER ..... 3 FOUR OR MORE DAYS AFTER FEVER ..... 4 DON'T KNOW 8	SAME DAY ..... 0 NEXT DAY ..... 1 TWO DAYS AFTER FEVER .. 2 THREE DAYS AFTER FEVER ..... 3 FOUR OR MORE DAYS AFTER FEVER ..... 4 DON'T KNOW 8
565	For how many days did (NAME) take the Coartem? IF 7 DAYS OR MORE, RECORD '7'	DAYS ..... [ ] DON'T KNOW 8	DAYS ..... [ ] DON'T KNOW 8	DAYS ..... [ ] DON'T KNOW 8
566	CHECK 547: ARTESUNATE/ARTINATE ('F') GIVEN	CODE 'F' CIRCLED → (SKIP TO 568A) CODE 'F' NOT CIRCLED → (SKIP TO 568A)	CODE 'F' CIRCLED → (SKIP TO 568A) CODE 'F' NOT CIRCLED → (SKIP TO 568A)	CODE 'F' CIRCLED → (SKIP TO 568A) CODE 'F' NOT CIRCLED → (SKIP TO 568A)
567	How long after the fever started did (NAME) first take **Artesunate/Artinate?**	SAME DAY ..... 0 NEXT DAY ..... 1 TWO DAYS AFTER FEVER .. 2 THREE DAYS AFTER FEVER ..... 3 FOUR OR MORE DAYS AFTER FEVER ..... 4 DON'T KNOW 8	SAME DAY ..... 0 NEXT DAY ..... 1 TWO DAYS AFTER FEVER .. 2 THREE DAYS AFTER FEVER ..... 3 FOUR OR MORE DAYS AFTER FEVER ..... 4 DON'T KNOW 8	SAME DAY ..... 0 NEXT DAY ..... 1 TWO DAYS AFTER FEVER .. 2 THREE DAYS AFTER FEVER ..... 3 FOUR OR MORE DAYS AFTER FEVER ..... 4 DON'T KNOW 8
568	For how many days did (NAME) take the Artesunate/Artinate? IF 7 DAYS OR MORE, RECORD '7'	DAYS ..... [ ] DON'T KNOW 8	DAYS ..... [ ] DON'T KNOW 8	DAYS ..... [ ] DON'T KNOW 8
568A	CHECK 547: PRIMAQUINE ('G') GIVEN	CODE 'G' CIRCLED → (SKIP TO 569) CODE 'G' NOT CIRCLED → (SKIP TO 569)	CODE 'G' CIRCLED → (SKIP TO 569) CODE 'G' NOT CIRCLED → (SKIP TO 569)	CODE 'G' CIRCLED → (SKIP TO 569) CODE 'G' NOT CIRCLED → (SKIP TO 569)

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
568B	How long after the fever started did (NAME) first take **Primaquine?**	SAME DAY ..... 0 NEXT DAY ..... 1 TWO DAYS AFTER FEVER .. 2 THREE DAYS AFTER FEVER ..... 3 FOUR OR MORE DAYS AFTER FEVER ..... 4 DON'T KNOW 8	SAME DAY ..... 0 NEXT DAY ..... 1 TWO DAYS AFTER FEVER .. 2 THREE DAYS AFTER FEVER ..... 3 FOUR OR MORE DAYS AFTER FEVER ..... 4 DON'T KNOW 8	SAME DAY ..... 0 NEXT DAY ..... 1 TWO DAYS AFTER FEVER .. 2 THREE DAYS AFTER FEVER ..... 3 FOUR OR MORE DAYS AFTER FEVER ..... 4 DON'T KNOW 8
568C	For how many days did (NAME) take the Primaquine? IF 7 DAYS OR MORE, RECORD '7'	DAYS ..... [ ] DON'T KNOW 8	DAYS ..... [ ] DON'T KNOW 8	DAYS ..... [ ] DON'T KNOW 8
569	CHECK 547: OTHER ANTIMALARIAL ('H') GIVEN	CODE 'H' CIRCLED [ ] CODE 'H' NOT CIRCLED [ ] → (GO BACK TO 503 IN NEXT COLUMN; OR IF NO MORE BIRTHS, GO 573)	CODE 'H' CIRCLED [ ] CODE 'H' NOT CIRCLED [ ] → (GO BACK TO 503 IN NEXT COLUMN; OR IF NO MORE BIRTHS, GO 573)	CODE 'H' CIRCLED [ ] CODE 'H' NOT CIRCLED [ ] → (GO TO 503 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE BIRTHS, GO TO 573)
570	How long after the fever started did (NAME) first take (OTHER ANTIMALARIAL)?	SAME DAY ..... 0 NEXT DAY ..... 1 TWO DAYS AFTER FEVER .. 2 THREE DAYS AFTER FEVER ..... 3 FOUR OR MORE DAYS AFTER FEVER ..... 4 DON'T KNOW 8	SAME DAY ..... 0 NEXT DAY ..... 1 TWO DAYS AFTER FEVER .. 2 THREE DAYS AFTER FEVER ..... 3 FOUR OR MORE DAYS AFTER FEVER ..... 4 DON'T KNOW 8	SAME DAY ..... 0 NEXT DAY ..... 1 TWO DAYS AFTER FEVER .. 2 THREE DAYS AFTER FEVER ..... 3 FOUR OR MORE DAYS AFTER FEVER ..... 4 DON'T KNOW 8
571	For how many days did (NAME) take (OTHER ANTIMALARIAL)? IF 7 DAYS OR MORE, RECORD '7'	DAYS ..... [ ] DON'T KNOW 8	DAYS ..... [ ] DON'T KNOW 8	DAYS ..... [ ] DON'T KNOW 8
572		GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 573.	GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 573.	GO TO 503 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE BIRTHS, GO TO 573.

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
573	CHECK 215 AND 218, ALL ROWS: NUMBER OF CHILDREN BORN IN **2004** OR LATER LIVING WITH THE RESPONDENT **ONE OR MORE** ☐ ↓ **NONE** ☐ → RECORD NAME OF YOUNGEST CHILD LIVING WITH HER (AND CONTINUE WITH 574) _____ (NAME)		**576**
574	The last time (NAME FROM 573) passed stools, what was done to dispose of the stools?	CHILD USED TOILET OR LATRINE . . . . . 01 PUT/RINSED INTO TOILET OR LATRINE . . . . . 02 PUT/RINSED INTO DRAIN OR DITCH . . . . . 03 THROWN INTO GARBAGE . . . . . 04 BURIED . . . . . 05 LEFT IN THE OPEN . . . . . 06 OTHER _____ 96 (SPECIFY)	
574A	Does (NAME from 573) (and other children) usually wash hands before meals? IF YES: How many times a day? IF 7 OR MORE, RECORD '7'.	NEVER . . . . . 0 → NUMBER OF TIMES . . . . . ☐	575
574B	What cleaning agent does (NAME from 573) (and other children) usually use for washing hands?	WATER ALONE . . . . . 1 WATER AND SOAP . . . . . 2 WATER AND DISINFECTANT . . . . . 3 OTHER _____ 6 (SPECIFY)	
575	CHECK 528(a) AND 528(b), ALL COLUMNS: **NO CHILD** RECEIVED FLUID FROM ORS PACKET OR PRE-PACKAGED ORS LIQUID ☐ ↓ ANY CHILD RECEIVED FLUID FROM ORS PACKET OR PRE-PACKAGED ORS LIQUID ☐ →		577
576	Have you ever heard of a special product called ORS packet solution or a pre-packaged ORS liquid you can get for the treatment of diarrhea?	YES . . . . . 1 NO 2	
577	CHECK 215 AND 218, ALL ROWS: NUMBER OF CHILDREN BORN IN **2006** OR LATER LIVING WITH THE RESPONDENT ONE OR MORE ☐ ↓ NONE ☐ → RECORD NAME OF YOUNGEST CHILD LIVING WITH HER (AND CONTINUE WITH 578) _____ (NAME)		601
578	Now I would like to ask you about liquids or foods (NAME FROM 577) had yesterday during the day or at night. Did (NAME FROM 577) drink: a) Plain water? b) Commercially produced infant formula? Did (NAME FROM 577) eat: c) Any commercially fortified cereal like Nestum, Cerelac, Gerber food, etc? d) Any (other) porridge or gruel?	**YES NO DK** a) PLAIN WATER . . . . . 1 2 8 b) FORMULA . . . . . 1 2 8 c) BABY CEREAL . . . . . 1 2 8 d) OTHER PORRIDGE/GRUEL. . 1 2 8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
579	Now I would like to ask you about (other) liquids or foods that (NAME FROM 577)/you may have had yesterday during the day or at night. I am interested in whether your child/you had the item even if it was combined with other foods.		

Did (NAME FROM 577)/you drink:		CHILD YES	CHILD NO	CHILD DK	MOTHER YES	MOTHER NO	MOTHER DK
a) Milk such as tinned, powdered, or fresh animal milk?	a	1	2	8	1	2	8
b) Tea or coffee?	b	1	2	8	1	2	8
c) Any other liquids?	c	1	2	8	1	2	8
Did (NAME FROM 577)/you eat:							
d) Bread, rice, noodles, or other foods made from grains?	d	1	2	8	1	2	8
e) Pumpkin, carrots, squash or sweet potatoes that are yellow or orange inside?	e	1	2	8	1	2	8
f) White potatoes, white yams, cassava, or any other foods made from roots?	f	1	2	8	1	2	8
g) Any dark green, leafy vegetables, such as spinach, callaloo, cabbage/pak choi?	g	1	2	8	1	2	8
h) Ripe mangoes, papayas, oranges, or pomegranate?	h	1	2	8	1	2	8
i) Any other fruits or vegetables, like ochro, pear, pineapple, watermelon, avocado?	i	1	2	8	1	2	8
j) Liver, kidney, heart or other organ meats?	j	1	2	8	1	2	8
k) Any meat, such as beef, pork, lamb, goat, chicken, or duck?	k	1	2	8	1	2	8
l) Eggs?	l	1	2	8	1	2	8
m) Fresh or dried fish or shellfish?	m	1	2	8	1	2	8
n) Any foods made from beans, peas, lentils, or nuts?	n	1	2	8	1	2	8
o) Cheese, yogurt or other milk products?	o	1	2	8	1	2	8
p) Any oil, fats, or butter, or foods made with any of these?	p	1	2	8	1	2	8
q) Any sugary foods such as chocolates, sweets, candies, pastries, cakes, or biscuits?	q	1	2	8	1	2	8
r) Any other solid or semi-solid food?	r	1	2	8	1	2	8

580	CHECK 578 (LAST 2 CATEGORIES: BABY CEREAL OR OTHER PORRIDGE/GRUEL) AND 579 (CATEGORIES 'd' THROUGH 'r' FOR CHILD): AT LEAST ONE "YES" ☐ ↓ NOT A SINGLE "YES" ☐ →		601
581	How many times did (NAME FROM 577) eat solid, semisolid, or soft foods yesterday during the day or at night? IF 7 OR MORE TIMES, RECORD '7'.	NUMBER OF TIMES . . . . . ☐ DON'T KNOW 8	

SECTION 6. MARRIAGE AND SEXUAL ACTIVITY

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
601	Are you currently married or living together with a man as if married?	YES, CURRENTLY MARRIED . . . . . 1 YES, LIVING WITH A MAN . . . . . 2 NO, NOT IN UNION 3	→ 604
602	Have you ever been married or lived together with a man as if married?	YES, FORMERLY MARRIED . . . . . 1 YES, LIVED WITH A MAN . . . . . 2 NO 3	→ 617
603	What is your marital status now: are you widowed, divorced, or separated?	WIDOWED . . . . . 1 DIVORCED . . . . . 2 SEPARATED 3	→ 609
604	Is your husband/partner living with you now or is he staying elsewhere?	LIVING WITH HER . . . . . 1 STAYING ELSEWHERE 2	
605	RECORD THE HUSBAND'S/PARTNER'S NAME AND LINE NUMBER FROM THE HOUSEHOLD QUESTIONNAIRE. IF HE IS NOT LISTED IN THE HOUSEHOLD, RECORD '00'.	NAME _____ LINE NO. . . . . [ ][ ]	
606	Does your husband/partner have other wives or does he live with other women as if married?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 609
607	Including yourself, in total, how many wives or partners does your husband live with now as if married?	TOTAL NUMBER OF WIVES AND LIVE-IN PARTNERS . . . . . [ ][ ] DON'T KNOW 98	
608	Are you the first, second, ... wife?	RANK . . . . . [ ][ ]	
609	Have you been married or lived with a man only once or more than once?	ONLY ONCE . . . . . 1 MORE THAN ONCE 2	
615	CHECK 609: MARRIED/ LIVED WITH A MAN ONLY ONCE → In what month and year did you start living with your husband/partner? MARRIED/ LIVED WITH A MAN MORE THAN ONCE → Now I would like to ask about when you started living with your first husband/partner. In what month and year was that?	MONTH . . . . . [ ][ ] DON'T KNOW MONTH . . . . . 98 YEAR . . . . . [ ][ ][ ][ ] DON'T KNOW YEAR 9998	→ 617
616	How old were you when you first started living with him?	AGE . . . . . [ ][ ]	
617	CHECK FOR THE PRESENCE OF OTHERS. BEFORE CONTINUING, MAKE EVERY EFFORT TO ENSURE PRIVACY.		
618	Now I need to ask you some questions about sexual activity in order to gain a better understanding of some important life issues. How old were you when you had sexual intercourse for the very first time?	NEVER HAD SEXUAL INTERCOURSE . . . . . 00 AGE IN YEARS . . . . . [ ][ ] FIRST TIME WHEN STARTED LIVING WITH (FIRST) HUSBAND/PARTNER 95	→ 621 → 621

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
619	CHECK 107: CURRENT AGE. AGE 15-24 ☐ AGE 25-49	☐	→ 641
620	Do you intend to wait until you get married to have sexual intercourse for the first time?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/UNSURE 8	→ 641
621	CHECK 107: CURRENT AGE. AGE 15-24 ☐ AGE 25-49	☐	→ 626
622	The first time you had sexual intercourse, was a condom used?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/DON'T REMEMBER . . . 8	
623	How old was the person you first had sexual intercourse with?	AGE OF PARTNER . . . . . ☐☐ DON'T KNOW 98	→ 626
624	Was this person older than you, younger than you, or about the same age as you?	OLDER . . . . . 1 YOUNGER . . . . . 2 ABOUT THE SAME AGE . . . . . 3 DON'T KNOW/DON'T REMEMBER . . . 8	→ 626
625	Would you say this person was ten or more years older than you or less than ten years older than you?	TEN OR MORE YEARS OLDER . . . . . 1 LESS THAN TEN YEARS OLDER . . . 2 OLDER, UNSURE HOW MUCH 3	
626	When was the last time you had sexual intercourse? IF LESS THAN 12 MONTHS, ANSWER MUST BE RECORDED IN DAYS, WEEKS OR MONTHS. IF 12 MONTHS (ONE YEAR) OR MORE, ANSWER MUST BE RECORDED IN YEARS.	DAYS AGO . . . . . 1 ☐☐ WEEKS AGO . . . . . 2 ☐☐ MONTHS AGO . . . . . 3 ☐☐ YEARS AGO . . . . . 4 ☐☐	→ 640

No.	QUESTIONS AND FILTERS	LAST SEXUAL PARTNER	SECOND-TO-LAST SEXUAL PARTNER	THIRD-TO-LAST SEXUAL PARTNER
626A	Now I would like to ask you some questions about your recent sexual activity. Let me assure you again that your answers are completely confidential and will not be told to anyone. When we should come to any question that you don't want to answer, just let me know and we will go to the next question. → **SKIP TO 628**			
627	When was the last time you had sexual intercourse with this (second/third) person?		DAYS ..... 1 WEEKS ..... 2 MONTHS .. 3	DAYS ..... 1 WEEKS ..... 2 MONTHS .. 3
628	The last time you had sexual intercourse with this (second/third) person, was a condom used?	YES ..... 1 NO ..... 2 (SKIP TO 630)	YES ..... 1 NO ..... 2 (SKIP TO 630)	YES ..... 1 NO ..... 2 (SKIP TO 630)
629	Did you use a condom every time you had sexual intercourse with this person in the last 12 months?	YES ..... 1 NO 2	YES ..... 1 NO 2	YES ..... 1 NO 2
630	What was your relationship to this (second/third) person with whom you had sexual intercourse? IF BOYFRIEND ASK: Were you living together as if married? IF YES, CIRCLE '2'. IF NO, CIRCLE '3'.	HUSBAND ..... 1 **(SKIP TO 636)** LIVE-IN PARTNER .... 2 BOYFRIEND NOT LIVING WITH RESPONDENT .... 3 CASUAL ACQUAINTANCE ... 4 PROSTITUTE ..... 5 OTHER_____ 6 (SPECIFY)	HUSBAND ..... 1 **(SKIP TO 636)** LIVE-IN PARTNER .... 2 BOYFRIEND NOT LIVING WITH RESPONDENT .... 3 CASUAL ACQUAINTANCE ... 4 PROSTITUTE ..... 5 OTHER_____ 6 (SPECIFY)	HUSBAND ..... 1 **(SKIP TO 636)** LIVE-IN PARTNER .... 2 BOYFRIEND NOT LIVING WITH RESPONDENT .... 3 CASUAL ACQUAINTANCE ... 4 PROSTITUTE ..... 5 OTHER_____ 6 (SPECIFY)
631	For how long (have you had/did you have) a sexual relationship with this person? IF ONLY HAD SEXUAL RELATIONS WITH THIS PERSON **ONCE**, RECORD '01' DAYS.	DAYS ..... 1 MONTHS . 2 YEARS ... 3	DAYS ..... 1 MONTHS .. 2 YEARS 3	DAYS ..... 1 MONTHS .. 2 YEARS 3
632	CHECK 107:	AGE 15-24 / AGE 25-49 (SKIP TO 636)	AGE 15-24 / AGE 25-49 (SKIP TO 636)	AGE 15-24 / AGE 25-49 (SKIP TO 636)
633	How old is this person?	AGE OF PARTNER ..... **(SKIP TO 636)** DON'T KNOW 98	AGE OF PARTNER ..... **(SKIP TO 636)** DON'T KNOW 98	AGE OF PARTNER ..... **(SKIP TO 636)** DON'T KNOW 98
634	Is this person older than you, younger than you, or about the same age?	OLDER ..... 1 YOUNGER ..... 2 SAME AGE ..... 3 DON'T KNOW .... 8 (SKIP TO 636)	OLDER ..... 1 YOUNGER ..... 2 SAME AGE ..... 3 DON'T KNOW .... 8 (SKIP TO 636)	OLDER ..... 1 YOUNGER ..... 2 SAME AGE ..... 3 DON'T KNOW .... 8 (SKIP TO 636)
635	Would you say this person is ten or more years older than you or less than ten years older than you?	TEN OR MORE YEARS OLDER .... 1 LESS THAN TEN YEARS OLDER .... 2 OLDER, UNSURE HOW MUCH 3	TEN OR MORE YEARS OLDER .... 1 LESS THAN TEN YEARS OLDER .... 2 OLDER, UNSURE HOW MUCH 3	TEN OR MORE YEARS OLDER .... 1 LESS THAN TEN YEARS OLDER .... 2 OLDER, UNSURE HOW MUCH 3

No.	QUESTIONS AND FILTERS	LAST SEXUAL PARTNER	SECOND-TO-LAST SEXUAL PARTNER	THIRD-TO-LAST SEXUAL PARTNER
636	The last time you had sexual intercourse with this person, did you or this person drink alcohol?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 638)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 638)	YES . . . . . 1 NO . . . . . 2 **(SKIP TO 639)**
637	Were you or your partner drunk at that time? IF YES: Who was drunk?	RESPONDENT ONLY . . 1 PARTNER ONLY . . . . . 2 RESPONDENT AND PARTNER BOTH . . . . 3 NEITHER 4	RESPONDENT ONLY . . 1 PARTNER ONLY . . . . . 2 RESPONDENT AND PARTNER BOTH . . . . 3 NEITHER 4	RESPONDENT ONLY . . 1 PARTNER ONLY . . . . . 2 RESPONDENT AND PARTNER BOTH . . . . 3 NEITHER 4
638	Apart from this person (these two people), have you had sexual intercourse with any other person in the last 12 months?	YES . . . . . 1 (GO BACK TO 627 IN NEXT COLUMN) NO . . . . . 2 (SKIP TO 640)	YES . . . . . 1 (GO BACK TO 627 IN NEXT COLUMN) NO . . . . . 2 (SKIP TO 640)	
639	In total, with how many different people have you had sexual intercourse in the last 12 months? IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE. IF NUMBER OF PARTNERS IS GREATER THAN 95, WRITE '95.'			NUMBER OF PARTNERS LAST 12 MONTHS . . . . . [ ][ ] DON'T KNOW 9 8
640	In total, with how many different people have you had sexual intercourse in your lifetime? IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE. IF NUMBER OF PARTNERS IS GREATER THAN 95, WRITE '95.'		NUMBER OF PARTNERS IN LIFETIME . . . . . [ ][ ] DON'T KNOW 9 8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
641	Do you know of a place where a person can get male condoms?	YES . . . . . 1 NO 2	 → 644
642	Where is that? Any other place? PROBE TO IDENTIFY EACH TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE(S). IF UNABLE TO DETERMINE IF HOSPITAL OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S))	**PUBLIC SECTOR** GOVERNMENT HOSPITAL . . . . . A GOVT. HEALTH CENTER . . . . . B GOVT. HEALTH POST . . . . . C FAMILY PLANNING CLINIC . . . . . D MOBILE/OUTREACH CLINIC . . . . . E COMMUNITY HEALTH WORKER . . . F OTHER PUBLIC _____ G (SPECIFY) **PRIVATE MEDICAL SECTOR** PRIVATE HOSPITAL/CLINIC . . . . . H PHARMACY . . . . . I PRIVATE DOCTOR . . . . . J MOBILE CLINIC . . . . . K PVT. MATERNITY HOME . . . . . L OTHER PRIVATE MEDICAL _____ M (SPECIFY) **OTHER SOURCE** SHOP/MARKET/GAS STATION . . . N CHURCH . . . . . O FRIEND/RELATIVE . . . . . P NGO . . . . . Q CONDOM VENDING MACHINE . . . . . R **OTHER** _____ X (SPECIFY)	
643	If you wanted to, could you yourself get a condom?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/UNSURE 8	
644	Do you know of a place where a person can get female condoms?	YES . . . . . 1 NO 2	 → 701
645	Where is that? Any other place? PROBE TO IDENTIFY EACH TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. IF UNABLE TO DETERMINE IF HOSPITAL OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S))	**PUBLIC SECTOR** GOVERNMENT HOSPITAL . . . . . A GOVT. HEALTH CENTER . . . . . B GOVT. HEALTH POST . . . . . C FAMILY PLANNING CLINIC . . . . . D MOBILE/OUTREACH CLINIC . . . . . E COMMUNITY HEALTH WORKER . . . F OTHER PUBLIC _____ G (SPECIFY) **PRIVATE MEDICAL SECTOR** PRIVATE HOSPITAL/CLINIC . . . . . H PHARMACY . . . . . I PRIVATE DOCTOR . . . . . J MOBILE CLINIC . . . . . K PVT. MATERNITY HOME . . . . . L OTHER PRIVATE MEDICAL _____ M (SPECIFY) **OTHER SOURCE** SHOP/MARKET/GAS STATION . . . N CHURCH . . . . . O FRIEND/RELATIVE . . . . . P NGO . . . . . Q CONDOM VENDING MACHINE . . . . . R **OTHER** _____ X (SPECIFY)	
646	If you wanted to, could you yourself get a female condom?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/UNSURE 8	

SECTION 7. FERTILITY PREFERENCES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
701	CHECK 311/311A: NEITHER STERILIZED ☐ HE OR SHE STERILIZED ☐		→ 713
702	CHECK 226: NOT PREGNANT OR UNSURE ☐ Now I have some questions about the future. Would you like to have (a/another) child, or would you prefer not to have any (more) children? PREGNANT ☐ Now I have some questions about the future. After the child you are expecting now, would you like to have another child, or would you prefer not to have any more children?	HAVE (A/ANOTHER) CHILD . . . . . 1 NO MORE/NONE . . . . . 2 SAYS SHE CAN'T GET PREGNANT . . . 3 UNDECIDED/DON'T KNOW AND PREGNANT . . . . . 4 UNDECIDED/DON'T KNOW AND NOT PREGNANT OR UNSURE 5	 → 704 → 713 → 709 → 708
703	CHECK 226: NOT PREGNANT OR UNSURE ☐ How long would you like to wait from now before the birth of (a/another) child? PREGNANT ☐ After the birth of the child you are expecting now, how long would you like to wait before the birth of another child?	MONTHS . . . . . 1 ☐☐ YEARS . . . . . 2 ☐☐ SOON/NOW . . . . . 993 SAYS SHE CAN'T GET PREGNANT 994 AFTER MARRIAGE . . . . . 995 OTHER _____ 996 (SPECIFY) DON'T KNOW 998	 → 708 → 713 → 708
704	CHECK 226: NOT PREGNANT OR UNSURE ☐ PREGNANT ☐		→ 709
705	CHECK 310: USING A CONTRACEPTIVE METHOD? NOT ASKED ☐ NOT CURRENTLY USING ☐ CURRENTLY USING ☐		→ 713
706	CHECK 703: NOT ASKED ☐ 24 OR MORE MONTHS OR 02 OR MORE YEARS ☐ 00-23 MONTHS OR 00-01 YEAR ☐		→ 709

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
707	CHECK 702: WANTS TO HAVE A/ANOTHER CHILD You have said that you do not want (a/another) child soon, but you are not using any method to avoid pregnancy. Can you tell me why you are not using a method? Any other reason? WANTS NO MORE/ NONE You have said that you do not want any (more) children, but you are not using any method to avoid pregnancy. Can you tell me why you are not using a method? Any other reason? RECORD ALL REASONS MENTIONED.	NOT MARRIED . . . . . A **FERTILITY-RELATED REASONS** NOT HAVING SEX . . . . . B INFREQUENT SEX . . . . . C MENOPAUSAL/HYSTERECTOMY . D SUBFECUND/INFECUND . . . . . E POSTPARTUM AMENORRHEIC . . . F BREASTFEEDING . . . . . G FATALISTIC . . . . . H **OPPOSITION TO USE** RESPONDENT OPPOSED . . . . . I HUSBAND/PARTNER OPPOSED . . . J OTHERS OPPOSED . . . . . K RELIGIOUS PROHIBITION . . . . . L **LACK OF KNOWLEDGE** KNOWS NO METHOD . . . . . M KNOWS NO SOURCE . . . . . N **METHOD-RELATED REASONS** HEALTH CONCERNS . . . . . O FEAR OF SIDE EFFECTS . . . . . P LACK OF ACCESS/TOO FAR . . . . . Q COSTS TOO MUCH . . . . . R INCONVENIENT TO USE . . . . . S INTERFERES WITH BODY'S NORMAL PROCESSES . . . . . T **OTHER** _____ X (SPECIFY) DON'T KNOW . . . . . Z	
708	CHECK 310: USING A CONTRACEPTIVE METHOD? NOT ASKED NO, NOT CURRENTLY USING YES, CURRENTLY USING		→ 713
709	Do you think you will use a contraceptive method to delay or avoid pregnancy at any time in the future?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	 → 711 → 713
710	Which contraceptive method would you prefer to use?	FEMALE STERILIZATION . . . . . 01 MALE STERILIZATION . . . . . 02 PILL . . . . . 03 IUD . . . . . 04 INJECTABLES . . . . . 05 IMPLANTS . . . . . 06 CONDOM . . . . . 07 FEMALE CONDOM . . . . . 08 DIAPHRAGM . . . . . 09 FOAM/JELLY . . . . . 10 LACTATIONAL AMEN. METHOD . . . . . 11 RHYTHM . . . . . 12 WITHDRAWAL . . . . . 13 OTHER _____ 96 (SPECIFY) UNSURE 98	→ 713

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
711	What is the main reason that you think you will not use a contraceptive method at any time in the future?	NOT MARRIED . . . . . 11 **FERTILITY-RELATED REASONS** INFREQUENT SEX/NO SEX . . . . . 22 MENOPAUSAL/HYSTERECTOMY 23 SUBFECUND/INFECUND . . . . . 24 WANTS AS MANY CHILDREN AS POSSIBLE . . . . . 26 **OPPOSITION TO USE** RESPONDENT OPPOSED . . . . . 31 HUSBAND/PARTNER OPPOSED 32 OTHERS OPPOSED . . . . . 33 RELIGIOUS PROHIBITION . . . . . 34 **LACK OF KNOWLEDGE** KNOWS NO METHOD . . . . . 41 KNOWS NO SOURCE . . . . . 42 **METHOD-RELATED REASONS** HEALTH CONCERNS . . . . . 51 FEAR OF SIDE EFFECTS . . . . . 52 LACK OF ACCESS/TOO FAR . . . 53 COSTS TOO MUCH . . . . . 54 INCONVENIENT TO USE . . . . . 55 INTERFERES WITH BODY'S NORMAL PROCESSES . . . . . 56 **OTHER** _____ 96 (SPECIFY) DON'T KNOW 98	→ 713
712	Would you ever use a contraceptive method if you were married?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
713	CHECK 216: HAS LIVING CHILDREN If you could go back to the time you did not have any children and could choose exactly the number of children to have in your whole life, how many would that be? NO LIVING CHILDREN If you could choose exactly the number of children to have in your whole life, how many would that be? PROBE FOR A NUMERIC RESPONSE.	NONE . . . . . 00 NUMBER . . . . . [ ][ ] OTHER _____ 96 (SPECIFY)	→ 715 → 715
714	How many of these children would you like to be boys, how many would you like to be girls, and for how many would the sex not matter?	BOYS GIRLS EITHER NUMBER [ ][ ] [ ][ ] [ ][ ] OTHER _____ 96 (SPECIFY)	
715	In the last few months have you: a) Heard about family planning on the radio? b) Seen about family planning on the television? c) Read about family planning in a newspaper or magazine?	YES NO RADIO . . . . . 1 2 TELEVISION . . . . . 1 2 NEWSPAPER OR MAGAZINE . . . 1 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
717	CHECK 601: YES, CURRENTLY MARRIED YES, LIVING WITH A MAN NO, NOT IN UNION		801
718	CHECK 311/311A: CODE B, G, OR M CIRCLED NO CODE CIRCLED OTHER		720 722
719	Does your husband/partner know that you are using a method of family planning?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
720	Would you say that using contraception is mainly your decision, mainly your husband's/partner's decision, or did you both decide together?	MAINLY RESPONDENT . . . . . 1 MAINLY HUSBAND/PARTNER . . . . . 2 JOINT DECISION . . . . . 3 OTHER _____ 6 (SPECIFY)	
721	CHECK 311/311A: NEITHER STERILIZED HE OR SHE STERILIZED		801
722	Does your husband/partner want the same number of children that you want, or does he want more or fewer than you want?	SAME NUMBER . . . . . 1 MORE CHILDREN . . . . . 2 FEWER CHILDREN . . . . . 3 DON'T KNOW 8	

SECTION 8. HUSBAND'S BACKGROUND AND WOMAN'S WORK

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
801	CHECK 601 AND 602: CURRENTLY MARRIED/ LIVING WITH A MAN ☐ FORMERLY MARRIED/ LIVED WITH A MAN ☐ → 803 NEVER MARRIED AND NEVER LIVED WITH A MAN ☐ → 807		
802	How old was your husband/partner on his last birthday?	AGE IN COMPLETED YEARS ☐☐	
803	Did your (last) husband/partner ever attend school?	YES . . . . . 1 NO 2	→ 806
804	What was the highest level of school he attended: nursery, primary, secondary, or higher?	NURSERY . . . . . 1 PRIMARY . . . . . 2 SECONDARY . . . . . 3 HIGHER . . . . . 4 DON'T KNOW 8	→ 806
805	What was the highest year he completed at that level?	YEAR . . . . . ☐☐ DON'T KNOW 98	
806	CHECK 801: CURRENTLY MARRIED/ LIVING WITH A MAN ☐ What is your husband's/partner's occupation? That is, what kind of work does he mainly do? FORMERLY MARRIED/ LIVED WITH A MAN ☐ What was your (last) husband's/ partner's occupation? That is, what kind of work did he mainly do?	_____ ☐☐ _____ _____	
807	Aside from your own housework, have you done any work in the last seven days?	YES . . . . . 1 NO 2	→ 811
808	As you know, some women take up jobs for which they are paid in cash or kind. Others sell things, have a small business or work on the family farm or in the family business. In the last seven days, have you done any of these things or any other work?	YES . . . . . 1 NO 2	→ 811
809	Although you did not work in the last seven days, do you have any job or business from which you were absent for leave, illness, vacation, maternity leave or any other such reason?	YES . . . . . 1 NO 2	→ 811
810	Have you done any work in the last 12 months?	YES . . . . . 1 NO 2	→ 818
811	What is your occupation, that is, what kind of work do you **mainly** do?	_____ ☐☐ _____ _____	
812	CHECK 811: WORKS IN AGRICULTURE ☐ DOES NOT WORK IN AGRICULTURE ☐ → 814		
813	Do you work mainly on your own land or on family land, or do you work on land that you rent from someone else, or do you work for someone else's land?	OWN LAND . . . . . **1** FAMILY LAND . . . . . **2** RENTED LAND . . . . . 3 SOMEONE ELSE'S LAND 4	
814	Do you do this work for a member of your family, for someone else, or are you self-employed?	FOR FAMILY MEMBER . . . . . 1 FOR SOMEONE ELSE . . . . . 2 SELF-EMPLOYED 3	
815	Do you usually work at home or away from home?	HOME . . . . . 1 AWAY 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
816	Do you usually work throughout the year, or do you work seasonally, or only once in a while?	THROUGHOUT THE YEAR . . . . . 1 SEASONALLY/PART OF THE YEAR . 2 ONCE IN A WHILE 3	
817	Are you paid in cash or kind for this work or are you not paid at all?	CASH ONLY . . . . . 1 CASH AND KIND . . . . . 2 IN KIND ONLY . . . . . 3 NOT PAID 4	
818	CHECK 601: CURRENTLY MARRIED/LIVING WITH A MAN ☐	NOT IN UNION ☐	→ 827
819	CHECK 817: CODE 1 OR 2 CIRCLED ☐	OTHER, NOT ASKED ☐	→ 822
820	Who usually decides how the money you earn will be used: mainly you, mainly your husband/partner, or you and your husband/partner jointly?	RESPONDENT . . . . . 1 HUSBAND/PARTNER . . . . . 2 RESPONDENT AND HUSBAND/PARTNER JOINTLY . . . 3 OTHER _____ 6 (SPECIFY)	
821	Would you say that the money that you earn is more than what your husband/partner earns, less than what he earns, or about the same?	MORE THAN HIM . . . . . 1 LESS THAN HIM . . . . . 2 ABOUT THE SAME . . . . . 3 HUSBAND/PARTNER DOESN'T BRING IN ANY MONEY . . . . . 4 DON'T KNOW 8	→ 823
822	Who usually decides how your husband's/partner's earnings will be used: you, your husband/partner, or you and your husband/partner jointly?	RESPONDENT . . . . . 1 HUSBAND/PARTNER . . . . . 2 RESPONDENT AND HUSBAND/PARTNER JOINTLY . . . 3 HUSBAND/PARTNER HAS NO EARNINGS . . . . . 4 OTHER _____ 6 (SPECIFY)	
823	Who usually makes decisions about health care for yourself: you, your husband/partner, you and your husband/partner jointly, or someone else?	RESPONDENT= 1 HUSBAND/PARTNER= 2 JOINTLY WITH HUSBAND/PARTNER= 3 SOMEONE ELSE = 4; OTHER = 6 1 2 3 4 6	
824	Who usually makes decisions about making major household purchases?	1 2 3 4 6	
825	Who usually makes decisions about making purchases for daily household needs?	1 2 3 4 6	
826	Who usually makes decisions about visits to your family or relatives?	1 2 3 4 6	
827	PRESENCE OF OTHERS AT THIS POINT (PRESENT AND LISTENING, PRESENT BUT NOT LISTENING, OR NOT PRESENT)	PRESENT/ LISTENING / PRESENT/ NOT LISTENING / NOT PRES. CHILDREN < 10 . . . 1 2 3 HUSBAND . . . . . 1 2 3 OTHER MALES . . . 1 2 3 OTHER FEMALES . 1 2 3	
828	Sometimes a husband is annoyed or angered by things that his wife does. In your opinion, is a husband justified in hitting or beating his wife in the following situations: a) If she goes out without telling him? b) If she neglects the children? c) If she argues with him? d) If she refuses to have sex with him? e) If she burns the food?	YES / NO / DK a) GOES OUT . . . . . 1 2 8 b) NEGL. CHILDREN . 1 2 8 c) ARGUES . . . . . 1 2 8 d) REFUSES SEX . . . 1 2 8 e) BURNS FOOD 1 2 8	

SECTION 9. HIV/AIDS

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
901	Now I would like to talk about something else. Have you ever heard of an illness called AIDS?	YES . . . . . 1 NO 2	→ 942
902	Can people reduce their chance of getting the AIDS virus by having just one uninfected sex partner who has no other sex partners?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
903	Can people get the AIDS virus from mosquito bites?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
904	Can people reduce their chance of getting the AIDS virus by using a condom every time they have sex?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
905	Can people get the AIDS virus by sharing food with a person who has AIDS?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
906	Can people reduce their chance of getting the AIDS virus by not having sexual intercourse at all?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
907	Can people get the AIDS virus because of obeah or other supernatural means?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
908	Is it possible for a healthy-looking person to have the AIDS virus?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
909	Can the virus that causes AIDS be transmitted from a mother to her baby: a) During pregnancy? b) During delivery? c) By breastfeeding?	YES NO DK a) DURING PREGNANCY . 1 2 8 b) DURING DELIVERY . . . 1 2 8 c) BREASTFEEDING . . . 1 2 8	
910	CHECK 909: AT LEAST ONE 'YES' ☐ ↓ OTHER ☐ → 912		
911	Are there any special drugs that a doctor or a nurse can give to a woman infected with the AIDS virus to reduce the risk of transmission to the baby?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
912	Have you heard about special antiretroviral drugs(ARV/HART) that people infected with the AIDS virus can get from doctor or a nurse to help them live longer?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
913	CHECK 208 AND 215: NO BIRTHS ☐ → 922 LAST BIRTH SINCE JANUARY 2006 ☐ ↓ LAST BIRTH BEFORE JANUARY 2006 ☐ → 922		
914	CHECK 407 FOR LAST BIRTH: **HAD** ANTENATAL CARE ☐ ↓ **NO** ANTENATAL CARE ☐ → 922		
914A	CHECK FOR PRESENCE OF OTHERS. BEFORE CONTINUING, MAKE EVERY EFFORT TO ENSURE PRIVACY.		

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
915	During any of the antenatal visits for your last birth, did anyone talk to you about: a) Babies getting the AIDS virus from their mother? b) Things that you can do to prevent getting the AIDS virus? c) Getting tested for the AIDS virus?	YES NO DK a) AIDS FROM MOTHER . 1 2 8 b) THINGS TO DO . . . . . 1 2 8 c) TESTED FOR AIDS . . . 1 2 8	
916	Were you offered a test for the AIDS virus as part of your antenatal care?	YES . . . . . 1 NO 2	
917	I don't want to know the results, but were you tested for the AIDS virus as part of your antenatal care?	YES . . . . . 1 NO 2	→ 922
918	I don't want to know the results, but did you get the results of the test?	YES . . . . . 1 NO 2	
919	Where was the test done? PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. IF UNABLE TO DETERMINE IF HOSPITAL, VCT CENTER, OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	**PUBLIC SECTOR** GOVERNMENT HOSPITAL . . . . . 11 GOVT. HEALTH CENTER . . . . . 12 GOVT. HEALTH POST . . . . . 13 STAND-ALONE VCT CENTER . . . . . 14 FAMILY PLANNING CLINIC . . . . . 15 MOBILE/OUTREACH CLINIC . . . . . 16 OTHER PUBLIC _____ 17 (SPECIFY) **PRIVATE MEDICAL SECTOR** PRIVATE HOSPITAL/CLINIC/ PRIVATE DOCTOR . . . . . 21 PRIVATE VCT CENTER . . . . . 22 LAB . . . . . 23 MOBILE CLINIC . . . . . 24 OTHER PRIVATE MEDICAL _____ 26 (SPECIFY) **OTHER SOURCE** NGO . . . . . 31 FACILITY/LAB ABROAD . . . . . 32 **OTHER** _____ 96 (SPECIFY)	
920	Have you been tested for the AIDS virus since that time you were tested during your pregnancy?	YES . . . . . 1 NO 2	→ 923
921	When was the last time you were tested for the AIDS virus?	LESS THAN 12 MONTHS AGO . . . . . 1 12 - 23 MONTHS AGO . . . . . 2 2 OR MORE YEARS AGO 3	→ 929
922	I don't want to know the results, but have you ever been tested to see if you have the AIDS virus?	YES . . . . . 1 NO 2	→ 927
923	When was the last time you were tested?	LESS THAN 12 MONTHS AGO . . . . . 1 12 - 23 MONTHS AGO . . . . . 2 2 OR MORE YEARS AGO 3	
924	The last time you had the test, did you yourself ask for the test, was it offered to you and you accepted, or was it required?	ASKED FOR THE TEST . . . . . 1 OFFERED AND ACCEPTED . . . . . 2 REQUIRED 3	
925	I don't want to know the results, but did you get the results of the test?	YES . . . . . 1 NO 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
926	Where was the test done? PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. IF UNABLE TO DETERMINE IF HOSPITAL, VCT CENTER, OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	**PUBLIC SECTOR** GOVERNMENT HOSPITAL . . . . . 11 GOVT. HEALTH CENTER . . . . . 12 GOVT. HEALTH POST . . . . . 13 STAND-ALONE VCT CENTER . . . . . 14 FAMILY PLANNING CLINIC . . . . . 15 MOBILE/OUTREACH CLINIC . . . . . 16 OTHER PUBLIC _____ 17 (SPECIFY) **PRIVATE MEDICAL SECTOR** PRIVATE HOSPITAL/CLINIC/ PRIVATE DOCTOR . . . . . 21 PRIVATE VCT CENTER . . . . . 22 LAB . . . . . 23 MOBILE CLINIC . . . . . 24 OTHER PRIVATE MEDICAL _____ 26 (SPECIFY) **OTHER SOURCE** NGO . . . . . 31 FACILITY/LAB ABROAD . . . . . 32 **OTHER** _____ 96 (SPECIFY)	→ 929
927	Do you know of a place where people can go to get tested for the AIDS virus?	YES . . . . . 1 NO 2	→ 929
928	Where is that? Any other place? PROBE TO IDENTIFY EACH TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE(S). IF UNABLE TO DETERMINE IF HOSPITAL, VCT CENTER, OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S))	**PUBLIC SECTOR** GOVERNMENT HOSPITAL . . . . . A GOVT. HEALTH CENTER . . . . . B GOVT. HEALTH POST . . . . . C STAND-ALONE VCT CENTER . . . . . D FAMILY PLANNING CLINIC . . . . . E MOBILE/OUTREACH CLINIC . . . . . F OTHER PUBLIC _____ G (SPECIFY) **PRIVATE MEDICAL SECTOR** PRIVATE HOSPITAL/CLINIC/ PRIVATE DOCTOR . . . . . H PRIVATE VCT CENTER . . . . . I LAB . . . . . J MOBILE CLINIC . . . . . K OTHER PRIVATE MEDICAL _____ L (SPECIFY) **OTHER SOURCE** NGO . . . . . M FACILITY/LAB ABROAD . . . . . N **OTHER** _____ X (SPECIFY)	
929	Would you buy fresh vegetables from a shopkeeper or vendor if you knew that this person had the AIDS virus?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
930	If a member of your family got infected with the AIDS virus, would you want it to remain a secret or not?	YES, REMAIN A SECRET . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	
931	If a member of your family became sick with AIDS, would you be willing to care for her or him in your own household?	YES . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
932	In your opinion, if a female teacher has the AIDS virus but is not sick, should she be allowed to continue teaching in the school?	SHOULD BE ALLOWED . . . . . 1 SHOULD NOT BE ALLOWED . . . . . 2 DK/NOT SURE/DEPENDS 8	
933	Do you personally know someone who has been denied health services in the last 12 months because he or she has or is suspected to have the AIDS virus?	YES . . . . . 1 NO . . . . . 2 DK ANYONE WITH AIDS 3	→ 938
934	Do you personally know someone who has been denied involvement in social events, religious services, or community events in the last 12 months because he or she has or is suspected to have the AIDS virus?	YES . . . . . 1 NO 2	
935	Do you personally know someone who has been verbally abused or teased in the last 12 months because he or she has or is suspected to have the AIDS virus?	YES . . . . . 1 NO 2	
936	CHECK 933, 934, AND 935: NOT A SINGLE "YES" ☐ ↓ AT LEAST ONE "YES" ☐ → 938		
937	Do you personally know someone who has or is suspected to have the AIDS virus?	YES . . . . . 1 NO 2	
938	Do you agree or disagree with the following statement: People with the AIDS virus should be ashamed of themselves.	AGREE . . . . . 1 DISAGREE . . . . . 2 DON'T KNOW/NO OPINION 8	
939	Do you agree or disagree with the following statement: People with the AIDS virus should be blamed for bringing the disease into the community.	AGREE . . . . . 1 DISAGREE . . . . . 2 DON'T KNOW/NO OPINION 8	
940	Should children age 12-14 be taught about using a condom to avoid getting AIDS?	YES . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	
941	Should children age 12-14 be taught to wait until they get married to have sexual intercourse in order to avoid getting AIDS?	YES . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	
942	CHECK 901: HEARD ABOUT AIDS ☐ ↓ Apart from AIDS, have you heard about other infections that can be transmitted through sexual contact? NOT HEARD ABOUT AIDS ☐ ↓ Have you heard about infections that can be transmitted through sexual contact?	YES . . . . . 1 NO 2	
943	CHECK 618: HAS HAD SEXUAL INTERCOURSE ☐ ↓ HAS NOT HAD SEXUAL INTERCOURSE ☐ → 951		
944	CHECK 942: HEARD ABOUT OTHER SEXUALLY TRANSMITTED INFECTIONS: YES ☐ ↓ NO ☐ → 946		
945	Now I would like to ask you some questions about your health in the last 12 months. During the last 12 months, have you had a disease which you got through sexual contact?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
946	Sometimes women experience a bad smelling abnormal genital discharge. During the last 12 months, have you had a bad smelling abnormal genital discharge?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
947	Sometimes women have a genital sore or ulcer. During the last 12 months, have you had a genital sore or ulcer?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
948	CHECK 945, 946, AND 947: HAS HAD AN INFECTION (ANY 'YES') ☐ ↓ HAS NOT HAD AN INFECTION OR DOES NOT KNOW ☐ →		951
949	The last time you had (PROBLEM FROM 945/946/947), did you seek any kind of advice or treatment?	YES . . . . . 1 NO 2	→ 951
950	Where did you go? Any other place? PROBE TO IDENTIFY EACH TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE(S). IF UNABLE TO DETERMINE IF HOSPITAL, VCT CENTER, OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S))	**PUBLIC SECTOR** GOVERNMENT HOSPITAL . . . . . A GOVT. HEALTH CENTER . . . . . B GOVT. HEALTH POST . . . . . C STAND-ALONE VCT CENTER . . . . . D FAMILY PLANNING CLINIC . . . . . E MOBILE/OUTREACH CLINIC . . . . . F COMMUNITY HEALTH WORKER . . . . . G OTHER PUBLIC _____ H (SPECIFY) **PRIVATE MEDICAL SECTOR** PRIVATE HOSPITAL/CLINIC/ PRIVATE DOCTOR . . . . . I PRIVATE VCT CENTER . . . . . J PHARMACY . . . . . K LAB . . . . . L MOBILE CLINIC . . . . . M OTHER PRIVATE MEDICAL _____ N (SPECIFY) **OTHER SOURCE** SHOP/MARKET/GAS STATION . . . . . O NGO . . . . . P TRADITIONAL PRACTITIONER . . . . . Q **OTHER** _____ X (SPECIFY)	
951	Husbands and wives do not always agree on everything. If a wife knows her husband has a disease that she can get during sexual intercourse, is she justified in refusing to have sex with him?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
952	If a wife knows her husband has a disease that she can get during sexual intercourse, is she justified in asking that they use a condom when they have sex?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
953	Is a wife justified in refusing to have sex with her husband when she is tired or not in the mood?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
954	Is a wife justified in refusing to have sex with her husband when she knows her husband has sex with other women?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
955	CHECK 601: CURRENTLY MARRIED/ LIVING WITH A MAN ☐ ↓ NOT IN UNION ☐ →		1001
956	Can you say no to your husband/partner if you do not want to have sexual intercourse?	YES . . . . . 1 NO . . . . . 2 DEPENDS/NOT SURE 8	
957	Could you ask your husband/partner to use a condom if you wanted him to?	YES . . . . . 1 NO . . . . . 2 DEPENDS/NOT SURE 8	

SECTION 10. OTHER HEALTH ISSUES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1001	Have you ever heard of an illness called tuberculosis or TB?	YES . . . . . 1 NO 2	→ 1005
1002	How does tuberculosis spread from one person to another? PROBE: Any other ways? RECORD ALL MENTIONED.	THROUGH THE AIR WHEN COUGHING OR SNEEZING . . . . . A THROUGH SHARING UTENSILS . . . . . B THROUGH TOUCHING A PERSON WITH TB . C THROUGH FOOD . . . . . D THROUGH SEXUAL CONTACT . . . . . E THROUGH MOSQUITO BITES . . . . . F OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z	
1003	Can tuberculosis be cured?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
1004	If a member of your family got tuberculosis, would you want it to remain a secret or not?	YES, REMAIN A SECRET . . . . . 1 NO . . . . . 2 DON'T KNOW/NOT SURE/DEPENDS 8	
1004A	Have you been given any information about tuberculosis by a health worker?	YES . . . . . 1 NO 2	
1004B	Do you know a place where a person can get diagnosis and treatment for TB?	YES . . . . . 1 NO 2	→ 1005
1004C	Where is that? Any other place? PROBE TO IDENTIFY EACH TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE(S). IF UNABLE TO DETERMINE IF HOSPITAL, VCT CENTER, OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S)) RECORD ALL SOURCES MENTIONED.	**PUBLIC SECTOR** GOVERNMENT HOSPITAL . . . . . A GOVT. HEALTH CENTER . . . . . B GOVT. HEALTH POST . . . . . C MOBILE/OUTREACH CLINIC . . . . . D COMMUNITY HEALTH WORKER . . . . . E OTHER PUBLIC _____ F (SPECIFY) **PRIVATE MEDICAL SECTOR** PRIVATE HOSPITAL/CLINIC . . . . . G PHARMACY . . . . . H PRIVATE DOCTOR . . . . . I MOBILE CLINIC . . . . . J OTHER PRIVATE MEDICAL _____ K (SPECIFY) **OTHER SOURCE** NGO . . . . . L TRADITIONAL PRACTITIONER . . . . . M **OTHER** _____ X (SPECIFY)	
1005	Now I would like to ask you a few more questions relating to health matters. Have you had an injection for any reason in the last 12 months? IF YES: How many injections have you had? IF NUMBER OF INJECTIONS IS GREATER THAN 90, OR DAILY FOR 3 MONTHS OR MORE, RECORD '90'. IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE.	NUMBER OF INJECTIONS . . . . . [ ][ ] NONE 00	→ 1009
1006	Among these injections, how many were administered by a doctor, a nurse, a pharmacist, a dentist, or any other health worker? IF NUMBER OF INJECTIONS IS GREATER THAN 90, OR DAILY FOR 3 MONTHS OR MORE, RECORD '90'. IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE.	NUMBER OF INJECTIONS . . . . . [ ][ ] NONE 00	→ 1009

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1007	The last time you had an injection given to you by a health worker where did you go to get the injection? PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. IF UNABLE TO DETERMINE IF HOSPITAL OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	**PUBLIC SECTOR** GOVERNMENT HOSPITAL . . . . . 11 GOVT. HEALTH CENTER . . . . . 12 GOVT. HEALTH POST . . . . . 13 MOBILE/OUTREACH CLINIC . . . . . 14 COMMUNITY HEALTH WORKER . . . . . 15 OTHER PUBLIC _____ 16 (SPECIFY) **PRIVATE MEDICAL SECTOR** PRIVATE HOSPITAL/CLINIC/ PRIVATE DOCTOR . . . . . 21 DENTAL CLINIC/OFFICE . . . . . 22 PHARMACY . . . . . 23 OFFICE OR HOME OF NURSE/ HEALTH WORKER . . . . . 24 OTHER PRIVATE MEDICAL _____ 26 (SPECIFY) **AT HOME** . . . . . 31 **OTHER** _____ 96 (SPECIFY)	
1008	Did the person who gave you that injection take the syringe and needle from a new, unopened package?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
1009	Do you currently smoke cigarettes?	YES . . . . . 1 NO 2	→ 1011
1010	In the last 24 hours, how many cigarettes did you smoke?	CIGARETTES . . . . . [ ][ ]	
1011	Do you currently smoke or use any other type of tobacco?	YES . . . . . 1 NO 2	→ 1012A
1012	What (other) type of tobacco do you currently smoke or use? RECORD ALL MENTIONED.	PIPE . . . . . A CHEWING TOBACCO . . . . . B SNUFF . . . . . C CIGAR . . . . . D 'M" . . . . . E OTHER _____ X (SPECIFY)	
1012A	Have you consumed alcohol such as beer, wine, spirits, fermented cider, within the past 30 days?	YES . . . . . 1 NO 2	→ 1013
1012B	In the past 30 days, on how many days have you had at least one drink: daily, 5-6 days per week, 1-4 days per week, or less often?	DAILY . . . . . 1 5-6 DAYS PER WEEK . . . . . 2 1-4 DAYS PER WEEK . . . . . 3 LESS OFTEN 4	
1012C	In the past 30 days, what was the largest number of drinks you had on a single occasion, counting all types of alcoholic drinks together? IF 7 OR MORE, RECORD '7'	NUMBER OF DRINKS . . . . . [ ]	
1012D	On the days when you drink alcohol, how many drinks do you have during one day? IF 7 OR MORE, RECORD '7'	NUMBER OF DRINKS . . . . . [ ]	
1013	Many different factors can prevent women from getting medical advice or treatment for themselves. When you are sick and want to get medical advice or treatment, is each of the following a big problem or not?	BIG PROB-LEM / NOT A BIG PROB-LEM	
	a) Getting permission to go?	PERMISSION TO GO 1 2	
	b) Getting money needed for treatment?	GETTING MONEY 1 2	
	c) The distance to the health facility?	DISTANCE 1 2	
	d) Having to take transport?	TAKING TRANSPORT . . . 1 2	
	e) Not wanting to go alone?	GO ALONE 1 2	
	f) Concern that there may not be a female health provider?	NO FEMALE PROVIDER 1 2	
	g) Concern that there may not be any health provider?	NO PROVIDER 1 2	
	h) Concern that there may be no drugs available?	NO DRUGS 1 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1014	Are you covered by any health insurance?	YES . . . . . 1 NO 2	→ 1016
1015	What type of health insurance?	NATIONAL INSURANCE SCHEME . . . . . A PRIVATELY PURCHASED HEALTH INSURANCE . . . . . B EMPLOYER PURCHASED INSURANCE . . . . . C FOREIGN HEALTH INSURANCE . . . . . D OTHER _____ X (SPECIFY)	
1016	CHECK 217: (YOUNGEST) CHILD IS AGE 0-17 ☐ OTHER ☐ →		1018
1017	Now I would like to ask you about your own child/children who (is/are) under the age of 18. Have you made arrangements for someone to care for (him/her/them) in the event that you fall sick or are unable to care for (him/her/them)?	YES . . . . . 1 NO . . . . . 2 UNSURE 8	
1018	(Besides your own child/children), are you the primary caregiver for any children under the age of 18?	YES . . . . . 1 NO 2	→ 1020
1019	Have you made arrangements for someone to care for (this child/these children) in the event that you fall sick or are unable to care for (him/her/them)?	YES . . . . . 1 NO . . . . . 2 UNSURE 8	
1020	Have you had fever in the last 12 months?	YES . . . . . 1 NO 2	→ 1022
1021	How many times have you had fever?	TIMES WITH FEVER . . . . . ☐☐	
1022	Do you personally know someone who has got Malaria in the last 3 months?	YES . . . . . 1 NO 2	
1023	Do you know a place where a person can get diagnosis and treatment for malaria?	YES . . . . . 1 NO 2	→ 1025
1024	Where is that? Any other place? PROBE TO IDENTIFY EACH TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE(S). IF UNABLE TO DETERMINE IF HOSPITAL, VCT CENTER, OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S))	**PUBLIC SECTOR** GOVERNMENT HOSPITAL . . . . . A GOVT. HEALTH CENTER . . . . . B GOVT. HEALTH POST . . . . . C MOBILE/OUTREACH CLINIC . . . . . D COMMUNITY HEALTH WORKER . . . . . E OTHER PUBLIC _____ F (SPECIFY) **PRIVATE MEDICAL SECTOR** PRIVATE HOSPITAL/CLINIC . . . . . G PHARMACY . . . . . H PRIVATE DOCTOR . . . . . I MOBILE CLINIC . . . . . J OTHER PRIVATE MEDICAL _____ K (SPECIFY) **OTHER SOURCE** NGO . . . . . L TRADITIONAL PRACTITIONER . . . . . M **OTHER** _____ X (SPECIFY)	
1025	CHECK 504: NO CHILDREN WITH CARDS KEPT AT HEALTH FACILITIES ☐ ↓ AT LEAST ONE CHILD WITH A HEALTH CARD AT HEALTH FACILITY ☐ ↓ **RECORD THE TIME BELOW IN QUESTION 1026, THEN GO TO SECTION 11**		
1026	RECORD THE TIME.	HOUR . . . . . ☐☐ MINUTES . . . . . ☐☐	

SECTION 11: IMMUNIZATION INFORMATION FOR CHILDREN WITH CARDS AT HEALTH FACILITIES

IDENTIFICATION OF HOUSEHOLD AND CHILDREN

PLACE NAME _____

NAME OF HOUSEHOLD HEAD _____

CLUSTER NUMBE. . . . . .

GDHS HOUSEHOLD NUMBER . . . . . .

VILLAGE/WARD NUMBER . . . . . .

NAME AND LINE NUMBER OF MOTHER IN HH QUESTIONNAIRE _____

1101	**CHECK QUESTION 504** FOR CHILDREN FOR WHOM IMMUNIZATION CARDS ARE KEPT AT A HEALTH FACILITY. FOR EACH, COMPLETE THE INFORMATION FOR QUESTIONS 1102-1106. QUESTIONS 1107-1109 ARE TO BE COLLECTED AT THE FACILITY. IF MORE THAN 3 CHILDREN, USE NEXT PAGE FOR THE OTHER CHILDREN.			
1102	CHILD'S LINE NUMBER FROM 502	**CHILD 1** LINE NUMBER	**CHILD 2** LINE NUMBER	**CHILD 3** LINE NUMBER . . . . .
1103	CHILD'S FULL NAME FROM 212 IN BIRTH H.	(FIRST NAME) (LAST)	(FIRST NAME) (LAST)	(FIRST NAME) (LAST)
1104	BIRTH DATE FROM 215 IN BIRTH HISTORY	DAY MONTH YEAR 2 0 0	DAY MONTH YEAR 2 0 0	DAY MONTH YEAR 2 0 0
1105	What is (NAME's) home address?			
1106	What is the name and address of health facility with records for (NAME)?			
1106B	**QUESTIONS 1107-1109 TO BE COMPLETED BY THE FIELD EDITOR DURING A VISIT TO THE HEALTH FACILITY**			
1107	FACILITY WITH RECORDS FOR (NAME) WAS VISITED	YES . . . . . 1 NO . . . . . 2 (NEXT CHILD)	YES . . . . . 1 NO . . . . . 2 (NEXT CHILD)	YES . . . . . 1 NO . . . . . 2 (NEXT CHILD)
1108	IMMUNIZATION RECORDS FOR (NAME) AVAILABLE AT HEALTH FACILITY	YES, SEEN . . . . . 1 YES, NOT SEEN . . . . . 2 (NEXT CHILD) NO RECORD 3	YES, SEEN . . . . . 1 YES, NOT SEEN . . . . . 2 (NEXT CHILD) NO RECORD 3	YES, SEEN . . . . . 1 YES, NOT SEEN . . . . . 2 (NEXT CHILD) NO RECORD 3

1109 (1) COPY VACCINATION DATE FOR EACH VACCINE FROM IMMUNIZATION CARD OR IMMUNIZATION RECORDS.
(2) WRITE '44' IN 'DAY' COLUMN IF RECORDS SHOWS THAT A VACCINATION WAS GIVEN, BUT NO DATE IS RECORDED.

	CHILD 1 DAY	CHILD 1 MONTH	CHILD 1 YEAR	CHILD 2 DAY	CHILD 2 MONTH	CHILD 2 YEAR	CHILD 3 DAY	CHILD 3 MONTH	CHILD 3 YEAR
BCG/TUBERCULOSIS / BCG/TB / BCG/TB									
PENTAVALENT(Hib/HepB/DPT) 1st DOSE / PENT. 1 / PENT. 1									
PENTAVALENT(Hib/HepB/DPT) 2nd DOSE / PENT. 2 / PENT. 2									
PENTAVALENT(Hib/HepB/DPT) 3rd DOSE / PENT. 3 / PENT. 3									
FIRST DPT BOOSTER / FIRST DPT BOOSTER / FIRST DPT BOOSTER									
SECOND DPT BOOSTER / SECOND DPT BOOSTER / SECOND DPT BOOSTER									
POLIO (OPV) 1ST DOSE / P1 / P1									
POLIO (OPV) 2ND DOSE / P2 / P2									
POLIO (OPV) 3RD DOSE / P3 / P3									
MEASLES, MUMPS, RUBELLA (MMR) 1 / MMR1 / MMR1									
MEASLES, MUMPS, RUBELLA (MMR) 2 / MMR2 / MMR2									
YELLOW FEVER / YELLOW FEVER / YELLOW FEVER									
MEASLES / MEASLES / MEASLES									
RUBELLA / RUBELLA / RUBELLA									

1110	GO TO 1107 FOR CHILD 2. IF NO MORE CHILDREN, FINISH.	GO TO 1107 FOR CHILD 3. IF NO MORE CHILDREN, FINISH.	GO TO 1107 FOR CHILD 4. IF NO MORE CHILDREN, FINISH.

		CHILD 4	CHILD 5	CHILD 6
1102	CHILD'S LINE NUMBER FROM 502	LINE NUMBER	LINE NUMBER	LINE NUMBER .....
1103	CHILD'S FULL NAME FROM 212 IN BIRTH H.	(FIRST NAME) (LAST)	(FIRST NAME) (LAST)	(FIRST NAME) (LAST)
1104	BIRTH DATE FROM 215 IN BIRTH HISTORY	DAY MONTH YEAR 2 0 0	DAY MONTH YEAR 2 0 0	DAY MONTH YEAR 2 0 0
1105	What is (NAME's) home address?			
1106	What is the name and address of health facility with records for (NAME)?			
1107	WAS THE HEALTH FACILITY WITH RECORDS FOR (NAME) VISITED?	YES ..... 1 NO ..... 2 (NEXT CHILD)	YES ..... 1 NO ..... 2 (NEXT CHILD)	YES ..... 1 NO ..... 2 (NEXT CHILD)
1108	ARE THERE IMMUNIZATION RECORDS IN THE HEALTH FACILITY FOR (NAME)?	YES, SEEN ..... 1 YES, NOT SEEN ..... 2 (NEXT CHILD) NO RECORD 3	YES, SEEN ..... 1 YES, NOT SEEN ..... 2 (NEXT CHILD) NO RECORD 3	YES, SEEN ..... 1 YES, NOT SEEN ..... 2 (NEXT CHILD) NO RECORD 3

1109

(1) COPY VACCINATION DATE FOR EACH VACCINE FROM THE CARD.
(2) WRITE '44' IN 'DAY' COLUMN IF CARD SHOWS THAT A VACCINATION WAS GIVEN, BUT NO DATE IS RECORDED.

	CHILD 4 DAY	CHILD 4 MONTH	CHILD 4 YEAR		CHILD 5 DAY	CHILD 5 MONTH	CHILD 5 YEAR		CHILD 6 DAY	CHILD 6 MONTH	CHILD 6 YEAR
BCG/TUBERCULOSIS				BCG/TB				BCG/TB			
PENTAVALENT(Hib/HepB/DPT) 1st DOSE				PENT. 1				PENT. 1			
PENTAVALENT(Hib/HepB/DPT) 2nd DOSE				PENT. 2				PENT. 2			
PENTAVALENT(Hib/HepB/DPT) 3rd DOSE				PENT. 3				PENT. 3			
FIRST DPT BOOSTER				FIRST DPT BOOSTER				FIRST DPT BOOSTER			
SECOND DPT BOOSTER				SECOND DPT BOOSTER				SECOND DPT BOOSTER			
POLIO (OPV) 1ST DOSE				P1				P1			
POLIO (OPV) 2ND DOSE				P2				P2			
POLIO (OPV) 3RD DOSE				P3				P3			
MEASLES, MUMPS, RUBELLA (MMR) 1				MMR1				MMR1			
MEASLES, MUMPS, RUBELLA (MMR) 2				MMR2				MMR2			
YELLOW FEVER				YELLOW FEVER				YELLOW FEVER			
MEASLES				MEASLES				MEASLES			
RUBELLA				RUBELLA				RUBELLA			

1110		GO TO 1107 FOR CHILD 5. IF NO MORE CHILDREN, FINISH.	GO TO 1107 FOR CHILD 6. IF NO MORE CHILDREN, FINISH.	USE ADDITIONAL FORMS IF NECESSARY. IF NO MORE CHILDREN, FINISH.

CALENDAR

INSTRUCTIONS:

ONLY ONE CODE SHOULD APPEAR IN ANY BOX.
ALL MONTHS SHOULD BE FILLED IN.

INFORMATION TO BE CODED FOR EACH COLUMN

BIRTHS, PREGNANCIES

B BIRTHS
P PREGNANCIES
T TERMINATIONS

CONTRACEPTIVE USE

0 NO METHOD
1 FEMALE STERILIZATION
2 MALE STERILIZATION
3 PILL
4 IUD
5 INJECTABLES
6 IMPLANTS
7 CONDOM
8 FEMALE CONDOM
9 DIAPHRAGM
J FOAM OR JELLY
K LACTATIONAL AMENORRHEA METHOD
L RHYTHM METHOD
M WITHDRAWAL
X OTHER _____

	12	DEC	01		
	11	NOV	02		
	10	OCT	03		
	09	SEP	04		
2	08	AUG	05		2
0	07	JUL	06		0
0	06	JUN	07		0
9	05	MAY	08		9
	04	APR	09		
	03	MAR	10		
	02	FEB	11		
	01	JAN	12		
	12	DEC	13		
	11	NOV	14		
	10	OCT	15		
	09	SEP	16		
2	08	AUG	17		2
0	07	JUL	18		0
0	06	JUN	19		0
8	05	MAY	20		8
	04	APR	21		
	03	MAR	22		
	02	FEB	23		
	01	JAN	24		
	12	DEC	25		
	11	NOV	26		
	10	OCT	27		
	09	SEP	28		
2	08	AUG	29		2
0	07	JUL	30		0
0	06	JUN	31		0
7	05	MAY	32		7
	04	APR	33		
	03	MAR	34		
	02	FEB	35		
	01	JAN	36		
	12	DEC	37		
	11	NOV	38		
	10	OCT	39		
	09	SEP	40		
2	08	AUG	41		2
0	07	JUL	42		0
0	06	JUN	43		0
6	05	MAY	44		6
	04	APR	45		
	03	MAR	46		
	02	FEB	47		
	01	JAN	48		
	12	DEC	49		
	11	NOV	50		
	10	OCT	51		
	09	SEP	52		
2	08	AUG	53		2
0	07	JUL	54		0
0	06	JUN	55		0
5	05	MAY	56		5
	04	APR	57		
	03	MAR	58		
	02	FEB	59		
	01	JAN	60		
	12	DEC	61		
	11	NOV	62		
	10	OCT	63		
	09	SEP	64		
2	08	AUG	65		2
0	07	JUL	66		0
0	06	JUN	67		0
4	05	MAY	68		4
	04	APR	69		
	03	MAR	70		
	02	FEB	71		
	01	JAN	72		

INTERVIEWER'S OBSERVATIONS

TO BE FILLED IN AFTER COMPLETING INTERVIEW

COMMENTS ABOUT RESPONDENT:

COMMENTS ON SPECIFIC QUESTIONS:

ANY OTHER COMMENTS:

SUPERVISOR'S OBSERVATIONS

NAME OF SUPERVISOR: _____ DATE: _____

EDITOR'S OBSERVATIONS

NAME OF EDITOR: _____ DATE: _____

GUYANA DEMOGRAPHIC AND HEALTH SURVEY 2009
MAN'S QUESTIONNAIRE

MINISTRY OF HEALTH **BUREAU OF STATISTICS**

IDENTIFICATION

PLACE NAME _____

NAME OF HOUSEHOLD HEAD _____

CLUSTER NUMBER . . . . . .

GDHS HOUSEHOLD NUMBER . . . . . .

VILLAGE/WARD NUMBER . . . . . .

REGION . . . . . .

TYPE OF PLACE (GEORGETOWN=1, OTHER URBAN=2, RURAL=3) . . . . . .

NAME AND LINE NUMBER OF MAN _____

INTERVIEWER VISITS

	1	2	3	FINAL VISIT
DATE				DAY . . . . .
				MONTH . . . . .
				YEAR 2 0 0 9
INTERVIEWER'S NAME				INT. NUMBER
RESULT*				RESULT . . . . .
NEXT VISIT: DATE				TOTAL NUMBER OF VISITS . . . . .
TIME				

*RESULT CODES:

1 COMPLETED
2 NOT AT HOME
3 POSTPONED
4 REFUSED
5 PARTLY COMPLETED
6 INCAPACITATED
7 OTHER _____ (SPECIFY)

LANGUAGE

LANGUAGE CODES: 1=ENGLISH, 2=OTHER

LANGUAGE OF INTERVIEW _____ . . . . . .

LANGUAGE OF RESPONDENT _____ . . . . . .

WAS A TRANSLATOR USED? (1=YES; 2=NO) . . . . . .

SUPERVISOR	FIELD EDITOR	OFFICE EDITOR	KEYED BY
NAME _____	NAME _____		
DATE _____	DATE _____		

SECTION 1. RESPONDENT'S BACKGROUND

INTRODUCTION AND CONSENT

INFORMED CONSENT

Hello. My name is _____ and I am working with the Bureau of Statistcs of Guyana. We are conducting a national survey to ask men and women about various health issues. We would very much appreciate your participation in this survey. This information will help the government to plan health services. The survey usually takes about 20 minutes to complete. Whatever information you provide will be kept strictly confidential and will not be shown to other persons. Participation in this survey is voluntary, and if we should come to any question you don't want to answer, just let me know and I will go on to the next question; or you can stop the interview at any time. However, we hope that you will participate in this survey since your views are important.

At this time, do you want to ask me anything about the survey?
May I begin the interview now?

SIGNATURE OF INTERVIEWER:_____ DATE:_____

RESPONDENT AGREES TO BE INTERVIEWED . . . . . 1 ↓ RESPONDENT DOES NOT AGREE TO BE INTERVIEWED . . . 2 → END

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
101	RECORD THE TIME.	HOUR . . . . . [ ][ ] MINUTES . . . . . [ ][ ]	
102	How long have you been living continuously in (NAME OF CURRENT PLACE OF RESIDENCE)? IF LESS THAN ONE YEAR, RECORD '00' YEARS.	YEARS . . . . . [ ][ ] ALWAYS . . . . . 95 VISITOR 96	→ 104
103	Just before you moved here, did you live in a city, in a town, or in the countryside?	CITY . . . . . 1 TOWN . . . . . 2 COUNTRYSIDE 3	
104	In the last 12 months, on how many separate occasions have you traveled away from your home community and slept away?	NUMBER OF TRIPS . . . . . [ ][ ] NONE 00	→ 106
105	In the last 12 months, have you been away from your home community for more than one month at a time?	YES . . . . . 1 NO 2	
106	In what month and year were you born?	MONTH . . . . . [ ][ ] DON'T KNOW MONTH . . . . . .98 YEAR . . . . . [ ][ ][ ][ ] DON'T KNOW YEAR 9998	
107	How old were you at your last birthday? COMPARE AND CORRECT 106 AND/OR 107 IF INCONSISTENT.	AGE IN COMPLETED YEARS [ ][ ]	
108	Have you ever attended school?	YES . . . . . 1 NO 2	→ 112
109	What is the highest level of school you attended: nursery, primary, secondary, or higher?	NURSERY . . . . . 1 PRIMARY . . . . . 2 SECONDARY . . . . . 3 HIGHER 4	
110	What is the highest year you completed at that level? RECORD '00' IF LESS THAN ONE YEAR COMPLETED AT THAT LEVEL.	YEAR . . . . . [ ][ ]	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
111	CHECK 109: NURSERY OR PRIMARY ☐ ↓ SECONDARY OR HIGHER ☐ → 115		
112	Now I would like you to read this sentence to me. SHOW SENTENCES AT THE BOTTOM TO RESPONDENT. IF RESPONDENT CANNOT READ WHOLE SENTENCE, PROBE: Can you read any part of the sentence to me?	CANNOT READ AT ALL . . . . . 1 ABLE TO READ ONLY PARTS OF SENTENCE . . . . . 2 ABLE TO READ WHOLE SENTENCE. . 3 NO CARD WITH REQUIRED LANGUAGE _____ 4 (SPECIFY LANGUAGE) BLIND/VISUALLY IMPAIRED 5	
113	Have you ever participated in a literacy program or any other program that involves learning to read or write (not including nursery or primary school)?	YES . . . . . 1 NO 2	
114	CHECK 112: CODE '2', '3' OR '4' CIRCLED ☐ ↓ CODE '1' OR '5' CIRCLED ☐ → 116		
115	Do you read a newspaper or magazine almost every day, at least once a week, less than once a week, or not at all?	ALMOST EVERY DAY . . . . . 1 AT LEAST ONCE A WEEK . . . . . 2 LESS THAN ONCE A WEEK . . . . . 3 NOT AT ALL 4	
116	Do you listen to the radio almost every day, at least once a week, less than once a week, or not at all?	ALMOST EVERY DAY . . . . . 1 AT LEAST ONCE A WEEK . . . . . 2 LESS THAN ONCE A WEEK . . . . . 3 NOT AT ALL 4	
117	Do you watch television almost every day, at least once a week, less than once a week, or not at all?	ALMOST EVERY DAY . . . . . 1 AT LEAST ONCE A WEEK . . . . . 2 LESS THAN ONCE A WEEK . . . . . 3 NOT AT ALL 4	
118	What is your religion?	CHRISTIAN . . . . . 1 HINDU . . . . . 2 MUSLIM . . . . . 3 RASTAFARIAN . . . . . 4 NOT RELIGIOUS . . . . . 5 OTHER _____ 6 SPECIFY	
119	Which ethnic group do you belong to?	AFRICAN . . . . . 01 INDIAN . . . . . 02 AMERINDIAN . . . . . 03 PORTUGUESE . . . . . 04 CHINESE . . . . . 05 MIXED . . . . . 06 OTHER _____ 96 SPECIFY	

SENTENCES FOR Q.112: ENGLISH

1. The child is reading a book.

2. The rains came late this year.

3. Parents must care for their children.

4. Farming is hard work.

SECTION 2. REPRODUCTION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
201	Now I would like to ask about any children you have had during your life. I am interested in all of the children that are biologically yours, even if they are not legally yours or do not have your last name. Have you ever fathered any children with any woman?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 206
202	Do you have any sons or daughters that you have fathered who are now living with you?	YES . . . . . 1 NO 2	→ 204
203	How many sons live with you? And how many daughters live with you? IF NONE, RECORD '00'.	SONS AT HOME . . . . . [ ][ ] DAUGHTERS AT HOME . . . . . [ ][ ]	
204	Do you have any sons or daughters that you have fathered who are alive but do not live with you?	YES . . . . . 1 NO 2	→ 206
205	How many sons are alive but do not live with you? And how many daughters are alive but do not live with you? IF NONE, RECORD '00'.	SONS ELSEWHERE . . . . . [ ][ ] DAUGHTERS ELSEWHERE . . . . [ ][ ]	
206	Have you ever fathered a son or a daughter who was born alive but later died? IF NO, PROBE: Any baby who cried or showed signs of live but did not survive?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 208
207	How many boys have died? And how many girls have died? IF NONE, RECORD '00'.	BOYS DEAD . . . . . [ ][ ] GIRLS DEAD . . . . . [ ][ ]	
208	SUM ANSWERS TO 203, 205, AND 207, AND ENTER TOTAL. IF NONE, RECORD '00'.	TOTAL CHILDREN . . . . . [ ][ ]	
209	CHECK 208: HAS HAD MORE THAN ONE CHILD ↓ HAS HAD ONLY ONE CHILD → 212 HAS NOT HAD ANY CHILDREN → 301		
210	Did all of the children you have fathered have the same biological mother?	YES . . . . . 1 NO 2	→ 212
211	In all, how many women have you fathered children with?	NUMBER OF WOMEN . . . . . [ ][ ]	
212	How old were you when your (first) child was born?	AGE IN YEARS . . . . . [ ][ ]	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
213	CHECK 203 AND 205: AT LEAST ONE LIVING CHILD ☐ NO LIVING CHILDREN ☐		→ 301
214	How many years old is your (youngest) child?	AGE IN YEARS . . . . . ☐☐	
215	CHECK 214: (YOUNGEST) CHILD IS AGE 0-3 YEARS ☐ OTHER ☐		→ 301
216	What is the name of your (youngest) child? WRITE NAME OF (YOUNGEST) CHILD _____ (NAME OF (YOUNGEST) CHILD)		
217	When (NAME)'s mother was pregnant with (NAME), did she have any antenatal check-ups?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 219
218	Were you ever present during any of those antenatal check-ups?	PRESENT . . . . . 1 NOT PRESENT 2	
219	Was (NAME) born in a hospital or health facility?	HOSPITAL/HEALTH FACILITY . . . . . 1 OTHER 2	→ 221
220	What was the main reason why (NAME)'s mother did not deliver in a hospital or health facility?	COST TOO MUCH . . . . . 01 FACILITY CLOSED . . . . . 02 TOO FAR/NO TRANSPORTATION . . . 03 DON'T TRUST FACILITY/POOR QUALITY SERVICE . . . . . 04 NO FEMALE PROVIDER . . . . . 05 NOT THE FIRST CHILD . . . . . 06 CHILD'S MOTHER DID NOT THINK IT WAS NECESSARY . . . . . 07 HE DID NOT THINK IT WAS NECESSARY . . . . . 08 FAMILY DID NOT THINK IT WAS NECESSARY . . . . . 09 OTHER_____ 96 (SPECIFY) DON"T KNOW 98	
221	When a child has diarrhea, how much should he or she be given to drink: more than usual, the same amount as usual, less than usual, or should he or she not be given anything to drink at all?	MORE THAN USUAL . . . . . 1 ABOUT THE SAME . . . . . 2 LESS THAN USUAL . . . . . 3 NOTHING TO DRINK . . . . . 4 DON'T KNOW 8	

SECTION 3. CONTRACEPTION

301	Now I would like to talk about family planning - the various ways or methods that a couple can use to delay or avoid a pregnancy. Which ways or methods have you heard about? FOR METHODS NOT MENTIONED SPONTANEOUSLY, ASK: Have you ever heard of (METHOD)? CIRCLE CODE 1 IN 301 FOR EACH METHOD MENTIONED SPONTANEOUSLY. THEN PROCEED DOWN COLUMN 301, READING THE NAME AND DESCRIPTION OF EACH METHOD NOT MENTIONED SPONTANEOUSLY. CIRCLE CODE 1 IF METHOD IS RECOGNIZED, AND CODE 2 IF NOT RECOGNIZED. THEN, FOR METHODS 02, 07, 12, AND 13, ASK 302 IF 301 HAS CODE 1 CIRCLED.		302 Have you ever used (METHOD)?
01	**Female sterilization/Tie-off** Women can have an operation to avoid having	YES . . . . . 1 NO 2	
02	**Male sterilization** Men can have an operation to avoid having any more children.	YES . . . . . 1 NO 2	Have you ever had an operation to avoid having any more children? YES . . . . . 1 NO 2
03	**Pill** Women can take a pill every day to avoid becoming pregnant.	YES . . . . . 1 NO 2	
04	**IUD/Coil** Women can have a loop or coil placed inside them by a doctor or a nurse.	YES . . . . . 1 NO 2	
05	**Injectables** Women can have an injection by a health provider that stops them from becoming pregnant for one or more months.	YES . . . . . 1 NO 2	
06	**Implants** Women can have several small rods placed in their upper arm by a doctor or nurse which can prevent pregancy for one or more years.	YES . . . . . 1 NO 2	
07	**Condom** Men can put a rubber sheath on their penis before sexual intercourse.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
08	**Female condom** Women can place a sheath in their vagina before sexual intercourse.	YES . . . . . 1 NO 2	
09	**Diaphragm** Women can place a thin flexible disk in their vagina before sexual intercourse.	YES . . . . . 1 NO 2	
10	**Foam/Jelly/Spermicides** Women can place a suppository, jelly, or cream in their vagina before sexual intercourse.	YES . . . . . 1 NO 2	
11	**Lactational Amenorrhea method (LAM)** DO NOT EXPLAIN	YES . . . . . 1 NO 2	
12	**Rhythm/Save method** Every month that a woman is sexually active she can avoid pregnancy by not having sexual intercourse on the days of the month she is most likely to get pregnant.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
13	**Withdrawal** Men can be careful and pull out before climax	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
14	**Emergency contraception** As an emergency measure after unprotected sexual intercourse, women can take special pills at any time within days to prevent pregnancy.	YES . . . . . 1 NO 2	
15	**Other methods** Have you heard of any other ways or methods that women or men can use to avoid pregnancy?	YES . . . . . 1 _____ (SPECIFY) _____ (SPECIFY) NO 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
303	In the last few months have you: a) Heard about family planning on the radio? b) Seen about family planning on the television? c) Read about family planning in a newspaper or magazine?	YES NO a) RADIO . . . . . 1 2 b) TELEVISION . . . . . 1 2 c) NEWSPAPER/MAGAZINE 1 2	
304	In the last few months, have you discussed the practice of family planning with a health worker or health professional?	YES . . . . . 1 NO 2	
305	Now I would like to ask you about a woman's risk of pregnancy. From one menstrual period to the next, are there certain days when a woman is more likely to become pregnant if she has sexual relations?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 307
306	Is this time just before her period begins, during her period, right after her period has ended, or halfway between two periods?	JUST BEFORE HER PERIOD BEGINS . . . . . 1 DURING HER PERIOD . . . . . 2 RIGHT AFTER HER PERIOD HAS ENDED . . . . . 3 HALFWAY BETWEEN TWO PERIODS . . . . . 4 OTHER _____ 6 (SPECIFY) DON'T KNOW 8	
307	Do you think that a woman who is breastfeeding her baby can become pregnant?	YES . . . . . 1 NO . . . . . 2 DEPENDS . . . . . 3 DON'T KNOW 8	
308	I will now read you some statements about contraception. Please, tell me if you agree or disagree with each one. a) Contraception is women's business and a man should not have to worry about it. b) Women who use contraception may become promiscuous.	AGREE DIS-AGREE DK a) CONTRACEPTION IS WOMAN'S BUSINESS . . . . 1 2 8 b) WOMAN MAY BECOME PROMISCUOUS 1 2 8	
309	CHECK 301 (07) KNOWS MALE CONDOM YES ☐ NO ☐		→ 313
310	Do you know of a place where a person can get male condoms?	YES . . . . . 1 NO 2	→ 313
311	Where is that? Any other place? PROBE TO IDENTIFY EACH TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE(S). IF UNABLE TO DETERMINE IF HOSPITAL OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S))	**PUBLIC SECTOR** GOVERNMENT HOSPITAL . . . . . A GOVT. HEALTH CENTER . . . . . B GOVT. HEALTH POST . . . . . C FAMILY PLANNING CLINIC . . . . . D MOBILE/OUTREACH CLINIC . . . . . E COMMUNITY HEALTH WORKER . . . . . F OTHER PUBLIC _____ G (SPECIFY) **PRIVATE MEDICAL SECTOR** PRIVATE HOSPITAL/CLINIC . . . . . H PHARMACY . . . . . I PRIVATE DOCTOR . . . . . J MOBILE CLINIC . . . . . K PVT. MATERNITY HOME . . . . . L OTHER PRIVATE MEDICAL _____ M (SPECIFY) **OTHER SOURCE** SHOP/MARKET/GAS STATION . . . . . N CHURCH . . . . . O FRIEND/RELATIVE . . . . . P NGO . . . . . Q CONDOM VENDING MACHINE . . . . . R **OTHER** _____ X (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
312	If you wanted to, could you yourself get a condom?	YES . . . . . 1 NO 2	
313	CHECK 301 (08) KNOWS FEMALE CONDOM YES ☐ NO ☐		→ 401
314	Do you know of a place where a person can get female condoms?	YES . . . . . 1 NO 2	→ 401
315	Where is that? Any other place? PROBE TO IDENTIFY EACH TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE(S). IF UNABLE TO DETERMINE IF HOSPITAL OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S))	**PUBLIC SECTOR** GOVT. HOSPITAL . . . . . A GOVT. HEALTH CENTER . . . . . B GOVT. HEALTH POST . . . . . C FAMILY PLANNING CLINIC . . . . . D MOBILE/OUTREACH CLINIC . . . . . E COMMUNITY HEALTH WORKER . F OTHER PUBLIC _____ G (SPECIFY) **PRIVATE MEDICAL SECTOR** PRIVATE HOSPITAL/CLINIC . . . . . H PHARMACY . . . . . I PRIVATE DOCTOR . . . . . J MOBILE CLINIC . . . . . K PVT. MATERNITY HOME . . . . . L OTHER PRIVATE MEDICAL _____ M (SPECIFY) **OTHER SOURCE** SHOP/MARKET/GAS STATION . . . . . N CHURCH . . . . . O FRIEND/RELATIVE . . . . . P NGO . . . . . Q **OTHER** _____ X (SPECIFY)	

SECTION 4. MARRIAGE AND SEXUAL ACTIVITY

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
401	Are you currently married or living together with a woman as if married?	YES, CURRENTLY MARRIED . . . . . 1 YES, LIVING WITH A WOMAN . . . . . 2 NO, NOT IN UNION 3	→ 404
402	Have you ever been married or lived together with a woman as if married?	YES, FORMERLY MARRIED . . . . . 1 YES, LIVED WITH A WOMAN . . . . . 2 NO 3	→ 413
403	What is your marital status now: are you widowed, divorced, or separated?	WIDOWED . . . . . 1 DIVORCED . . . . . 2 SEPARATED 3	→ 410
404	Is your wife/partner living with you now or is she staying elsewhere?	LIVING WITH HIM . . . . . 1 STAYING ELSEWHERE 2	
405	Do you have more than one wife or woman you live with as if married?	YES, MORE THAN ONE . . . . . 1 NO, ONLY ONE 2	→ 407
406	Altogether, how many wives do you have or other partners do you live with as if married?	TOTAL NUMBER OF WIVES AND LIVE-IN PARTNERS . . . . . [ ][ ]	
407	CHECK 405: ONE WIFE/ PARTNER → Please tell me the name of your wife (the woman you are living with as if married). MORE THAN ONE WIFE/ PARTNER → Please tell me the name of each of your current wives (and/or of each woman you are living with as if married). RECORD THE NAME AND THE LINE NUMBER FROM THE HOUSEHOLD QUESTIONNAIRE FOR EACH WIFE AND LIVE-IN PARTNER. IF A WOMAN IS NOT LISTED IN THE HOUSEHOLD QUESTIONNAIRE, RECORD '00'. ASK **408** FOR EACH PERSON.	NAME / LINE NUMBER / 408 How old was (NAME) on her last birthday? AGE _____ [ ][ ] [ ][ ] _____ [ ][ ] [ ][ ] _____ [ ][ ] [ ][ ]	
409	CHECK 407: ONE WIFE/ PARTNER MORE THAN ONE WIFE/ PARTNER →		→ 411A
410	Have you been married or lived with a woman only once or more than once?	ONLY ONCE . . . . . 1 MORE THAN ONCE 2	→ 411A
411	In what month and year did you start living with your (wife/ partner)?	MONTH . . . . . [ ][ ] DON'T KNOW MONTH 98	
411A	Now I would like to ask a question about your first wife/partner. In what month and year did you start living with your first wife/ partner?	YEAR . . . . . [ ][ ][ ][ ] DON'T KNOW YEAR 9998	→ 413
412	How old were you when you first started living with her?	AGE . . . . . [ ][ ]	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
413	CHECK FOR THE PRESENCE OF OTHERS. BEFORE CONTINUING, MAKE EVERY EFFORT TO ENSURE PRIVACY.		
414	Now I would like to ask you some questions about sexual activity in order to gain a better understanding of some important life issues. How old were you when you had sexual intercourse for the very first time?	NEVER HAD SEXUAL INTERCOURSE . . . . . 00 AGE IN YEARS . . . . . [ ][ ] FIRST TIME WHEN STARTED LIVING WITH (FIRST) WIFE/PARTNER 95	 → 417 → 417
415	CHECK 107: CURRENT AGE AGE 15-24 [ ] ↓ AGE 25-49 [ ] →		501
416	Do you intend to wait until you get married to have sexual intercourse for the first time?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/UNSURE 8	→ 501
417	CHECK 107: CURRENT AGE AGE 15-24 [ ] ↓ AGE 25-49 [ ] →		419
418	The first time you had sexual intercourse, was a condom used?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/DON'T REMEMBER . . . 8	
419	When was the last time you had sexual intercourse? IF LESS THAN 12 MONTHS, ANSWER MUST BE RECORDED IN DAYS, WEEKS OR MONTHS. IF 12 MONTHS (ONE YEAR) OR MORE, ANSWER MUST BE RECORDED IN YEARS.	DAYS AGO . . . . . 1 [ ][ ] WEEKS AGO . . . . . 2 [ ][ ] MONTHS AGO . . . . . 3 [ ][ ] YEARS AGO . . . . . 4 [ ][ ]	→ 435

No.	QUESTIONS AND FILTERS	LAST SEXUAL PARTNER	SECOND-TO-LAST SEXUAL PARTNER	THIRD-TO-LAST SEXUAL PARTNER
420	Now I would like to ask you some questions about your recent sexual activity. Let me assure you again that your answers are completely confidential and will not be told to anyone. When we should come to any question that you don't want to answer, just let me know and we will go to the next question. → **GO TO 422**			
421	How long ago did you last have sexual intercourse with this (second/third) person?		DAYS . . . . . 1 WEEKS . . . . . 2 MONTHS 3	DAYS . . . . . 1 WEEKS . . . . . 2 MONTHS 3
422	The last time you had sexual intercourse with this (second/third) person, was a condom used?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 424)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 424)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 424)
423	Was a condom used every time you had sexual intercourse with this (second/third) person in the last 12 months?	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
424	What was your relationship to this (second/third) person with whom you had sexual intercourse? IF GIRLFRIEND: Were you living together as if married? IF YES, CIRCLE '2' IF NO, CIRCLE '3'	WIFE . . . . . 1 LIVE-IN PARTNER . . . . . 2 GIRLFRIEND NOT LIVING WITH RESPONDENT . . . . 3 CASUAL ACQUAINTANCE . . . . . 4 PROSTITUTE . . . . . 5 OTHER _____ (SPECIFY) **(SKIP TO 424C)**	WIFE . . . . . 1 LIVE-IN PARTNER . . . . . 2 GIRLFRIEND NOT LIVING WITH RESPONDENT . . . . 3 CASUAL ACQUAINTANCE . . . . . 4 PROSTITUTE . . . . . 5 OTHEI _____ (SPECIFY) 6 **(SKIP TO 424C)**	WIFE . . . . . 1 LIVE-IN PARTNER . . . . . 2 GIRLFRIEND NOT LIVING WITH RESPONDENT . . . . 3 CASUAL ACQUAINTANCE . . . . . 4 PROSTITUTE . . . . . 5 OTHER _____ (SPECIFY) 6 **(SKIP TO 424C)**
424A	CHECK 410: MARRIED OR LIVED WITH A WOMAN ONLY ONCE OR MORE THAN ONCE.	ONLY ONCE MORE THAN ONCE (SKIP TO 424C)	ONLY ONCE MORE THAN ONCE (SKIP TO 424C)	ONLY ONCE MORE THAN ONCE (SKIP TO 424C)
424B	CHECK 414: WHEN HAD INTERCOURSE FOR THE FIRST TIME	FIRST TIME WITH (FIRST) WIFE/PARTNER (SKIP TO 424D) OTHER	FIRST TIME WITH (FIRST) WIFE/PARTNER (SKIP TO 424D) OTHER	FIRST TIME WITH (FIRST) WIFE/PARTNER (SKIP TO 424D) OTHER
424C	How long ago did you first have sexual intercourse with this (second/third) person?	DAYS AGO . . . . . 1 WEEKS AGC . . . . . 2 MONTHS AGO . . . . . 3 YEARS AGO 4	DAYS AGO . . . . . 1 WEEKS AGC . . . . . 2 MONTHS AGO . . . . . 3 YEARS AGO 4	DAYS AGO . . . . . 1 WEEKS AGO . . . . . 2 MONTHS AGO . . . . . 3 YEARS AGO 4
424D	How many times during the last 12 months did you have sexual intercourse with this (second/third) person?	ONCE . . . . . 1 TWICE . . . . . 2 MORE 3	ONCE . . . . . 1 TWICE . . . . . 2 MORE 3	ONCE . . . . . 1 TWICE . . . . . 2 MORE 3
426	The last time you had sexual intercourse with this (second/third) person, did you or this person drink alcohol?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 428)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 428)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 429)
427	Were you or your partner drunk at that time? IF YES: Who was drunk?	RESPONDENT ONLY . . . . . 1 PARTNER ONLY . . . . . 2 RESPONDENT AND PARTNER BOTH . . . . . 3 NEITHER 4	RESPONDENT ONLY . . . . . 1 PARTNER ONLY . . . . . 2 RESPONDENT AND PARTNER BOTH . . . . . 3 NEITHER 4	RESPONDENT ONLY . . . . . 1 PARTNER ONLY . . . . . 2 RESPONDENT AND PARTNER BOTH . . . . . 3 NEITHER 4
428	Apart from this person (these two people), have you had sexual intercourse with any other person in the last 12 months?	YES . . . . . 1 (GO BACK TO 421 IN NEXT COLUMN) NO . . . . . 2 (SKIP TO 430)	YES . . . . . 1 (GO BACK TO 421 IN NEXT COLUMN) NO . . . . . 2 (SKIP TO 430)	
429	In total, with how many different people have you had sexual intercourse in the last 12 months? IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE. IF NUMBER OF PARTNERS IS GREATER THAN 95, WRITE '95.'			NUMBER OF PARTNERS LAST 12 MONTHS . . . . DON'T KNOW 9 8

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
430	CHECK 424 (ALL COLUMNS): AT LEAST ONE PARTNER IS PROSTITUTE ☐ NO PARTNERS ARE PROSTITUTES ☐		→ 432
431	CHECK 424 AND 422 (ALL COLUMNS): CONDOM USED WITH EVERY PROSTITUTE ☐ OTHER ☐		→ 434 → 435
432	In the last 12 months, did you pay anyone in exchange for having sexual intercourse?	YES . . . . . 1 NO 2	→ 435
433	The last time you paid someone in exchange for having sexual intercourse, was a condom used?	YES . . . . . 1 NO 2	→ 435
434	Was a condom used during sexual intercourse every time you paid someone in exchange for having sexual intercourse in the last 12 months?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
435	In total, with how many different people have you had sexual intercourse in your lifetime? IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE. IF NUMBER OF PARTNERS IS GREATER THAN 95, WRITE '95.'	NUMBER OF PARTNERS IN LIFETIME . . . . . ☐☐ DON'T KNOW 98	
436	CHECK 422, MOST RECENT PARTNER (FIRST COLUMN): QUESTION NOT ASKED ☐ CONDOM USED ☐ NO CONDOM USED ☐		→ 442 → 442
437	You told me that a condom was used the last time you had sexual intercourse. May I see the package of condoms you were using at that time? RECORD NAME OF BRAND IF PACKAGE SEEN.	PACKAGE SEEN . . . . . 1 ☐☐ BRAND NAME _____ (SPECIFY) DOES NOT HAVE/NOT SEEN 2	→ 439
438	Do you know the brand name of the condom used at that time? RECORD NAME OF BRAND.	BRAND NAME _____ (SPECIFY) ☐☐ DON'T KNOW 98	
439	How many condoms did you get the last time?	NUMBER OF CONDOMS . . . . . ☐☐☐ DON'T KNOW 998	
440	The last time you obtained the condom(s), how much did you pay in total, including the cost of the condom(s) and any consultation you may have had?	COST . . . . . ☐☐☐☐ FREE . . . . . 9995 DON'T KNOW 9998	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
441	From where did you obtain the condom the last time? PROBE TO IDENTIFY TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. IF UNABLE TO DETERMINE IF HOSPITAL OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	**PUBLIC SECTOR** GOVERNMENT HOSPITAL . . . . . 11 GOVT. HEALTH CENTER . . . . . 12 GOVT. HEALTH POST . . . . . 13 FAMILY PLANNING CLINIC . . . . . 14 MOBILE/OUTREACH CLINIC . . . . . 15 COMMUNITY HEALTH WORKER . . . 16 OTHER PUBLIC _____ 17 (SPECIFY) **PRIVATE MEDICAL SECTOR** PRIVATE HOSPITAL/CLINIC . . . . . 21 PHARMACY . . . . . 22 PRIVATE DOCTOR . . . . . 23 MOBILE CLINIC . . . . . 24 OTHER PRIVATE MEDICAL _____ 26 (SPECIFY) **OTHER SOURCE** SHOP/MARKET/GAS STATION . . . 31 CHURCH . . . . . 32 FRIENDS/RELATIVES . . . . . 33 NGO . . . . . 34 CONDOM VENDING MACHINE . . . . . 35 **OTHER** _____ 96 (SPECIFY)	
442	CHECK 302 (02): RESPONDENT EVER STERILIZED NO ☐ YES ☐ → 501		
443	The last time you had sex did you or your partner use any method (other than a condom) to avoid or prevent a pregnancy?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 501
444	What method did you or your partner use? PROBE: Did you or your partner use any other method to prevent pregnancy? RECORD ALL MENTIONED.	FEMALE STERILIZATION . . . . . A PILL . . . . . B IUD . . . . . C INJECTABLES . . . . . D IMPLANTS . . . . . E FEMALE CONDOM . . . . . F DIAPHRAGM . . . . . G FOAM/JELLY . . . . . H LAM . . . . . I RHYTHM METHOD . . . . . J WITHDRAWAL . . . . . K OTHER _____ X (SPECIFY)	

SECTION 5. FERTILITY PREFERENCES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
501	CHECK 407: ONE OR MORE WIVES/PARTNERS ☐ QUESTION NOT ASKED ☐		→ 508
502	CHECK 302: MAN NOT STERILIZED ☐ MAN STERILIZED ☐		→ 508
503	[Is your wife (partner)/Are any of your wives (partners)] currently pregnant?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
504	CHECK 503: NO WIFE/PARTNER PREGNANT OR DON'T KNOW ☐ Now I have some questions about the future. Would you like to have (a/another) child, or would you prefer not to have any (more) children? WIFE(WIVES)/ PARTNER(S) PREGNANT ☐ Now I have some questions about the future. After the child(children) you and your [wife(wives)/partner(partners)] are expecting now, would you like to have another child, or would you prefer not to have any more children?	HAVE (A/ANOTHER) CHILD . . . . . 1 NO MORE/NONE . . . . . 2 COUPLE INFECUND . . . . . 3 WIFE (WIVES)/PARTNER(S) STERILIZED . . . . . 4 UNDECIDED/DON'T KNOW 8	→ 508
505	CHECK 407: ONE WIFE/ PARTNER ☐ MORE THAN ONE WIFE/ PARTNER ☐		→ 507
506	CHECK 503: WIFE/PARTNER NOT PREGNANT OR DON'T KNOW ☐ How long would you like to wait from now before the birth of (a/another) child? WIFE/PARTNER PREGNANT ☐ After the birth of the child you are expecting now, how long would you like to wait before the birth of another child?	MONTHS . . . . . 1 ☐☐ YEARS . . . . . 2 ☐☐ SOON/NOW . . . . . 993 COUPLE INFECUND . . . . . 994 OTHER _____ 996 (SPECIFY) DON'T KNOW 998	→ 508
507	How long would you like to wait from now before the birth of (a/another) child?	MONTHS . . . . . 1 ☐☐ YEARS . . . . . 2 ☐☐ SOON/NOW . . . . . 993 HE/ALL HIS WIVES/PARTNERS ARE INFECUND . . . . . 994 OTHER _____ 996 (SPECIFY) DON'T KNOW 998	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
508	CHECK 203 AND 205: HAS LIVING CHILDREN ☐ If you could go back to the time you did not have any children and could choose exactly the number of children to have in your whole life, how many would that be? PROBE FOR A NUMERIC RESPONSE. NO LIVING CHILDREN ☐ If you could choose exactly the number of children to have in your whole life, how many would that be? PROBE FOR A NUMERIC RESPONSE.	NONE . . . . . 00 NUMBER . . . . . ☐☐ OTHER _____ 96 (SPECIFY)	→ 601 → 601
509	How many of these children would you like to be boys, how many would you like to be girls and for how many would the sex not matter?	BOYS GIRLS EITHER NUMBER ☐☐ ☐☐ ☐☐ OTHER _____ 9 6 (SPECIFY)	

SECTION 6. EMPLOYMENT AND GENDER ROLES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
601	Have you done any work in the last seven days?	YES . . . . . 1 NO 2	→ 604
602	Although you did not work in the last seven days, do you have any job or business from which you were absent for leave, illness, vacation, or any other such reason?	YES . . . . . 1 NO 2	→ 604
603	Have you done any work in the last 12 months?	YES . . . . . 1 NO 2	→ 613
604	What is your occupation, that is, what kind of work do you **mainly** do?	_____ [ ][ ] _____ _____	
605	CHECK 604: WORKS IN AGRICULTURE [ ] ↓ DOES NOT WORK IN AGRICULTURE [ ] → 607		
606	Do you work mainly on your own land or on family land, or do you work on land that you rent from someone else, or do you work on someone else's land?	OWN LAND . . . . . 1 FAMILY LAND . . . . . 2 RENTED LAND . . . . . 3 SOMEONE ELSE'S LAND 4	
607	Do you do this work for a member of your family, for someone else, or are you self-employed?	FOR FAMILY MEMBER . . . . . 1 FOR SOMEONE ELSE . . . . . 2 SELF-EMPLOYED 3	
608	Do you usually work throughout the year, or or do you work seasonally, or only once in a while?	THROUGHOUT THE YEAR . . . . . 1 SEASONALLY/PART OF THE YEAR . . . . . 2 ONCE IN A WHILE 3	
609	Are you paid in cash or kind for this work or are you not paid at all?	CASH ONLY . . . . . 1 CASH AND KIND . . . . . 2 IN KIND ONLY . . . . . 3 NOT PAID 4	
610	CHECK 407: ONE OR MORE WIVES/PARTNERS [ ] ↓ QUESTION NOT ASKED [ ] → 613		
611	CHECK 609: CODE 1 OR 2 CIRCLED [ ] ↓ OTHER [ ] → 613		
612	Who usually decides how the money you earn will be used: mainly you, mainly your wife (wives)/partner(s), or you and your wife (wives)/partner(s) jointly?	RESPONDENT . . . . . 1 WIFE(WIVES)/PARTNER(S) . . . . . 2 RESPONDENT AND WIFE (WIVES)/ PARTNER(S) JOINTLY . . . . . 3 OTHER _____ 6 SPECIFY	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES					SKIP
613	In a couple, who do you think should have the greater say in each of the following decisions: the husband, the wife or both equally:		HUS-BAND	WIFE	BOTH EQUALLY	DON'T KNOW/ DEPENDS	
	a) Making major household purchases?	a)	1	2	3	8	
	b) Making purchases for daily household needs?	b)	1	2	3	8	
	c) Deciding about visits to the wife's family or relatives?	c)	1	2	3	8	
	d) Deciding what to do with the money she earns for her work?	d)	1	2	3	8	
	e) Deciding how many children to have?	e)	1	2	3	8	
614	I will now read you some statements about pregnancy. Please tell me if you agree or disagree with them.				AGREE	DIS-AGREE	DK
	a) Childbearing is a woman's concern and there is no need for the father to get involved.	a)	CHILDBEARING IS A WOMAN'S CONCERN .		1	2	8
	b) It is crucial for the mother's and child's health that a woman have assistance from a doctor or nurse at delivery.	b)	DOCTOR'S/NURSE'S ASSISTANCE CRUCIAL		1	2	8
615	Sometimes a husband is annoyed or angered by things that his wife does. In your opinion, is a husband justified in hitting or beating his wife in the following situations:				YES	NO	DK
	a) If she goes out without telling him?	a)	GOES OUT		1	2	8
	b) If she neglects the children?	b)	NEGL. CHILDREN . . .		1	2	8
	c) If she argues with him?	c)	ARGUES		1	2	8
	d) If she refuses to have sex with him?	d)	REFUSES SEX		1	2	8
	e) If she burns the food?	e)	BURNS FOOD		1	2	8
616	Do you think that if a woman refuses to have sex with her husband when he wants her to, he has the right to:				YES	NO	DON'T KNOW/ DEPENDS
	a) Get angry and reprimand her?	a)	GET ANGRY		1	2	8
	b) Refuse to give her money or other means of support?	b)	NO MONEY		1	2	8
	c) Use force and have sex with her even if she doesn't want to?	c)	FORCED SEX		1	2	8
	d) Go ahead and have sex with another woman?	d)	SEX WITH OTHER .		1	2	8

SECTION 7. HIV/AIDS

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
701	Now I would like to talk about something else. Have you ever heard of an illness called AIDS?	YES . . . . . 1 NO 2	→ 733
702	Can people reduce their chances of getting the AIDS virus by having just one uninfected sex partner who has no other sex partners?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
703	Can people get the AIDS virus from mosquito bites?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
704	Can people reduce their chance of getting the AIDS virus by using a condom every time they have sex?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
705	Can people get the AIDS virus by sharing food with a person who has AIDS?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
706	Can people reduce their chance of getting the AIDS virus by not having sexual intercourse at all?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
707	Can people get the AIDS virus because of witchcraft or other supernatural means?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
708	Is it possible for a healthy-looking person to have the AIDS virus?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
709	Can the virus that causes AIDS be transmitted from a mother to her baby: a) During pregnancy? b) During delivery? c) By breastfeeding?	YES NO DK a) DURING PREGNANCY . . . 1 2 8 b) DURING DELIVERY . . . . . 1 2 8 c) BREASTFEEDING 1 2 8	
710	CHECK 709: AT LEAST ONE 'YES' ☐ ↓ OTHER ☐		→ 712
711	Are there any special drugs that a doctor or a nurse can give to a woman infected with the AIDS virus to reduce the risk of transmission to the baby?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
712	Have you heard about special antiretroviral drugs (ARV/HART) that people infected with the AIDS virus can get from doctor or a nurse to help them live longer?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
712A	CHECK FOR PRESENCE OF OTHERS. BEFORE CONTINUING, MAKE EVERY EFFORT TO ENSURE PRIVACY.		
713	I don't want to know the results, but have you ever been tested to see if you have the AIDS virus?	YES . . . . . 1 NO 2	→ 718
714	When was the last time you were tested?	LESS THAN 12 MONTHS AGO . . . . . 1 12 - 23 MONTHS AGO . . . . . 2 2 OR MORE YEARS AGO 3	
715	The last time you had the test, did you yourself ask for the test, was it offered to you and you accepted, or was it required?	ASKED FOR THE TEST . . . . . 1 OFFERED AND ACCEPTED . . . . . 2 REQUIRED 3	
716	I don't want to know the results, but did you get the results of the test?	YES . . . . . 1 NO 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
717	Where was the test done? PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. IF UNABLE TO DETERMINE IF HOSPITAL, VCT CENTER, OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	**PUBLIC SECTOR** GOVERNMENT HOSPITAL . . . . . 11 GOVT. HEALTH CENTER . . . . . 12 GOVT. HEALTH POST . . . . . 13 STAND-ALONE VCT CENTER . . . . . 14 FAMILY PLANNING CLINIC . . . . . 15 MOBILE/OUTREACH CLINIC . . . . . 16 OTHER PUBLIC _____ 17 (SPECIFY) **PRIVATE MEDICAL SECTOR** PRIVATE HOSPITAL/CLINIC/ PRIVATE DOCTOR . . . . . 21 PRIVATE VCT CENTER . . . . . 22 LAB . . . . . 23 MOBILE CLINIC . . . . . 24 OTHER PRIVATE MEDICAL _____ 26 (SPECIFY) **OTHER SOURCE** NGO . . . . . 31 FACILITY/LAB ABROAD . . . . . 32 **OTHER** _____ 96 (SPECIFY)	→ 720
718	Do you know of a place where people can go to get tested for the AIDS virus?	YES . . . . . 1 NO 2	→ 720
719	Where is that? Any other place? PROBE TO IDENTIFY EACH TYPE OF SOURCE AND CIRCLE IF UNABLE TO DETERMINE IF HOSPITAL, VCT CENTER, OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S))	**PUBLIC SECTOR** GOVERNMENT HOSPITAL . . . . . A GOVT. HEALTH CENTER . . . . . B GOVT. HEALTH POST . . . . . C STAND-ALONE VCT CENTER . . . . . D MOBILE/OUTREACH CLINIC . . . . . F OTHER PUBLIC _____ G (SPECIFY) **PRIVATE MEDICAL SECTOR** PRIVATE HOSPITAL/CLINIC/ PRIVATE DOCTOR . . . . . H PRIVATE VCT CENTER . . . . . I LAB . . . . . J MOBILE CLINIC . . . . . K OTHER PRIVATE MEDICAL _____ L (SPECIFY) **OTHER SOURCE** NGO . . . . . M FACILITY/LAB ABROAD . . . . . N **OTHER** _____ X (SPECIFY)	
720	Would you buy fresh vegetables from a shopkeeper or vendor if you knew that this person had the AIDS virus?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
721	If a member of your family got infected with the AIDS virus, would you want it to remain a secret or not?	YES, REMAIN A SECRET . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	
722	If a member of your family became sick with AIDS, would you be willing to care for her or him in your own household?	YES . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	
723	In your opinion, if a female teacher has the AIDS virus but is not sick, should she be allowed to continue teaching in the school?	SHOULD BE ALLOWED . . . . . 1 SHOULD NOT BE ALLOWED . . . . . 2 DK/NOT SURE/DEPENDS 8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
724	Do you personally know someone who has been denied health services in the last 12 months because he or she has or is suspected to have the AIDS virus?	YES . . . . . 1 NO . . . . . 2 DK ANYONE WITH AIDS 3	→ 729
725	Do you personally know someone who has been denied involvement in social events, religious services, or community events in the last 12 months because he or she has or is suspected to have the AIDS virus?	YES . . . . . 1 NO 2	
726	Do you personally know someone who has been verbally abused or teased in the last 12 months because he or she has or is suspected to have the AIDS virus?	YES . . . . . 1 NO 2	
727	CHECK 724, 725, AND 726: AT LEAST ONE 'YES' ☐ → 729 OTHER ☐ ↓		
728	Do you personally know someone who has or is suspected to have the AIDS virus?	YES . . . . . 1 NO 2	
729	Do you agree or disagree with the following statement: People with the AIDS virus should be ashamed of themselves.	AGREE . . . . . 1 DISAGREE . . . . . 2 DON'T KNOW/NO OPINION 8	
730	Do you agree or disagree with the following statement: People with the AIDS virus should be blamed for bringing the disease into the community.	AGREE . . . . . 1 DISAGREE . . . . . 2 DON'T KNOW/NO OPINION 8	
731	Should children age 12-14 be taught about using a condom to avoid getting AIDS?	YES . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	
732	Should children age 12-14 be taught to wait until they get married to have sexual intercourse in order to avoid getting AIDS?	YES . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	
733	CHECK 701: HEARD ABOUT AIDS ☐ ↓ — Apart from AIDS, have you heard about other infections that can be transmitted through sexual contact? NOT HEARD ABOUT AIDS ☐ ↓ — Have you heard about infections that can be transmitted through sexual contact?	YES . . . . . 1 NO 2	
734	CHECK 414: HAS HAD SEXUAL INTERCOURSE ☐ ↓ HAS NOT HAD SEXUAL INTERCOURSE ☐ → 742		
735	CHECK 733: HEARD ABOUT OTHER SEXUALLY TRANSMITTED INFECTIONS. YES ☐ ↓ NO ☐ → 737		
736	Now I would like to ask you some questions about your health in the last 12 months. During the last 12 months, have you had a disease which you got through sexual contact?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
737	Sometimes men experience an abnormal discharge from their penis. During the last 12 months, have you had an abnormal discharge from your penis?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
738	Sometimes men have a sore or ulcer near their penis. During the last 12 months, have you had a sore or ulcer near your penis?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
739	CHECK 736, 737, AND 738: HAS HAD AN INFECTION (ANY 'YES') ☐ ↓ HAS NOT HAD AN INFECTION OR DOES NOT KNOW ☐		→ 742
740	The last time you had (PROBLEM FROM 736/737/738), did you seek any kind of advice or treatment?	YES . . . . . 1 NO 2	→ 742
741	Where did you go? Any other place? PROBE TO IDENTIFY EACH TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE(S). IF UNABLE TO DETERMINE IF HOSPITAL, VCT CENTER, OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S))	**PUBLIC SECTOR** GOVERNMENT HOSPITAL . . . . . A GOVT. HEALTH CENTER . . . . . B GOVT. HEALTH POST . . . . . C STAND-ALONE VCT CENTER . . . . . D FAMILY PLANNING CLINIC . . . . . E MOBILE/OUTREACH CLINIC . . . . . F COMMUNITY HEALTH WORKER . . . . . G OTHER PUBLIC _____ H (SPECIFY) **PRIVATE MEDICAL SECTOR** PRIVATE HOSPITAL/CLINIC/ PRIVATE DOCTOR . . . . . I PRIVATE VCT CENTER . . . . . J PHARMACY . . . . . K LAB . . . . . L MOBILE CLINIC . . . . . M OTHER PRIVATE MEDICAL _____ N (SPECIFY) **OTHER SOURCE** SHOP/MARKET/GAS STATION . . . . . O NGO . . . . . P TRADITIONAL PRACTITIONER . . . . . Q **OTHER** _____ X (SPECIFY)	
742	Husband and wives do not always agree in everything. If a wife knows her husband has a disease that she can get during sexual intercourse, is she justified in refusing to have sex with him?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
743	If a wife knows her husband has a disease that she can get during sexual intercourse, is she justified in asking that they use a condom when they have sex?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
744	Is a wife justified in refusing to have sex with her husband when she is tired or not in the mood?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
745	Is a wife justified in refusing to have sex with her husband when she knows her husband has sex with other women?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	

SECTION 8. OTHER HEALTH ISSUES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
801	Have you ever heard of an illness called tuberculosis or TB?	YES . . . . . 1 NO 2	→ 805
802	How does tuberculosis spread from one person to another? PROBE: Any other ways? RECORD ALL MENTIONED.	THROUGH THE AIR WHEN COUGHING OR SNEEZING . . . . . A THROUGH SHARING UTENSILS . . . . . B THROUGH TOUCHING A PERSON WITH TB . . . . . C THROUGH FOOD . . . . . D THROUGH SEXUAL CONTACT . . . . . E THROUGH MOSQUITO BITES . . . . . F OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z	
803	Can tuberculosis be cured?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
804	If a member of your family got tuberculosis, would you want it to remain a secret or not?	YES, REMAIN A SECRET . . . . . 1 NO . . . . . 2 DON'T KNOW/NOT SURE/ DEPENDS 8	
804A	Have you been given any information about tuberculosis by a health worker?	YES . . . . . 1 NO 2	
804B	Do you know a place where a person can get diagnosis and treatment for TB?	YES . . . . . 1 NO 2	→ 805
804C	Where is that? Any other place? PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. IF UNABLE TO DETERMINE IF HOSPITAL OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S))	**PUBLIC SECTOR** GOVERNMENT HOSPITAL . . . . . A GOVT. HEALTH CENTER . . . . . B GOVT. HEALTH POST . . . . . C MOBILE/OUTREACH CLINIC . . . . . D COMMUNITY HEALTH WORKER . . . . E OTHER PUBLIC _____ F (SPECIFY) **PRIVATE MEDICAL SECTOR** PRIVATE HOSPITAL/CLINIC . . . . . G PHARMACY . . . . . H PRIVATE DOCTOR . . . . . I MOBILE CLINIC . . . . . J OTHER PRIVATE MEDICAL _____ K (SPECIFY) **OTHER SOURCE** NGO . . . . . L TRADITIONAL PRACTITIONER . . . M OTHER _____ X (SPECIFY)	
805	Some men are circumcised. Are you circumcised?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
806	Now I would like to ask you some other questions relating to health matters. Have you had an injection for any reason in the last 12 months? IF YES: How many injections have you had? IF NUMBER OF INJECTIONS IS GREATER THAN 90, OR DAILY FOR 3 MONTHS OR MORE, RECORD '90'. IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE.	NUMBER OF INJECTIONS . . . [ ][ ] NONE 00	→ 810

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
807	Among these injections, how many were administered by a doctor, a nurse, a pharmacist, a dentist, or any other health worker? IF NUMBER OF INJECTIONS IS GREATER THAN 90, OR DAILY FOR 3 MONTHS OR MORE, RECORD '90'. IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE.	NUMBER OF INJECTIONS . . . [ ][ ] NONE 00	→ 810
808	The last time you had an injection given to you by a health worker, where did you go to get the injection? PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. IF UNABLE TO DETERMINE IF HOSPITAL OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	**PUBLIC SECTOR** GOVERNMENT HOSPITAL . . . . . 11 GOVT. HEALTH CENTER . . . . . 12 GOVT. HEALTH POST . . . . . 13 MOBILE/OUTREACH CLINIC . . . . . 14 COMMUNITY HEALTH WORKER . . . . 15 OTHER PUBLIC _____ 16 (SPECIFY) **PRIVATE MEDICAL SECTOR** PRIVATE HOSPITAL/CLINIC/ PRIVATE DOCTOR . . . . . 21 DENTAL CLINIC/OFFICE . . . . . 22 PHARMACY . . . . . 23 OFFICE OR HOME OF NURSE/ HEALTH WORKER . . . . . 24 OTHER PRIVATE MEDICAL _____ 26 (SPECIFY) **OTHER PLACE** AT HOME . . . . . 31 OTHER _____ 96 (SPECIFY)	
809	Did the person who gave you that injection take the syringe and needle from a new, unopened package?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
810	Do you currently smoke cigarettes?	YES . . . . . 1 NO 2	→ 812
811	In the last 24 hours, how many cigarettes did you smoke?	CIGARETTES . . . . . [ ][ ]	
812	Do you currently smoke or use any other type of tobacco?	YES . . . . . 1 NO 2	→ 813A
813	What (other) type of tobacco do you currently smoke or use? RECORD ALL MENTIONED.	PIPE . . . . . A CHEWING TOBACCO . . . . . B SNUFF . . . . . C CIGAR . . . . . D 'M' . . . . . E OTHER _____ X (SPECIFY)	
813A	Have you consumed alcohol such as beer, wine, spirits, fermented cider, within the past 30 days?	YES . . . . . 1 NO 2	→ 814
813B	In the past 30 days, on how many days have you had at least one drink: daily, 5-6 days per week, 1-4 days per week, or less often?	DAILY . . . . . 1 5-6 DAYS PER WEEK . . . . . 2 1-4 DAYS PER WEEK . . . . . 3 LESS OFTEN 4	
813C	In the past 30 days, what was the largest number of drinks you had on a single occasion, counting all types of alcoholic drinks together? IF 7 OR MORE, RECORD '7'	NUMBER OF DRINKS . . . . . [ ]	
813D	On the days when you drink alcohol, how many drinks do you have during one day? IF 7 OR MORE, RECORD '7'	NUMBER OF DRINKS . . . . . [ ]	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
814	Are you covered by any health insurance?	YES . . . . . 1 NO 2	→ 816
815	What type of health insurance? RECORD ALL MENTIONED.	NATIONAL INSURANCE SCHEME . . . A PRIVATELY PURCHASED HEALTH INSURANCE . . . . . B EMPLOYER PURCHASED INSURANCE . . . . . C FOREIGN HEALTH INSURANCE . . . . . D OTHER _____ X (SPECIFY)	
816	CHECK 214: (YOUNGEST) CHILD IS AGE 0-17 ☐ OTHER ☐		→ 818
817	Now I would like to ask you about your own child/children who (is/are) under the age of 18. Have you made arrangements for someone to care for (him/her/them) in the event that you fall sick or are unable to care for (him/her/them)?	YES . . . . . 1 NO . . . . . 2 UNSURE 8	
818	(Besides your own child/children), are you the primary caregiver for any children under the age of 18?	YES . . . . . 1 NO 2	→ 820
819	Have you made arrangements for someone to care for (this child/these children) in the event that you fall sick or are unable to care for (him/her/them)?	YES . . . . . 1 NO . . . . . 2 UNSURE 8	
820	Have you had fever in the last 12 months?	YES . . . . . 1 NO 2	→ 822
821	How many times have you had fever?	TIMES WITH FEVER . . . . . ☐☐	
822	Do you personally know someone who has got Malaria in the last 3 months?	YES . . . . . 1 NO 2	
823	Do you know a place where a person can get diagnosis and treatment for malaria?	YES . . . . . 1 NO 2	→ 825
824	Where is that? Any other place? PROBE TO IDENTIFY EACH TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE(S). IF UNABLE TO DETERMINE IF HOSPITAL, VCT CENTER, OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S))	**PUBLIC SECTOR** GOVERNMENT HOSPITAL . . . . . A GOVT. HEALTH CENTER . . . . . B GOVT. HEALTH POST . . . . . C MOBILE/OUTREACH CLINIC . . . . . D COMMUNITY HEALTH WORKER . . . . E OTHER PUBLIC _____ F (SPECIFY) **PRIVATE MEDICAL SECTOR** PRIVATE HOSPITAL/CLINIC . . . . . G PHARMACY . . . . . H PRIVATE DOCTOR . . . . . I MOBILE CLINIC . . . . . J OTHER PRIVATE MEDICAL _____ K (SPECIFY) **OTHER SOURCE** NGO . . . . . L TRADITIONAL PRACTITIONER . . M **OTHER** _____ X (SPECIFY)	
825	RECORD THE TIME.	HOUR . . . . . ☐☐ MINUTES . . . . . ☐☐	

INTERVIEWER'S OBSERVATIONS

TO BE FILLED IN AFTER COMPLETING INTERVIEW

COMMENTS ABOUT RESPONDENT:

COMMENTS ON SPECIFIC QUESTIONS:

ANY OTHER COMMENTS:

SUPERVISOR'S OBSERVATIONS

NAME OF SUPERVISOR: _____ DATE: _____

EDITOR'S OBSERVATIONS

NAME OF EDITOR: _____ DATE: _____