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Demographic and Health Survey

2014

BANGLADESH DEMOGRAPHIC AND HEALTH SURVEY

2014

National Institute of Population Research and Training
Ministry of Health and Family Welfare
Dhaka, Bangladesh

Mitra and Associates
Dhaka, Bangladesh

The DHS Program
ICF International
Rockville, Maryland, U.S.A.

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FOREWORD

Secretary
Ministry of Health and Family Welfare
Government of the People's Republic of Bangladesh

সচিব
স্বাস্থ্য ও পরিবার কল্যাণ মন্ত্রণালয়
গণপ্রজাতন্ত্রী বাংলাদেশ সরকার

Bangladesh Demographic and Health Survey (BDHS) 2014 is the seventh national-level demographic and health survey designed to provide information to address the monitoring and evaluation needs of the Health, Population and Nutrition Sector Development Program (HPNSDP) and to provide managers and policy makers involved in this program with the information that they need to effectively plan and implement future interventions. The survey generates evidences on basic national indicators of social progress including fertility, childhood mortality, fertility preferences and fertility regulation, maternal and child health, nutritional status of mothers and children, and awareness and attitude towards HIV/AIDS.

In addition to presenting the main findings from BDHS 2014 on fertility, family planning, maternal and child health and nutrition, this report highlights the major changes that have taken place in Bangladesh's demographic and health situation since 1993-94. Results of BDHS 2014 illustrate that Bangladesh has achieved the Millennium Development Goal (MDG) 4 target ahead of time. There are evidences that Bangladesh is moving ahead in achieving MDG 5. Since BDHS 2004, deliveries attended by skilled providers have increased by 2.6 times and deliveries in health facilities have increased by more than 3 times. Khulna and Rangpur divisions have reached HPNSDP target of total fertility rate 2.0. Rajshahi and Barisal divisions are near to reach the target. Fertility also continues to decline in Chittagong and Sylhet divisions. BDHS data show continuous improvement in nutritional status of children. HPNSDP targets for prevalence of stunting and underweight have already been achieved.

The findings of this report and its policy and programmatic implications will be instrumental in monitoring and evaluation of HPNSDP and in designing the next HPN sector program in Bangladesh. The need, however, for further detailed analysis of BDHS data remains. I hope that such analysis will be carried out by the academicians, researchers and program personnel to provide more in-depth knowledge for future direction and effective program implementation in the coming years.

The successful completion of BDHS 2014 was made possible by the contributions of a number of organizations and individuals. I would like to thank NIPORT, Mitra & Associates and ICF International for their efforts in conducting BDHS 2014. I deeply appreciate the United States Agency for International Development (USAID), Bangladesh for providing financial assistance that helped ensure the ultimate success of this important national survey.

05.03.2016

Syed Monjurul Islam

PREFACE

Director General
National Institute of Population Research and Training
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Bangladesh Demographic and Health Survey (BDHS) 2014 is the seventh survey of its kind conducted in Bangladesh. This survey was implemented through a collaborative effort of the National Institute of Population Research and Training (NIPORT), ICF International, USA and Mitra & Associates. The financial support for the survey was provided by the United States Agency for International Development (USAID), Bangladesh.

The wealth of demographic and health data that BDHS 2014 provides is essential and instrumental in monitoring and evaluating the performance of the Health, Population and Nutrition Sector Development Program (HPNSDP). BDHS presents estimates for 18 indicators of the Results Framework of HPNSDP and considered as a major source of information for program monitoring. We hope the survey data will assist policymakers and program managers in monitoring and designing programs and strategies for improving health, family planning, and nutrition services in the country.

Members of the Technical Review Committee (TRC), consisting of experts from government, Non-government and international organizations as well as researchers and professionals working in the Health Nutrition and Population Sectors were involved and gave their expert opinion in various phases of the survey implementation. A Technical Working Group (TWG) was also formed with the representatives from NIPORT, PMMU-MOHFW, University of Dhaka, icddr,b, USAID/Bangladesh, Save the Children, ICF International and Mitra and Associates for designing the survey questionnaires and the implementation of the survey. I would like to put on record my sincere appreciation to TRC and TWG members for their sincere effort in different stages of the survey. I extend sincere thanks to the Bangladesh Bureau of Statistics (BBS) for their support in selecting sample clusters and providing Enumeration Area (EA) maps for the survey.

The preliminary results of BDHS 2014, with its key indicators were released through a dissemination seminar in April 2015. This final report brings more comprehensive analysis of the survey results. Along with the key results, detailed findings and possible interpretations are presented in the final report.

This report is an outcome of contributions of the professionals of NIPORT, NIPSOM, University of Dhaka, icddr,b, ICF International, MEASURE Evaluation, USAID/Bangladesh, SMC, and Mitra & Associates. I would like to acknowledge everyone for their contributions to BDHS 2014 Final Report.

I would like to congratulate all the professionals of Research Unit of NIPORT for the successful completion of the survey. I also extend my thanks to ICF International and Mitra & Associates for completing the task in a professional manner. Finally, USAID/Bangladesh deserves special thanks for providing technical and financial support for the survey.

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ABBREVIATIONS

AIDS	acquired immune deficiency syndrome
ANC	antenatal care
ARI	acute respiratory infection
ASA	Association of Social Advancement
ASFR	age-specific fertility rates
BBS	Bangladesh Bureau of Statistics
BCC	behavior change communication
BCG	Bacille-Calmette-Guerin vaccine against tuberculosis
BDHS	Bangladesh Demographic and Health Survey
BFS	Bangladesh Fertility Survey
BMI	body mass index
BMMS	Bangladesh Maternal Mortality Survey
BRAC	Bangladesh Rural Advancement Committee
CBR	crude birth rate
CDC	Centers for Disease Control and Prevention
CPS	Contraceptive Prevalence Survey
CSBA	community-skilled birth attendant
DGFP	Directorate General of Family Planning
DGHS	Directorate General of Health Services
DHS	Demographic and Health Survey
DPT	diphtheria, pertussis, and tetanus vaccine
EA	enumeration area
EmOC	emergency obstetric care
EPI	Expanded Program on Immunization
FP	family planning
FWA	family welfare assistant
FWV	family welfare visitor
GAR	gross attendance ratio
GAVI	Global Alliance for Vaccination and Immunization
GDP	gross domestic product
GFR	general fertility rate
GOB	Government of Bangladesh
GPI	gender parity index
GPS	global positioning system
HA	health assistant
HDI	human development index
HIV	human immunodeficiency virus
HMN	Health Metrics Network
HNPSP	Health, Nutrition and Population Sector Program
HPI	human poverty index

HPNSDP	Health, Population and Nutrition Sector Development Program
HPSP	Health and Population Sector Program
ICDDR,B	International Center for Diarrhoeal Disease Research, Bangladesh
ICPD	International Conference on Population and Development
IDU	injection drug user
IMCI	integrated management of childhood illness
IUD	intrauterine device
IYCF	Infant and Young Child Feeding
LAPM	long-acting and permanent method
LDC	least developed country
LMP	last menstrual period
LPG	liquid petroleum gas
MA	medical assistant
MDGs	Millennium Development Goals
MICS	Multiple Indicator Cluster Survey
MMR	maternal mortality ratio
MOHFW	Ministry of Health and Family Welfare
MR	menstrual regulation
MSM	men who have sex with men
MTCT	mother-to-child transmission
NAR	net attendance ratio
NASP	National AIDS/STD Programme
NCD	noncommunicable diseases
NGO	nongovernmental organization
NID	National Immunization Day
NIPORT	National Institute for Population Research and Training
NN	neonatal mortality
ORS	oral rehydration salts
ORT	oral rehydration therapy
PHC	Population and Housing Census
PIP	program implementation plan
PNN	postneonatal mortality
PRSP	poverty reduction strategy paper
PSU	primary sampling unit
RTI	reproductive tract infection
SACMO	sub-assistant community medical officer
SBA	skilled birth attendant
SD	standard deviation
SMC	Social Marketing Company
STI	sexually-transmitted infection
SWAp	sector-wide approach
TBA	traditional birth attendant
TC-NAC	Technical Committee of the National AIDS Council
TFR	total fertility rate
TT	tetanus toxoid

TWFR	total wanted fertility rate
TWG	Technical Working Group
UESD	Utilization of Essential Service Delivery Survey
UNDP	United Nations Development Program
UNICEF	United Nations Children's Fund
UP	Union Parishad
USAID	United States Agency for International Development
VAD	vitamin A deficiency
VAQ	verbal autopsy questionnaire
WHO	World Health Organization

MILLENNIUM DEVELOPMENT GOAL INDICATORS

Millennium Development Goal Indicators by sex

Bangladesh 2014

Goal	Value		
	Female	Male	Total
1. Eradicate extreme poverty and hunger			
1.8 Prevalence of underweight children under age 5	33.1	32.2	32.6
2. Achieve universal primary education			
2.1 Net enrollment ratio in primary education[1]	91.4	88.6	89.9
2.3 Literacy rate of 15-24 year olds[2]	85.9	na	na
3. Promote gender equality and empower women			
3.1a Ratio of girls to boys in primary education[3]	na	na	1.02
3.1b Ratio of girls to boys in secondary education[3]	na	na	1.04
3.1c Ratio of girls to boys in tertiary education[3]	na	na	0.64
4. Reduce child mortality			
4.1 Under-5 mortality rate (per 1000 live births)[4]	48	44	46
4.2 Infant mortality rate (per 1000 live births)[4]	39	37	38
4.3 Proportion of 1 year-old children immunized against measles	86.4	85.9	86.1
5. Improve maternal health			
5.1 Proportion of births attended by skilled health personnel[5]	na	na	42.1
5.2 Contraceptive prevalence rate[6]	62.4	na	na
5.3 Adolescent birth rate[7]	113	na	na
5.4a Antenatal care coverage: at least one visit by skilled health professional[5]	63.9	na	na
5.4b Antenatal care coverage: at least four visits by any provider[5]	31.2	na	na
5.5 Unmet need for family planning	12.0	na	na
6. Combat HIV/AIDS, malaria, and other diseases			
6.1 Percentage of population age 15-24 with comprehensive knowledge of HIV/AIDS[8]	12.7	na	na

na = Not applicable

[1] The ratio is based on reported attendance, not enrollment, in primary education among primary school age children (age 6-10). The rate also includes children of primary school age enrolled in secondary education. This is a proxy for MDG indicator 2.1, Net enrollment ratio.

[2] Refers to respondents age 15-24 who attended secondary school or higher or who could read a whole sentence or part of a sentence

[3] Based on reported net attendance, not gross enrollment, among 6-10 year-olds for primary, 11-17 year-olds for secondary, and 18-24 year-olds for tertiary education

[4] Expressed in terms of deaths per 1,000 live births. Mortality by sex refers to a five-year reference period preceding the survey.

[5] Rate refers to live births in the three years preceding the survey.

[6] Percentage of currently married women age 15-49 using any method of contraception

[7] Equivalent to the age-specific fertility rate for women age 15-19, expressed in terms of births per 1,000 women age 15-19

[8] Comprehensive knowledge means knowing that consistent use of condoms during sexual intercourse and having just one uninfected faithful partner can reduce the chance of getting the AIDS virus, knowing that a healthy-looking person can have the AIDS virus, and rejecting the two most common local misconceptions about AIDS transmission or prevention.

Millennium Development Goal Indicators by residence

Bangladesh 2014

Goal	Urban	Rural	Total
7. Ensure environmental sustainability			
7.1 Percentage of population using an improved drinking water source[1]	99.1	97.1	97.6
7.2 Percentage of population with access to improved sanitation[2]	52.2	46.2	47.8

[1] Proportion whose main source of drinking water is a household connection (piped), public standpipe, borehole, protected dug well or spring, or rainwater collection.

[2] Improved sanitation technologies are: flush toilet, ventilated improved pit latrine, traditional pit latrine with a slab, or composting toilet.

BANGLADESH

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INDIA
Rajshahi
Sylhet
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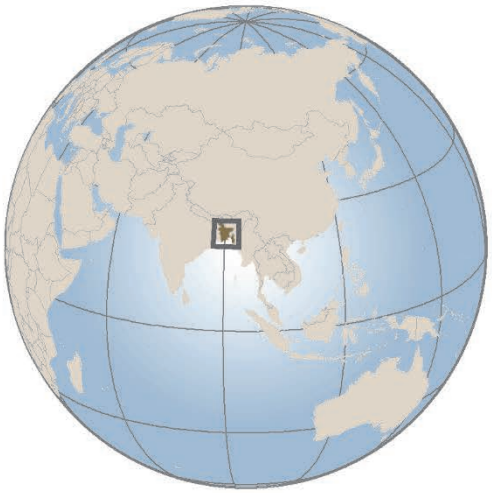


INTRODUCTION 1

1.1 GEOGRAPHY AND ECONOMY

Bangladesh is located in the northeastern part of South Asia and covers an area of 147,570 square kilometers. It is almost entirely surrounded by India, except for a short southeastern frontier with Myanmar and a southern coastline on the Bay of Bengal (see map on facing page). It lies between latitudes 20° 34′ and 26° 38′ north and longitudes 88° 01′ and 92° 41′ east. The Moguls ruled the country from the 13th until the 18th century, when the British took over and administered the subcontinent until 1947. During British rule, Bangladesh was a part of India. In 1947, the independent states of Pakistan and India were created. The present territory of Bangladesh was a part of Pakistan. Bangladesh emerged on March 26, 1971, as an independent country on the world's map following a war of liberation.

Most of Bangladesh is low, flat land that consists of alluvial soil. The most significant feature of the terrain is the extensive network of rivers that is of primary importance to the socioeconomic life of the nation. Chief among these, lying like a fan on the face of the land, are the Ganges-Padma, Brahmaputra-Jamuna, and Megna rivers.

The tropical climate of Bangladesh is dominated by seasonal monsoons. The country experiences a hot summer season with high humidity from March to June; a somewhat cooler, but still hot and humid, monsoon season from July through early October; and a cool, dry winter from November through the end of February. The fertile delta is subject to frequent natural calamities, such as floods, cyclones, tidal bores, and drought.

The administrative divisions of the country consist of 7 divisions, 64 districts, and 545 upazilas/thanas. Muslims make up almost 90 percent of the population of Bangladesh, Hindus account for about 9 percent, and other religions constitute the remaining 1 percent (BBS 2014). The national language of Bangladesh is Bangla, which is spoken and understood by all.

Industry has emerged as the largest sector of the economy, contributing about 30 percent of the gross domestic product (GDP). The GDP has continued to grow over 6 percent in the last five years and exhibited a robust growth rate of 6.5 percent in fiscal year (FY) 2014-2015 (BBS 2015a). The overall growth was led by the manufacturing and construction sectors, which recorded impressive expansions of 20 and 7 percent, respectively, in FY 2014-2015. The accelerated growth in these sectors was mainly due to huge investments in large and medium-scale industry. Agriculture is the second largest sector of the economy, contributing 16 percent to the total GDP in FY 2014-2015. The largest contributor in the agricultural sector is crops and horticulture (9 percent) followed by the fishery sector (4 percent). The gross national income (GNI) per capita in Bangladesh has increased to US$1,314 in FY 2014-2015 (BBS 2015b). Bangladesh thus becomes a lower middle-income country based on a new income classification of world economies (World Bank 2015).

Recent socioeconomic development of Bangladesh is reflected in the human development index (HDI) of the United Nations Development Program (UNDP 2013). Bangladesh's HDI value for 2014 is 0.570—which is in the medium human development category—positioning the country at 142 out of 188 countries and territories (UNDP 2015). Between 1990 and 2014, the country's HDI value increased from 0.386 to 0.570, an annual increase of about 1.64 percent. Among the eight South Asian countries, Bangladesh is in fifth position based on HDI rank, following Sri Lanka, Maldives, India, and Bhutan.

1.2 POPULATION

Bangladesh is the most densely populated country in the world, excluding city-states such as Singapore, Bahrain, and the Vatican. Table 1.1 summarizes the basic demographic indicators for Bangladesh. According to recent estimates from the Bangladesh Bureau of Statistics (BBS), the population of the country is about 158 million, with a population density of 1,070 persons per square kilometer in 2014. After Census 2011, the population of Bangladesh increased by 8 million, with an annual increase of more than 2.0 million. The growth rate between 2001 and 2011 censuses was 1.37 percent. The life expectancy at birth in Bangladesh is 71 years, with women having slightly longer lifespans than men (72 years versus 69 years).

The country is now experiencing a demographic transition. The continuous decline of the natural growth rate is expected to lead to a small population increase in coming decades. In comparison with other countries in the region, Bangladesh is in an intermediate position between low-growth countries, such as Thailand, Sri Lanka, and Myanmar, and medium-growth countries, such as India and Malaysia (BBS 2011). The 2015 projections (medium variant) by the United Nations estimated that the population of Bangladesh in 2050 would be about 202 million (UN 2015).

Table 1.1 Basic demographic indicators

Demographic indicators from selected sources, Bangladesh 2011 and 2014

Indicators	2011[1]	2014[2]
Population (millions)	149.8	157.9
Intercensal growth rate (percent)	1.37	-
Density (population/km^2)	1,015	1,070
Percent urban[3]	28.0	-
Life expectancy (year)[4]		
Both	69.0	70.7
Male	67.9	69.1
Female	70.3	71.6

Source: [1] BBS 2012; [2] BBS 2015a; [3] BBS 2014; [4] BBS 2015b

1.3 POPULATION, FAMILY PLANNING, AND MATERNAL AND CHILD HEALTH POLICIES AND PROGRAMS

Family planning was introduced in Bangladesh (then East Pakistan) in the early 1950s through the voluntary efforts of social and medical workers. The government of Bangladesh, recognizing the urgency of its goal to achieve moderate population growth, adopted family planning as a government sector program in 1965.

The policy to reduce fertility rates has been repeatedly reaffirmed by the government of Bangladesh since the country's independence in 1971. The first Five-Year Plan (1973-1978) emphasized "the necessity of immediate adoption of drastic steps to slow down the population growth" and reiterated that "no civilized measure would be too drastic to keep the population of Bangladesh on the smaller side of 15 crore (i.e., 150 million) for sheer ecological viability of the nation" (GOB 1994). Beginning in 1972, the family planning program received virtually unanimous, high-level political support. All subsequent governments have identified population control as a top priority for government action. This political commitment plays a crucial role in the fertility decline in Bangladesh.

In 1976, the government declared the rapid growth of the population to be the country's number one problem and adopted a broad-based, multisectoral family planning program along with an official population policy (GOB 1994). Population planning was seen as an integral part of the total development process and was incorporated into the successive five-year plans. Policy guidelines and strategies for the population program are formulated by the National Population Council, which is chaired by the country's prime minister.

In the mid-1970s the government instituted the deployment of full-time, local family welfare assistants, who served as community-based family planning motivators and distributors. At its height a few years ago, this program had a staff of almost 24,000. During the same period, a social marketing program to promote the sale of birth control pills and condoms was initiated. The population program involves more than 200 nongovernmental organizations (NGOs).

Since 1980 the family planning program has emphasized the importance of integrating health and family planning services. The goal is to provide an essential integrated package of high quality, client-centered reproductive and child health care, family planning, communicable disease control, and curative services at a one-stop service point.

Since 1998 the health program in Bangladesh has drawn on the sector-wide approach (SWAp). The SWAp program aims to provide a package of essential, quality health care services that respond to population needs, especially those of children, women, the elderly, and the poor.

The first SWAp—the Health and Population Sector Program (HPSP)—was formulated as part of the fifth Five-Year Plan (1998-2003). It was followed by the second SWAp, the Health, Nutrition and Population Sector Program (HNPSP), which began in 2003 and expired in June 2011.

The Ministry of Health and Family Welfare (MOHFW) initiated the Health, Population, Nutrition Sector Development Program (HPNSDP) for five years, from July 2011 to June 2016. The HPNSDP is the SWAp for the overall improvement of health, population, and nutrition sectors. The main objectives of the HPNSDP are to create conditions that allow the Bangladeshi people to reach and maintain the highest attainable level of health as a fundamental human right and an issue of social justice.

The government of Bangladesh (GOB) is working toward achieving Millennium Development Goals (MDGs). Of the eight MDGs, three relate to health (child mortality, maternal health, and HIV/AIDS and malaria), and these could exert a direct impact on the Bangladeshi population. Furthermore, three other goals (universal primary education, poverty eradication, and gender equity) closely relate to human resource development. The revised HPNSDP Program Implementation Plan (PIP) sets out sector-specific strategies to achieve its goal (MOHFW 2014). These strategies are as follows:

- Streamline and expand the access to and quality of maternal, neonatal, and child health services, and, in particular, supervised deliveries (MDG 4 and MDG 5).
- Revitalize various family planning interventions to attain replacement-level fertility.
- Improve and strengthen nutritional services by mainstreaming nutrition within the regular Directorate General for Health Services (DGHS) and Directorate General for Family Planning (DGFP) services (MDG 1).
- Strengthen preventive approaches and control programs for communicable diseases (MDG 6).
- Expand noncommunicable disease control efforts at all levels by streamlining referral systems and strengthening hospital accreditation and management systems.
- Strengthen the various support systems by increasing the health workforce at all service levels, including their capacity building and enhanced focus on coordinated implementation of operational plans, timely procurement, and effective logistic management, financial management, and monitoring and evaluation (M&E).
- Strengthen drug management and improve quality drug provision.

- Pursue priority institutional and policy reforms involving stewardship and oversight functions of the public sector, including quality assurance, community participation, and accountability.

HPNSDP has introduced a Results Framework (RFW) with 8 goal levels and 32 intermediate outcome indicators to monitor progress and program impact. A Performance Monitoring Plan (PMP) also elaborates on MOHFW's commitments to (1) collect specific information for the RFW indicators and (2) assess program progress for decision making. Recently, MOHFW elaborated on the M&E framework for the HPNSDP sector with the lists of the data sources, regular updating of the indicators, and analysis and reporting of results (PMMU 2015). The Bangladesh Demographic and Health Survey (BDHS) is identified as one of the major sources of data for up-to-date information on 6 goals and 12 output levels of RFW indicators of HPNSDP. These are used as a basis to confirm the occurrence of change.

1.4 ORGANIZATION OF THE 2014 BANGLADESH DEMOGRAPHIC AND HEALTH SURVEY

1.4.1 Survey Objectives and Implementing Organizations

The 2014 Bangladesh Demographic and Health Survey (BDHS) is the seventh DHS undertaken in Bangladesh, following those implemented in 1993-94, 1996-97, 1999-2000, 2004, 2007, and 2011. The main objectives of the 2014 BDHS are to:

- Provide information to meet the monitoring and evaluation needs of the health, population, and nutrition sector development program (HPNSDP)

- Provide program managers and policy makers involved in the program with the information they need to plan and implement future interventions

The specific objectives of the 2014 BDHS were as follows:

- To provide up-to-date data on demographic rates, particularly fertility and infant, and child mortality rates, at the national and divisional level

- To measure the level of contraceptive use of currently married women

- To provide data on maternal and child health, including antenatal care, assistance at delivery, postnatal care, newborn care, breastfeeding, immunizations, and prevalence and treatment of diarrhea and other diseases among children under age 5

- To assess the nutritional status of children (under age 5) and women by means of anthropometric measurements (weight and height), and to assess infant and child feeding practices

- To provide data on knowledge and attitudes of women about sexually transmitted infections and HIV/AIDS

- To measure key education indicators, including school attendance ratios

- To provide community-level data on accessibility and availability of health and family planning services

The 2014 BDHS was conducted under the authority of the National Institute of Population Research and Training (NIPORT) of the Ministry of Health and Family Welfare. The survey was implemented by Mitra and Associates, a Bangladeshi research firm located in Dhaka. ICF International of Rockville, Maryland, USA, provided technical assistance to the project as part of its international Demographic and Health Surveys (DHS) Program. The U.S. Agency for International Development (USAID) provided financial support.

1.4.2 Sample Design

The sample for the 2014 BDHS is nationally representative and covers the entire population residing in noninstitutional dwelling units in the country. The survey used a sampling frame from the list of enumeration areas (EAs) of the 2011 Population and Housing Census of the People's Republic of Bangladesh, provided by the Bangladesh Bureau of Statistics (BBS). The primary sampling unit (PSU) for the survey is an EA created to have an average of about 120 households.

Bangladesh is divided into seven administrative divisions: Barisal, Chittagong, Dhaka, Khulna, Rajshahi, Rangpur, and Sylhet. Each division is divided into *zilas*, and each *zila* into *upazilas*. Each urban area in an *upazila* is divided into wards, which are further subdivided into *mohallas*. A rural area in an *upazila* is divided into *union parishads* (UPs) and, within UPs, into *mouzas*. These divisions allow the country as a whole to be separated into rural and urban areas.

The survey is based on a two-stage stratified sample of households. In the first stage, 600 EAs were selected with probability proportional to the EA size, with 207 EAs in urban areas and 393 in rural areas. A complete household listing operation was then carried out in all of the selected EAs to provide a sampling frame for the second-stage selection of households. In the second stage of sampling, a systematic sample of 30 households on average was selected per EA to provide statistically reliable estimates of key demographic and health variables for the country as a whole, for urban and rural areas separately, and for each of the seven divisions. With this design, the survey selected 18,000 residential households, which were expected to result in completed interviews with about 18,000 ever-married women (see Appendix A for the details of the sample design).

Any analysis using the 2014 BDHS data requires that sampling weights be applied to ensure the actual representation of the survey results at the national and domain levels. Although the weighted distribution of urban-rural households in the survey was based on the urban-rural distribution in the 2011 population census, the sampling weights were adjusted to reflect a modified urban-rural household distribution recently reported by the BBS. After adjusting for undercount and including statistical metropolitan areas (SMAs) among the urban areas, the BBS estimated that the urban population was 28 percent (BBS 2014). The adjustment in the 2014 BDHS sampling weight was to generate a revised urban-rural population distribution and was not expected to lead to any significant differences in the overall survey indicators.

1.4.3 Questionnaires

The 2014 BDHS used three types of questionnaires: a Household Questionnaire, a Woman's Questionnaire, and a Community Questionnaire. The contents of the Household and Woman's questionnaires were based on the MEASURE DHS Model Questionnaires. These model questionnaires were adapted for use in Bangladesh during a series of meetings with a Technical Working Group (TWG) that consisted of representatives from NIPORT, Mitra and Associates, International Center for Diarrheal Disease Research, Bangladesh (ICDDR,B), USAID/Bangladesh, and ICF International (see Appendix D for a list of members). Draft questionnaires were then circulated to other interested groups and were reviewed by the 2014 BDHS Technical Review Committee (see Appendix D). The questionnaires were developed in English and then translated into and printed in Bangla.

The Household Questionnaire was used to list all the usual members and visitors in the selected households. Some basic information was collected on the characteristics of each person listed, including age, sex, education, current work status, birth registration, and individual possession of mobile phones. The main purpose of the Household Questionnaire was to identify women who were eligible for the individual interview. Information was collected about the dwelling unit, such as the source of water, type of toilet facilities, materials used to construct the floor, roof, and walls, ownership of various consumer goods, and availability of hand washing facilities. In addition, this questionnaire was used to record the height and weight measurements of ever-married women age 15-49 and children under age 6.

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

- Background characteristics (e.g., age, education, religion, media exposure)
- Reproductive history
- Use and source of family planning methods
- Antenatal, delivery, postnatal, and newborn care
- Breastfeeding and infant feeding practices
- Child immunizations and illnesses
- Marriage
- Fertility preferences
- Husband's background and respondent's work
- Awareness of AIDS and other sexually transmitted infections

The Community Questionnaire was administered in each selected cluster during the household listing operation and included questions about the existence of development organizations in the community and the availability and accessibility of health services and other facilities. During the household listing operation, the geographic coordinates and altitude at the center of each cluster were also recorded using Garmin eTrex Legend H units[1]. A list of health facilities and health service providers in each selected EA was provided to the interviewing teams to verify information gathered in the Woman's Questionnaires on the types of facilities accessed and health services personnel seen. The Community Questionnaire was administered to a group of four to six key informants who were knowledgeable about socioeconomic conditions and the availability of health and family planning services/facilities in the cluster. Key informants included community leaders, teachers, government officials, social workers, religious leaders, traditional healers, and health care providers among others.

1.4.4 Training and Fieldwork

Fifty-four people were trained to carry out the listing of households, to delineate EAs, and to administer Community Questionnaires. They were also trained in the use of global positioning system (GPS) units to obtain locational coordinates for each selected EA. The training lasted a total of five days from May 14-20, 2014. A household listing operation was carried out in all selected EAs from May 21 to August 17, 2014, in four phases, each about three weeks in duration. Initially, 20 teams of two persons each were deployed to carry out the listing of households and to administer the Community Questionnaires. The number of teams was reduced to 19 in the third phase and to 11 in the final phase. In addition, ten supervisors were deployed to check and verify the work of the listing teams.

Training for the fieldworkers of the main survey was conducted from June 1 to 26, 2014. A total of 164 fieldworkers were recruited based on their educational level, prior experience with surveys, maturity, and willingness to spend up to four months on the project. Training included lectures on how to complete the questionnaires, mock interviews between participants, and field practice. A former NIPORT staff member gave a talk about family planning methods and maternal and child health, including HPNSDP.

Fieldwork for the BDHS was carried out by interviewing teams, each consisting of one male supervisor, one female field editor, five female interviewers, and one logistics staff person. Data collection was implemented in four phases, starting on June 28, 2014, and ending on November 9, 2014. The number of teams declined with each subsequent phase, starting with 20 teams in the first phase and ending with 16 teams by the end of data collection.

Data quality measures were implemented through several activities. There were four quality control teams from Mitra and Associates, each comprised of one male and one female staff person. They were sent

[1] http://buy.garmin.com/en-US/US/on-the-trail/discontinued/etrex-legend-h/prod30120.html

to the field to visit the interviewing teams throughout the data collection period. Moreover, the professionals of the survey team made several visits to check the fieldwork.

In addition, NIPORT monitored fieldwork by sending two quality control teams, each comprised of three members. The teams went to the field for about three weeks in each phase. They oversaw use of the household listings and maps, observed one household and one individual interview of each interviewer, and spot-checked the completed questionnaires. The teams also revisited half of the households of one completed cluster for each survey team and checked whether selected households were visited and eligible respondents were properly identified and interviewed. Debriefing sessions were held between fieldworkers' tours to discuss problems encountered in the field, clarifications, and administrative matters. Data quality was also monitored through field check tables generated concurrently with data processing. The main purpose of the tables was to allow the quality control teams to advise field teams of problems detected during data entry. Representatives from USAID, The DHS Program, and NIPORT, and other Technical Review Committee members, also monitored fieldwork through several field visits.

1.4.5 Data Processing

The completed 2014 BDHS questionnaires were periodically returned to Dhaka for data processing at Mitra and Associates. The data processing began shortly after fieldwork commenced. Data processing consisted of office editing, coding of open-ended questions, data entry, and editing of inconsistencies found by the computer program. Eight data entry operators and two data entry supervisors processed the data. Data processing commenced on July 24, 2014, and ended on November 20, 2014. The task was carried out using the Census and Survey Processing System (CSPro), a software jointly developed by the U.S. Census Bureau, ICF Macro, and Serpro S.A.

1.4.6 Coverage of the Sample

Table 1.2 shows the results of the household and individual women's interviews. Among a total of 17,989 selected households, 17,565 were found occupied. Interviews were successfully completed in 17,300, or 99 percent of households. A total of 18,245 ever-married women age 15-49 were identified in these households and 17,863 were interviewed, for a response rate of 98 percent. Response rates for households and eligible women are similar to those in the 2011 BDHS. The principal reason for nonresponse among women was their absence from home despite repeated visits to the household. The response rates do not vary notably by urban-rural residence.

Table 1.2 Results of the household and individual interviews

Number of households, number of interviews, and response rates, according to residence (unweighted), Bangladesh 2014

	Residence		
Result	Urban	Rural	Total
Household interviews			
Households selected	6,210	11,779	17,989
Households occupied	6,062	11,503	17,565
Households interviewed	5,930	11,370	17,300
Household response rate[1]	97.8	98.8	98.5
Interviews with women age 15-49			
Number of eligible women	6,324	11,921	18,245
Number of eligible women interviewed	6,167	11,696	17,863
Eligible women response rate[2]	97.5	98.1	97.9

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

HOUSING CHARACTERISTICS AND HOUSEHOLD POPULATION

2

Key Findings

- Almost everyone (98 percent) in Bangladesh has access to an improve source of drinking water that is they are having water from pipe, tube well, protected well, rain or bottle.
- One in 10 households uses an appropriate water treatment method, which includes boiling, bleaching, filtering, and solar disinfecting. The proportion has not changed since 2011.
- Thirty-seven percent of households where a place of washing hands was observed had water and a cleansing agent for hand washing. In 2011, this proportion was 31 percent.
- The proportion of households having an improved toilet facility that is not shared with other households increased from 34 percent in 2011 to 45 percent in 2014. Four percent of households lack toilet facilities.
- The proportion of households with electricity increased from 60 percent in 2011 to 73 percent in 2014. Eleven percent of households use solar electricity; usage is 15 percent in rural and 3 percent in urban areas.
- Eighty-two percent of households use solid fuel for cooking.
- Household possession of mobile phones has increased sharply from 78 percent in 2011 to 89 percent in 2014; ownership is 93 percent in urban areas and 87 percent in rural areas.
- One-third of the population is under age 15.
- Thirteen percent of households are headed by a woman.
- Twenty-three percent of men and 27 percent of women age 6 and over have not attended school.
- Sixty-five percent of men and 24 percent of women age 8 and over are currently working.
- Fifty-three percent of household members age 13 and older own a mobile phone; ownership is 64 percent in urban and 48 percent in rural areas. Forty-five percent of adolescents (age p15-19) own a mobile phone; male adolescents are twice as likely as female adolescents to own a mobile phone (63 percent versus 31 percent).

This chapter provides an overview of socioeconomic characteristics of the population, including household conditions, sources of drinking water, sanitation facilities, hand washing practices, availability of electricity, housing facilities, possession of household durable goods, and ownership of a homestead and land. Information on household assets is used to create an indicator of household economic status, the wealth index. This chapter also describes the demographic characteristics of the household population, including age, sex, educational attainment, and employment status.

A household in the 2014 BDHS is defined as a person or group of related and unrelated persons who usually live together in the same dwelling unit(s), who have common cooking and eating arrangements, and who acknowledge one adult member as head of the household. A member of the household is any person who usually lives in the household.

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

2.1 HOUSEHOLD CHARACTERISTICS

Physical characteristics of a household are used to assess the general wellbeing and socioeconomic status of its members. These characteristics include access to safe drinking water and sanitation facilities. Other characteristics are the structure of housing, its crowdedness, and the type of fuel used for cooking.

2.1.1 Water and Sanitation

Access to safe water and sanitation are basic determinants of better health. Limited access to safe drinking water and sanitation facilities and poor hygiene are associated with skin diseases, acute respiratory infections (ARIs), and diarrheal diseases, the leading preventable diseases in Bangladesh. ARI remains the leading cause of child deaths in Bangladesh. Diarrheal deaths and prevalence of diarrheal diseases among children under age 5 have declined, although 5 percent of under-5 children were reported to have had diarrhea in the two-week period in 2011 (NIPORT et al. 2013).

Table 2.1 presents information on household drinking water by urban-rural residence. Access to an improved source of drinking water is almost universal in Bangladesh (98 percent). The most common source of drinking water in urban areas is a tube well or borehole (67 percent), followed by water piped into the dwelling (14 percent), water piped to the yard or plot (9 percent), and a public tap or standpipe (8 percent). In contrast, a tube well or borehole is practically the only source of drinking water in rural areas (94 percent). For 76 percent of households, the source of drinking water is within the premises. One in five households spends less than 30 minutes round trip to obtain water. As expected, it takes longer to obtain drinking water in rural areas than in urban areas.

Table 2.1 Household drinking water

Percent distribution of households and de jure population by source, time to collect, and by treatment of drinking water, according to residence, Bangladesh 2014

	Households			Population		
Characteristic	Urban	Rural	Total	Urban	Rural	Total
Source of drinking water						
Improved source	99.1	97.0	97.6	99.1	97.1	97.6
Piped into dwelling	13.7	0.6	4.3	13.7	0.6	4.2
Piped to yard/plot	9.2	1.0	3.3	8.6	0.8	3.0
Public tap/standpipe	8.1	0.6	2.7	7.6	0.6	2.5
Tube well or borehole	67.1	93.9	86.4	68.3	94.3	87.2
Protected well	0.1	0.3	0.2	0.0	0.3	0.2
Rain water	0.2	0.5	0.4	0.2	0.4	0.3
Bottled water	0.9	0.1	0.3	0.7	0.1	0.3
Non-improved source	0.8	2.8	2.2	0.8	2.7	2.2
Unprotected well	0.0	0.9	0.6	0.0	0.8	0.6
Unprotected spring	0.0	0.4	0.3	0.0	0.4	0.3
Tanker truck/cart with drum	0.5	0.0	0.2	0.5	0.0	0.2
Surface water	0.3	1.5	1.2	0.3	1.5	1.2
Other	0.1	0.2	0.1	0.1	0.2	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0
Percentage using any improved source of drinking water	99.1	97.0	97.6	99.1	97.1	97.6
Time to obtain drinking water (round trip)						
Water on premises	78.7	74.3	75.5	78.6	74.1	75.4
Less than 30 minutes	17.7	21.2	20.2	17.8	21.2	20.3
30 minutes or longer	3.3	4.4	4.1	3.3	4.6	4.2
Don't know/missing	0.3	0.1	0.2	0.3	0.1	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0
Water treatment prior to drinking[1]						
Boiled	18.8	0.8	5.8	18.6	0.7	5.6
Bleach/chlorine added	0.4	0.2	0.2	0.4	0.2	0.2
Strained through cloth	2.6	0.7	1.3	2.6	0.7	1.2
Ceramic, sand, or other filter	10.9	2.1	4.6	11.1	2.1	4.6
Other	0.2	0.1	0.2	0.2	0.1	0.1
No treatment	73.1	95.9	89.5	73.2	96.0	89.8
Percentage using an appropriate treatment method[2]	26.5	3.4	9.9	26.4	3.4	9.7
Number	4,844	12,456	17,300	21,101	56,225	77,326

[1] Respondents may report multiple treatment methods, so the sum of treatment may exceed 100 percent.
[2] Appropriate water treatment methods include boiling, bleaching, filtering, and solar disinfecting.

Nationally, 10 percent of households use an appropriate water treatment method, which has not changed since 2011 (NIPORT et al. 2013). Rural households are much less likely than urban households to treat their water appropriately (3 percent and 27 percent, respectively). Overall, boiling water prior to drinking is the most common treatment method (6 percent). However, only one in five urban households boil the water for drinking, while less than 1 percent of rural households do so.

Households without proper sanitation facilities have a greater risk of diseases like diarrhea, dysentery, and typhoid than households with improved sanitation facilities that are not shared with other households. Table 2.2 shows that 45 percent of households have an improved (not shared) toilet facility, which increased from 34 percent in 2011 (NIPORT et al. 2013). Another 24 percent of households use a facility that would be considered improved if it were not shared with other households. Facilities that are shared are not considered to be as hygienic as those that are not shared. About one-third of the households use a non-improved toilet facility (31 percent); 22 percent of households use pit latrines without slabs, and 3 percent use a hanging toilet. Four percent of households have no toilet facility, nearly unchanged since 2011, when 5 percent of households had no toilet facility (NIPORT et al. 2013). Rural households are more likely than urban households to have no toilet facility (5 percent versus 1 percent). Although the majority of households (65 percent) do not share their toilet, rural households are more likely than urban households to use a toilet facility that is not shared (67 versus 58 percent, respectively). However, rural households are twice as likely to have non-improved toilet facilities as urban households (36 compared with 19 percent).

Table 2.2 Household sanitation facilities

Percent distribution of households and de jure population by type of toilet/latrine facilities, according to residence, Bangladesh 2014

	Households			Population		
Type of toilet/latrine facility	Urban	Rural	Total	Urban	Rural	Total
Improved, not shared facility	**48.6**	**43.6**	**45.0**	**52.2**	**46.2**	**47.8**
Flush/pour flush to piped sewer system	6.5	0.2	2.0	6.7	0.2	2.0
Flush/pour flush to septic tank	15.8	4.5	7.6	17.0	5.0	8.2
Flush/pour flush to pit latrine	1.3	0.7	0.9	1.3	0.7	0.9
Ventilated improved pit (VIP) latrine	11.1	10.9	11.0	11.9	11.6	11.7
Pit latrine with slab	13.8	27.3	23.5	15.3	28.7	25.1
Shared facility[1]	**32.6**	**20.3**	**23.8**	**29.5**	**17.7**	**20.9**
Flush/pour flush to piped sewer system	4.6	0.1	1.3	4.1	0.1	1.2
Flush/pour flush to septic tank	8.1	1.7	3.5	7.0	1.4	3.0
Flush/pour flush to pit latrine	1.0	0.3	0.5	0.9	0.2	0.4
Ventilated improved pit (VIP) latrine	7.4	4.0	5.0	6.9	3.7	4.5
Pit latrine with slab	11.5	14.3	13.6	10.7	12.3	11.8
Non-improved facility	**18.9**	**36.0**	**31.2**	**18.3**	**36.1**	**31.3**
Flush/pour flush not to sewer/septic tank/pit latrine	8.3	0.4	2.6	7.7	0.3	2.3
Pit latrine without slab/open pit	8.6	26.9	21.8	8.7	27.4	22.3
Hanging toilet/hanging latrine	1.0	3.9	3.1	1.0	4.2	3.3
No facility/bush/field	1.0	4.7	3.7	0.9	4.2	3.3
Total	100.0	100.0	100.0	100.0	100.0	100.0
Shared sanitation facility						
Not shared	57.7	67.3	64.6	61.8	71.2	68.7
Shared with 1-4 households	23.9	28.7	27.3	21.6	25.2	24.2
5-9 households	10.4	3.2	5.2	9.2	2.8	4.6
10 + households	7.9	0.8	2.8	7.3	0.7	2.5
Don't know/missing	0.1	0.0	0.0	0.1	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number	4,844	12,456	17,300	21,101	56,225	77,326

[1] Shared facility of an otherwise improved type

Hand washing, which protects against communicable diseases, is promoted by the government of Bangladesh and its development partners. Table 2.3 provides information on designated places for hand washing in households and on the use of water and cleansing agents for washing hands, according to place of residence (urban or rural), divisions, and wealth quintiles.

In the 2014 BDHS, interviewers were instructed to observe the place where household members usually wash their hands. They looked for regularity of water supply, observed whether the household had cleansing agents near the place of hand washing, and noted the location of the place of hand washing. The interviewers found designated places for hand washing in almost all the households (96 percent), an improvement since 2011, when 86 households had a designated place for hand washing (NIPORT et al. 2013).

Twenty-nine percent of households have soap and water in the place where household members wash their hands, 8 percent have water and other cleansing agents (ash, mud, sand, etc.), and the majority (59 percent) have water only. Overall, 4 percent of households do not have water, soap, or any cleansing agent.

Forty-eight percent of urban households have soap and water compared with 21 percent of rural households. Availability of hand washing facilities with soap and water varies across divisions, ranging from 32 percent of households in Dhaka and Chittagong to 20 percent in Barisal. The use of soap and water for hand washing increases with an increase in household wealth. For example, use of soap and water is lowest among households in the lowest wealth quintile (6 percent) and highest (75 percent) among those in the highest wealth quintile.

Table 2.3 Hand washing: availability of cleansing agents

Percentage of households in which the place most often used for washing hands was observed, and among households in which the place for hand washing was observed, percent distribution by availability of water, soap, and other cleansing agents, Bangladesh 2014

Background characteristics	Percentage of households where place for washing hands was observed	Number of households	Among households where place for hand washing was observed								Number of households with place for hand washing observed
			Soap and water[1]	Water and cleansing agent[2] other than soap only	Water only	Soap but no water[3]	Cleansing agent other than soap only[2]	No water, no soap, no other cleansing agent	Missing	Total	
Residence											
Urban	98.2	4,844	47.9	5.5	43.8	0.1	0.0	2.5	0.1	100.0	4,758
Rural	94.5	12,456	20.9	9.4	64.9	0.2	0.3	4.3	0.1	100.0	11,765
Division											
Barisal	90.7	1,071	19.9	8.7	68.4	0.0	0.0	3.0	0.0	100.0	972
Chittagong	92.9	3,098	31.8	4.3	59.6	0.1	0.1	4.1	0.0	100.0	2,879
Dhaka	96.6	6,047	31.6	8.9	56.9	0.0	0.3	2.1	0.1	100.0	5,843
Khulna	98.1	1,786	24.7	7.8	61.9	0.2	0.1	5.1	0.2	100.0	1,752
Rajshahi	96.8	2,125	28.3	10.0	54.1	0.5	0.3	6.7	0.0	100.0	2,058
Rangpur	97.8	2,023	27.4	13.1	57.5	0.2	0.2	1.6	0.1	100.0	1,979
Sylhet	90.6	1,150	21.2	4.1	64.6	0.8	0.0	9.2	0.1	100.0	1,042
Wealth quintile											
Lowest	89.9	3,523	5.7	9.2	76.7	0.1	0.7	7.4	0.1	100.0	3,166
Second	94.0	3,498	8.2	11.5	74.7	0.1	0.1	5.3	0.1	100.0	3,288
Middle	96.5	3,393	18.0	11.4	66.4	0.2	0.1	3.8	0.0	100.0	3,275
Fourth	98.0	3,447	33.9	8.0	55.8	0.2	0.1	1.9	0.2	100.0	3,377
Highest	99.4	3,438	74.5	1.7	22.6	0.2	0.0	0.8	0.1	100.0	3,418
Total	95.5	17,300	28.6	8.3	58.8	0.2	0.2	3.8	0.1	100.0	16,524

[1] Soap includes soap or detergent in bar, liquid, powder, or paste form. This column includes households with soap and water only as well as those that had soap and water and another cleansing agent.
[2] Cleansing agents other than soap include locally available materials such as ash, mud, or sand.
[3] Includes households with soap only as well as those with soap and another cleansing agent

Table 2.4 shows that 25 percent of households have a designated place for hand washing, which is covered and located inside the dwelling. For 31 percent of households, this place is in open space but not shared, and for the remaining 44 percent of households the hand washing place is in an open space and shared. Urban households are more likely to have a covered place for hand washing located inside the dwelling (46 percent) compared with rural households (17 percent). Only 6 percent of households in the lowest wealth quintile were observed to have a place for hand washing that is covered and located inside the dwelling, compared with 68 percent of households in the highest wealth quintile.

Table 2.4 Hand washing: location

Among households in which the place for washing hands was observed, percent distribution by type of place for hand washing, by background characteristics, Bangladesh 2014

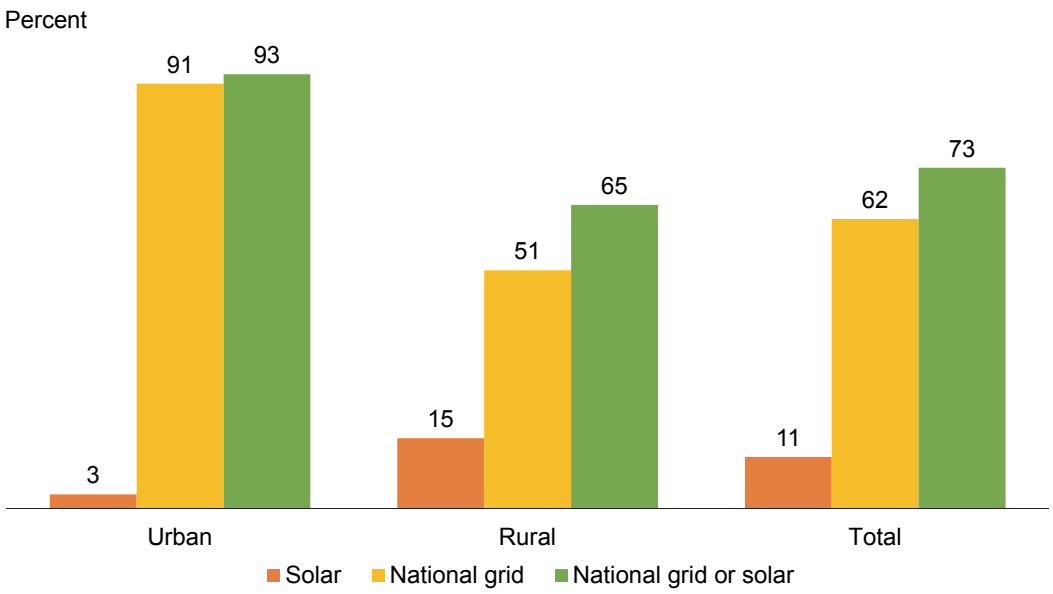
Background characteristics	Covered, inside dwelling	Open space, not shared	Open space, shared	Total	Number of households with place for hand washing observed
Residence					
Urban	46.1	19.4	34.5	100.0	4,758
Rural	16.9	35.4	47.7	100.0	11,765
Division					
Barisal	14.0	26.4	59.6	100.0	972
Chittagong	29.1	27.6	43.3	100.0	2,879
Dhaka	29.2	26.9	43.8	100.0	5,843
Khulna	17.3	38.5	44.2	100.0	1,752
Rajshahi	23.9	35.0	41.1	100.0	2,058
Rangpur	23.1	42.5	34.2	100.0	1,979
Sylhet	23.5	22.0	54.4	100.0	1,042
Wealth quintile					
Lowest	5.6	33.3	61.1	100.0	3,166
Second	7.4	35.3	57.3	100.0	3,288
Middle	13.8	39.0	47.2	100.0	3,275
Fourth	28.8	30.5	40.5	100.0	3,377
Highest	68.3	16.6	15.2	100.0	3,418
Total	25.3	30.8	43.9	100.0	16,524

Note: Total may not sum to 100 percent due to missing cases.

2.1.2 Housing Characteristics

Housing characteristics and household assets can be used to measure the socioeconomic status of household members. Figure 2.1 shows that 73 percent of households in Bangladesh have access to electricity, either from the national grid or solar power connections. Independently, the national grid covers 62 percent of households throughout the country, with more coverage in urban areas (91 percent) and less in rural areas (51 percent). In contrast, solar power is predominantly used in rural areas (15 percent, compared with 3 percent in urban areas) and independently serves 11 percent of households in Bangladesh. Overall, access to electricity, either from the national grid or solar power, has increased substantially in the last three years, from 60 percent in 2011 to 73 percent in 2014. This expansion took place mostly in rural areas (from 49 percent in 2011 to 65 percent in 2014) rather than in urban areas (from 90 percent in 2011 to 93 percent in 2014) (NIPORT et al. 2013).

Figure 2.1 **Availability of electricity by urban-rural residence**



BDHS 2014

Table 2.5 presents information on type of flooring material, type of roof and wall materials, and number of rooms for sleeping. Earth and sand are the most common flooring materials used in Bangladesh (68 percent). These materials are predominantly used in rural areas (82 percent), while in urban areas the most common flooring material is cement (61 percent).

Tin is the most common roofing material in Bangladesh. Overall 85 percent of households live in dwellings with tin roofs. There is a large urban-rural difference in the use of cement or ceramic tiles for roofs. Households in urban areas are more than five times as likely to use cement tiles as households in rural areas.

Tin is the predominant material of outer walls in 2014 (43 percent), while in the 2007 BDHS walls in 40 percent of households were made of natural materials such as cane, palm, trunks, dirt, or bamboo with mud (NIPORT et al. 2009). Twenty-six percent of households have walls made of cement. Rural households are more likely to have walls made of tin (48 percent) than urban households (30 percent). On the other hand, urban households are more than three times as likely to have cement walls (53 percent) as rural households (16 percent).

The number of rooms used for sleeping indicates the extent of crowding in households. Overcrowding increases the risk of contracting infectious diseases, such as tuberculosis, measles, and meningitis (Aaby, P. 1988; Acevedo-Garcia, D. 2000; Alirol, E. et al. 2011). One in three households has only one room for sleeping. The proportion of households using one room for sleeping has decreased from 40 percent in 2007 to 35 percent in 2011 to 33 percent in 2014 (NIPORT et al. 2009; NIPORT et al. 2013). There are small differences in the number of rooms used for sleeping by urban-rural residence.

Table 2.5 Housing characteristics

Percent distribution of households by housing characteristics, according to residence, Bangladesh 2014

Housing characteristics	Residence		Total
	Urban	Rural	
Flooring material[1]			
Earth, sand	32.5	81.5	67.8
Wood planks	0.4	0.2	0.2
Ceramic tiles	5.6	0.3	1.8
Cement	61.0	17.7	29.8
Roof materials			
Natural roof	0.2	1.7	1.3
Palm/bamboo	0.1	0.1	0.1
Wood plank/card board	0.1	0.0	0.0
Tin	70.0	90.8	85.0
Wood	0.2	0.2	0.2
Ceramic tiles	0.5	0.1	0.2
Cement	28.4	5.3	11.8
Roofing shingles	0.3	1.5	1.1
Other	0.1	0.3	0.2
Wall materials			
Jute stick/palm trunk	0.8	2.9	2.3
Mud/dirt	4.4	14.5	11.7
Bamboo with mud	4.5	8.9	7.7
Tin	30.2	48.3	43.3
Cement	52.6	15.9	26.2
Stone with lime/cement	1.6	0.5	0.8
Bricks	4.9	7.0	6.4
Wood planks	0.6	1.1	1.0
Other	0.3	0.9	0.7
Rooms used for sleeping			
One	37.2	31.7	33.2
Two	36.2	37.7	37.3
Three or more	26.7	30.6	29.5
Total	100.0	100.0	100.0
Persons per sleeping room			
1-2	63.2	66.2	65.3
3-4	29.1	26.4	27.2
5-6	6.5	6.5	6.5
7+	1.2	0.8	1.0
Total	100.0	100.0	100.0
Number	4,844	12,456	17,300

[1]"Other" flooring material is a combination of palm, bamboo, parquet, polished wood, and carpet

Another measure of crowdedness is the number of persons per sleeping room households. The last panel in Table 2.5 shows that in two thirds of households a sleeping room is shared by one or two persons. In the remaining 35 percent of households, sleeping rooms are shared by three or more persons. Comparison with data from the 1993-94 BDHS reveals that the proportion of households with three or more persons per sleeping room has decreased from 65 percent in 1993-94 to 35 percent in 2014 (Mitra et al. 1994). This is an evidence that households are much less crowded in 2014 than two decades ago. There are only slight differences between urban and rural households in the extent of crowding.

Indoor pollution has important implications for the health of household members. The type of fuel used for cooking, the place where cooking is done, and the type of stove used influence indoor air quality and the degree to which household members are exposed to the risk of respiratory infections and other diseases. Table 2.6 presents information on type of fuel used for cooking and place where cooking is done. In Bangladesh, the risk of indoor pollution from cooking fuel is limited because only 15 percent of households cook in the house; 68 percent of households cook in a separate building, and 17 percent cook outdoors. Urban households are much more likely than rural households to cook in the house (28 versus 10 percent, respectively).

Overall, 82 percent of households use solid fuel, including wood, agricultural crops, animal dung, straw, shrubs, grass, and charcoal: 50 percent in urban areas and virtually all (95 percent) in rural areas. The proportion of households that rely on wood for fuel has increased from 45 percent in 2011 to 50 percent in 2014. The increase occurred in both urban (35 percent in 2011 to 37 percent in 2014) and rural areas (48 percent in 2011 to 55 percent in 2014). As expected, use of liquid petroleum gas, natural gas, and biogas is mostly limited to urban areas (48 percent).

Reducing the proportion of the population that relies on solid fuels is one of the Millennium Development Goals. The 2014 BDHS shows that Bangladesh is gradually making progress toward this goal. The proportion of households that use solid fuel in Bangladesh continues to decline from 91 percent in 2007 to 86 percent in 2011 and to 82 percent in 2014 (NIPORT et al. 2009; NIPORT et al. 2013).

Table 2.6 Cooking amenity

Percent distribution of households by place for cooking and type of cooking fuel, and percentage using solid fuel for cooking, according to residence, Bangladesh 2014

Housing characteristic	Residence		Total
	Urban	Rural	
Place for cooking			
In the house	28.0	9.9	15.0
In a separate building	60.1	71.3	68.1
Outdoors	11.7	18.7	16.7
No food cooked in household	0.1	0.1	0.1
Total	100.0	100.0	100.0
Cooking fuel			
Electricity	1.2	0.1	0.4
LPG/natural gas/biogas	48.0	4.8	16.9
Kerosene	0.3	0.1	0.1
Coal/lignite	0.1	0.2	0.2
Charcoal	0.3	0.2	0.3
Wood	36.9	54.6	49.6
Straw/shrubs/grass	1.1	1.1	1.1
Agricultural crop	9.0	30.3	24.3
Animal dung	2.6	8.5	6.8
Other	0.4	0.1	0.2
No food cooked in household	0.1	0.1	0.1
Total	100.0	100.0	100.0
Percentage using solid fuel for cooking[1]	50.0	94.9	82.3
Number	4,844	12,456	17,300

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

2.1.3 Household Possessions

Possession of durable consumer goods is another useful indicator of household socioeconomic status. The possession and use of household durable goods have multiple effects and implications. For instance, access to a radio or television exposes household members to updated daily events, information, and educational materials. Similarly, a refrigerator prolongs food storage and keeps food fresh and hygienic. Ownership of transportation allows greater access to services away from the local area and enhances social and economic activities. Table 2.7 shows that mobile telephones are the most common information and communication device possessed in Bangladesh. Possession of mobile phones has increased sharply from 78 percent in 2011 to 89 percent in 2014. Mobile phones have been widely available in the majority of households since 2011. In rural areas possession of mobile phones increased from 75 percent in 2011 to 87 percent in 2014, while in urban areas the corresponding increase was from 89 percent in 2011 to 93 percent in 2014 (NIPORT et al. 2013).

Table 2.7 Household possessions

Percentage of households possessing various household effects, means of transportation, agricultural land, and livestock/farm animals by residence, Bangladesh 2014

Possession	Residence		Total
	Urban	Rural	
Ownership of durable goods			
Radio	3.2	3.6	3.5
Television	70.6	33.0	43.5
Mobile telephone	93.4	86.7	88.5
Non-mobile telephone	4.2	0.5	1.6
Refrigerator	40.6	12.3	20.2
Almirah/wardrobe	59.9	38.6	44.6
Electric fan	85.9	48.5	59.0
DVD/VCD player	12.1	4.8	6.8
Water pump	10.9	5.7	7.1
IPS/generator	7.1	1.0	2.7
Air conditioning	1.3	0.1	0.4
Computer/laptop	11.8	2.4	5.1
Ownership of transport			
Car/truck/microbus	1.2	0.6	0.8
Autobike/tempo/CNG	1.1	2.0	1.8
Rickshaw/van	5.5	5.5	5.5
Bicycle	16.7	28.4	25.1
Motorcycle/motor scooter	8.0	5.7	6.4
Ownership of agricultural land			
Homestead	87.4	93.5	91.8
Other land	36.6	48.5	45.2
Neither	10.4	5.9	7.2
Ownership of farm animals			
Bulls/buffaloes	0.0	0.3	0.3
Cows	11.1	41.3	32.8
Goats/sheep	6.6	24.3	19.3
Chicken/ducks	23.7	67.0	54.9
Number	4,844	12,456	17,300

The proportion of households possessing a television has increased from 40 percent in 2011 to 44 percent in 2014. Televisions are more likely to be found in urban households (71 percent) than in rural households (33 percent). In contrast, possession of a radio has decreased from 8 percent in 2011 to 4 percent in 2014. A refrigerator is available in 20 percent of households, with urban households more than three times as likely (41 percent) as rural households (12 percent) to own one. Six in ten households possess an electric fan; 86 percent in urban areas and 49 percent in rural areas. Seven percent of households own a DVD/VCD player; 12 percent in urban areas and 5 percent in rural areas.

Bicycling is the most common means of transportation in Bangladesh; 25 percent of households own a bicycle, and ownership is much more common in rural areas (28 percent) than in urban areas (17 percent). Only 6 percent of households own a rickshaw or van (person-driven three wheeler), with no difference between rural and urban households. Only 6 percent of households own a motorcycle/motor scooter.

Ninety-two percent of households own a homestead, while 45 percent own land other than a homestead. Ownership of a homestead or other land is less common in urban than in rural areas. Ownership of land other than a homestead showed a slight decline from 47 percent in 2011 to 45 percent in 2014; 49 percent of urban households and 37 percent of rural households owned other land (NIPORT et al. 2013).

Fifty-five percent of households own chicken or ducks, the most commonly owned type of livestock. One-third of households owns cows, and one in five households owns goats or sheep. As expected, rural households are more likely than urban households to own any type of livestock.

2.2 SOCIOECONOMIC STATUS INDEX

The wealth index used in this survey is a measure that has been used in many DHS and other country-level surveys to measure inequalities: in household characteristics, in the use of health and other services, and in health outcomes (Rutstein et al. 2000). It serves as an indicator of household-level wealth that is consistent with expenditure and income measures (Rutstein 1999). The index is constructed using household asset data via principal components analysis.

In its current form, which takes better account of urban-rural differences in scores and indicators of wealth, the wealth index is created in three steps. In the first step, a subset of indicators common to urban and rural areas is used to create wealth scores for households in both areas. Categorical variables are transformed into separate dichotomous (0-1) indicators. These indicators and those that are continuous are then examined using a principal components analysis to produce a common factor score for each household. In the second step, separate factor scores are produced for households in urban and rural areas using area-specific indicators. The third step combines the separate area-specific factor scores to produce a nationally-applicable combined wealth index by adjusting area-specific scores through a regression on the common factor scores. This three-step procedure permits greater adaptability of the wealth index in both urban and rural areas. The resulting combined wealth index has a mean of zero and a standard deviation of one. Once the index is computed, national-level wealth quintiles (from lowest to highest) are obtained by assigning the household score to each de jure household member, ranking each person in the population by his or her score, and then dividing the ranking into five equal categories, each comprising 20 percent of the population.

Table 2.8 presents the wealth quintiles by urban-rural residence and administrative division. There are sharp differences between urban and rural areas. Half of the urban population (49 percent) is in the highest wealth quintile, compared with 9 percent in rural areas. Among the administrative divisions, people in Dhaka are more likely to fall in the highest wealth quintile than people in other divisions. In contrast, Rangpur and Sylhet divisions have the highest proportion of the population in the lowest wealth quintile (30 and 29 percent, respectively).

Table 2.8 Wealth quintiles

Percent distribution of the de jure population by wealth quintiles, and the Gini Coefficient, according to residence and region, Bangladesh 2014

Residence/region	Wealth quintile					Total	Number of persons	Gini coefficient
	Lowest	Second	Middle	Fourth	Highest			
Residence								
Urban	7.1	5.8	12.1	25.6	49.4	100.0	21,101	24.32
Rural	24.8	25.3	23.0	17.9	8.9	100.0	56,225	37.80
Division								
Barisal	21.1	30.1	19.8	15.0	14.0	100.0	4,883	28.55
Chittagong	14.5	17.6	22.2	22.7	23.1	100.0	14,998	35.93
Dhaka	16.7	16.1	16.1	23.0	28.0	100.0	26,248	35.48
Khulna	17.9	21.0	23.4	21.5	16.3	100.0	7,407	29.23
Rajshahi	23.3	21.9	24.3	18.9	11.5	100.0	8,729	28.12
Rangpur	30.4	26.2	22.1	12.9	8.5	100.0	8,575	24.19
Sylhet	29.4	21.8	18.6	14.5	15.8	100.0	6,484	31.04
Total	20.0	20.0	20.0	20.0	20.0	100.0	77,326	30.50

Table 2.8 also includes information on the Gini coefficient, which indicates the level of concentration of wealth. This ratio is expressed as a proportion between 0 and 1, 0 being an equal distribution and 1 being a totally unequal distribution. Wealth inequality, as measured by the Gini coefficient, is higher in rural than in urban areas (38 percent versus 24 percent). Inequality in wealth is similar in Dhaka and Chittagong (35 percent and 36 percent, respectively). Inequality in Dhaka has declined from 41 percent in 2011 to 35 percent in 2014. On the other hand, it increased slightly in Chittagong from 33 percent in 2011 to 36 percent in 2014. In all other divisions inequality shows a slight decline between 2011 and 2014 (NIPORT et al. 2013).

2.3 HOUSEHOLD POPULATION BY AGE AND SEX

Table 2.9 shows the distribution of the de facto household population by age, sex, and residence. The 2014 BDHS enumerated a total of 77,313 persons (37,672 males and 39,641 females). The sex ratio is 95 males per 100 females. This is similar to the sex ratio of 93 males per 100 females obtained in the 2011 BDHS, but it is lower than the ratio of 100.3 males per 100 females obtained in the 2011 Census (BBS 2011). The marked difference in the sex ratio between the 2011 Census and the BDHS surveys could be because the census's sex ratio is based on the de jure population, while the sex ratio obtained from the BDHS surveys is based on the de facto household population. The sex composition of the population does not vary markedly by urban-rural residence.

One-third of the de facto household population (33 percent) is under age 15, and 10 percent is under age 5. People age 65 and older account for 6 percent of the total population. The proportion of population under age 15 is lower in urban than rural areas, as is the proportion of population older than age 65.

Table 2.9 Household population by age, sex, and residence

Percent distribution of the de facto household population by five-year age groups, according to sex and residence, Bangladesh 2014

Age	Urban			Rural			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
<5	10.2	9.0	9.6	11.3	9.9	10.6	11.0	9.6	10.3
5-9	10.6	9.8	10.2	12.3	11.0	11.6	11.8	10.7	11.2
10-14	10.3	10.9	10.6	13.1	11.8	12.4	12.3	11.5	11.9
15-19	9.7	11.9	10.9	9.3	11.3	10.3	9.4	11.5	10.5
20-24	7.7	10.7	9.2	6.4	9.5	8.0	6.7	9.8	8.3
25-29	9.1	9.7	9.4	7.0	8.8	7.9	7.6	9.1	8.3
30-34	7.5	8.4	8.0	6.3	7.6	7.0	6.7	7.9	7.3
35-39	7.0	6.3	6.7	6.1	5.9	6.0	6.3	6.0	6.2
40-44	6.5	6.0	6.2	5.4	5.2	5.3	5.7	5.4	5.6
45-49	5.2	4.8	5.0	4.4	4.5	4.4	4.6	4.6	4.6
50-54	4.2	3.1	3.6	4.6	3.1	3.8	4.5	3.1	3.8
55-59	3.4	3.0	3.2	3.4	3.8	3.6	3.4	3.6	3.5
60-64	3.2	2.2	2.7	3.4	2.8	3.1	3.4	2.6	3.0
65-69	2.1	1.4	1.7	2.5	1.7	2.1	2.4	1.6	2.0
70-74	1.5	1.2	1.4	2.0	1.2	1.6	1.9	1.2	1.5
75-79	0.8	0.6	0.7	1.0	0.5	0.8	1.0	0.5	0.8
80+	0.8	0.9	0.9	1.5	1.3	1.4	1.3	1.2	1.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	10,443	10,778	21,221	27,229	28,862	56,092	37,672	39,641	77,313

The age-sex structure of the population is shown by the population pyramid in Figure 2.2. The pyramid is wider at the base than the top and narrows slightly at the youngest age group. This pattern is typical of a historically high-fertility regime that has recently started to stabilize or decline.

Figure 2.3 shows the distribution of the male and female household populations by single years of age. The figure shows that age reporting is less accurate for males than for females. Age heaping is prominent at specific ages, such as 10 and 18, for males and females.

Figure 2.2 **Population pyramid**

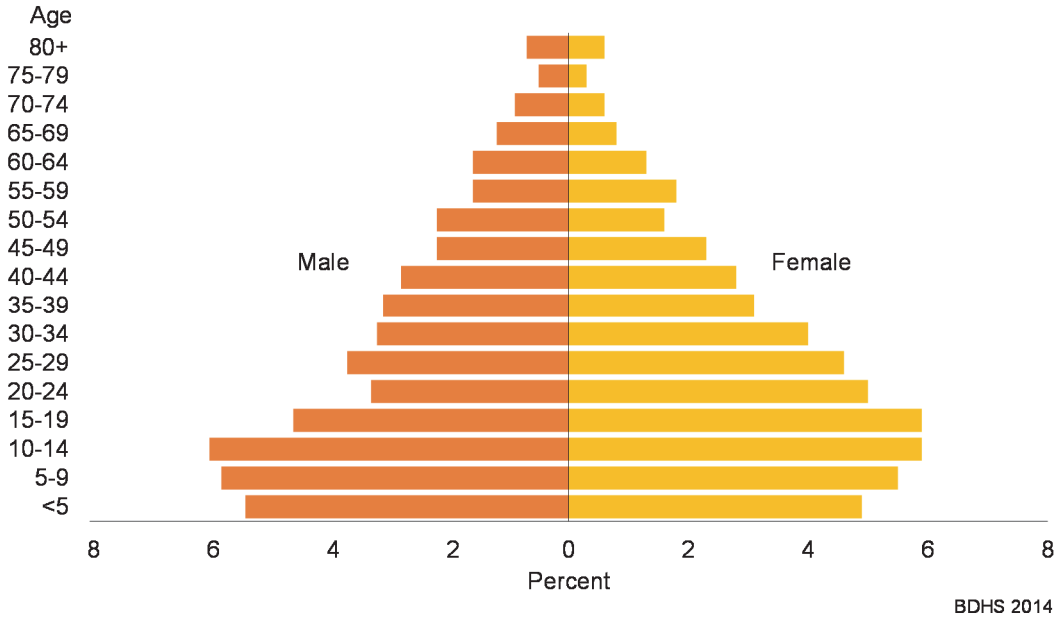


Figure 2.3 **Household age distribution by sex**

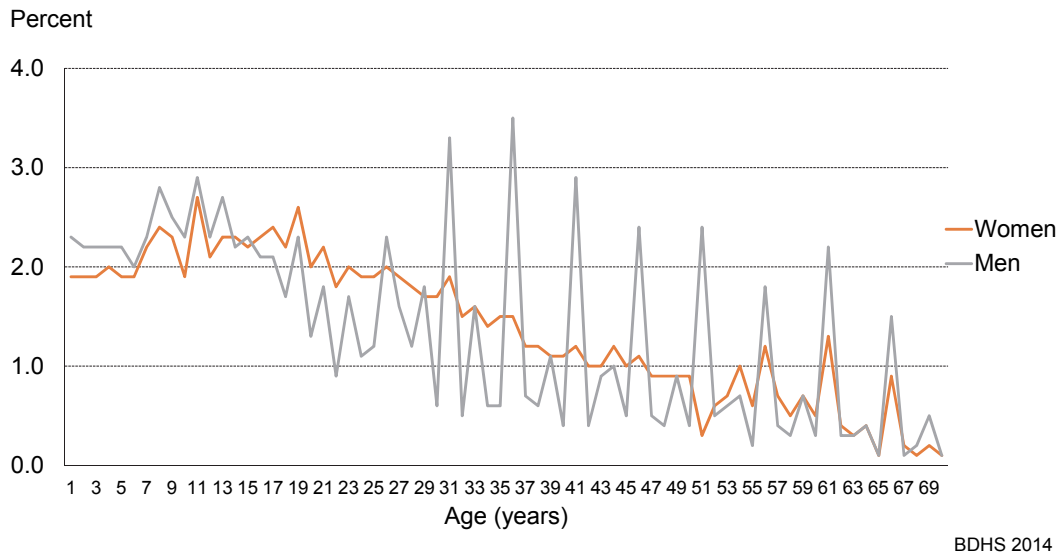


Table 2.10 presents changes in the broad age structure of the population since 1989. The proportion of population under age 15 has declined from 43 percent in 1989 to 34 percent in 2014. In contrast, populations age 15-59 and age 60 and over have increased over time.

Table 2.10 Trends in population by age

Percent distribution of the de facto population by age group, selected sources, Bangladesh 1989-2014

Age group	1989 BFS	1989 CPS	1991 CPS	1993-1994 BDHS	1996-1997 BDHS	1999-2000 BDHS	2004 BDHS	2007 BDHS	2011 BDHS	2014 BDHS
<15	43.2	43.2	42.7	42.6	41.0	39.2	38.2	36.3	35.3	33.5
15-59	50.9	50.9	51.2	51.2	53.1	54.4	55.1	56.6	56.5	58.0
60+	5.9	5.9	6.0	6.2	5.9	6.4	6.6	7.1	8.2	8.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

BFS = Bangladesh Fertility Survey; CPS = Contraceptive Prevalence Survey; BDHS = Bangladesh Demographic and Health Survey
Sources: Huq and Cleland 1990:38; Mitra et al. 1994:14; Mitra et al. 1997:9; NIPORT et al. 2001:11; NIPORT et al. 2005:13; NIPORT et al. 2009:12, NIPORT et al. 2013:20.

2.4 HOUSEHOLD COMPOSITION

Information on household composition is critical to an understanding of family size and household headship, which can be used to plan meaningful population-based policies and programs. Household composition is also a determinant of general health status and well-being.

Table 2.11 presents information on household composition. The majority (88 percent) of households are headed by men. The proportion of female-headed households has increased from 11 percent in 2011 to 13 percent in 2014, with no urban-rural difference. More than half of the households in Bangladesh are composed of two to four members. The overall average household size is 4.5 persons, as compared with 4.6 in 2011. The household size is slightly larger in rural (4.5 persons) than in urban areas (4.4 persons).

Table 2.11 Household composition

Percent distribution of households by sex of head of household and by household size; and mean size of household, according to residence, Bangladesh 2014

Characteristic	Residence: Urban	Residence: Rural	Total
Household headship			
Male	87.3	87.6	87.5
Female	12.7	12.4	12.5
Total	100.0	100.0	100.0
Number of usual members			
1	1.4	1.9	1.7
2	10.4	10.4	10.4
3	21.9	18.3	19.3
4	28.1	25.2	26.0
5	18.0	20.2	19.6
6	9.2	11.7	11.0
7	5.6	5.8	5.7
8	2.3	3.3	3.0
9+	3.1	3.3	3.3
Total	100.0	100.0	100.0
Mean size of households	4.4	4.5	4.5
Number of households	4,844	12,456	17,300

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

2.5 BIRTH REGISTRATION

According to the amended Birth and Death Registration Act of 2004, which came into force in 2006, all children born in Bangladesh must be registered within 45 days of birth and have a birth certificate (http://bdlaws.minlaw.gov.bd/bangla_all_sections.php?id=921). The act empowers all union councils, municipalities, cantonment boards, city corporations, and Bangladesh missions to act as birth registration registrars. In 2010, the government initiated an online birth registration system with 5,082 offices administering registrations online. To keep the birth and death database permanent and dynamic, the government amended the existing law of birth and death registration in 2013 and announced the establishment of the Office of the Registrar General of Birth and Death, which is yet to be set up (http://br.lgd.gov.bd/english.html). Birth certificates are made mandatory for school enrolment, passports, marriage registrations, job applications, driving licenses, insurance policies, land registrations, voter registrations, and national identification cards.

In the 2014 BDHS, information on birth registration was solicited for children under age 5. Table 2.12 shows that 2 in 10 children under age 5 had their births registered in 2014, and 17 percent of children had a birth certificate.

Although the law requires that a newborn be registered within 45 days of birth, Table 2.12 indicates that children under age 2 are much less likely to be registered than children age 2-4 (13 and 25 percent, respectively). The registration of older children is primarily driven by the practice of asking parents to produce a child's birth certificate for school admission.

Table 2.12 shows that birth registration is higher in urban (23 percent) than in rural (19 percent) areas. There is no difference regarding the extent of birth registration among male and female children. Among the administrative divisions, the highest and lowest proportions of children whose births are registered are from Sylhet (26 percent) and Rajshahi (13 percent).

Birth registration of children under age 5 for all groups is lower in 2014 than in 2011 (NIPORT et al. 2013). Further investigation is needed to determine reasons for this decline.

Table 2.12 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, Bangladesh 2014

	Children whose births are registered			
Background characteristic	Percentage who had a birth certificate	Percentage who did not have a birth certificate	Percentage registered	Number of children
Age				
<2	9.7	2.9	12.6	3,091
2-4	21.2	3.9	25.1	4,707
Sex				
Male	16.6	3.6	20.3	4,045
Female	16.6	3.4	20.0	3,753
Residence				
Urban	18.9	3.8	22.8	2,001
Rural	15.8	3.4	19.3	5,797
Division				
Barisal	15.9	4.7	20.6	450
Chittagong	18.4	2.7	21.1	1,702
Dhaka	16.6	3.1	19.7	2,687
Khulna	17.6	5.0	22.6	596
Rajshahi	9.2	3.8	13.0	807
Rangpur	15.1	3.6	18.7	776
Sylhet	21.8	4.6	26.3	780
Wealth quintile				
Lowest	11.6	3.8	15.4	1,652
Second	16.1	2.6	18.7	1,442
Middle	15.1	2.4	17.5	1,404
Fourth	17.0	3.4	20.4	1,583
Highest	22.9	5.1	28.0	1,717
Total	16.6	3.5	20.2	7,798

2.6 SCHOOL ATTENDANCE

In the 2014 BDHS, information was collected about school attendance of household members age 6 to 24. Table 2.13 shows that the proportion of the population that attends school declines with age. Whereas 91 percent of children age 6-10 are in school, the percentage decreases to 82 percent for children age 11-15, and to 40 percent for children age 16-20. School attendance is higher among girls than among boys age 6-15, but boys age 16-20 and age 21-24 are more likely to be in school than girls. These data may reflect the impact of recent efforts to promote universal education, especially among girls.

Table 2.13 School attendance

Percentage of the de facto household population age 6-24 attending school, by age, sex, and residence, Bangladesh 2014

	Male			Female			Total		
Age	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total
6-15	84.1	85.0	84.8	86.3	89.4	88.6	85.2	87.2	86.7
6-10	91.8	90.4	90.7	91.0	92.6	92.2	91.4	91.4	91.4
11-15	75.7	79.1	78.3	81.8	86.1	85.0	78.9	82.6	81.7
16-20	46.9	46.2	46.4	36.5	34.6	35.2	41.1	39.6	40.0
21-24	27.3	21.4	23.3	17.8	10.3	12.6	21.5	14.5	16.7

School attendance rates for children under age 16 are slightly higher in rural areas than in urban areas. In contrast, urban men and women age 16-24 are more likely to be in school than their rural counterparts.

School attendance among age groups has increased since 2011. For example, the proportion of children age 6-15 who are attending school has increased from 84 percent in 2011 (NIPORT et al. 2013) to 87 percent in 2014.

2.7 EDUCATION OF HOUSEHOLD POPULATION

Education is one of the major socioeconomic influences on a person's behaviors and attitudes. In general, the greater a person's educational attainment, the more knowledgeable he or she is about the use of health services, family planning, and the health care of children. The government of Bangladesh enacted a mandatory primary education law in 1990 to achieve universal primary enrolment by 2005, which is in line with the UN Child Rights Convention. Bangladesh must provide free and equal primary education of quality for all children (GOB 1990).

To meet the demand for education, the government of Bangladesh has increased investment in the educational sector. Education is divided into two broad categories, primary and secondary. In addition, the government has recently initiated opening up non-grade-level schools at pre-primary education. The government also implements non-formal education for adults to increase the literacy rate. To promote job-oriented education, skill development institutes that have a vocational and technical focus have increased over the years in various parts of the country. The National Education Policy of Bangladesh (MOE 2010) explicitly stipulated that education would be free up to the secondary level in the public sector and provided subsidies to create demand for education of the poor and of girls in an effort to meet MDG targets.

2.7.1 Educational Attainment of the Household Population

For all household members age 6 or older, data were collected on the level of education last attended and the highest class completed at that level. The findings are presented in Tables 2.14.1 and 2.14.2.

The majority of Bangladeshis age 6 and older have attended school. Twenty-three percent of men and 27 percent of women have never attended school. Gender difference in primary education is very little. However, men are more likely to complete secondary school or to attain a higher education compared with women (17 percent versus 12 percent). There has been an increase in the proportions of men and women who have completed secondary or higher education since 2011. For men, the proportion has increased from 15 percent to 17 percent, and for women it has increased from 10 percent to 12 percent in 2014.

Changes in educational attainment by successive age groups indicate the long-term trend in a country's educational achievement. The data show marked improvement in the educational attainment of both men and women over the years. The proportion of men with no education is notably higher (39 percent) among those age 45-49 than among boys age 10-14 (6 percent). Similarly, 50 percent of women age 45-49 have no education compared with only 3 percent of girls age 10-14.

Overall, levels of educational attainment are higher in urban than in rural areas (Tables 2.14.1 and 2.14.2). The proportions of men and women with no education are lower in urban areas (17 percent of men and 21 percent of women) than in rural areas (25 percent of men and 29 percent of women), while the proportions who have completed secondary or higher schooling are greater in urban areas (26 percent of men and 20 percent of women) than in rural areas (13 percent of men and 9 percent of women). On average, men and women living in urban areas have completed 2 more years of school than those in rural areas. There are also regional variations in educational attainment. Barisal division has the highest proportion of men and women with some education (83 percent of men and 82 percent of women).

Table 2.14.1 Educational attainment of the male household population

Percent distribution of the de facto male household population age 6 and older by highest level of schooling attended or completed and median years completed, according to background characteristics, Bangladesh 2014

Background characteristic	No education	Primary incomplete	Completed primary[1]	Secondary incomplete	Completed secondary[2]	More than secondary	Total	Number	Median years completed
Age									
6-9	22.2	77.7	0.0	0.1	0.0	0.0	100.0	3,702	0.0
10-14	5.8	56.4	6.5	31.2	0.1	0.0	100.0	4,648	3.2
15-19	6.7	15.9	9.2	43.0	7.0	18.2	100.0	3,543	8.0
20-24	10.2	16.9	13.9	28.0	5.4	25.6	100.0	2,536	7.4
25-29	13.3	15.9	14.9	30.7	7.4	17.8	100.0	2,859	7.0
30-34	21.5	17.2	11.8	28.4	5.4	15.7	100.0	2,508	5.0
35-39	28.9	17.8	9.8	20.2	6.0	17.2	100.0	2,384	4.3
40-44	36.3	14.4	9.5	18.4	6.8	14.5	100.0	2,144	3.9
45-49	38.6	13.1	9.6	16.4	7.2	15.1	100.0	1,736	3.6
50-54	37.5	18.2	9.6	16.8	6.1	11.7	100.0	1,679	3.1
55-59	39.8	13.2	8.7	20.3	6.2	11.9	100.0	1,274	3.3
60-64	43.2	14.2	8.6	14.2	7.7	12.0	100.0	1,263	2.2
65+	46.8	16.1	9.7	13.7	5.9	7.9	100.0	2,479	1.1
Residence									
Urban	16.8	23.8	8.2	25.1	6.0	20.1	100.0	9,161	5.6
Rural	25.2	30.6	9.2	22.0	4.4	8.6	100.0	23,604	3.2
Division									
Barisal	16.9	30.3	9.6	23.7	7.4	12.1	100.0	2,078	4.3
Chittagong	20.1	30.6	9.6	23.9	5.7	10.1	100.0	6,099	3.9
Dhaka	25.0	26.5	8.3	22.4	4.5	13.3	100.0	11,213	3.7
Khulna	20.1	28.0	7.1	26.7	5.8	12.3	100.0	3,184	4.3
Rajshahi	25.4	27.2	8.5	21.0	4.4	13.6	100.0	3,794	3.6
Rangpur	22.5	29.4	8.4	23.9	4.1	11.6	100.0	3,733	3.7
Sylhet	25.0	33.8	12.8	18.8	2.7	7.0	100.0	2,664	2.8
Wealth quintile									
Lowest	40.3	36.8	7.1	12.7	1.1	2.0	100.0	6,302	0.6
Second	28.7	34.2	10.6	19.9	2.3	4.3	100.0	6,704	2.4
Middle	21.8	29.0	10.9	25.5	4.6	8.2	100.0	6,541	3.9
Fourth	16.0	24.9	9.2	30.1	6.8	13.1	100.0	6,523	5.0
Highest	8.4	18.9	6.7	25.9	9.1	31.0	100.0	6,694	8.8
Total	22.9	28.7	8.9	22.9	4.8	11.8	100.0	32,765	3.8

Note: Total includes eight men with missing information on age.
[1] Primary complete is defined as completing grade 5.
[2] Secondary complete is defined as completing grade 10.

For men and women, wealth exerts a positive influence on educational attainment. For instance, 40 percent of men in the lowest quintile have never attended school compared with 8 percent of men in the highest quintile. While 45 percent of men in the lowest wealth quintile had no education in 2011, in 2014 this proportion has declined to 40 percent. For women, the corresponding proportions are 47 and 41 percent, respectively.

Table 2.14.2 Educational attainment of the female household population

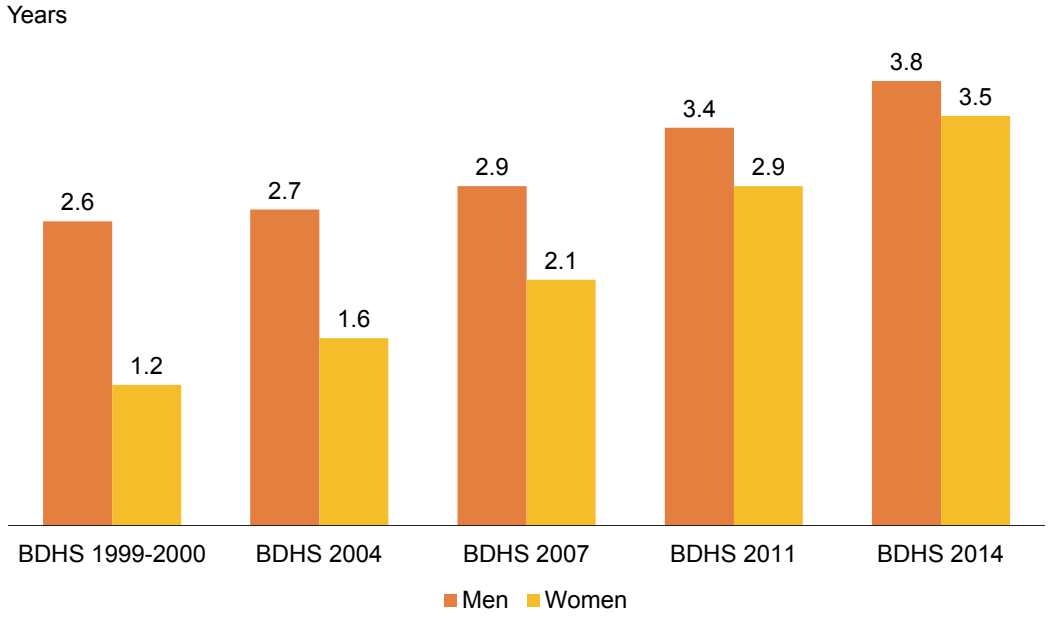
Percent distribution of the de facto female household population age 6 and older by highest level of schooling attended or completed and median years completed, according to background characteristics, Bangladesh 2014

Background characteristic	No education	Primary incomplete	Completed primary[1]	Secondary incomplete	Completed secondary[2]	More than secondary	Total	Number	Median years completed
Age									
6-9	21.4	78.5	0.1	0.1	0.0	0.0	100.0	3,485	0.1
10-14	2.7	52.7	6.4	38.1	0.2	0.0	100.0	4,578	3.7
15-19	3.6	11.8	9.2	50.6	8.5	16.3	100.0	4,541	8.3
20-24	8.8	13.3	11.1	41.5	5.9	19.5	100.0	3,888	7.9
25-29	14.6	16.2	11.9	38.3	6.9	12.1	100.0	3,588	6.8
30-34	27.1	19.4	9.5	28.2	6.4	9.3	100.0	3,115	4.4
35-39	36.7	20.2	11.3	19.1	5.6	7.2	100.0	2,390	3.0
40-44	46.2	21.8	9.3	12.8	4.3	5.6	100.0	2,158	0.7
45-49	49.7	20.4	9.9	13.3	2.5	4.2	100.0	1,815	0.0
50-54	60.9	18.2	8.5	7.5	2.2	2.7	100.0	1,242	0.0
55-59	66.2	15.5	8.0	6.9	1.0	2.3	100.0	1,425	0.0
60-64	70.2	14.0	7.1	6.2	0.9	1.6	100.0	1,037	0.0
65+	78.8	9.6	5.9	3.9	0.8	0.9	100.0	1,799	0.0
Residence									
Urban	21.1	23.8	8.1	27.2	5.8	14.0	100.0	9,609	4.6
Rural	28.8	28.2	8.4	25.9	3.3	5.3	100.0	25,454	3.1
Division									
Barisal	17.8	30.6	12.4	24.8	5.5	8.8	100.0	2,241	4.1
Chittagong	24.4	27.0	8.4	28.3	5.7	6.3	100.0	6,892	3.8
Dhaka	28.6	25.4	8.0	25.9	3.5	8.6	100.0	11,781	3.5
Khulna	24.8	26.8	6.7	30.2	3.8	7.7	100.0	3,456	3.8
Rajshahi	28.4	25.9	8.5	26.0	3.7	7.6	100.0	3,896	3.3
Rangpur	28.9	27.8	6.5	25.6	3.0	8.3	100.0	3,950	3.1
Sylhet	28.5	31.5	10.8	20.7	2.9	5.6	100.0	2,846	2.6
Wealth quintile									
Lowest	40.5	35.2	7.6	15.1	0.6	1.1	100.0	6,852	0.7
Second	32.6	30.8	9.3	22.9	1.9	2.5	100.0	6,836	2.3
Middle	25.5	27.5	8.5	30.3	3.5	4.7	100.0	7,086	3.6
Fourth	22.8	23.4	9.3	31.2	4.9	8.5	100.0	7,166	4.4
Highest	13.1	18.6	7.0	31.4	8.8	21.2	100.0	7,122	7.7
Total	26.7	27.0	8.3	26.3	4.0	7.7	100.0	35,063	3.5

Note: Total includes 1 woman with missing information on age.
[1] Primary complete is defined as completing grade 5.
[2] Secondary complete is defined as completing grade 10.

A comparison of the completed median years of schooling since 2000 is presented in Figure 2.4. In 2000, the completed median years of schooling was 2.6 for men and 1.2 for women. Between 2000 and 2014 the completed median years of schooling had increased to 3.8 among men and to 3.5 among women. Although the completed median years of schooling continues to be higher for men than for women, the gender difference has declined from 1.4 years in 2000 to 0.3 years in 2014.

Figure 2.4 **Trend in completed median of years of schooling of men and women age 6 and over, 1999-2014**



2.7.2 School Attendance Ratios

The net attendance ratio (NAR) indicates participation in primary schooling for the population age 6-10 and participation in secondary schooling for the population age 11-17. The gross attendance ratio (GAR) measures participation at each level of schooling among those of any age. The GAR is almost always higher than the NAR for the same level because the GAR includes participation by those who may be older or younger than the official age range for that level. A NAR of 100 percent would indicate that all of those in the official age range for that level are attending 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. Table 2.15 shows that the NAR at the primary level is 86 percent (86 percent for males and 87 percent for females) and the NAR at the secondary level is 43 percent (42 percent for males and 44 percent for females).

The differences in NAR at the primary and secondary school levels between urban and rural areas are small. Among the administrative divisions, Dhaka has the lowest NAR and GAR at the primary level. Sylhet has the highest NAR and GAR at the primary level, but the lowest NAR and GAR at the secondary level. At the primary level, the NAR and GAR show no clear pattern by wealth quintile. The NAR and GAR at secondary school level are lowest among the children from the lowest wealth quintile.

Table 2.15 also shows the Gender Parity Index (GPI), which represents the ratio of the NAR and GAR for females to the NAR and GAR for males. It is a more precise indicator of gender differences in the schooling system. A GPI greater than 1.00 indicates that a higher proportion of females than males attends school. The GPI at the primary and secondary levels is slightly higher than 1.00 indicating that gender differences in schools are in favor of girls.

Table 2.15 School attendance ratios

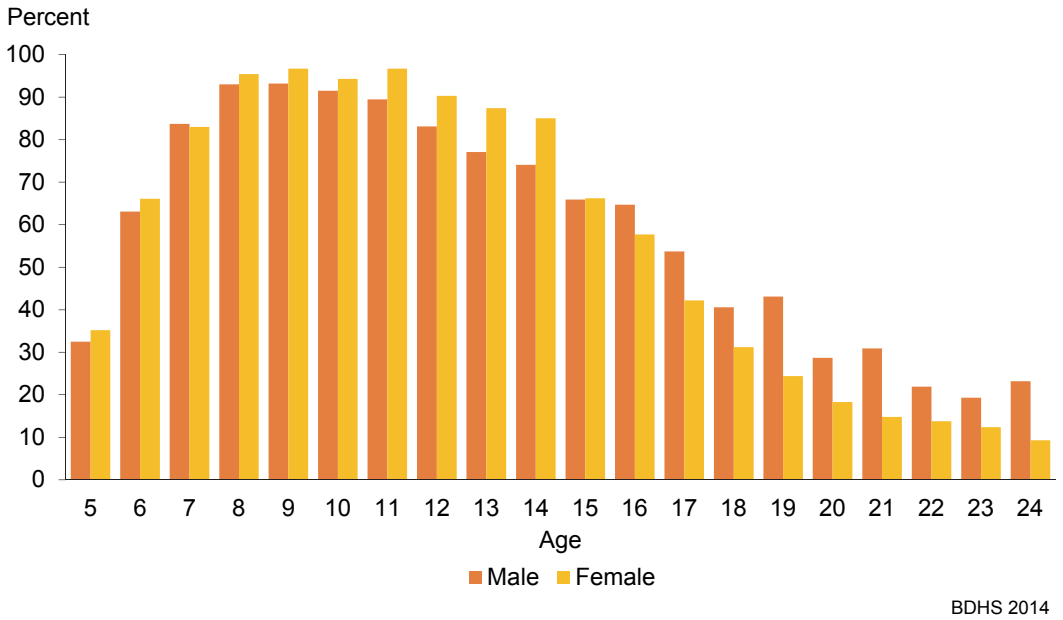
Net attendance ratios (NAR) and gross attendance ratios (GAR) for the de facto household population by sex and level of schooling; and the Gender Parity Index (GPI), according to background characteristics, Bangladesh 2014

Background characteristic	Net attendance ratio[1]				Gross attendance ratio[2]			
	Male	Female	Total	Gender Parity Index[3]	Male	Female	Total	Gender Parity Index[3]
PRIMARY SCHOOL								
Residence								
Urban	84.2	85.3	84.8	1.01	113.6	116.7	115.1	1.03
Rural	86.0	88.0	87.0	1.02	119.6	124.2	121.8	1.04
Division								
Barisal	90.7	91.4	91.0	1.01	126.2	128.6	127.4	1.02
Chittagong	84.5	87.2	85.9	1.03	120.4	124.1	122.2	1.03
Dhaka	82.7	85.0	83.8	1.03	110.0	117.6	113.6	1.07
Khulna	91.5	90.1	90.8	0.98	121.1	121.3	121.2	1.00
Rajshahi	84.6	86.6	85.6	1.02	124.7	115.0	119.7	0.92
Rangpur	88.7	89.8	89.2	1.01	121.5	130.2	125.5	1.07
Sylhet	87.0	88.7	87.9	1.02	124.9	130.2	127.6	1.04
Wealth quintile								
Lowest	81.4	86.7	84.1	1.07	117.8	125.8	121.9	1.07
Second	87.8	87.2	87.5	0.99	118.0	130.8	123.8	1.11
Middle	88.6	90.1	89.3	1.02	122.8	124.6	123.7	1.01
Fourth	83.8	89.3	86.6	1.07	119.7	117.5	118.6	0.98
Highest	86.5	83.8	85.2	0.97	112.7	110.9	111.8	0.98
Total	85.6	87.4	86.4	1.02	118.2	122.3	120.2	1.04
SECONDARY SCHOOL								
Residence								
Urban	40.7	42.4	41.6	1.04	46.5	46.5	46.5	1.00
Rural	42.5	44.0	43.3	1.04	47.8	48.4	48.1	1.01
Division								
Barisal	43.5	46.8	45.1	1.08	47.2	50.9	49.1	1.08
Chittagong	40.8	42.5	41.7	1.04	46.5	47.5	47.0	1.02
Dhaka	42.4	42.3	42.4	1.00	49.6	46.4	47.9	0.94
Khulna	45.6	53.6	50.0	1.18	48.9	57.9	53.8	1.18
Rajshahi	44.1	47.6	45.8	1.08	48.7	52.2	50.4	1.07
Rangpur	45.3	42.4	43.7	0.93	49.3	45.4	47.2	0.92
Sylhet	33.1	35.6	34.4	1.08	37.5	41.0	39.3	1.09
Wealth quintile								
Lowest	28.4	30.8	29.6	1.08	32.7	33.4	33.1	1.02
Second	36.1	40.0	38.1	1.11	42.0	45.1	43.6	1.07
Middle	47.0	48.3	47.6	1.03	52.0	52.5	52.2	1.01
Fourth	48.6	48.0	48.2	0.99	54.3	51.6	52.9	0.95
Highest	50.1	49.7	49.9	0.99	56.1	55.7	55.9	0.99
Total	42.0	43.6	42.8	1.04	47.4	47.9	47.7	1.01

[1] The NAR for primary school is the percentage of the primary-school-age (6-10 years) population that is attending primary school. The NAR for secondary school is the percentage of the secondary-school-age (11-17 years) population that is attending secondary school. By definition the NAR cannot exceed 100 percent.
[2] The GAR for primary school is the total number of primary school students, expressed as a percentage of the official primary-school-age population. The GAR for secondary school is the total number of secondary school students, expressed as a percentage of the official secondary-school-age population. If there are significant numbers of over-age and under-age students at a given level of schooling, the GAR can exceed 100 percent.
[3] The Gender Parity Index for primary school is the ratio of the primary school NAR (GAR) for females to the NAR (GAR) for males. The Gender Parity Index for secondary school is the ratio of the secondary school NAR (GAR) for females to the NAR (GAR) for males.

Figure 2.5 shows that, for ages 5-14, girls have a higher level of school attendance than boys. The pattern reverses at age 16 and older. Attendance is highest at age 9 for boys and at age 11 for girls.

Figure 2.5 **Age-specific attendance rates of the de facto population age 5-24**



2.8 EMPLOYMENT

The 2014 BDHS collected information regarding the working status of each person age 8 and older at the time of the survey. Table 2.16 shows that men are much more likely than women to be employed (65 percent and 24 percent, respectively). Table 2.16 also shows that the urban population is more likely to be employed than the rural population. For men, the proportion is 69 percent in urban and 63 percent in rural areas, and for women, the proportion is 25 percent and 24 percent, respectively.

Table 2.16 Employment status

Percentage of male and female de facto household population age eight and over working at the time of the survey, by age, sex, and residence, Bangladesh 2014

	Male			Female		
Age	Urban	Rural	Total	Urban	Rural	Total
8-9	1.2	0.9	1.0	1.4	0.5	0.7
10-14	10.9	9.7	10.0	7.7	2.6	3.9
15-19	43.6	39.6	40.8	21.1	12.8	15.1
20-24	73.4	74.9	74.4	30.6	26.7	27.9
25-29	90.7	91.9	91.5	35.3	37.0	36.5
30-34	96.9	97.2	97.1	36.0	41.5	39.9
35-39	98.6	98.2	98.4	39.7	41.4	40.9
40-44	96.0	98.2	97.5	38.1	43.3	41.8
45-49	98.8	97.5	97.9	33.4	38.2	36.8
50-54	94.3	94.8	94.6	22.8	26.5	25.5
55-59	90.4	89.7	89.9	23.8	26.1	25.6
60-64	78.8	81.9	81.1	12.3	16.1	15.2
65+	50.8	48.4	48.9	5.8	6.2	6.1
Total	68.8	63.1	64.7	25.2	23.7	24.1
Number of persons	8,669	22,181	30,850	9,170	24,072	33,242

2.9 OWNERSHIP OF MOBILE PHONES

Information regarding ownership of mobile phones among household members age 13 and older was collected during the 2014 BDHS. Table 2.17 shows that 53 percent of the population owns a mobile phone. Urban people are more likely to own a mobile phone (64 percent) than rural people (48 percent). Men are almost twice as likely as women to own a mobile phone. In urban areas, 78 percent of men own a mobile phone compared with 50 percent of women. In rural areas the corresponding proportions are 66 percent and 33 percent, respectively. Men and women in the age groups 20-29 and 30-39 are more likely to own a mobile phone than other age groups. Among adolescents age 15-19, 45 percent own a mobile phone. Male adolescents are twice as likely to own a mobile phone as female adolescents. Adolescents in urban areas are slightly more likely to own mobile phones compared with those in rural areas (51 percent versus 43 percent).

Table 2.17 Availability of mobile phone among household members

Percentage of de-facto household members age 13 or more who have a mobile phone by age and sex, according to residence, Bangladesh 2014

	Urban			Rural			Total		
Age group	Male	Female	Total	Male	Female	Total	Male	Female	Total
13-14	20.4	3.1	11.5	13.2	2.7	7.9	15.0	2.8	8.8
15-19	66.8	38.1	50.8	61.5	27.8	42.5	63.0	30.7	44.9
20-29	92.1	67.1	78.2	88.2	48.9	64.9	89.5	54.2	69.0
30-39	91.7	65.5	78.3	84.6	44.5	63.1	86.8	50.6	67.6
40-49	86.3	52.1	69.7	74.5	33.3	53.3	78.2	38.8	58.3
50+	64.6	28.8	48.7	48.1	13.9	32.6	52.2	17.5	36.6
Total	77.7	50.0	63.5	65.8	32.7	48.3	69.3	37.5	52.6

CHARACTERISTICS OF RESPONDENTS 3

Key Findings:

- Twenty-five percent of ever-married women age 15-49 have no education. The percentage of women with no education has decreased since 2007, and the percentage of women with secondary or higher education has gradually increased over the same period.
- Forty-seven percent of women have no regular exposure to radio, television, or a newspaper.
- Thirty-six percent of women were employed in the 12 months preceding the survey, with the highest percentages employed in raising of poultry/cattle (41 percent), semi-skilled services (14 percent), and factory or blue collar services (8 percent).

This chapter presents the demographic and socioeconomic profile of ever married women age 15-49 interviewed in BDHS 2014. The information helps one to interpret findings and understand results presented in the report. The chapter begins by describing basic background characteristics, including age, marital status, residence, education, and wealth status. Information is also presented on exposure to mass media and employment status. The 2014 BDHS includes results from completed interviews with 17,863 ever-married women age 15-49.

3.1 CHARACTERISTICS OF SURVEY RESPONDENTS

Basic background characteristics of the 17,863 ever-married women are presented in Table 3.1. About half of the women (48.4 percent) are under age 30.

The majority of women (94 percent) are currently married. Seven in ten respondents (72 percent of women) reside in the rural areas. The respondents are not evenly distributed across geographic divisions. More than one-third (35 percent) of the respondents live in Dhaka, 19 percent reside in Chittagong, 12 percent each in Rajshahi and Rangpur, 10 percent in Khulna, 7 percent in Sylhet, and 6 percent in Barisal. The proportion of sampled women in Chittagong and Rangpur divisions is similar to that in the 2011 BDHS. However, the proportion in three divisions has increased; in Dhaka by 2.5 percent, in Sylhet by 1.5 percent, and in Barisal by 0.6 percent. On the other hand, it decreased in two divisions; in Rajshahi by 3.1 percent and in Khulna by 1.7 percent. Twenty-five

Table 3.1 Background characteristics of respondents

Percent distribution of ever-married women age 15-49 by selected background characteristics, Bangladesh 2014

Background characteristic	Weighted percent	Weighted number	Unweighted number
Age			
15-19	11.4	2,029	2,023
20-24	18.0	3,224	3,161
25-29	19.0	3,390	3,343
30-34	17.1	3,047	3,012
35-39	13.0	2,315	2,340
40-44	11.7	2,092	2,170
45-49	9.9	1,766	1,814
Marital status			
Currently married	94.4	16,858	16,830
Divorced/separated/ widowed	5.6	1,005	1,033
Residence			
Urban	28.3	5,047	6,167
Rural	71.7	12,816	11,696
Division			
Barisal	6.2	1,111	2,142
Chittagong	18.5	3,301	2,865
Dhaka	34.8	6,223	3,093
Khulna	10.3	1,838	2,581
Rajshahi	11.8	2,103	2,512
Rangpur	11.5	2,056	2,531
Sylhet	6.9	1,232	2,139
Education			
No education	24.9	4,455	4,206
Primary incomplete	18.0	3,223	3,148
Primary complete[1]	11.1	1,986	2,078
Secondary incomplete	31.5	5,628	5,645
Secondary complete or higher[2]	14.4	2,571	2,786
Religion			
Islam	90.1	16,096	16,135
Hinduism	8.3	1,476	1,592
Buddhism	1.3	234	100
Christianity	(0.2)	44	32
Wealth quintile			
Lowest	18.8	3,359	3,251
Second	19.1	3,408	3,360
Middle	19.9	3,560	3,621
Fourth	21.0	3,758	3,769
Highest	21.1	3,778	3,862
Total	-	17,863	17,863

Note: Education categories refer to the highest level of education attended, whether or not that level was completed.
[1] Primary complete is defined as completing grade 5.
[2] Secondary complete is defined as completing grade 10.

percent of women age 15-49 have no education, while 14 percent of women have completed secondary or higher-level education. The vast majority of the respondents (90 percent) are Muslim, and 8 percent are Hindu. Very few of the respondents are Buddhist or Christian.

3.2 EDUCATIONAL ATTAINMENT

Education is one of the most influential determinants of an individual's knowledge, attitudes, and behaviors. The educational attainment of a population is an important indicator of the society's stock of human capital and level of socioeconomic development. Education enhances the ability of individuals to achieve desired demographic and health goals. Table 3.2 presents differentials in the educational attainment of women by selected background characteristics.

Table 3.2 Educational attainment

Percent distribution of ever-married women age 15-49 by highest level of schooling attended or completed, and median years completed, according to background characteristics, Bangladesh 2014

	Highest level of schooling							
Background characteristic	No education	Primary incomplete	Completed primary[1]	Secondary incomplete	Secondary complete or higher[2]	Total	Median years completed	Number of women
Age								
15-24	7.8	14.9	11.9	47.6	17.8	100.0	7.4	5,253
15-19	5.1	14.9	11.8	50.7	17.5	100.0	7.5	2,029
20-24	9.5	14.9	12.0	45.6	18.0	100.0	7.4	3,224
25-29	15.0	16.8	12.3	39.1	16.8	100.0	6.6	3,390
30-34	27.0	19.9	10.0	27.9	15.3	100.0	4.3	3,047
35-39	37.4	19.9	11.3	19.1	12.3	100.0	2.8	2,315
40-44	46.3	21.9	9.4	13.0	9.4	100.0	0.7	2,092
45-49	49.8	19.6	10.2	13.6	6.8	100.0	0.0	1,766
Residence								
Urban	19.3	15.2	10.0	31.0	24.5	100.0	6.8	5,047
Rural	27.2	19.2	11.5	31.7	10.4	100.0	4.3	12,816
Division								
Barisal	15.1	20.8	15.9	28.8	19.3	100.0	4.9	1,111
Chittagong	21.6	16.6	9.6	36.3	16.0	100.0	6.3	3,301
Dhaka	27.2	17.1	11.0	29.9	14.8	100.0	4.5	6,223
Khulna	21.6	19.8	9.1	36.6	12.9	100.0	4.9	1,838
Rajshahi	25.5	18.4	11.7	31.0	13.4	100.0	4.5	2,103
Rangpur	27.2	19.1	9.6	30.9	13.1	100.0	4.4	2,056
Sylhet	31.8	19.1	16.0	23.6	9.4	100.0	3.9	1,232
Wealth quintile								
Lowest	45.5	24.4	11.9	17.0	1.2	100.0	1.0	3,359
Second	32.6	22.7	13.5	26.6	4.6	100.0	3.4	3,408
Middle	21.2	19.3	11.4	38.6	9.4	100.0	4.8	3,560
Fourth	18.8	15.6	12.0	38.3	15.3	100.0	6.4	3,758
Highest	9.4	9.4	7.2	35.3	38.7	100.0	9.2	3,778
Total	24.9	18.0	11.1	31.5	14.4	100.0	4.6	17,863

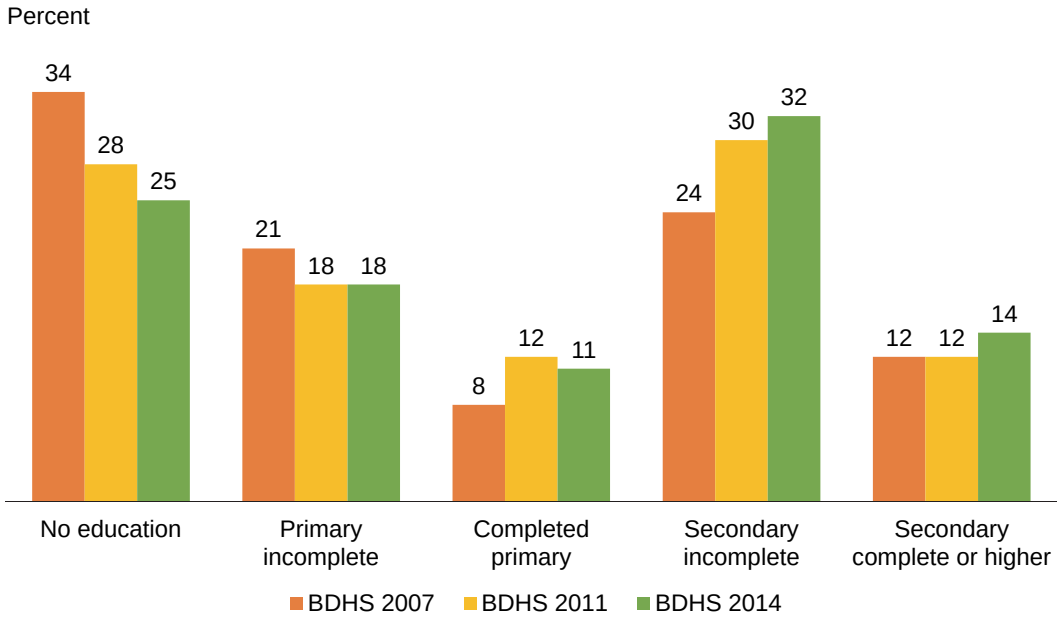
[1] Primary complete is defined as completing grade 5.
[2] Secondary complete is defined as completing grade 10.

Table 3.2 shows that 25 percent of ever-married women age 15-49 have never been to school, 18 percent have completed some primary education, 11 percent have completed all primary education, 32 percent have completed some secondary education, and 14 percent have completed all secondary education or continued on to higher education. Older women, women in rural areas, and those in the lowest wealth quintile are most likely to have no education. Urban-rural differences in education are prominent at the secondary and higher levels. For example, urban women are almost two and half times more likely than rural women to have completed secondary or higher education (25 percent and 10 percent, respectively).

Between 13 and 19 percent of women in all geographic divisions have completed secondary or higher-level education except in Sylhet, where the percentage is only 9 percent. Sylhet also has the highest proportion of women with no education (32 percent). Women in the highest wealth quintile are most likely to complete secondary or higher-level education; 39 percent of women in the highest wealth quintile achieved this level.

In Bangladesh, women age 15-49 have completed a median of 4.6 years of schooling. The differentials across subgroups of women are reflected in the medians. For example, the median number of years of schooling for women in the highest wealth quintile is 9.2 years compared with 1 year for women in the lowest quintile.

Figure 3.1 **Trends in education of ever-married women, 2007-2014**



There have been improvements in educational attainment in Bangladesh over the past seven years. The percentage of ever-married women with no education has declined, from 28 percent in 2011 to 25 percent in 2014. Another indicator of progress in education is the median length of schooling. For women, it increased from 4.3 years in 2011 to 4.6 years in 2014 (NIPORT et al. 2013).

3.3 LITERACY

Literacy is widely acknowledged as benefiting both the individual and society. Particularly among women, literacy is associated with positive outcomes, including intergenerational health and nutrition benefits. The ability to read and write empowers both women and men. Knowledge of the level of literacy that a population may attain is important for policymakers and program managers who design information materials.

The 2014 BDHS defined literacy based on the respondent's ability to read all or part of a sentence. To test respondents' reading ability, interviewers carried a set of cards with simple sentences printed in Bangla. Respondents who had attended at least some secondary school were assumed to be literate. Respondents who had never been to school and those who had not attended school at the secondary level were asked to read the cards during the interview. Table 3.3 presents the findings.

Table 3.3 indicates that 66 percent of ever-married women age 15-49 are literate. The level of literacy decreases as age increases; 86 percent of women age 15-24 are literate compared with 39 percent of women age 45-49. Literacy varies by urban-rural residence; 74 percent of urban women are literate, compared with 63 percent of rural women.

Divisional differences in literacy are notable. The proportion of women who are literate ranges from 57 percent in Sylhet to 76 percent in Barisal. Literacy has improved in the past three years in all divisions except Sylhet. The improvement ranges from 1 percent in Khulna to 8 percent in Rangpur. There is also a marked difference in literacy level by household wealth, ranging from 41 percent among women in the lowest wealth quintile to 87 percent among women in the highest wealth quintile.

Table 3.3 Literacy

Percent distribution of ever-married women age 15-49 by level of schooling attended and level of literacy, and percentage literate, according to background characteristics, Bangladesh 2014

Background characteristic	Secondary school or higher	No schooling or primary school: Can read a whole sentence	No schooling or primary school: Can read part of a sentence	No schooling or primary school: Cannot read at all	Total	Percentage literate[1]	Number of women
Age							
15-24	65.4	8.9	11.6	14.1	100.0	85.9	5,251
15-19	59.7	8.7	12.3	19.4	100.0	80.6	6,614
20-24	63.6	9.2	11.6	15.6	100.0	84.4	3,224
25-29	55.9	8.3	12.9	22.9	100.0	77.1	3,390
30-34	43.2	7.9	12.0	36.9	100.0	63.0	3,047
35-39	31.4	9.3	12.1	47.1	100.0	52.8	2,315
40-44	22.4	7.8	12.5	57.3	100.0	42.7	2,092
45-49	20.3	7.2	11.6	60.8	100.0	39.1	1,766
Residence							
Urban	55.5	8.4	10.1	25.9	100.0	74.0	5,047
Rural	42.1	8.3	12.8	36.7	100.0	63.3	12,816
Division							
Barisal	48.1	12.0	15.8	23.9	100.0	76.0	1,111
Chittagong	52.3	7.6	9.8	30.3	100.0	69.6	3,301
Dhaka	44.7	8.4	12.5	34.4	100.0	65.6	6,223
Khulna	49.5	7.3	11.2	31.9	100.0	68.0	1,838
Rajshahi	44.4	7.6	12.7	35.2	100.0	64.7	2,103
Rangpur	44.1	7.2	12.2	36.5	100.0	63.5	2,056
Sylhet	33.0	11.7	12.6	42.5	100.0	57.4	1,232
Wealth quintile							
Lowest	18.2	7.8	15.1	58.9	100.0	41.1	3,359
Second	31.3	10.2	15.4	43.2	100.0	56.8	3,408
Middle	48.0	9.4	12.1	30.4	100.0	69.5	3,560
Fourth	53.6	8.6	11.5	26.3	100.0	73.7	3,758
Highest	74.1	6.0	7.0	12.9	100.0	87.1	3,778
Total	45.9	8.4	12.1	33.6	100.0	66.3	17,863

Note: Total includes a small number of women who had no card with the required language, are blind or visually impaired, or with missing information.
[1] Refers to women who attended secondary school or higher and women who can read a whole sentence or part of a sentence

3.4 ACCESS TO MASS MEDIA

Access to information through the media is essential to increase people's knowledge and awareness of what takes place around them. The 2014 BDHS assessed exposure to media by asking respondents if they listened to the radio, watched television, or read newspapers or magazines at least once a week. To plan effective programs to disseminate information about health and family planning, it is important to know which subgroups of population are most likely to be reached by specific media.

Table 3.4 shows that 51 percent of ever-married women age 15-49 watch television at least once a week, 6 percent read a newspaper at least once a week, and 3 percent listen to the radio at least once a week. Less than 1 percent of women are exposed to all three media sources each week. Close to half (47 percent) of women have no exposure to any of the mass media on a weekly basis.

Table 3.4 Exposure to mass media

Percentage of ever-married women age 15-49 who are exposed to specific media on a weekly basis, by background characteristics, Bangladesh 2014

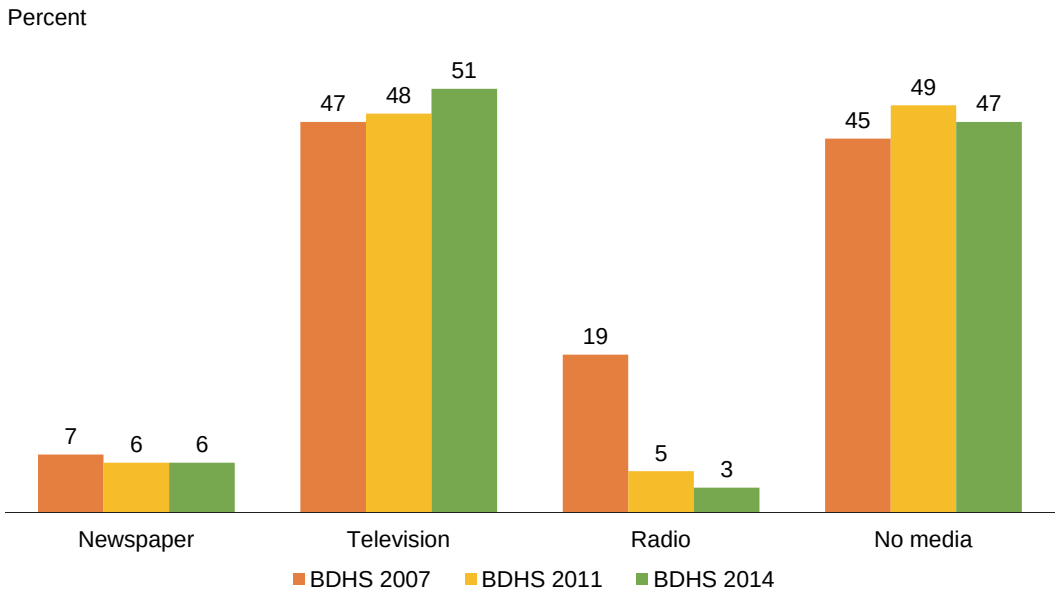
Background characteristic	Reads a newspaper at least once a week	Watches television at least once a week	Listens to the radio at least once a week	Accesses all three media at least once a week	Accesses none of the three media at least once a week	Number of women
Age						
15-19	5.5	51.2	4.3	0.4	45.8	2,029
20-24	5.3	57.1	2.8	0.5	41.4	3,224
25-29	6.9	52.7	3.1	0.6	45.4	3,390
30-34	6.6	51.2	2.6	0.4	47.0	3,047
35-39	5.6	47.6	1.7	0.1	50.9	2,315
40-44	6.3	45.8	1.6	0.3	53.3	2,092
45-49	4.8	46.0	2.1	0.2	52.8	1,766
Residence						
Urban	13.2	77.7	2.6	0.7	21.3	5,047
Rural	3.1	40.4	2.7	0.3	57.6	12,816
Division						
Barisal	7.6	38.5	2.0	0.3	59.6	1,111
Chittagong	5.2	54.8	2.6	0.3	43.6	3,301
Dhaka	7.6	58.1	2.6	0.5	40.3	6,223
Khulna	5.0	51.0	2.8	0.2	47.5	1,838
Rajshahi	4.4	50.3	2.6	0.4	48.5	2,103
Rangpur	4.6	39.8	3.9	0.4	56.8	2,056
Sylhet	4.4	35.0	1.4	0.2	64.1	1,232
Education						
No education	0.0	30.2	1.0	0.0	69.3	4,455
Primary incomplete	0.5	41.2	1.9	0.0	57.4	3,223
Primary complete[1]	1.0	45.6	2.3	0.1	53.0	1,986
Secondary incomplete	5.5	61.5	3.2	0.5	36.2	5,628
Secondary complete or higher[2]	27.8	80.0	5.6	1.7	16.7	2,571
Wealth quintile						
Lowest	0.9	10.2	1.6	0.2	88.2	3,359
Second	1.3	21.0	2.0	0.0	76.9	3,408
Middle	2.6	53.3	3.0	0.3	44.3	3,560
Fourth	4.1	73.1	3.0	0.5	25.4	3,758
Highest	19.6	89.7	3.5	1.0	9.0	3,778
Total	5.9	50.9	2.7	0.4	47.4	17,863

[1] Primary complete is defined as completing grade 5.
[2] Secondary complete is defined as completing grade 10.

Figure 3.2 shows the proportion of women listening to the radio every week has decreased markedly over the years, dropping from 19 percent in 2007, to 5 percent in 2011 and 3 percent in 2014. Television reaches the most women throughout the period (47 percent in 2007, 48 percent in 2011, and 51 percent in 2014).

Younger women are more likely to watch television or listen to the radio than older women. There is a wide gap in media exposure by urban-rural residence. For example, the proportion of urban women who watch television once a week is 78 percent compared with 40 percent of rural women. Media exposure is positively related to the respondent's educational level and economic status. Regular exposure to mass media is highest among women with secondary or higher education and women in the highest wealth quintile.

Figure 3.2 **Trends in exposure to mass media of ever-married women, 2007-2014**



3.5 EMPLOYMENT

The 2014 BDHS asked respondents a number of questions regarding their employment status, including whether they had worked in the 12 months before the survey. The results are presented in Table 3.5.

At the time of the survey, 33 percent of ever-married women age 15-49 were currently employed. Three percent were not working, although they had worked in the 12 months prior to the survey, while the remaining 64 percent said that they had not been employed in the previous 12 months (Table 3.5). The proportion currently employed is lowest among women age 15-19 (16 percent) and peaks at 40 percent in the 40-44 age group. The level of employment increases with the number of children. Women who have five or more children are more likely to be employed (37 percent) compared with women with no children (23 percent).

Rural women are more likely than urban women to be employed (34 percent compared with 31 percent). Variations are found across geographic divisions. The proportion of women who are employed ranges from 42 percent in Rajshahi to 18 percent in Sylhet.

The proportion of women who are currently employed decreases with education. For example, 42 percent of women with no education are employed compared with 25 percent of women who completed secondary level. Women in the lowest wealth quintile are more likely to be currently employed compared with women in the highest wealth quintile (41 percent and 25 percent, respectively).

Table 3.5 Employment status

Percent distribution of ever-married women age 15-49 by employment status, according to background characteristics, Bangladesh 2014

Background characteristic	Employed in the 12 months preceding the survey		Not employed in the 12 months preceding the survey	Total	Number of women
	Currently employed[1]	Not currently employed			
Age					
15-19	16.2	1.7	82.1	100.0	2,029
20-24	26.1	2.0	71.9	100.0	3,224
25-29	34.1	2.9	63.0	100.0	3,390
30-34	39.0	2.6	58.4	100.0	3,047
35-39	39.3	2.7	58.0	100.0	2,315
40-44	39.8	3.0	57.2	100.0	2,092
45-49	37.1	2.5	60.4	100.0	1,766
Marital status					
Currently married	31.9	2.4	65.7	100.0	16,858
Divorced/separated/ widowed	53.8	3.1	43.1	100.0	1,005
Number of living children					
0	22.8	2.2	75.1	100.0	1,814
1-2	33.0	2.5	64.5	100.0	9,478
3-4	35.9	2.8	61.3	100.0	5,180
5+	36.7	1.5	61.8	100.0	1,391
Residence					
Urban	31.1	2.2	66.6	100.0	5,047
Rural	33.9	2.6	63.5	100.0	12,816
Division					
Barisal	26.5	2.7	70.8	100.0	1,111
Chittagong	26.3	0.9	72.8	100.0	3,301
Dhaka	34.9	3.1	62.0	100.0	6,223
Khulna	33.9	3.3	62.9	100.0	1,838
Rajshahi	42.3	3.6	54.0	100.0	2,103
Rangpur	40.8	2.1	57.1	100.0	2,056
Sylhet	18.4	1.1	80.5	100.0	1,232
Education					
No education	42.1	3.1	54.8	100.0	4,455
Primary incomplete	37.5	3.1	59.4	100.0	3,223
Primary complete[2]	34.8	3.0	62.1	100.0	1,986
Secondary incomplete	26.6	1.9	71.5	100.0	5,628
Secondary complete or higher[3]	24.8	1.4	73.7	100.0	2,571
Wealth quintile					
Lowest	40.7	2.6	56.6	100.0	3,359
Second	36.7	4.0	59.3	100.0	3,408
Middle	32.8	2.5	64.7	100.0	3,560
Fourth	31.8	2.2	65.9	100.0	3,758
Highest	24.6	1.2	74.2	100.0	3,778
Total	33.1	2.5	64.4	100.0	17,863

[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.
[2] Primary complete is defined as completing grade 5.
[3] Secondary complete is defined as completing grade 10.

3.6 OCCUPATION

Respondents who had worked in the 12 months preceding the survey were asked about their occupation. The results are presented in Table 3.6, which shows the distribution of employed women by occupation, according to background characteristics. Four in ten working women are engaged in poultry or cattle raising (41 percent), 14 percent work as semi-skilled labor, and 6 percent perform professional or technical services. Eight percent each of women are engaged in business and factory or blue collar services, and 7 percent each perform home-based manufacturing work or serve as domestic servants. The relationship between women's occupation and age is mixed; younger women are more likely than older women to be engaged in factory work, semi-skilled labor services, and home-based manufacturing activities. In contrast, older women are more likely than younger women to work in business, in agriculture, or as domestic servants.

Table 3.6 Occupation

Percent distribution of ever-married women age 15-49 employed in the 12 months preceding the survey by occupation, according to background characteristics, Bangladesh 2014

Background characteristic	Profes-sional/ technical	Business	Factory worker, blue collar service	Semi-skilled labor/ service	Unskilled labor	Farmer/ agri-cultural worker	Poultry/ cattle raising	Home based manu-facturing	Domestic servant	Other	Missing	Total	Number of women
Age													
15-19	6.0	3.5	16.2	25.2	1.1	2.1	28.3	14.9	2.2	0.3	0.1	100.0	363
20-24	4.9	6.4	11.2	24.7	1.1	3.8	35.7	8.1	3.0	0.3	0.7	100.0	906
25-29	8.2	6.1	8.4	16.4	3.7	5.0	36.4	8.7	6.5	0.1	0.6	100.0	1,253
30-34	5.3	8.3	7.8	13.3	1.9	5.6	44.8	5.7	6.6	0.2	0.5	100.0	1,267
35-39	6.4	10.8	8.3	11.5	3.1	7.2	38.0	6.0	8.0	0.4	0.4	100.0	972
40-44	7.5	7.7	5.8	8.0	5.3	4.9	46.1	4.4	9.4	0.7	0.2	100.0	896
45-49	3.7	8.7	4.3	5.4	2.2	6.6	51.4	5.3	10.4	0.8	1.1	100.0	699
Marital status													
Married or living together	6.4	7.8	7.8	14.5	1.8	5.0	43.0	7.1	5.5	0.4	0.6	100.0	5,784
Divorced/separated/ widowed	3.3	6.4	13.0	12.7	12.7	8.0	18.1	5.0	20.2	0.4	0.1	100.0	572
Number of living children													
0	14.0	3.5	16.7	25.7	0.9	1.8	20.6	10.5	4.9	1.0	0.4	100.0	453
1-2	8.3	7.3	8.0	17.6	3.1	4.9	37.2	6.8	6.0	0.3	0.5	100.0	3,368
3-4	2.3	8.9	8.0	9.0	2.7	6.1	47.0	6.7	8.2	0.3	0.8	100.0	2,004
5+	0.3	8.4	3.9	3.9	2.7	7.9	57.4	6.2	8.6	0.5	0.1	100.0	531
Residence													
Urban	12.2	6.5	13.7	23.9	1.9	1.5	14.2	10.2	15.1	0.3	0.4	100.0	1,683
Rural	4.0	8.1	6.3	10.9	3.1	6.7	50.4	5.8	3.9	0.4	0.6	100.0	4,673
Division													
Barisal	10.7	6.9	3.4	10.5	3.2	1.4	46.2	7.7	7.9	2.0	0.2	100.0	324
Chittagong	7.1	5.7	9.2	18.1	0.6	11.9	31.7	9.7	5.6	0.4	0.1	100.0	897
Dhaka	6.3	7.5	11.9	18.1	3.1	2.6	36.2	6.0	7.7	0.2	0.2	100.0	2,365
Khulna	4.4	11.3	5.8	12.4	3.4	6.3	40.8	7.8	6.7	0.2	0.8	100.0	682
Rajshahi	4.6	9.2	5.9	11.2	2.2	3.3	48.7	9.4	4.0	0.4	1.2	100.0	967
Rangpur	5.3	5.5	2.8	7.6	3.1	9.1	55.3	4.3	5.7	0.1	1.1	100.0	881
Sylhet	9.5	8.0	13.4	10.5	6.6	3.8	27.5	2.6	17.2	0.8	0.1	100.0	240
Educational attainment													
No education	0.9	8.7	9.7	4.5	5.9	9.3	40.7	5.7	13.7	0.4	0.4	100.0	2,015
Primary incomplete	0.1	7.3	8.8	12.3	3.1	6.6	46.1	7.4	7.8	0.1	0.6	100.0	1,310
Primary complete[1]	0.6	7.5	9.7	17.3	1.3	1.9	44.7	11.0	5.3	0.2	0.4	100.0	751
Secondary incomplete	2.6	7.4	8.1	23.1	0.6	2.9	45.1	8.1	1.0	0.5	0.7	100.0	1,605
Secondary complete or higher[2]	48.3	6.0	2.0	23.4	0.0	0.5	16.0	2.7	0.1	0.5	0.7	100.0	675
Wealth quintile													
Lowest	0.5	5.9	6.7	4.1	6.6	13.3	45.1	8.9	7.5	0.4	0.9	100.0	1,457
Second	2.6	8.6	4.3	7.8	3.1	6.3	54.5	7.8	4.5	0.2	0.3	100.0	1,388
Middle	3.9	9.6	5.0	13.2	1.8	3.4	50.6	7.4	4.5	0.3	0.4	100.0	1,255
Fourth	5.1	8.1	14.7	22.4	1.1	0.8	32.9	6.5	7.6	0.6	0.3	100.0	1,280
Highest	24.0	5.6	12.1	29.9	0.3	0.4	12.5	2.8	11.2	0.4	0.8	100.0	976
Total	6.2	7.7	8.3	14.3	2.8	5.3	40.8	7.0	6.8	0.4	0.5	100.0	6,356

[1] Primary complete is defined as completing grade 5.
[2] Secondary complete is defined as completing grade 10.

Urban-rural residence has a marked effect on occupation. As expected, rural women are more likely than urban women to be engaged in agriculture, poultry or cattle raising, and unskilled labor or business. In contrast, women in urban areas are more likely to be engaged in professional or technical services, factory work or blue collar services, semi-skilled labor/services, home-based manufacturing work, and as domestic servants.

About one in two women (48 percent) with secondary or higher levels of education are employed in professional or technical jobs, and about one in four work in semi-skilled services. In contrast, women with little or no education are more likely than those with more education to be engaged in factory or blue collar services and as domestic servants. The majority of women in the highest wealth quintile are engaged in professional/technical work (24 percent), worked in factory or blue collar services (12 percent), semi-skilled labor/service (30 percent), and as domestic servants (11 percent). The majority of women in the lowest wealth quintile are unskilled laborers and farmers or agriculture workers.

3.7 EARNINGS, EMPLOYERS, AND CONTINUITY OF EMPLOYMENT

Table 3.7 shows the percent distribution of ever-married women employed in the 12 months prior to the survey by type of earnings, type of employer, and continuity of employment. This table presents data by whether respondents work in the agricultural or nonagricultural sector. Overall, 8 in 10 women who were employed work for cash only, and 6 percent receive cash and in-kind payment. There are significant variations in cash payment between women who work in agriculture (80 percent) and those who do not work in agriculture (91 percent).

Table 3.7 Type of employment

Percent distribution of ever-married women age 15-49 employed in the 12 months preceding the survey by type of earnings, type of employer, and continuity of employment, according to type of employment (agricultural or nonagricultural), Bangladesh 2014

Employment characteristic	Agricultural work	Nonagricultural work	Total
Type of earnings			
Cash only	79.7	90.9	84.9
Cash and in-kind	7.6	4.3	6.1
In-kind only	1.2	1.8	1.5
Not paid	11.2	2.9	7.4
Missing	0.1	0.2	0.2
Total	100.0	100.0	100.0
Type of employer			
Employed by family member	61.7	26.9	45.6
Employed by nonfamily member	14.0	58.4	34.7
Self-employed	24.1	14.4	19.5
Missing	0.2	0.3	0.2
Total	100.0	100.0	100.0
Continuity of employment			
All year	87.6	82.8	85.4
Seasonal	5.7	7.4	6.5
Occasional	6.5	9.5	7.9
Missing	0.2	0.3	0.3
Total	100.0	100.0	100.0
Number of women employed during the last 12 months	3,371	2,952	6,356

Note: Total includes women with missing information on type of employment who are not shown separately.
Agriculture work includes farmer, land owner, agricultural worker, fisherman, raiser of poultry/cattle

The proportion of women in agricultural work who receive cash payment has declined from 90 percent in 2011 to 85 percent in 2014. At the same time, the proportion of women who were paid entirely in kind is almost similar to that in an earlier survey (about 2 percent) (NIPORT et al. 2013).

Less than half of women (46 percent) are employed by family members, one in three women (35 percent) are employed by a nonfamily member, and 20 percent are self-employed. Women who work in agriculture are more likely than women who work in the nonagricultural sector to be employed by a family member (62 and 27 percent, respectively), while women who work in the nonagricultural sector are more often employed by a nonfamily member (58 and 14 percent, respectively).

Eighty-five percent of employed women work all year round, and 15 percent work either seasonally (7 percent) or occasionally (8 percent). Continuity of employment varies by sector. Eighty-eight percent of women who work in the agricultural sector work year round, compared with 83 percent of women engaged in nonagricultural work. Twelve percent of women who are employed in agricultural sector are seasonal or occasional workers.

MARRIAGE AND SEXUAL ACTIVITY 4

Key Findings

- Age at first marriage among women has risen slowly over the past two decades. The median age at first marriage among women age 20-49 increased from 14.4 years in 1993-94 to 16.1 years in 2014.
- Fifty-nine percent of women age 20-24 now marry before age 18. Between 2000 and 2011, the percentage that married before age 18 changed very little. In the last three years, however, this percentage has dropped noticeably, from 65 percent in 2011 to 59 percent in 2014.
- Seventy-eight percent of ever-married women were sexually active within the past four weeks, and another 12 percent were active within the past 1 to 12 months.
- Thirteen percent of currently married women reported that their husbands lived elsewhere, and 5 percent of currently married women said they had not seen their spouse in the 12 months preceding the survey.
- Almost 40 percent of women age 15-49 would have preferred to marry later than they actually did. Half of the women who married before age 18 would have preferred to marry later.

4.1 INTRODUCTION

This chapter addresses the principal factors, other than contraception, that affect a woman's risk of becoming pregnant: nuptiality and sexual intercourse, postpartum amenorrhea and abstinence from sexual relations, and menopause. The chapter also includes information on 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. Finally, measures of several other proximate determinants of fertility which, like marriage and sexual intercourse, influence exposure to the risk of pregnancy are presented: durations of postpartum amenorrhea, postpartum abstinence, and menopause.

Marriage is a primary indication of the exposure of women to the risk of pregnancy and, therefore, is important for the understanding of fertility. Populations in which age at marriage is low tend to be populations with early childbearing and high fertility. For this reason, there is an interest in trends in age at marriage.

Only women who had been married or were married were interviewed with the 2014 BDHS Woman's Questionnaire. However, a number of the tables presented in this chapter are based on all women, both ever-married and never-married. For these tables, the number of ever-married women interviewed in the survey is multiplied by an inflation factor that equals the ratio of all women to ever married women, as reported in the Household Questionnaire. This procedure expands the denominators in those tables, so that they represent all women. The inflation factors are calculated by single years of age. When the results are presented by background characteristics, single-year inflation factors are calculated separately for each category of the characteristic.

The definition of marriage is not universal for all countries and religions. In Bangladesh, it is common for a woman to wait several months or even years after formal marriage before starting to live with her husband. Since the 2014 BDHS is interested in marriage mainly as it affects exposure to the risk of pregnancy, interviewers were instructed to ask questions about marriage in terms of cohabitation rather than

formal marriage. Additionally, questions in the BDHS 2014 explore the consequences of marriage on education and employment.

4.2 CURRENT MARITAL STATUS

Table 4.1 shows the current marital status of women age 15-49 by age. The proportion of never married women age 15-49 is 15 percent. This proportion falls sharply with increasing age. It declines from 55 percent for women age 15-19 to less than 1 percent among women age 35 or older. The low proportion of women age 25-29 who have never been married (4 percent) indicates that marriage is universal in Bangladesh and that more than nine in ten women marry before age 30.

Eight in ten women (80 percent) are currently married. Three percent of women age 15-49 are widowed. The proportion of women who are widowed increases sharply with age and is mostly limited to older age groups: 8 percent of women age 40-44 and 13 percent of women age 45-49 are widowed. Divorce and separation are uncommon in Bangladesh. Two percent of women age 15-49 are either divorced or separated. The proportion divorced or separated does not vary markedly by age group.

Table 4.1 Current marital status

Percent distribution of women age 15-49 by current marital status, according to age, Bangladesh 2014

	Marital status							
Age	Never married	Married	Divorced	Separated	Widowed	Total	Percentage of respondents currently in union	Number of respon-dents
15-19	54.8	44.2	0.4	0.5	0.1	100.0	44.2	4,485
20-24	15.5	83.0	0.8	0.6	0.2	100.0	83.0	3,816
25-29	4.1	92.0	0.8	1.7	1.4	100.0	92.0	3,534
30-34	1.2	94.6	0.7	0.9	2.6	100.0	94.6	3,084
35-39	0.8	92.3	0.9	2.1	3.9	100.0	92.3	2,334
40-44	0.6	89.0	0.8	1.5	8.1	100.0	89.0	2,105
45-49	0.2	85.5	0.4	1.5	12.5	100.0	85.5	1,769
Total	15.4	79.8	0.7	1.1	3.0	100.0	79.8	21,127

Table 4.2 shows the trend in the percentage of women who have never married by age group for the 1975-2014 period. The proportion of women who have never married affects fertility levels in a society like Bangladesh, where childbearing outside of marriage is uncommon. The proportion of never-married women age 15-19 has increased from 30 percent in 1975 to 55 percent in 2014. Similarly, the proportion of never-married women age 20-24 increased from 5 percent in 1975 to 19 percent in 1999-2000 and then declined with some fluctuations to 16 percent in 2014.

Table 4.2 Trends in proportion never married

Percentage of women who have never married, by age group, as reported in various surveys, Bangladesh 1975-2014

Age	1975 BFS	1983 CPS	1985 CPS	1989 BFS	1989 CPS	1991 CPS	1993-1994 BDHS	1996-1997 BDHS	1999-2000 BDHS	2004 BDHS	2007 BDHS	2011 BDHS	2014 BDHS
10-14	91.2	98.0	98.7	96.2	96.4	98.5	95.2	95.2	92.7	88.6	u	u	u
15-19	29.8	34.2	47.5	49.0	45.8	46.7	50.5	49.8	51.9	52.1	52.8	54.3	54.8
20-24	4.6	4.0	7.1	12.0	9.3	12.3	12.4	17.2	18.5	15.2	14.3	13.4	15.5
25-29	1.0	0.7	1.0	2.3	1.6	2.8	2.2	3.4	4.2	4.2	4.3	3.0	4.1
30-34	0.2	0.4	0.1	0.3	0.5	0.5	0.3	0.5	0.1	1.2	0.6	1.2	1.2
35-39	0.4	-	-	0.1	0.5	0.1	0.3	0.0	0.2	0.4	0.6	0.8	0.8
40-44	0.1	0.1	-	0.2	0.2	0.3	0.7	0.0	0.0	0.3	0.2	0.3	0.6
45-49	0.0	0.1	-	0.1	0.1	-	0.2	0.0	0.0	0.0	0.8	0.2	0.2

- = Less than 0.1 percent
u = Unknown/not available
Sources: 1975 BFS (MHPC 1978:49); 1983, 1985, 1989, and 1991 CPS (Mitra et al. 1993:24); 1989 BFS (Huq and Cleland 1990:43); 1993-1994 BDHS (Mitra et al. 1994:72); 1996-1997 BDHS (Mitra et al. 1997:82); 1999-2000 BDHS (NIPORT et al. 2001:78); 2004 BDHS (NIPORT et al. 2005: 93); 2007 BDHS (NIPORT et al. 2009:77); 2011 BDHS (NIPORT et al. 2013:49).

4.3 AGE AT FIRST MARRIAGE

Marriage is the leading social and demographic indicator of the exposure of women to the risk of pregnancy. Marriage in Bangladesh marks the point in a woman's life when childbearing becomes socially acceptable. Age at first marriage has a major effect on childbearing because the risk of pregnancy depends primarily on the age at which women first marry. Women who marry early, on average, are more likely to have their first child at a young age and give birth to more children overall, contributing to higher fertility.

As never-married women were not interviewed in the BDHS, tables on age at marriage were generated using expansion factors. The expansion factors are based on the assumption that the reporting of age and marital status in the Household Questionnaire is correct. This means that there was no bias in the reporting of age of ever-married women and that there were no errors in the reporting of marital status, especially of young women.

Table 4.3 shows, by current ages, the percentages of women who have married, the percentages who have never married, and the median age at first marriage. Marriage occurs early for women in Bangladesh. Among women age 20-49, 71 percent married by age 18, and 85 percent married by age 20. Within each age cohort, the proportion of women marrying by a specific age increases. For example, among women age 25-29, 69 percent married by age 18 and 94 percent married by age 25.

The proportion of women marrying in their early teens continues to decline. For example, the proportion of women marrying by age 15 has declined by more than two-thirds over time, from 46 percent among women now age 45-49 to 16 percent among women age 15-19. Similarly, the proportion of women marrying by age 18 and age 20 decreases substantially from the oldest to the youngest cohort.

Table 4.3 shows a slow but steady increase over the last three decades in the age at which Bangladeshi women first marry, from a median age of 15 years for women in their mid to late forties to 17.2 years for those in their early twenties.

Table 4.3 Age at first marriage

Percentage of women age 15-49 who were first married by specific exact ages and median age at first marriage, according to current age, Bangladesh 2014

	Percentage first married by exact age:					Percentage never	Number of	Median age at first
Current age	15	18	20	22	25	married	respondents	marriage
15-19	16.3	na	na	na	na	54.8	4,485	a
20-24	22.4	58.6	76.5	na	na	15.5	3,816	17.2
25-29	30.7	68.7	83.1	88.7	93.7	4.1	3,534	16.4
30-34	35.5	72.8	88.2	93.3	96.8	1.2	3,084	16.0
35-39	39.8	77.1	89.5	94.5	97.0	0.8	2,334	15.6
40-44	45.3	80.1	90.9	95.3	97.4	0.6	2,105	15.3
45-49	46.2	80.7	91.8	96.1	98.1	0.2	1,769	15.3
20-49	34.4	71.0	85.3	na	na	4.9	16,642	16.1
25-49	38.0	74.7	88.0	93.0	96.3	1.7	12,826	15.8

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

A comparison of the 2014 BDHS survey results with findings from prior surveys confirms that the median age at first marriage for women in Bangladesh continues to increase. The median age at marriage among women age 20-49 has increased by almost two years, from 14.4 years in 1993-94 (Mitra et al. 2004) to 16.1 years in 2014.

The legal age of marriage for women in Bangladesh is 18 years, but a large proportion of marriages still take place before the woman reaches her legal age. The 2014 BDHS found that 59 percent of women age 20-24 were married before age 18 (Figure 4.1). Between 2000 and 2011, the proportion who married

before age 18 had hardly changed. But between 2011 and 2014 this proportion declined from 65 percent to 59 percent, the largest change ever observed between two BDHS surveys. Over the past two decades, the proportion of women marrying before the legal age has decreased by 14 percentage points overall from 73 percent in 1993-94 to 59 percent in 2014.

Figure 4.1 **Trends in proportion of women age 20-24 who were first married by age 18**

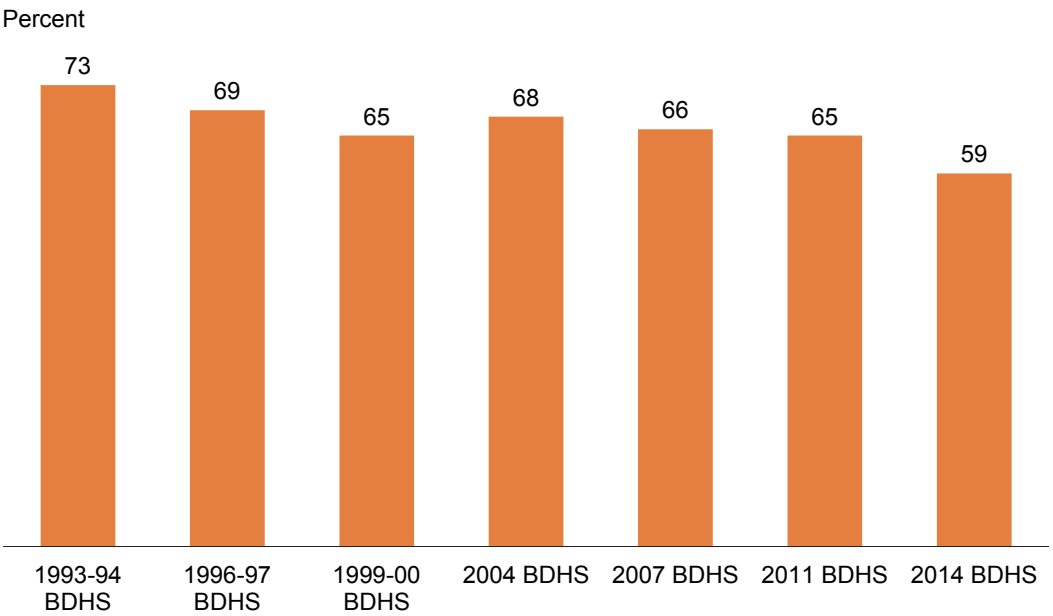


Table 4.4 examines the median age at first marriage for women age 20-49 and 25-49, according to background characteristics. The median age at first marriage among women age 20-49 is 16.1 years. Urban women marry one year later than their rural counterparts (16.9 years versus 15.8 years). The median age at marriage varies among administrative divisions. It ranges from 15.3 years in Rangpur to 17.6 years in Sylhet.

Women's education shows a strong positive association with age at marriage. For example, women who have completed secondary or higher education marry almost five years later than those with no education. Similarly, age at marriage increases with household wealth. Women in the highest wealth quintile marry two years later than those in the lowest wealth quintile.

Table 4.4 Median age at first marriage by background characteristics

Median age at first marriage among women age 20-49 and age 25-49, according to background characteristics, Bangladesh 2014

Background characteristic	Women age	
	20-49	25-49
Residence		
Urban	16.9	16.6
Rural	15.8	15.6
Division		
Barisal	16.1	15.8
Chittagong	16.8	16.5
Dhaka	16.2	15.9
Khulna	15.5	15.3
Rajshahi	15.5	15.3
Rangpur	15.3	15.0
Sylhet	17.6	16.9
Education		
No education	15.0	14.9
Primary incomplete	15.3	15.1
Primary complete[1]	15.7	15.5
Secondary incomplete	16.4	16.3
Secondary complete or higher[2]	19.9	19.6
Wealth quintile		
Lowest	15.3	15.2
Second	15.7	15.4
Middle	16.0	15.7
Fourth	16.3	15.8
Highest	17.6	17.3
Total	16.1	15.8

Note: The age at first marriage is defined as the age at which the respondent began living with her first spouse/ partner.
[1] Primary complete is defined as completing grade 5.
[2] Secondary complete is defined as completing grade 10.

4.4 AGE AT FIRST SEXUAL INTERCOURSE

Age at first marriage is often used as a proxy for first exposure to intercourse and risk of pregnancy. But these two events may not occur at the same time because some people may engage in sexual activity before marriage. To obtain insight into onset of sexual activity, the 2014 BDHS asked ever-married women how old they were when they first had sexual intercourse. It was recognized that the answer to this question might be biased since the respondent may have been uncomfortable providing information on premarital sex. In fact, the BDHS results show that virtually no ever-married women reported initiating sexual activity before they first married.

Table 4.5 shows the percentage of women age 15-49 who had first sexual intercourse by specific ages, the percentage who never had sexual intercourse, and the median age of first sexual intercourse. The table was generated using the information on the age at first sex from the ever-married women interviewed in the BDHS and assuming that never-married women have not had intercourse. Given the conservative nature of the Bangladeshi society, that assumption is likely correct for many never-married women. However, it is clearly a source of potential for bias in the reporting of age at first intercourse, because some women who have never married are likely to have initiated sexual activity. It also must be recognized that not all ever married women who engaged in premarital sexual activity are likely to report that behavior in the survey, adding to the bias in the results shown in Table 4.5. Nevertheless, the data in Table 4.5 are useful since they document the information the BDHS was able to obtain on premarital sexual activity in Bangladeshi society.

Table 4.5 shows that the median age at first sexual intercourse among women age 20-49 (16.2 years) is almost equal to the median age at first marriage (16.1 years). The median age at first sexual intercourse is higher among women age 20-24 than among older women.

Looking at specific ages, 33 percent of women age 20-49 had sexual intercourse by age 15, which compares with 69 percent by age 18, and 83 percent by age 20. Five percent of women age 20-49 had never experienced sexual intercourse.

Table 4.5 Age at first sexual intercourse

Percentage of women age 15-49 who had first sexual intercourse by specific exact ages, percentage who never had sexual intercourse, and median age at first sexual intercourse, according to current age, Bangladesh 2014

	Percentage who had first sexual intercourse by exact age:					Percentage who never had intercourse		Median age at first intercourse
Current age	15	18	20	22	25		Number	
15-19	15.0	na	na	na	na	55.0	4,485	a
20-24	21.2	56.0	74.5	na	na	15.6	3,816	17.4
25-29	29.8	66.3	81.3	86.9	91.7	4.2	3,534	16.5
30-34	34.0	70.6	85.9	90.8	94.3	1.2	3,084	16.1
35-39	39.0	75.2	87.2	92.1	94.7	0.8	2,334	15.7
40-44	43.9	78.2	88.5	92.7	94.5	0.6	2,105	15.4
45-49	45.1	78.8	89.7	93.8	95.5	0.2	1,769	15.4
20-49	33.3	68.8	83.2	na	na	4.9	16,642	16.2
25-49	36.9	72.6	85.8	90.7	93.8	1.7	12,826	15.9
15-24	17.9	na	na	na	na	36.8	8,301	a

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

Table 4.6 examines the median age at first sexual intercourse among women age 20-49 by background characteristics. Women living in rural areas tend to initiate sexual intercourse earlier than their urban counterparts. There is greater variation in median age at first sexual intercourse among administrative division than by urban or rural residence. Women in Sylhet are likely to start having sexual intercourse about two years later than women in Rangpur.

Women age 25-49 who have completed secondary or higher education initiate sex about five years later than women with no education. Age at first sexual intercourse also increases with household wealth.

Table 4.6 Median age at first sexual intercourse by background characteristics

Median age at first sexual intercourse among women age 20-49 and age 25-49, according to background characteristics, Bangladesh 2014

Background characteristic	Women age	
	20-49	25-49
Residence		
Urban	17.0	16.7
Rural	15.9	15.6
Division		
Barisal	16.2	15.8
Chittagong	17.0	16.6
Dhaka	16.3	16.0
Khulna	15.6	15.4
Rajshahi	15.6	15.4
Rangpur	15.4	15.1
Sylhet	17.8	17.1
Education		
No education	15.0	15.0
Primary incomplete	15.3	15.2
Primary complete[1]	15.8	15.6
Secondary incomplete	16.5	16.4
Secondary complete or higher[2]	a	19.7
Wealth quintile		
Lowest	15.3	15.2
Second	15.7	15.4
Middle	16.0	15.8
Fourth	16.4	15.9
Highest	17.9	17.6
Total	16.2	15.9

a = Omitted because less than 50 percent of the respondents had sexual intercourse for the first time before reaching the beginning of the age group
[1] Primary complete is defined as completing grade 5.
[2] Secondary complete is defined as completing grade 10.

4.5 RECENT SEXUAL ACTIVITY

In the absence of contraception, the possibility of pregnancy is positively related to the frequency of sexual intercourse. Thus, information on intercourse is important for refining measurement of exposure to pregnancy. All ever-married women were asked how long ago their last sexual contact occurred. As the length of time since their last sexual contact increased, the chance of becoming pregnant decreased. Table 4.7 shows the percent distribution of ever-married women age 15-49 by timing of their last sexual intercourse, according to background characteristics.

The data show that 78 percent of ever-married women age 15-49 were sexually active during the four weeks preceding the survey. An additional 12 percent were sexually active in the 12 months preceding the survey, and 10 percent had their last sexual intercourse one or more years prior to the survey.

Women in the oldest group (45-49), are the least likely to have had their last sexual intercourse in the past four weeks (64 percent) compared with the youngest women. More than 8 in 10 married women age 20-24, 25-29, and 30-34 had their last sexual intercourse in the four weeks preceding the survey. There are no noticeable variations in recent sexual activity by marital duration and by urban-rural residence.

There are large variations in the timing of last sexual intercourse by administrative divisions. The proportion of women who were sexually active in the past four weeks ranges from 70 percent in Chittagong to 85-86 percent in Rajshahi and Rangpur. The relationship between a woman's education and sexual activity shows no clear pattern; however, women with no education are the least likely to have been sexually active in the past four weeks (75 percent). In contrast, women in the lowest wealth quintile are the most likely to have had their last sexual intercourse in the past four weeks (80 percent) when compared with women in the higher quintiles.

Table 4.7 Recent sexual activity

Percent distribution of ever-married women age 15-49 by timing of last sexual intercourse, according to background characteristics, Bangladesh 2014

Background characteristic	Timing of last sexual intercourse: Within the past 4 weeks	Within 1 year[1]	One or more years	Missing	Never had sexual intercourse	Total	Number of women
Age							
15-19	78.1	16.0	5.3	0.1	0.4	100.0	2,029
20-24	81.7	11.2	7.0	0.0	0.1	100.0	3,224
25-29	81.0	9.5	9.4	0.0	0.1	100.0	3,390
30-34	81.9	9.1	9.0	0.0	0.0	100.0	3,047
35-39	78.5	9.5	12.0	0.0	0.0	100.0	2,315
40-44	74.0	12.1	13.9	0.1	0.0	100.0	2,092
45-49	63.9	16.5	19.4	0.1	0.0	100.0	1,766
Marital status							
Married or living together	82.8	11.6	5.5	0.0	0.1	100.0	16,858
Divorced/separated/ widowed	0.1	9.2	90.0	0.0	0.7	100.0	1,005
Marital duration[2]							
0-4 years	79.6	14.9	5.2	0.1	0.3	100.0	3,341
5-9 years	84.1	10.2	5.7	0.0	0.0	100.0	2,822
10-14 years	85.7	8.6	5.6	0.0	0.0	100.0	2,916
15-19 years	85.9	8.1	6.1	0.0	0.0	100.0	2,383
20-24 years	84.8	9.9	5.3	0.0	0.0	100.0	1,908
25+ years	78.6	15.8	5.4	0.1	0.0	100.0	2,920
Married more than once	81.3	14.2	4.5	0.0	0.0	100.0	569
Residence							
Urban	79.6	10.3	9.9	0.1	0.1	100.0	5,047
Rural	77.6	12.0	10.4	0.0	0.1	100.0	12,816
Division							
Barisal	75.1	16.4	8.3	0.0	0.2	100.0	1,111
Chittagong	69.9	14.3	15.8	0.0	0.1	100.0	3,301
Dhaka	79.2	10.9	9.7	0.1	0.1	100.0	6,223
Khulna	78.2	12.6	9.2	0.0	0.0	100.0	1,838
Rajshahi	84.8	8.7	6.3	0.0	0.2	100.0	2,103
Rangpur	85.5	8.0	6.4	0.0	0.1	100.0	2,056
Sylhet	73.6	11.6	14.8	0.0	0.1	100.0	1,232
Education							
No education	74.5	11.0	14.4	0.0	0.0	100.0	4,455
Primary incomplete	79.3	10.8	9.7	0.0	0.1	100.0	3,223
Primary complete[3]	80.2	10.8	9.0	0.0	0.0	100.0	1,986
Secondary incomplete	78.9	11.7	9.2	0.1	0.1	100.0	5,628
Secondary complete or higher[4]	79.4	13.3	7.2	0.0	0.1	100.0	2,571
Wealth quintile							
Lowest	80.3	10.8	8.9	0.0	0.1	100.0	3,359
Second	81.2	10.4	8.3	0.1	0.1	100.0	3,408
Middle	77.3	12.6	9.9	0.0	0.2	100.0	3,560
Fourth	75.7	11.5	12.7	0.0	0.1	100.0	3,758
Highest	76.6	12.2	11.2	0.0	0.0	100.0	3,778
Total	78.1	11.5	10.3	0.0	0.1	100.0	17,863

[1] Excludes women who had sexual intercourse within the last 4 weeks
[2] Excludes women who are not currently married
[3] Primary complete is defined as completing grade 5.
[4] Secondary complete is defined as completing grade 10.

4.7 SPOUSAL SEPARATION

Repeated seasonal migration has the potential to lower birth rates. The effect of spousal separation in reducing fertility varies with the length of separation. It is expected that the cumulative impact of spousal separation is greatest in areas of relatively high fertility and low modern contraceptive prevalence. However, this has been difficult to ascertain as there have not been many studies to illustrate the effect of spouse separation on fertility.

Table 4.8 shows the percentage of currently married women age 15-49 whose husband lives elsewhere and the frequency of the husband's visits in the last 12 months. Overall, 13 percent of currently married women have a husband who lives elsewhere. Younger women, age 15-19 (19 percent), women who

Table 4.8 Husband's visit

Percentage of currently married woman age 15-49 whose husband lives elsewhere, and among currently married women whose husband lives elsewhere, percent distribution by frequency of husband's visit in the last 12 months, according to background characteristic, Bangladesh 2014

Background characteristic	Percentage of women whose husband lives elsewhere	Number of women	Among currently married women whose husband lives elsewhere, frequency of husband's visit to the household in the past 12 months					Total	Number of women
			0	1-5	6-11	12+	Missing		
Age									
15-19	18.8	1,984	35.0	43.2	15.9	5.5	0.5	100.0	374
20-24	16.7	3,166	40.6	37.3	11.9	9.6	0.6	100.0	529
25-29	13.6	3,249	47.1	32.5	10.3	10.1	0.0	100.0	441
30-34	12.1	2,919	49.0	30.3	14.0	5.7	1.0	100.0	354
35-39	10.6	2,153	41.8	35.6	12.4	9.3	0.8	100.0	227
40-44	5.9	1,874	36.8	37.0	20.2	6.0	0.0	100.0	111
45-49	4.4	1,512	36.0	44.6	11.6	7.7	0.0	100.0	66
Marital duration									
0-4 years	20.1	3,341	36.1	40.8	13.6	9.3	0.3	100.0	671
5-9 years	13.9	2,822	43.3	35.3	11.9	8.7	0.8	100.0	392
10-14 years	12.3	2,916	49.5	30.7	12.0	7.3	0.5	100.0	359
15-19 years	12.1	2,383	49.4	28.7	14.9	6.3	0.7	100.0	289
20-24 years	9.9	1,908	41.7	42.1	8.2	7.3	0.8	100.0	188
25+ years	5.1	2,920	39.5	37.7	18.0	4.9	0.0	100.0	148
Married more than once	9.7	569	32.3	38.1	16.6	13.1	0.0	100.0	55
Residence									
Urban	9.7	4,709	40.8	35.4	15.4	7.6	0.7	100.0	458
Rural	13.5	12,149	42.6	36.4	12.5	8.1	0.4	100.0	1,644
Division									
Barisal	18.9	1,051	19.9	50.8	23.3	5.0	1.0	100.0	198
Chittagong	23.7	3,121	49.8	34.6	9.0	6.2	0.3	100.0	740
Dhaka	10.6	5,857	42.5	33.0	13.5	10.3	0.8	100.0	624
Khulna	9.5	1,729	39.8	35.1	15.1	9.6	0.5	100.0	164
Rajshahi	7.0	2,007	34.6	36.8	18.4	10.2	0.0	100.0	141
Rangpur	5.2	1,946	14.8	54.3	17.1	13.8	0.0	100.0	101
Sylhet	11.7	1,147	63.3	25.1	8.1	3.5	0.0	100.0	134
Education									
No education	5.9	3,949	43.6	33.0	14.2	8.7	0.4	100.0	232
Primary incomplete	9.4	3,032	46.6	30.8	17.1	4.1	1.3	100.0	285
Primary complete[1]	11.4	1,884	37.0	39.2	14.2	9.6	0.0	100.0	215
Secondary incomplete	15.9	5,477	46.7	35.5	10.6	6.8	0.5	100.0	873
Secondary complete or higher[2]	19.8	2,516	33.3	40.6	14.3	11.4	0.4	100.0	497
Wealth quintile									
Lowest	6.0	3,097	23.5	43.0	20.0	13.0	0.5	100.0	187
Second	9.5	3,223	34.7	36.8	19.8	8.7	0.0	100.0	305
Middle	14.5	3,394	44.0	32.8	15.3	7.1	0.9	100.0	494
Fourth	16.8	3,556	48.8	34.4	7.7	8.3	0.9	100.0	598
Highest	14.5	3,587	44.0	38.7	10.9	6.4	0.0	100.0	519
Total	12.5	16,858	42.2	36.2	13.1	8.0	0.5	100.0	2,102

[1] Primary complete is defined as completing grade 5.
[2] Secondary complete is defined as completing grade 10.

have been married fewer than 5 years (20 percent), and rural women (14 percent) are more likely than other women to have husbands who live elsewhere. One in four women in Chittagong (24 percent) have husbands who live elsewhere compared with only 5 percent of women in Rangpur. The proportion of women with a husband who lives elsewhere increases with the woman's education and wealth status. Only 6 percent of women with no education live apart from their husbands compared with 20 percent of those with secondary or higher education. Similarly, 6 percent of women in the lowest wealth quintile live separately from their husbands compared with 17 percent of women in the fourth quintile.

Women whose husbands live elsewhere were asked how often their husband came to visit in the past 12 months. Forty-two percent of women say that their husband did not come home in the past 12 months, 36 percent reported that their husband visited 1 to 5 times, 13 percent visited 6 to 11 times, and 8 percent visited 12 or more times. Close to half of women age 30-34 and those married 10-14 and 15-19 years are more likely than other women to report that their husbands did not come home in the past 12 months. There is no substantial variation by urban-rural residence or educational attainment. The number of husband's visits varied widely by administrative division: only 15 percent of women in Rangpur were not visited by their

husbands in the past 12 months compared with 63 percent of women in Sylhet. The percentage of women whose husbands did not visit in the past year has a negative association with wealth quintile. Husbands of women in the three highest quintiles are less likely to visit their wives compared with those in the lower quintiles, possibly because they are more likely to be employed overseas rather than locally.

4.8 PERCEPTION TOWARD AGE AT FIRST MARRIAGE

Table 4.9 shows the percentage of women age 15-49 by preferred age at marriage, according to background characteristics. Overall, more than 50 percent of women think that their marriage took place at an appropriate age, 39 percent would have preferred to marry later, and 8 percent would have preferred to marry at an earlier age. Older women (age 21-49) are more likely than younger women to say that their marriage took place at the right time (54 versus 28 percent). Half of the women (49 percent) who married before age 18 would have preferred to marry later.

There are small urban-rural variations regarding preferred and actual age at first marriage. However, there are greater differences across divisions. Whereas 62-63 percent women in Sylhet and Chittagong think that their marriage was took place at the right age, only 43-44 percent of women in Rangpur and Khulna share this opinion. Seven in 10 women who have completed secondary or higher education think that they married at the right age compared with 51 percent of women with no education. Variations across wealth quintiles are less notable. It is interesting to note that 40 percent of women with no education and 39 percent of women belonging to the lowest quintile want to marry later than their actual age at marriage.

Table 4.9 Preferred age at first marriage

Percent distribution of women age 15-49 by preference for time of first marriage, according to background characteristics, Bangladesh 2014

Background characteristics	Married at right time	Preferred to marry earlier	Preferred to marry later	Missing	Total	Number of women
Current age						
15-17	27.5	11.6	59.6	1.4	100.0	879
18-20	48.3	9.0	40.9	1.8	100.0	1,799
21-49	53.6	7.2	38.0	1.2	100.0	15,186
Actual age at first marriage						
<18	40.8	8.8	49.4	1.0	100.0	13,657
18-20	87.3	2.9	7.4	2.3	100.0	3,183
21+	86.9	6.0	5.0	2.1	100.0	1,024
Residence						
Urban	53.2	5.1	41.3	0.4	100.0	5,047
Rural	51.2	8.6	38.6	1.6	100.0	12,816
Division						
Barisal	49.8	12.1	35.8	2.4	100.0	1,111
Chittagong	61.9	3.6	32.6	1.9	100.0	3,301
Dhaka	50.9	8.8	39.4	0.8	100.0	6,223
Khulna	43.6	6.3	48.3	1.8	100.0	1,838
Rajshahi	47.7	3.0	48.1	1.2	100.0	2,103
Rangpur	43.4	9.4	46.1	1.1	100.0	2,056
Sylhet	63.3	14.8	21.0	1.0	100.0	1,232
Education						
No education	50.7	9.3	39.7	0.3	100.0	4,455
Primary incomplete	46.3	7.1	45.6	1.1	100.0	3,223
Primary complete[1]	47.6	7.5	43.7	1.2	100.0	1,986
Secondary incomplete	48.8	7.4	41.8	2.0	100.0	5,628
Secondary complete or higher[2]	70.1	5.7	22.3	1.9	100.0	2,571
Wealth quintile						
Lowest	47.9	11.6	39.3	1.2	100.0	3,359
Second	52.3	8.6	37.5	1.7	100.0	3,408
Middle	50.4	7.0	41.0	1.6	100.0	3,560
Fourth	50.2	5.9	42.4	1.5	100.0	3,758
Highest	57.4	5.3	36.6	0.6	100.0	3,778
Total	51.7	7.6	39.4	1.3	100.0	17,863

[1] Primary complete is defined as completing grade 5.
[2] Secondary complete is defined as completing grade 10.

FERTILITY 5

Key Findings

- The total fertility rate for the three years preceding the survey is 2.3 births per woman, the same as in the 2011 BDHS. The aim of the 2011-2016 health sector program is to reach a fertility level of 2.0 births per woman by 2016.
- Between the 2011 and 2014 BDHS, fertility declined or remained the same in 6 of 7 divisions. Dhaka is the only division where the total fertility rate increased from 2.2 to 2.3.
- The total fertility rate in urban areas is nearly half a child lower than in rural areas (2.0 and 2.4 births per woman, respectively).
- Khulna and Rangpur divisions have passed the fertility level target of 2.0 births per woman (1.9 births per woman), while Rajshahi and Barisal are close behind (2.1 and 2.2 births per woman, respectively). Sylhet has the highest fertility (2.9 births per woman).
- Childbearing begins early in Bangladesh, with almost half of women age 25-49 giving birth by age 18 and nearly 70 percent giving birth by age 20.
- Birth intervals are generally long in Bangladesh, with a median interval of 52 months. The median interval increased from 47 months in 2011. The proportion of women with a birth interval of less than 36 months declined from 32 percent in 2011 to 29 percent in 2014.
- Thirty-one percent of adolescents age 15-19 in Bangladesh are already mothers or pregnant with their first child. This proportion has not changed in the last three years.

Fertility is one of the three principal components of population dynamics that determine the size, structure, and composition of the population in any country. The focus on fertility is due to its important role in determining Bangladesh's population growth rate and its impact on economic development. The government of Bangladesh (GOB), which has formulated a National Population Policy (MOHFW 2012), seeks to reduce fertility to replacement level by 2015. The Health, Population and Nutrition Sector Development Program (HPNSDP) of Bangladesh embraced program and strategies for reducing fertility through improved access to health, family planning, and nutrition services for the poor and geographically marginalized population (MOHFW 2011a, MOHFW 2011b). Examining current fertility levels, trends, and differentials in Bangladesh will help the policy makers and program managers to monitor and evaluate the HPNSDP.

This chapter describes current and past fertility, cumulative fertility, birth intervals, age at first birth, and the reproductive behavior of adolescents. Most of the fertility measures are based on the birth history data collected during interviews with ever-married women age 15-49. In the 2014 BDHS each woman was asked a series of questions that could be used to construct a retrospective history of all of her births. To encourage complete reporting, the interviewer asked the respondent about the number of sons and daughters living with her, the number living elsewhere, and the number who had died. The interviewer then asked for a history of all births, including month and year, name, sex, and survival status of each birth. The interviewers were given extensive training in probing techniques designed to help respondents report this information accurately.

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

- Age-specific fertility rates[1] (ASFRs) are expressed as the number of births per 1,000 women in a certain age group. They are a valuable measure to assess the current age pattern of childbearing. ASFRs are defined as the number of live births during a specific period to women in a particular age group, divided by the number of woman-years lived in that age group during the specified period.

- The total fertility rate (TFR) represents the average number of children a woman would have by the end of her reproductive period if her experience followed the currently prevalent age-specific fertility rates. The TFR is calculated as the sum of the age-specific fertility rates multiplied by five (each age group covers five years of age).

- The general fertility rate (GFR) is expressed as the annual number of live births per 1,000 women age 15-44, and the crude birth rate (CBR) provides a measure of the annual number of live births 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 years 2012-2014. A three-year period was chosen because it reflects the current situation without unduly increasing sampling error.

Despite efforts to improve data quality, data from the BDHS are subject to the same types of errors that are inherent in all retrospective sample surveys: the possibility of omitting some births (especially births of children who died at a very young age) and the difficulty of accurately determining each child's date of birth. These errors can bias estimates of fertility trends, which then have to be interpreted within the context of data quality and sample sizes. A summary of the quality of the BDHS data appears in the tables in Appendix C.

5.1 CURRENT FERTILITY

Some current fertility measures are presented in Table 5.1 for the three-year period preceding the survey. ASFRs and the TFR for Bangladesh as a whole and for urban and rural areas are shown, along with the GFR and crude birth rate. The TFR is a useful measure of the level of recent fertility. The 2014 BDHS shows that the TFR for the three-year period before the survey is 2.3 children per woman. The overall age pattern of fertility, as reflected in the ASFRs, indicates that Bangladeshi women have a pattern of early childbearing (Figure 5.1). According to current fertility rates, on average, women will have 25 percent of their births before reaching age 20, 55 percent during their twenties, and 18 percent during their thirties. Fertility is 113 births per 1,000 women age 15-19, which increases to a peak of 143 births per 1,000 women age 20-24, and declines thereafter.

Table 5.1 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, Bangladesh 2014

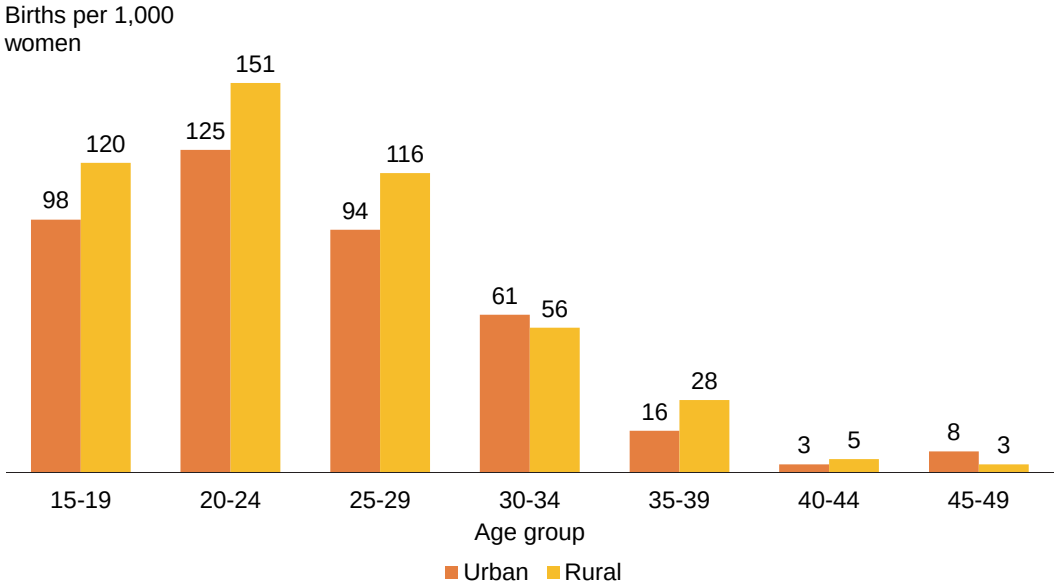
	Residence		
Age group	Urban	Rural	Total
15-19	98	120	113
20-24	125	151	143
25-29	94	116	110
30-34	61	56	57
35-39	16	28	24
40-44	3	5	4
45-49	8	3	5
TFR(15-49)	2.0	2.4	2.3
GFR	79	94	90
CBR	20.8	22.8	22.2

Notes: Age-specific fertility rates are per 1,000 women. Rates for age group 45-49 may be slightly biased due to truncation. Rates are for the period 1-36 months prior to interview.
TFR: Total fertility rate expressed per woman
GFR: General fertility rate expressed per 1,000 women age 15-44
CBR: Crude birth rate, expressed per 1,000 population

[1] Numerators for age-specific fertility rates are calculated by summing the number of live births that occurred in the period 1-36 months preceding the survey (determined by the date of interview and the date of birth of the child) and classifying them by the age of the mother (in five-year groups) at the time of birth (determined by the mother's date of birth). The denominators for the rates are the number of woman-years lived in each of the specified five-year age groups during the period 1-36 months preceding the survey. Because only women who had ever married were interviewed in the BDHS, the number of women in the denominator of the rates was inflated by factors calculated from information in the Household Questionnaire on the proportions ever married to produce a count of all women. Never-married women are presumed not to have given birth.

The TFR in the rural areas is higher than in urban areas (2.4 compared with 2.0 births per woman). As the ASFRs show, the pattern of higher rural fertility is prevalent in all age groups. The urban-rural difference in fertility is most pronounced for women in the 20-24 age group (125 births per 1,000 women in urban areas versus 151 births per 1,000 women in rural areas).

Figure 5.1 **Age-specific fertility rates by urban-rural residence**



BDHS 2014

5.2 FERTILITY DIFFERENTIALS

Table 5.2 shows that fertility varies widely by administrative divisions. Khulna and Rangpur divisions have the lowest fertility (1.9 births per woman) and thus have achieved the aim of HPNSDP to reduce fertility to 2.0 births per woman by 2016. Rajshahi and Barisal, with TFRs of 2.1 and 2.2, respectively, are very close to achieving the HPNSDP aim. Although fertility is still high in Sylhet and Chittagong divisions, it has declined from that in the 2011 BDHS. Between the 2011 BDHS and the 2014 BDHS, the TFR in Sylhet declined from 3.1 to 2.9 births per woman and in Chittagong declined from 2.8 to 2.5 births per woman. The only division where fertility has increased is Dhaka. Since Dhaka Division constitutes about one-third of Bangladesh's population, it has the largest impact on the national fertility rate.

As expected, women's education is associated with fertility. The TFR decreases from 2.4 births for women with no education to 2.0 births for women who have completed secondary or higher education. Fertility is also negatively associated with wealth; the difference in fertility between women in the lowest and highest wealth quintiles amounts to 0.8 child per woman, on average.

As shown in Table 5.2, at the time of the survey, 5 percent of women age 15-49 reported that they were pregnant. Reports may be underestimates, especially in the case of pregnancies at early stages, because some women may be unaware of or unwilling to reveal their current status. The percentage of women currently pregnant is higher in rural areas than in urban areas (5 percent and 4 percent, respectively). The percentage of women age 15-49 currently pregnant varies by administrative division. Nine percent of women are currently pregnant in Sylhet, compared with 4 percent in Khulna and Rajshahi. The relationship between the percentage currently pregnant and education is U-shaped, rising from a low of 3 percent among women with no education to a high of 6 percent among women with some secondary education, and then dipping again to 5 percent among women who have completed secondary or higher education. Women in the lowest wealth quintile are more likely to be currently pregnant (7 percent) than women in the highest quintile (4 percent).

Table 5.2 Fertility by background characteristics

Total fertility rate for the three years preceding the survey, percentage of women age 15-49 currently pregnant, and mean number of children ever born to women age 40-49, by background characteristics, Bangladesh 2014

Background characteristic	Total fertility rate	Percentage of women age 15-49 currently pregnant	Mean number of children ever born to women age 40-49
Residence			
Urban	2.0	4.4	3.4
Rural	2.4	5.3	4.1
Division			
Barisal	2.2	5.3	4.2
Chittagong	2.5	5.4	4.4
Dhaka	2.3	4.9	3.7
Khulna	1.9	3.9	3.4
Rajshahi	2.1	4.3	3.5
Rangpur	1.9	4.5	3.7
Sylhet	2.9	8.5	4.9
Educational			
No education	2.4	3.0	4.2
Primary incomplete	2.5	5.3	4.1
Primary complete[1]	2.4	5.6	3.9
Secondary incomplete	2.4	6.3	3.4
Secondary complete or higher[2]	2.0	4.8	2.4
Wealth quintile			
Lowest	2.8	6.6	4.3
Second	2.4	5.7	4.2
Middle	2.2	4.7	4.1
Fourth	2.1	4.5	3.8
Highest	2.0	4.3	3.1
Total	2.3	5.1	3.9

Note: Total fertility rates are for the period 1-36 months prior to interview.
[1] Primary complete is defined as completing grade 5.
[2] Secondary complete is defined as completing grade 10.

Table 5.2 also presents the mean number of children ever born to women age 40-49, which allows for a crude assessment of trends in fertility. Whereas TFR is a measure of current fertility, the mean number of children ever born to women age 40-49 is a measure of past or completed fertility. Although comparing completed fertility among women age 40-49 with the TFR can provide an indication of fertility change, it is vulnerable to the understatement of parity by older women. Findings on age at marriage and contraceptive use are also of critical importance in reaching a balanced judgment about fertility trends. Unless there is evidence of increased age at marriage and/or an appreciable use of contraception, it is unlikely that fertility has declined. In Bangladesh, the comparison of past and present fertility indicators, together with corresponding increases in contraceptive use and women's age at marriage, suggests a decline of almost two children per woman, from 3.9 to 2.3 children. There has been a substantial decline in fertility in both urban and rural areas, in all regions, and for all wealth quintiles. The difference between current and completed fertility is highest in rural areas (1.7 births), in Barisal and Sylhet (2 births), and among women in the second and middle wealth quintiles (1.8 and 1.9 births).

5.3 FERTILITY TRENDS

Trends in fertility can be assessed in two ways. The first way is to use retrospective data from birth histories collected in the 2014 BDHS. The second is to compare the TFR from the 2014 BDHS with estimates obtained in earlier surveys.

Trends in fertility over time can be examined by comparing age-specific fertility rates from the 2014 BDHS for successive five-year periods preceding the survey, as presented in Table 5.3.1. The rates for older age groups become progressively more truncated for periods more distant from the survey date, because women age 50 and older were not interviewed in the survey. For example, rates cannot be calculated for women age 35-39 for the period 15-19 years before the survey because these women would have been over age 50 at the time of the survey and therefore not eligible to be interviewed. Nonetheless, the results show that fertility has dropped substantially among all age groups over the past two decades. The largest fertility decline is observed between the two most recent five-year periods. Fertility decline is steepest among the cohort age 30-34, with a 58 percent decline (from 141 births to 59 births) between the period 15-19 years before the survey and the period 0-4 years before the survey.

Table 5.3.1 Trends in age-specific fertility rates

Age-specific fertility rates for five-year periods preceding the survey, by mother's age at the time of the birth, Bangladesh 2014

Mother's age at birth	Number of years preceding survey			
	0-4	5-9	10-14	15-19
15-19	117	150	178	190
20-24	142	172	212	213
25-29	111	127	151	172
30-34	59	77	108	[141]
35-39	23	43	[57]	-
40-44	5	[10]	-	-
45-49	[5]	-	-	-

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

Trends in fertility in Bangladesh since the early 1970s can be examined by observing a time series of estimates produced from demographic surveys fielded over the last four decades, beginning with the 1975 Bangladesh Fertility Survey (BFS). The TFRs for the seven BDHS surveys since 1993-1994 and the three preceding surveys carried out since 1975 are presented in Table 5.3.2 and Figure 5.2, and age-specific fertility rates from 2004 to 2014 are presented in Figure 5.3. The data indicate that fertility in Bangladesh has been declining since the 1970s. The TFR declined sharply from 6.3 births per woman in 1971-1975 to 5.1 births per woman in 1984-1988, followed by another rapid decline in the next decade of 1.8 births per woman to reach 3.3 births per woman in 1994-1996. Following a decade-long plateau in fertility during the 1990s at around 3.3 births per woman, the TFR declined further by one child and remains at 2.3 births per woman since the 2011 BDHS.

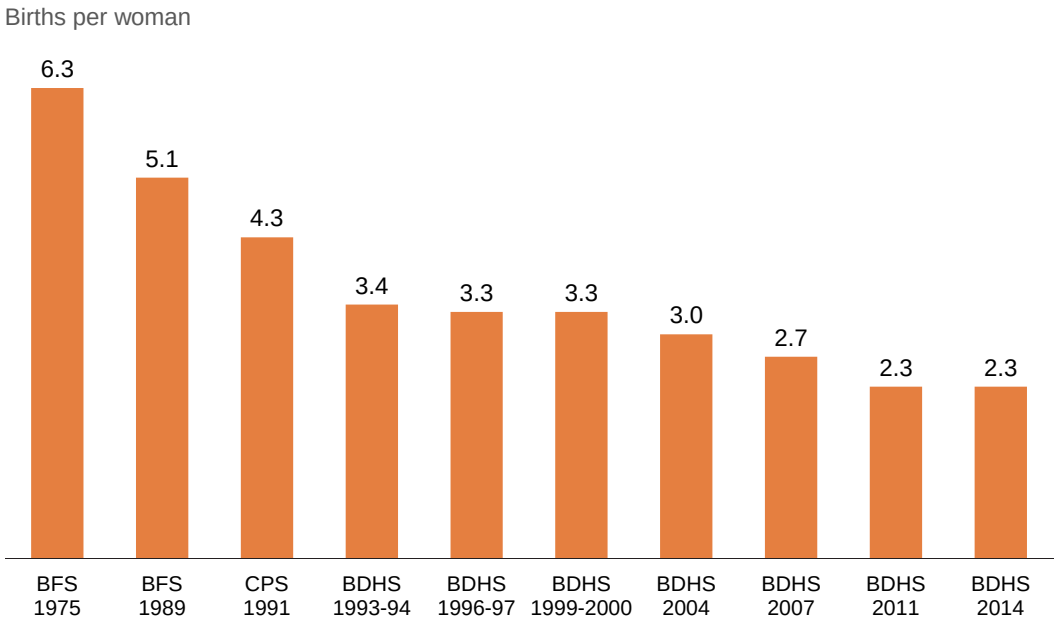
Table 5.3.2 Trends in current fertility rates

Age-specific and total fertility rates (TFR) among women age 15-49, various sources, Bangladesh, 1975 to 2014

	Survey and approximate time period									
Age group	1975 BFS (1971-1975)	1989 BFS (1984-1988)	1991 CPS (1989-1991)	1993-1994 BDHS (1991-1993)	1996-1997 BDHS (1994-1996)	1999-2000 BDHS (1997-1999)	2004 BDHS (2001-2003)	2007 BDHS (2004-2006)	2011 BDHS (2009-2011)	2014 BDHS (2012-2014)
15-19	109	182	179	140	147	144	135	126	118	113
20-24	289	260	230	196	192	188	192	173	153	143
25-29	291	225	188	158	150	165	135	127	107	110
30-34	250	169	129	105	96	99	83	70	56	57
35-39	185	114	78	56	44	44	41	34	21	25
40-44	107	56	36	19	18	18	16	10	6	4
45-49	35	18	13	14	6	3	3	1	3	4
TFR 15-49	6.3	5.1	4.3	3.4	3.3	3.3	3.0	2.7	2.3	2.3

Note: For the 1975 and 1989 BFS surveys, the rates refer to the 5-year period preceding the survey; for the other surveys, the rates refer to the 3-year period preceding the survey.
The BFS and BDHS surveys utilized full birth histories, while the 1991 CPS used an 8-year truncated birth history.
Source: 1975 BFS (MOHPC, 1978:73); 1989 BFS (Huq and Cleland, 1990:103); 1991 CPS (Mitra et al., 1993:34); 1993-94 BDHS (Mitra et al., 1994:24); 1996-97 BDHS (Mitra et al., 1997:30); 1999-2000 BDHS (NIPORT et al., 2001:32); 2004 BDHS (NIPORT et al., 2005:50) ; 2007 BDHS (NIPORT et al., 2009:50); 2011 BDHS (NIPORT et al., 2013:60).

Figure 5.2 **Trends in total fertility rates, 1975-2014**



An examination of the changes in the age-specific fertility rates in Table 5.3.2 and Figure 5.3 indicates that while the peak childbearing age has remained in the 20-24 age group, the largest absolute change in fertility also occurred in this age group, declining from 192 births per 1,000 women in the 2004 BDHS to 143 births per 1,000 women in the 2014 BDHS.

Figure 5.3 **Trends in age-specific fertility rates, 2004-2014**

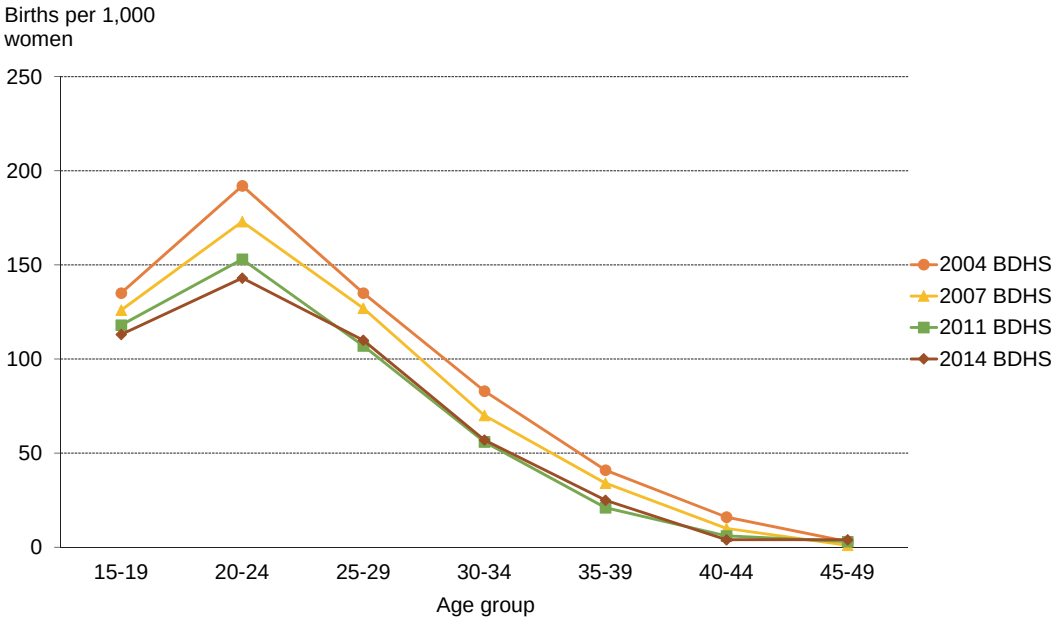


Figure 5.4 shows that in the 2014 BDHS, Khulna and Rangpur divisions have the lowest TFR (1.9 births per woman), and Sylhet division has the highest TFR (2.9 births per woman). The data indicate that in the last three years fertility has slightly declined in four divisions (Barisal, Chittagong, Rangpur, and Sylhet), remained the same in two divisions (Khulna and Rajshahi) and slightly increased in Dhaka division. Since Dhaka is by far the largest division—comprising one-third of Bangladesh's population—the fertility rate of this division has a large impact on the national fertility rate. Changes in fertility over time should be interpreted with caution in the absence of sampling errors.

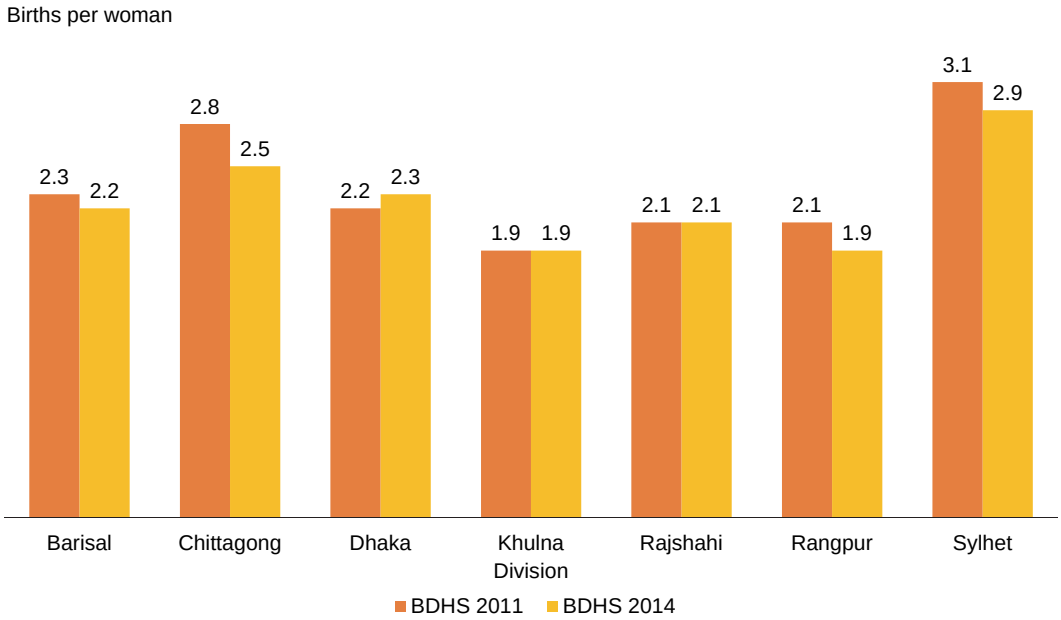
Table 5.3.3 Current fertility by division

Age-specific and total fertility rates, the general fertility rate, and the crude birth rate for the three years preceding the survey, by division, Bangladesh 2014

	Division							
Age group	Barisal	Chittagong	Dhaka	Khulna	Rajshahi	Rangpur	Sylhet	Bangladesh
15-19	100	117	113	118	127	118	93	113
20-24	151	167	129	142	135	122	176	143
25-29	103	118	121	80	97	79	152	110
30-34	56	60	70	35	41	37	85	57
35-39	22	26	28	7	17	15	65	24
40-44	1	5	4	4	2	0	14	4
45-49	0	14	4	1	3	2	2	5
TFR (15-49)	2.2	2.5	2.3	1.9	2.1	1.9	2.9	2.3
GFR	83	101	92	72	81	75	111	90
CBR	19.7	25.9	23.0	18.1	19.7	18.4	26.3	22.2

Notes: Age-specific fertility rates are per 1,000 women. Rates for age group 45-49 may be slightly biased due to truncation. Rates are for the period 1-36 months prior to interview.
TFR: Total fertility rate expressed per woman
GFR: General fertility rate expressed per 1,000 women age 15-44
CBR: Crude birth rate expressed per 1,000 population

Figure 5.4 **Trends in total fertility by division, 2011 and 2014**



5.4 CHILDREN EVER BORN AND LIVING

Table 5.4 shows the distribution of all women and currently married women by age and number of children ever born. It also shows the mean number of children ever born to women in each five-year age group, an indicator of the momentum of childbearing. The mean number of children ever born for all women is 2.1, while currently married women have 2.5 births on average. Allowing for mortality of children, Bangladeshi women have, on average, 1.9 living children. Currently married women have an average of 2.2 living children.

Table 5.4 Children ever born and living

Percent distribution of all women and currently married women age 15-49 by number of children ever born, mean number of children ever born and mean number of living children, according to age group, Bangladesh 2014

Age	Number of children ever born											Total	Number of women	Mean number of children ever born	Mean number of living children
	0	1	2	3	4	5	6	7	8	9	10+				
ALL WOMEN															
15-19	75.4	22.1	2.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	4,485	0.27	0.26
20-24	27.5	40.9	25.4	5.2	0.9	0.1	0.0	0.0	0.0	0.0	0.0	100.0	3,816	1.11	1.06
25-29	8.9	21.4	41.5	19.6	6.5	1.6	0.5	0.0	0.1	0.0	0.0	100.0	3,534	2.01	1.87
30-34	3.3	9.1	32.3	30.5	14.9	6.5	2.2	0.8	0.2	0.1	0.0	100.0	3,084	2.79	2.59
35-39	2.0	7.0	25.9	27.9	17.7	9.9	6.2	2.0	0.8	0.4	0.2	100.0	2,334	3.26	2.96
40-44	2.4	6.3	17.9	25.2	19.3	13.8	8.0	4.2	1.7	0.7	0.5	100.0	2,105	3.66	3.23
45-49	1.6	4.1	13.2	21.0	20.3	18.4	10.7	5.9	2.3	1.4	1.1	100.0	1,769	4.15	3.56
Total	23.5	18.7	22.5	16.1	9.0	5.2	2.8	1.3	0.5	0.3	0.2	100.0	21,127	2.08	1.89
CURRENTLY MARRIED WOMEN															
15-19	45.5	49.0	5.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	1,984	0.60	0.58
20-24	13.8	48.3	30.4	6.3	1.1	0.1	0.0	0.0	0.0	0.0	0.0	100.0	3,166	1.33	1.26
25-29	4.6	22.3	42.8	20.9	7.0	1.6	0.5	0.0	0.1	0.0	0.0	100.0	3,249	2.11	1.97
30-34	2.0	8.2	33.0	31.3	15.1	6.8	2.3	0.9	0.2	0.1	0.0	100.0	2,919	2.86	2.65
35-39	0.9	5.7	25.7	28.6	18.6	10.3	6.6	2.1	0.8	0.5	0.2	100.0	2,153	3.36	3.05
40-44	1.6	5.1	17.6	25.8	19.9	14.2	8.4	4.6	1.5	0.8	0.5	100.0	1,874	3.76	3.33
45-49	1.2	3.6	12.7	21.1	20.7	18.7	11.1	6.1	2.2	1.5	1.2	100.0	1,512	4.21	3.63
Total	9.6	22.2	26.7	19.1	10.6	6.1	3.3	1.5	0.5	0.3	0.2	100.0	16,858	2.45	2.23

Currently married women age 45-49 have given birth to an average of 4.2 children, of whom 3.6 have survived. Among all women age 15-49, the average number of children who have died per woman is 0.19. Among currently married women, it is 0.22; that is, 9 percent of children born to currently married women have died. The percentage of children who have died increases with women's age. Among currently married women, for example, the proportion of children ever born who have died increases from 5 percent for women age 20-24 to 14 percent for women age 45-49. The proportion of children for currently married women age 20-24 and 45-49 who have died slightly decreases in the last three years.

Nearly one-quarter (24 percent) of all women age 15-49 have never given birth. This proportion is highest among women age 15-19, as 75 percent of women in this age group have never given birth. However, this proportion declines to 28 percent among women age 20-24 and rapidly decreases further for older women. The percentage of women who have never given birth is quite low (less than 2.5 percent) among all women age 35-44, indicating that childbearing among Bangladeshi women is nearly universal.

Overall, 10 percent of currently married women age 15-49 have never given birth. The difference in the mean number of children ever born between all women and currently married women is due to the substantial proportion of young and unmarried women in the former category.

The percentage of women in their forties who have never had children is an indicator of the level of primary infertility—that is, the proportion of women who are unable to bear children at all. Since voluntary childlessness is rare in Bangladesh, it is likely that married women with no births are unable to have children. The 2014 BDHS results suggest that primary infertility is low in Bangladesh, at slightly more than 2 percent. This estimate does not include secondary infertility, that is, women who may have had one or more births but who are unable to have additional children.

5.5 BIRTH INTERVALS

Birth interval is the length of time between two successive live births. Examination of birth intervals provides insight into birth spacing patterns and, subsequently, maternal, infant, and childhood mortality. Short birth intervals are associated with an increased risk of death for mother and child. Studies have shown that children born less than 24 months after a previous sibling risk poor health as well. Short birth intervals also threaten maternal health.

Table 5.5 shows the percent distribution of non-first births that occurred in the five years preceding the survey by number of months since the previous birth, according to background characteristics. Birth intervals are generally long in Bangladesh, with a median interval of 52 months. Lengthy breastfeeding and a long period of postpartum amenorrhea are likely to contribute to the relatively high percentage of births occurring after an interval of 24 months or more in Bangladesh. More than 70 percent of non-first births occur three or more years after the previous birth, while 18 percent of births take place 24-35 months after the previous birth. Eleven percent of children are born after an interval that is considered "too short," i.e., less than 24 months.

Table 5.5 Birth intervals

Percent distribution of non-first births in the five years preceding the survey by number of months since preceding birth, and median number of months since preceding birth, according to background characteristics, Bangladesh 2014

Background characteristic	Months since preceding birth						Total	Number of non-first births	Median number of months since preceding birth
	7-17	18-23	24-35	36-47	48-59	60+			
Age									
15-19	16.8	32.5	30.3	12.3	2.0	6.1	100.0	114	24.1
20-29	5.4	7.4	20.3	17.1	16.1	33.7	100.0	2,989	47.9
30-39	2.1	4.3	13.8	13.1	13.0	53.6	100.0	1,696	63.2
40-49	0.7	4.9	12.9	11.0	7.8	62.7	100.0	137	73.2
Sex of preceding birth									
Male	5.2	6.9	16.6	14.8	13.6	42.9	100.0	2,427	53.1
Female	3.7	6.8	19.6	16.0	15.3	38.6	100.0	2,510	50.6
Survival of preceding birth									
Living	3.1	6.2	17.5	15.9	14.9	42.5	100.0	4,593	53.5
Dead	22.8	15.8	25.7	9.6	9.3	16.8	100.0	344	28.3
Birth order									
2-3	4.6	6.4	17.0	14.9	14.5	42.6	100.0	3,716	53.2
4-6	3.6	8.0	20.2	16.8	14.9	36.4	100.0	1,077	48.6
7+	5.5	10.1	31.0	17.8	11.2	24.5	100.0	145	39.1
Residence									
Urban	4.0	6.3	14.2	15.1	16.7	43.6	100.0	1,144	55.5
Rural	4.6	7.1	19.3	15.5	13.8	39.8	100.0	3,793	50.5
Division									
Barisal	3.3	5.7	12.9	15.5	17.1	45.4	100.0	263	57.6
Chittagong	5.1	7.6	19.9	17.9	18.3	31.1	100.0	1,085	47.7
Dhaka	4.0	6.9	18.2	13.6	13.7	43.6	100.0	1,709	53.9
Khulna	3.1	5.2	9.7	12.4	13.6	56.0	100.0	359	63.8
Rajshahi	4.1	3.8	14.0	13.8	11.7	52.6	100.0	491	61.9
Rangpur	2.4	7.5	11.9	14.5	12.4	51.4	100.0	478	60.7
Sylhet	8.0	9.3	31.2	20.3	12.8	18.4	100.0	551	36.6
Educational attainment									
No education	4.0	6.8	19.7	17.0	14.1	38.5	100.0	1,105	49.9
Primary incomplete	4.3	5.6	21.9	15.6	13.4	39.3	100.0	924	49.9
Primary complete[1]	4.3	9.4	17.8	12.6	13.5	42.3	100.0	593	52.4
Secondary incomplete	4.7	7.2	16.5	16.0	14.0	41.6	100.0	1,769	51.9
Secondary complete or higher[2]	4.9	5.5	13.9	13.3	19.5	42.9	100.0	545	56.2
Wealth quintile									
Lowest	4.8	6.8	25.2	16.2	14.5	32.5	100.0	1,316	45.6
Second	5.4	7.6	17.0	14.4	13.6	41.9	100.0	980	52.3
Middle	5.0	7.3	15.4	16.6	14.4	41.3	100.0	935	51.9
Fourth	3.6	8.0	14.8	16.2	13.5	44.0	100.0	897	54.2
Highest	2.8	4.4	14.7	13.4	16.6	48.1	100.0	809	58.5
Total	4.4	6.9	18.1	15.4	14.5	40.7	100.0	4,937	51.7

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] Primary complete is defined as completing grade 5.
[2] Secondary complete is defined as completing grade 10.

The median number of months since a preceding birth increases significantly with age, from 24 months among mothers age 15-19 to 73 months among mothers age 40-49. There is no marked difference in the length of the median birth interval by sex of the preceding birth. However, birth interval decreases with birth order.

The length of the birth interval is closely associated with the survival status of the previous sibling. The median birth interval is 25 months shorter when the previous sibling has died than when the previous sibling is still alive (28 and 54 months, respectively). The percentage of births occurring within a very short interval (less than 18 months) is almost eight times higher for children whose previous sibling died than for children whose previous sibling survived (23 and 3 percent, respectively). The shorter interval following the death of a child is partly due to a shortened period of breastfeeding (or no breastfeeding) for the preceding child, which leads to an earlier return of ovulation and hence increased chance of pregnancy. Minimal use of contraception, presumably because of a desire to have another child as soon as possible, could also be partly responsible for the shorter birth interval in these cases.

Birth intervals are slightly longer in urban (56 months) than in rural (51 months) areas. There are marked differences in median birth intervals by administrative divisions. The median birth interval is longest in Khulna (64 months) and shortest in Sylhet (37 months). The median number of months since the preceding birth increases both with the mother's education and the household's wealth. The birth interval increases from 50 months among women with no education to 52 months among women with an incomplete secondary education and to 56 months among those with a complete secondary education or higher. Similarly, the median birth interval for the highest wealth quintile is nearly 5 years (59 months), whereas for the three lowest quintiles it is 52 months or less.

A comparison with earlier BDHS surveys shows that the median birth interval has increased markedly, rising from 35 months in 1993-1994 to 44 months in 2007, to 47 months in 2011, and 52 months in 2014. Between 1993 and 2014, the median birth interval increased by 49 percent.

5.6 POSTPARTUM AMENORRHEA, ABSTINENCE, AND INSUSCEPTIBILITY

Fertility levels in most populations can be explained by four key proximate determinants that affect a woman's risk of becoming pregnant: nuptiality (including age at first marriage and age at first sexual intercourse); postpartum amenorrhea and sexual abstinence; menopause; and contraceptive use. Table 5.6 addresses two principal factors that influence fertility. Postpartum amenorrhea and sexual abstinence affect the duration of a woman's insusceptibility to pregnancy, which affects birth spacing. The onset of menopause marks the end of a woman's reproductive life. These variables taken together determine the length and pace of a woman's reproductive life, and therefore are important for understanding fertility levels and differentials.

Table 5.6 Postpartum amenorrhea, abstinence and insusceptibility

Percentage of births in the three years preceding the survey for which mothers are postpartum amenorrheic, abstaining, and insusceptible, by number of months since birth, and median and mean durations, Bangladesh 2014

Months since birth	Percentage of births for which the mother is:			Number of births
	Amenorrheic	Abstaining	Insusceptible[1]	
<2	93.8	89.0	99.0	174
2-3	46.3	32.2	58.9	237
4-5	41.4	8.9	45.7	260
6-7	28.1	8.7	32.1	269
8-9	24.7	5.8	28.5	297
10-11	20.4	9.8	29.1	309
12-13	16.9	7.4	23.1	299
14-15	15.7	3.5	19.2	302
16-17	5.9	10.3	15.5	279
18-19	6.1	4.7	10.5	258
20-21	5.9	6.0	11.8	259
22-23	9.9	7.2	15.8	293
24-25	4.2	5.4	9.3	297
26-27	3.6	4.2	7.1	237
28-29	2.7	9.0	11.7	247
30-31	1.5	5.5	6.5	291
32-33	1.6	5.6	6.9	279
34-35	1.8	2.1	3.9	287
Total	16.6	10.7	22.3	4,874
Median	3.2	2.1	4.0	na
Mean	6.9	4.8	8.9	na

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

Postpartum amenorrhea is the interval between the birth of a child and the resumption of menstruation during which the risk of pregnancy is very low. Postpartum protection from conception can be influenced by the intensity and length of breastfeeding. Postpartum abstinence refers to the period of voluntary sexual inactivity after childbirth. Delaying the resumption of sexual relations after a birth prolongs the period of postpartum protection. A woman is considered insusceptible to pregnancy if she is not exposed to the risk of pregnancy either because she is amenorrheic or because she is abstaining from sexual intercourse following a birth. The duration of amenorrhea and sexual abstinence following birth jointly determine the length of insusceptibility.

In the 2014 BDHS, information was obtained about the duration of amenorrhea and the duration of postpartum sexual abstinence for births in the three years preceding the survey. Table 5.6 shows that Bangladeshi women are amenorrheic for a median of 3.2 months, abstain for a median of 2.1 months, and are insusceptible to pregnancy for a median of 4.0 months.

Almost all women (99 percent) are insusceptible to pregnancy during the first two months following childbirth. In general, the proportion of women who are amenorrheic or abstaining decreases as months after delivery increase. The proportion of women who are amenorrheic drops from 94 percent in the first two months after birth to a low of less than 2 percent at 30-35 months. The majority (89 percent) of Bangladeshi women abstain from sex during the first two months following a birth. The proportion abstaining drops sharply to 32 percent at 2 to 3 months and then drops to 9 percent at 4 to 5 months. The period of postpartum amenorrhea is considerably longer than the period of postpartum abstinence and is by far the major determinant of the length of postpartum insusceptibility to pregnancy. At 6 to 7 months after birth, more than one-fourth of all women are still amenorrheic, but only 9 percent are abstaining. At 16 to 17 months after birth, the proportion amenorrheic is 6 percent, while 10 percent of women are abstaining.

A comparison of the 2014 BDHS with earlier BDHS surveys indicates that the duration of abstinence has remained constant since 1993-1994, possibly because of the Muslim tradition of abstaining for 40 days after birth. The median duration of postpartum amenorrhea has steadily decreased over time, from 10.3 months in 1993-1994 to 8.4 months in 1996-1997, 7.9 months in 1999-2000, 6.1 months in 2004, 5.8 months in 2007, 4.3 months in 2011, and 3.2 months in 2014 (Mitra et al. 1994:77, Mitra et al. 1997:86; NIPORT et al. 2001:82; NIPORT et al. 2005:97; NIPORT et al. 2009:84; NIPORT et al. 2013:68). Similarly, there has been a slow and steady decline in the median duration of insusceptibility, from 10.8 months in 1993-1994 to 6.5 months in 2004. Between 2004 and 2007 the median duration of insusceptibility did not change, but thereafter the duration of insusceptibility declined from 5.1 months in 2011 to 4.0 months in 2014.

Table 5.7 shows that the median duration of postpartum amenorrhea, abstinence, and insusceptibility varies little by background characteristics. The median duration of postpartum amenorrhea and postpartum insusceptibility are almost two months longer among women age 30-49 than among women age 15-29. Rural women have a shorter median duration of amenorrhea than urban women, and hence a shorter period of insusceptibility. There are substantial variations by administrative division for the period of insusceptibility. Postpartum insusceptibility ranges from 5.6 months among women in Sylhet to 2.8 months in Rangpur, while the median among women in the other divisions ranges between 3.7 and 4.5 months. The duration of postpartum amenorrhea is longer among women with no education than among women with some primary or secondary education. The median duration of postpartum amenorrhea and insusceptibility is shortest among women in the lowest quintile.

Table 5.7 Median duration of amenorrhea, postpartum abstinence, and postpartum insusceptibility

Median number of months of postpartum amenorrhea, postpartum abstinence, and postpartum insusceptibility following births in the three years preceding the survey, by background characteristics, Bangladesh 2014

Background characteristic	Postpartum amenorrhea	Postpartum abstinence	Postpartum insusceptibility[1]
Mother's age			
15-29	3.0	2.1	3.8
30-49	4.8	*	5.4
Residence			
Urban	4.1	2.1	4.6
Rural	2.9	2.1	3.8
Division			
Barisal	3.0	(2.2)	4.2
Chittagong	3.2	(2.4)	4.5
Dhaka	2.9	*	3.7
Khulna	3.6	2.6	4.4
Rajshahi	3.3	(2.1)	3.7
Rangpur	2.7	*	2.8
Sylhet	5.0	(1.4)	5.6
Educational attainment			
No education	4.1	*	4.5
Primary incomplete	3.0	(1.4)	3.5
Primary complete[2]	3.3	(2.3)	3.7
Secondary incomplete	3.1	2.1	3.9
Secondary complete or higher[3]	3.0	(2.4)	4.4
Wealth quintile			
Lowest	3.0	(1.8)	3.2
Second	3.9	(2.2)	4.2
Middle	(2.4)	(2.1)	3.3
Fourth	3.9	(2.2)	4.7
Highest	3.3	(2.2)	4.4
Total	3.2	2.1	4.0

Note: Medians are based on the status at the time of the survey (current status). Figures in parentheses are based on 25-49 unweighted number of birth used to create a 3-month moving average. An asterisk indicates that the unweighted number of births used to create a 3-month moving average is less than 25.
[1] Includes births for which mothers are either still amenorrheic or still abstaining (or both) following birth
[2] Primary complete is defined as completing grade 5.
[3] Secondary complete is defined as completing grade 10.

5.7 MENOPAUSE

The risk of becoming pregnant declines with age. After age 30, women's susceptibility to pregnancy declines as an increasing proportion of women become infecund. The term infecundity denotes a process rather than a well-defined event. Although the onset of infecundity is difficult to determine for an individual woman, there are ways of estimating it for a group of women. One indicator of infecundity is the onset of menopause. Menopause is the culmination of a gradual decline in fecundity with increasing age. The 2014 BDHS defines menopausal women as women who are neither pregnant nor postpartum amenorrheic, but who have not had a menstrual period in the six months preceding the survey. Women who report that they have had a hysterectomy are also defined as menopausal.

Table 5.8 Menopause

Percentage of women age 30-49 who are menopausal, by age, Bangladesh 2014

Age	Percentage menopausal[1]	Number of women
30-34	7.7	3,047
35-39	12.7	2,315
40-41	23.5	828
42-43	27.6	854
44-45	37.8	828
46-47	55.3	662
48-49	68.4	686
Total	22.9	9,221

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

Table 5.8 shows that 23 percent of women age 30-49 are estimated to be menopausal. The proportion menopausal increases with age, from 8 percent among women age 30-34 to 68 percent among women age 48-49. The proportion of women age 30-49 who are menopausal increased from 20 percent in the 2011 BDHS to 23 percent in the 2014 BDHS.

5.8 AGE AT FIRST BIRTH

Age at first birth has a direct effect on fertility. Early initiation of childbearing lengthens the reproductive period and subsequently increases fertility. In many countries, postponement of first births—reflecting an increase in the age at marriage—has contributed greatly to overall fertility decline. Moreover, bearing children at a young age involves substantial risks to the health of both the mother and child. Early childbearing also tends to restrict educational and economic opportunities for women.

Table 5.9 presents the percentage of all women who had given birth by specific ages for different age cohorts. The median age at first birth is not shown for young women age 15-19 because a large majority had not become mothers. The median age at first birth is about 18 years across all age cohorts, except for women age 20-24 and 25-29, whose median age at first birth is 19. The proportion of women who had a child before age 15 has decreased; 12 to 14 percent of women in their forties reported having had their first birth by age 15, compared with 4 percent of women age 15-19. Close to half of Bangladeshi women (48 percent) have given birth before reaching age 18, while 70 percent have given birth by age 20. These findings are similar to those in the 2011 BDHS.

Table 5.9 Age at first birth

Percentage of women age 15-49 who gave birth by exact ages, percentage who have never given birth, and median age at first birth, according to current age, Bangladesh 2014

Current age	Percentage who gave birth by exact age					Percentage who have never given birth	Number of women	Median age at first birth
	15	18	20	22	25			
15-19	4.4	na	na	na	na	75.4	4,485	a
20-24	8.3	35.7	58.2	na	na	27.5	3,816	19.2
25-29	11.5	44.4	67.0	78.3	87.1	8.9	3,534	18.5
30-34	12.3	49.1	71.2	83.3	92.1	3.3	3,084	18.1
35-39	11.3	50.9	71.4	83.8	92.3	2.0	2,334	17.9
40-44	13.5	51.3	72.4	83.4	91.3	2.4	2,105	17.9
45-49	12.2	46.3	68.1	81.4	91.6	1.6	1,769	18.3
20-49	11.2	45.3	67.2	na	na	9.6	16,642	18.4
25-49	12.1	48.1	69.8	81.8	90.6	4.2	12,826	18.2

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

Table 5.10 summarizes the median age at first birth for different age cohorts by respondents' background characteristics. Among women age 20-49, the median age at first birth is one year higher in urban areas than in rural areas. Among administrative divisions, it is highest in Sylhet (19.5 years). Women who have some secondary education start childbearing 1.1 years later than those with little or no education. Median age at first birth is more than two years higher for women age 25-29 in the highest wealth quintile (19.7 years), compared with those in the lowest wealth quintile (17.4 years).

Table 5.10 Median age at first birth

Median age at first birth among women age 20-49 and 25-49 years, according to background characteristics, Bangladesh 2014

Background characteristic	Women age 20-49	Women age 25-49
Residence		
Urban	19.3	19.1
Rural	18.1	17.8
Division		
Barisal	18.4	18.0
Chittagong	18.8	18.6
Dhaka	18.5	18.3
Khulna	18.0	17.8
Rajshahi	17.9	17.7
Rangpur	17.6	17.4
Sylhet	19.5	19.0
Education		
No education	17.3	17.3
Primary incomplete	17.4	17.4
Primary complete[1]	17.9	17.8
Secondary incomplete	18.5	18.4
Secondary complete or higher[2]	a	22.3
Wealth quintile		
Lowest	17.4	17.4
Second	17.9	17.7
Middle	18.1	17.8
Fourth	18.6	18.2
Highest	a	19.7
Total	18.4	18.2

a = Omitted because less than 50 percent of the women had a birth before reaching the beginning of the age group
[1] Primary complete is defined as completing grade 5.
[2] Secondary complete is defined as completing grade 10.

5.9 TEENAGE PREGNANCY AND MOTHERHOOD

Teenage pregnancy and motherhood is a major social and health concern. Early teenage pregnancy can cause serious health problems for both the mother and the child. The 2012 Bangladesh Population Policy focused on a specific adolescent welfare program with an aim to increase awareness about family planning, reproductive health, STIs, and HIV/AIDS and to intensify information and counseling services (MOHFW 2012). Teenage mothers are more likely to suffer from severe complications during delivery, which result in high morbidity and mortality for both themselves and their children. In addition, young mothers may not be sufficiently emotionally mature to bear the burden of childbearing and rearing. Moreover, an early start to childbearing greatly reduces women's educational and employment opportunities and is associated with higher levels of fertility. This hurts their job prospects, which often lowers their status in society.

Table 5.11 shows that 31 percent of adolescents age 15-19 in Bangladesh have begun childbearing; one in four teenagers have given birth and another 6 percent are pregnant with their first child. As expected, the proportion of women age 15-19 who have begun childbearing rises rapidly with age, from 9 percent among women age 15 to 58 percent among women age 19.

Early childbearing among teenagers is more common in rural than in urban areas (32 versus 27 percent, respectively) and among women in Rajshahi and Rangpur divisions (37 percent each) compared with other divisions. Childbearing begins later in Sylhet than in other divisions.

Delayed childbearing is strongly related to education among women age 15-19. Eighteen percent of teenagers who completed secondary or higher education in Bangladesh have begun childbearing compared with almost half of those with no education (48 percent). Childbearing begins earlier in the lowest wealth quintile: 41 percent of adolescents in this group have begun childbearing compared with 23 percent in the highest wealth quintile.

The proportion of adolescents age 15-19 who have begun childbearing remained the same (33 percent) in the 2004 and 2007 BDHS surveys (NIPORT et al. 2009:56). However, early childbearing among teenage women had slightly declined, to 30 percent in 2011, and remained almost the same in 2014 (NIPORT et al. 2013).

Table 5.11 Teenage pregnancy and motherhood

Percentage of women age 15-19 who have had a live birth or who are pregnant with their first child, and percentage who have begun childbearing, by background characteristics, Bangladesh 2014

Background characteristic	Percentage of women age 15-19 who: Have had a live birth	Are pregnant with first child	Percentage who have begun childbearing	Number of women
Age				
15	5.3	3.9	9.2	892
16	12.4	3.8	16.2	922
17	24.5	6.7	31.1	867
18	31.8	9.6	41.4	1,004
19	51.0	6.7	57.8	800
Residence				
Urban	21.0	6.4	27.4	1,259
Rural	26.0	6.1	32.1	3,223
Division				
Barisal	23.1	8.3	31.4	273
Chittagong	21.0	5.4	26.4	1,036
Dhaka	25.6	6.2	31.8	1,489
Khulna	25.3	5.9	31.2	379
Rajshahi	30.9	5.7	36.6	421
Rangpur	29.6	7.3	36.9	473
Sylhet	18.1	6.3	24.4	411
Education				
No education	39.6	8.7	48.3	164
Primary incomplete	38.6	6.6	45.2	519
Primary complete[1]	35.2	7.9	43.0	407
Secondary incomplete	23.7	6.2	29.9	2,363
Secondary complete or higher[2]	13.0	4.9	17.8	1,028
Wealth quintile				
Lowest	32.7	8.4	41.1	777
Second	26.4	6.7	33.2	847
Middle	25.7	5.8	31.5	952
Fourth	22.6	5.4	28.0	1,026
Highest	17.5	5.4	22.9	842
Total	24.6	6.2	30.8	4,485

[1] Primary complete is defined as completing grade 5.
[2] Secondary complete is defined as completing grade 10.

FERTILITY PREFERENCES 6

Key Findings

- Sixty-three percent of currently married women in Bangladesh want to limit child bearing; 57 percent want no more children and 6 percent have been sterilized. The percentage who desire to limit family size declined slightly from 65 percent in 2011 to 63 percent in 2014.
- The desire to stop childbearing among currently married women with two children has increased rapidly over the past decade, from 67 percent in 2004 to 79 percent in 2014.
- Since 2004, the mean ideal number of children has declined from 2.4 children to 2.2 children in 2014. The figure remains unchanged since 2011.
- Bangladeshi women have 0.7 children more than they want. The total fertility rate would be 30 percent lower if unwanted births were avoided. The gap between wanted and actual fertility rates has narrowed over the years; from 1.0 children in 2004 to 0.7 children in 2014.

Information on fertility preferences can improve understanding of future fertility patterns and demand for contraception. Fertility preferences are also used to construct measures of unmet need for contraception and of unwanted or mistimed births. Fertility preferences also help to assess the overall attitudes of women toward childbearing and the general course of fertility. Like previous BDHS surveys, the 2014 BDHS asked women a series of questions to ascertain their fertility preferences. The resulting data are used to quantify these preferences—whether couples want to cease childbearing altogether or merely delay the next pregnancy, for example. Data can also be used to determine the demand for family planning—combined with data on contraceptive use—to estimate unmet need for family planning, including the need for spacing and limiting births. The ideal number of children is another important indicator of fertility preferences that shows the number of children a woman would want if she could start her family anew. The information on ideal family size provides two measures. First, among women who have not yet started a family the data provide an idea of future fertility (to the extent that women are able to realize their fertility desires). Second, the excess of past fertility over ideal family size provides a measure of unwanted fertility. Other topics discussed in this chapter are fertility planning, the effect of unwanted births on fertility rates, and how fertility preferences between husband and wife differ.

The interpretation of data on fertility preferences is often difficult because respondents' reported preferences are, in a sense, hypothetical and thus subject to change and rationalization. Still, data on fertility preferences indicate the direction of future fertility to the extent that individuals and couples will act to achieve their preferred family sizes.

6.1 DESIRE FOR MORE CHILDREN

Information about the desire for more children is important for understanding future reproductive behavior. The provision of adequate and accessible family planning services depends on the availability of such information. In the 2014 BDHS, currently married women (whether pregnant or not) were asked about their intentions to have another child and, if they had such intentions, how soon they wanted the child. The same question was phrased differently for pregnant women to ensure children after completion of the current pregnancy were wanted. Sterilized women and men were considered to want no more children, and therefore they were not asked questions about their desire for more children. Table 6.1 shows the percent distribution of currently married women by desire for another child, according to the number of living children.

Table 6.1 Fertility preferences by number of living children

Percent distribution of currently married women age 15-49 by desire for children, according to number of living children, Bangladesh 2014

Desire for children	Number of living children[1] 0	1	2	3	4	5	6+	Total 15-49
Have another soon[2]	59.1	18.2	4.4	1.3	0.7	0.9	0.1	10.5
Have another later[3]	30.0	56.5	9.5	3.3	0.9	0.3	0.2	19.7
Have another, undecided when	1.7	3.0	0.9	0.2	0.1	0.0	0.0	1.2
Undecided	2.8	4.5	3.5	0.9	0.9	1.6	0.6	2.7
Want no more	1.5	15.4	74.3	80.1	80.6	78.4	79.9	56.7
Sterilized[4]	0.3	0.8	4.9	11.1	10.5	11.9	10.1	5.8
Declared infecund	4.7	1.5	2.4	3.2	6.3	6.9	9.0	3.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	1,243	4,128	5,108	3,378	1,670	798	533	16,858

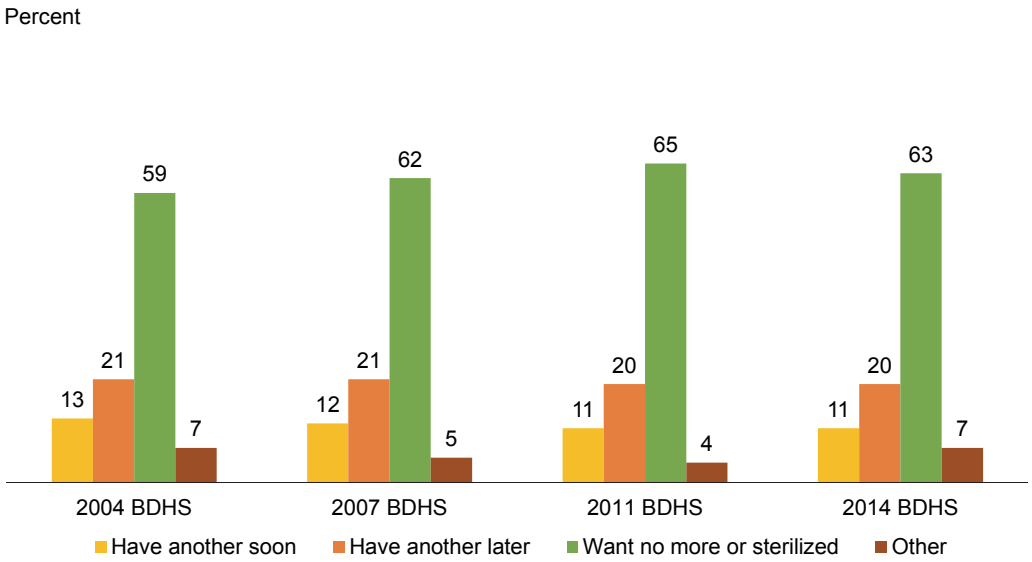
[1] The number of living children includes the current pregnancy.
[2] Wants next birth within two years
[3] Wants to delay next birth for two or more years
[4] Includes both female and male sterilization

Overall, 63 percent of married women age 15-49, including 6 percent who have been sterilized, do not want any more children. The proportion of women who want to stop childbearing or are sterilized increases rapidly with the number of living children, from 16 percent of women with one child to 79 percent of women with two living children, and over 90 percent of women with three or more children. On the other hand, the proportion of women who want to have another child decreases with the number of living children. More than three in four women with one living child want to have another child. The proportion of women who want to have another child declines sharply to 15 percent among women with two living children. Thus, the vast majority of married women want to either space their next birth or cease childbearing altogether.

6.2 Desire to Limit Childbearing

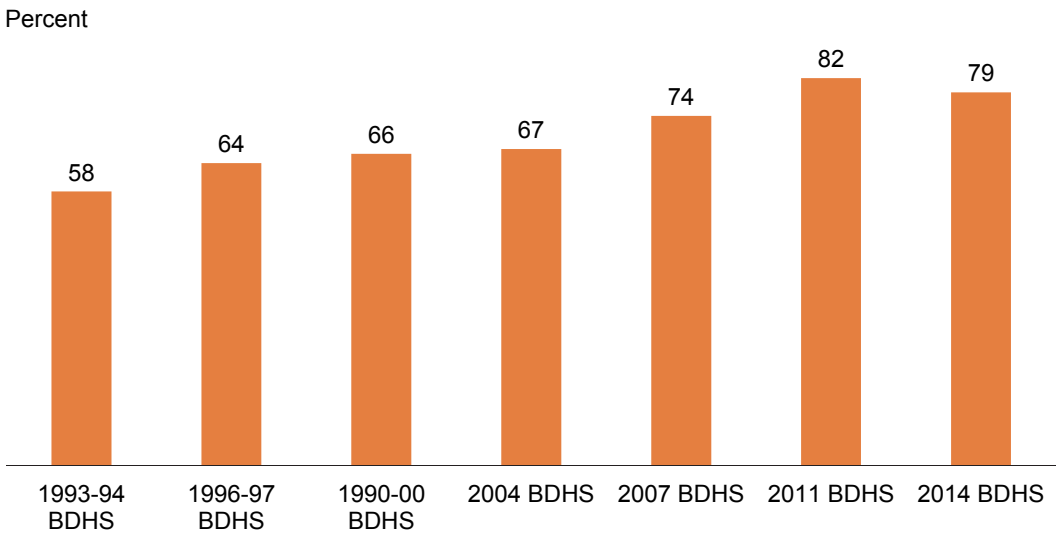
The proportion of women who want no more children is an important and easily understood measure of fertility preference. Figure 6.1 shows that the proportion of currently married women who either want no more children or who have been sterilized increased from 59 percent in 2004 to 63 percent in 2014. However, there has been a slight decline in the proportion that desires to limit child bearing from 65 percent in 2011 to 63 percent in 2014 (NIPORT et al. 2005).

Figure 6.1 **Trends in fertility preferences among currently married women age 15-49, 2004-2014**



Bangladesh's National Population Policy promotes a two-child family norm, with a message that two chidren are enough, but one is better. Figure 6.2 shows that the percentage of currently married women with two children who want to have no more children increased by 12 percentage points in the last decade, from 67 percent in 2004 to 79 percent in 2014 (NIPORT et al. 2005). This trend is marked by a slight decline in the proportion desiring to limit childbearing between 2011 and 2014.

Figure 6.2 **Trends in currently married women with two children who want no more children, 1993-2014**



Includes male and female sterilization.

Table 6.2 shows, by number of living children, the percentage of currently married women who desire to stop childbearing by urban-rural residence, division, education, and household wealth. Overall, rural women are more likely than urban women to want no more children because they already have more children than urban women do. With three or more living children, women in urban and rural areas are equally likely to want no more children. With one or two living children, urban women are more likely than rural women to want no more children. For example, among women with two children, 83 percent of urban women want no more children compared with 78 percent of rural women.

Overall, differences among women in their desire to limit childbearing are relatively small by administrative division. Two in three currently married women in Khulna, Rajshahi, and Rangpur do not want to have another child compared with three in five currently married women in Dhaka, Chittagong, and Sylhet. The desire to limit childbearing varies somewhat among currently married women with two children. For example, 64 percent of currently married women with two children in Sylhet do not want to have another child compared with 87 percent of women in Rangpur.

There are major differences in women's fertility preferences by level of education. Overall, the desire to limit childbearing is higher among women with no education than among women with education. For example, 81 percent of currently married women with no education want to stop childbearing compared with 46 percent of those who have completed secondary education. There are differences in the desire to limit childbearing by household wealth. Overall, the desire not to have any more children declines with wealth; women in the lowest wealth quintile are most likely to want no more children (69 percent) while women in the highest wealth quintile are least likely to want no more children (58 percent). The results by specific number of living children are less clear. At lower parities, however, women in the higher wealth quintiles are more likely to want no more children than women in the lower wealth quintiles.

Table 6.2 Desire to limit childbearing

Percentage of currently married women age 15-49 who want no more children, by number of living children, according to background characteristics, Bangladesh 2014

Background characteristic	Number of living children[1]							Total
	0	1	2	3	4	5	6+	
Residence								
Urban	0.8	19.8	83.4	91.7	91.2	90.8	91.0	60.3
Rural	2.2	14.5	77.5	90.9	91.1	90.1	90.0	63.4
Division								
Barisal	2.1	16.8	80.5	94.3	96.1	94.0	97.4	64.3
Chittagong	0.3	9.5	69.2	88.8	95.2	90.1	94.4	60.2
Dhaka	2.2	16.8	77.4	91.5	89.4	90.9	80.4	60.3
Khulna	3.1	27.0	85.6	90.3	89.1	86.6	95.3	66.4
Rajshahi	1.4	21.7	85.5	94.9	94.4	93.6	100.0	66.8
Rangpur	1.4	12.6	87.0	93.7	89.4	76.6	90.3	65.8
Sylhet	1.2	10.1	64.4	83.3	84.4	96.2	88.6	60.0
Education								
No education	9.3	35.7	83.2	89.7	90.0	89.0	89.5	81.1
Primary incomplete	0.0	20.6	79.0	92.1	90.1	91.5	90.6	71.2
Primary complete[2]	3.0	11.3	76.9	90.6	91.9	93.1	92.4	62.6
Secondary incomplete	1.0	11.5	77.0	91.0	93.5	91.1	91.1	51.9
Secondary complete or higher[3]	1.1	17.3	82.3	95.2	97.5	90.2	87.2	46.0
Wealth quintile								
Lowest	2.5	16.5	78.7	90.7	91.1	95.4	93.8	68.8
Second	0.8	16.2	78.7	91.3	91.5	90.6	93.8	66.4
Middle	2.0	15.1	77.7	90.6	91.1	86.9	91.1	61.8
Fourth	2.3	14.0	78.8	91.8	89.3	87.2	75.4	58.6
Highest	1.2	19.1	81.8	91.3	92.8	90.1	90.5	58.2
Total	1.8	16.3	79.3	91.1	91.1	90.3	90.1	62.5

Note: Women who have been sterilized are considered to want no more children.
[1] The number of living children includes the current pregnancy.
[2] Primary complete is defined as completing grade 5.
[3] Secondary complete is defined as completing grade 10.

6.3 IDEAL FAMILY SIZE

To assess ideal family size, women in the 2014 BDHS were asked two questions. Respondents without any living children were asked, "If you could choose exactly the number of children to have in your lifetime, how many would that be?" For respondents with living children, the question was rephrased as follows, "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 lifetime, how many would that be?" Although these questions are based on hypothetical situations, they provide two measures. First, for women who have not yet started childbearing, the data provide an idea of future fertility. Second, for older and high parity women, the excess of past fertility over the ideal family size provides a measure of unwanted fertility.

Women in Bangladesh prefer a small family size (2.2 children on average). Table 6.3 shows that 72 percent of ever-married women consider a two-child family to be ideal, 13 percent prefer three children, 6 percent prefer four children, and 1 percent prefers five or more children.

There has been a decline in the mean ideal number of children among women since 2004. The women's ideal number decreased by 0.1 in each survey, from 2.4 children in 2004 to 2.2 in 2011. This finding could explain the declining total fertility rates in the same period. However, the mean ideal number of children and the total fertility rate have remained constant since 2011.

The ideal number of children increases with the number of living children. Women with six or more living children have an ideal family size of 3, compared with 2.0 for those with no children or one child. The positive association between actual and ideal number of children is due to two factors. First, to the extent that women are able to implement their fertility desires, women who want smaller families will tend to achieve smaller families. Second, some women may have difficulty admitting their desire for fewer children if they could begin childbearing again and may in fact report their actual number as their preferred number. Despite this tendency to rationalize, the data provide evidence of unwanted fertility, with the vast majority of women with three or more children reporting an ideal family size of fewer than their actual number of children.

Table 6.3 Ideal number of children by number of living children

Percent distribution of ever-married women age 15-49 by ideal number of children and mean ideal number of children, for ever-married women and for currently married women, according to the number of living children, Bangladesh 2014

	Number of living children[1]							
Ideal number of children	0	1	2	3	4	5	6+	Total
0	0.7	0.2	0.2	0.2	0.3	0.1	0.0	0.2
1	13.1	11.2	4.7	3.0	1.8	1.8	1.7	6.1
2	75.4	79.6	80.5	67.3	61.1	48.7	33.9	72.3
3	6.4	6.3	11.1	21.5	16.9	25.3	25.6	13.4
4	2.6	1.7	2.5	5.9	16.0	14.2	24.9	5.6
5	0.3	0.1	0.1	0.4	0.6	4.3	1.1	0.5
6+	0.0	0.0	0.0	0.1	0.2	0.7	3.6	0.2
Non-numeric responses	1.6	0.9	0.8	1.6	3.0	4.8	9.1	1.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	1,350	4,384	5,382	3,546	1,781	848	572	17,863
Mean ideal number of children for:[2]								
Ever-married women	2.0	2.0	2.1	2.3	2.5	2.7	3.0	2.2
Number of ever-married women	1,328	4,345	5,339	3,489	1,727	807	520	17,556
Currently married	2.0	2.0	2.1	2.3	2.5	2.7	3.0	2.2
Number of currently married	1,225	4,094	5,072	3,329	1,624	762	492	16,598

[1] The number of living children includes current pregnancy for women.
[2] Means are calculated excluding respondents who gave non-numeric responses.

Table 6.4 presents data on the mean ideal number of children for ever-married women age 15-49, by background characteristics. The ideal family size increases with age from 2.0 children for women age 15-19 to 2.5 children for women age 45-49. Ideal family size is similar in rural areas and urban areas, and it is inversely related to the woman's education and household wealth. Divisional variations in ideal family size are modest, ranging from 2.1 in Khulna, Rajshahi, and Rangpur to 2.5 children in Sylhet.

Table 6.4 Mean ideal number of children

Mean ideal number of children for ever-married women age 15-49, by background characteristics, Bangladesh 2014

Background characteristic	Mean	Number of women[1]
Age		
15-19	2.0	2,014
20-24	2.1	3,202
25-29	2.1	3,365
30-34	2.2	3,017
35-39	2.3	2,251
40-44	2.4	2,030
45-49	2.5	1,678
Residence		
Urban	2.1	4,986
Rural	2.2	12,570
Division		
Barisal	2.2	1,094
Chittagong	2.4	3,211
Dhaka	2.2	6,129
Khulna	2.1	1,816
Rajshahi	2.1	2,077
Rangpur	2.1	2,041
Sylhet	2.5	1,187
Education		
No education	2.4	4,322
Primary incomplete	2.2	3,164
Primary complete[2]	2.2	1,950
Secondary incomplete	2.1	5,570
Secondary complete or higher[3]	2.0	2,550
Wealth quintile		
Lowest	2.3	3,302
Second	2.3	3,337
Middle	2.2	3,490
Fourth	2.2	3,692
Highest	2.1	3,735
Total 15-49	2.2	17,556

[1] Number of women who gave a numeric response
[2] Primary complete is defined as completing grade 5.
[3] Secondary complete is defined as completing grade 10.

6.4 FERTILITY PLANNING

There are two ways of estimating levels of unwanted fertility from the BDHS data. One is based on women's response to a question as to whether each birth in the five years preceding the survey was planned (wanted then), mistimed (wanted but at a later time), or unwanted (wanted no more children). These data are likely to result in underestimates of unplanned childbearing since women may rationalize unplanned births and declare them to be planned once the children are born. Another way of measuring unwanted fertility uses data on ideal family size to calculate what the total fertility rate would be if all unwanted births were avoided. This measure may also suffer from underestimation to the extent that women are unwilling to report an ideal family size lower than their actual family size. Estimates of unwanted fertility using both of these approaches are presented here.

Interviewers asked women a series of questions regarding each child born in the five years preceding the survey and any current pregnancy to determine whether each birth or current pregnancy was wanted then, wanted later, or unwanted. These questions provide a powerful indicator of the degree to which couples successfully control fertility. Also, the data can be used to gauge the effect of preventing unwanted births on fertility rates.

Table 6.5 shows that almost three in four births in the five years before the survey were planned, 15 percent were mistimed, and 11 percent were unwanted. The proportion of unwanted births decreased by 3 percentage points from 14 percent in the 2007 BDHS, while the proportion of planned births increased from 71 percent in 2007 to 74 percent in the same period.

The proportion of wanted births decreases and the proportion of unwanted births increases with increasing birth order, a pattern similar to that found in previous surveys. Eighty-six percent of first-order births are wanted at the time they are conceived, but 26 percent of third-order births and 42 percent of fourth and higher-order births are not wanted at all. Mistimed births are most common among second-order births (21 percent); these births then decline with third- and fourth-order births.

The proportion of planned births is highest (78 percent) among mothers who give birth before age 20. Interestingly, mistimed births are also more common among younger mothers (under age 20) than among older mothers. The percentage of unwanted births increases with mother's age at birth, rising from less than 1 percent among women who became mothers before age 20 to 40 percent of those who were mothers at age 35-39.

Table 6.5 Fertility planning status

Percent distribution of births to women age 15-49 in the five years preceding the survey (including current pregnancies), by planning status of the birth, according to birth order and mother's age at birth, Bangladesh 2014

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	86.0	13.9	0.0	0.1	100.0	2,424
2	75.4	21.1	3.3	0.3	100.0	1,781
3	59.7	14.1	26.0	0.2	100.0	964
4+	50.3	7.9	41.5	0.2	100.0	805
Mother's age at birth						
<20	78.4	21.3	0.2	0.1	100.0	1,874
20-24	75.8	17.5	6.3	0.3	100.0	1,937
25-29	74.0	9.8	16.0	0.2	100.0	1,324
30-34	60.4	5.8	33.8	0.0	100.0	602
35-39	56.1	4.3	39.6	0.0	100.0	191
40-44	(19.8)	(5.0)	(75.3)	(0.0)	100.0	29
45-49	*	*	*	*	100.0	16
Total	73.8	15.3	10.8	0.2	100.0	5,974

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

6.5 WANTED FERTILITY RATES

The wanted fertility rate measures the potential demographic impact of avoiding unwanted births. It is calculated in the same manner as the total fertility rate but excludes unwanted births from the numerator. A birth is considered wanted if the number of living children at the time of conception is lower than the ideal number of children reported by the respondent. The gap between wanted and actual fertility shows how successful women are in achieving their reproductive goals. This measure may be an underestimate because women may not report an ideal family size lower than their actual family size.

The total wanted fertility rates (TWFR) in Table 6.6 represent the levels of fertility that would have prevailed in the three years preceding the survey if all unwanted births had been avoided. Overall, the TWFR and the total fertility rate (TFR) for Bangladesh are 1.6 and 2.3 children respectively. This implies that Bangladeshi women have 0.7 children more than their wanted number of children, and the TFR would be 30 percent lower if unwanted births were avoided.

A wide gap exists between wanted and observed fertility rates by characteristics of women. The gap is wider among women who live in rural areas (0.7 children more than wanted) than among women who live in urban areas (0.5 children more). The gap is also wider among women residing in Sylhet (1.1 children) than women residing in Khulna (0.3 children). The gap between wanted and observed total fertility rates narrows with increasing education and wealth. Women with no education have 0.9 children more than they want, compared with 0.3 children among women with a secondary or higher level of education. Similarly, the gap between wanted and actual fertility rates ranges from 0.4 children among women in the highest wealth quintile to 1.0 children among women in the lowest wealth quintile.

Table 6.6 Wanted fertility rates

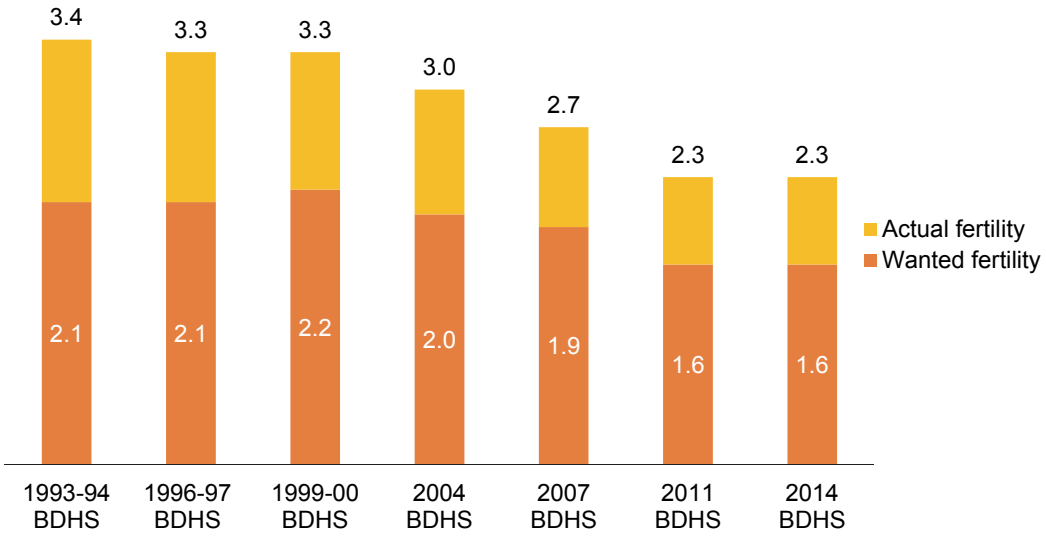
Total wanted fertility rates and total fertility rates for the three years preceding the survey, by background characteristics, Bangladesh 2014

Background characteristic	Total wanted fertility rates	Total fertility rate
Residence		
Urban	1.5	2.0
Rural	1.7	2.4
Division		
Barisal	1.6	2.2
Chittagong	1.8	2.5
Dhaka	1.6	2.3
Khulna	1.6	1.9
Rajshahi	1.6	2.1
Rangpur	1.5	1.9
Sylhet	1.8	2.9
Educational attainment		
No education	1.5	2.4
Primary incomplete	1.7	2.5
Primary complete[1]	1.7	2.4
Secondary incomplete	1.9	2.4
Secondary complete or higher[2]	1.6	1.9
Wealth quintile		
Lowest	1.8	2.8
Second	1.6	2.4
Middle	1.6	2.2
Fourth	1.6	2.1
Highest	1.6	2.0
Total	1.6	2.3

Note: Rates are calculated based on births to women age 15-49 in the period 1-36 months preceding the survey. The total fertility rates are the same as those presented in Table 5.2.
[1] Primary complete is defined as completing grade 5.
[2] Secondary complete is defined as completing grade 10.

The gap between wanted and actual fertility rates has narrowed over the years; from 1.0 children in 2004 to 0.7 children in 2014 (Figure 6.3).

Figure 6.3 **Trends in gap between wanted and unwanted fertility rates, 1993-2014**



6.6 SPOUSAL AGREEMENT IN DESIRED NUMBER OF CHILDREN

Currently married women who were not sterilized in the 2014 BDHS sample were asked, "Does your husband want the same number of children that you want, or does he want more or fewer than you want?" Responses to these questions are presented as spousal agreement in desired number of children in Table 6.7 by background characteristics of women.

Table 6.7 Comparison in desired number of children

Percent distribution of currently married women age 15-49 by husband's desired number of children, by background characteristics, Bangladesh 2014

Background characteristic	Husband wants					Total	Number of women
	Same number	More children	Fewer children	Don't know	Missing		
Residence							
Urban	80.2	10.1	7.3	2.5	0.0	100.0	4,709
Rural	78.5	11.5	7.0	3.0	0.1	100.0	12,149
Division							
Barisal	78.6	11.6	6.8	3.0	0.1	100.0	1,051
Chittagong	78.0	12.1	6.4	3.3	0.1	100.0	3,121
Dhaka	79.6	11.5	6.0	2.9	0.0	100.0	5,857
Khulna	76.3	9.3	11.6	2.7	0.0	100.0	1,729
Rajshahi	79.5	8.6	9.6	2.2	0.0	100.0	2,007
Rangpur	84.1	7.9	5.9	2.1	0.0	100.0	1,946
Sylhet	73.0	18.3	5.2	3.4	0.0	100.0	1,147
Educational attainment							
No education	76.5	12.9	6.5	4.1	0.1	100.0	3,949
Primary incomplete	75.3	14.2	7.9	2.7	0.0	100.0	3,032
Primary complete[1]	80.2	10.6	6.2	2.9	0.0	100.0	1,884
Secondary incomplete	80.7	9.5	7.5	2.2	0.1	100.0	5,477
Secondary complete or higher[2]	82.4	8.7	6.7	2.2	0.0	100.0	2,516
Wealth quintile							
Lowest	76.2	13.6	6.7	3.4	0.1	100.0	3,097
Second	78.7	11.4	7.1	2.8	0.0	100.0	3,223
Middle	80.7	10.0	7.0	2.2	0.1	100.0	3,394
Fourth	78.4	10.7	7.6	3.2	0.1	100.0	3,556
Highest	80.5	10.1	6.9	2.5	0.0	100.0	3,587
Total	78.9	11.1	7.1	2.8	0.0	100.0	16,858

Note: Among women and men who had not been sterilized.
[1] Primary complete is defined as completing grade 5.
[2] Secondary complete is defined as completing grade 10.

Overall, four in five women report that their husbands want the same number of children as they do. Eleven percent of women say their husbands want more children than they want, and 7 percent say their husbands want fewer children. These figures remain almost unchanged since the 2011 BDHS.

There are no urban or rural differences in spousal agreement in the desired number of children. Relatively small variations exist by education. Spousal agreement on the desired number of children tends to increase with household wealth, ranging from 76 percent among women in the lowest quintile to 81 percent in the highest quintile. Spousal agreement in desired number of children by division varies little, ranging from 78 to 84 percent, except in Sylhet and Khulna where agreement is 73 percent and 76 percent, respectively.

FERTILITY REGULATION 7

Key Findings

- Sixty-two percent of married women in Bangladesh use some method of contraception, and 54 percent use a modern method. Economic status does not appear to influence contraception use among couples.
- Contraceptive use, while still increasing, is doing so at a slower pace. Between 2004 and 2014, use increased by 4 percentage points, from 58 to 62 percent. In contrast, use increased 13 percentage points from 1994 to 2004, rising from 45 percent to 58 percent.
- Currently, the four most popular modern methods used by married women are the pill (27 percent), injectables (12 percent), the male condom (6 percent), and female sterilization (5 percent).
- Only 8 percent of currently married couples use a long-acting reversible contraceptive (LARC) or permanent methods (PM), such as an IUD, implant, or sterilization. In the last 10 years use of LARC-PM increased by less than 1 percentage point.
- Fourteen percent of currently married women have ever heard of the emergency contraceptive pill (ECP), 13 percent of them have ever used it, and 6 percent used it within the last 12 months.
- Three in 10 users of contraception have discontinued a method within 12 months of starting its use.
- The government sector remains the major provider of contraceptive methods, catering to 49 percent of users, with government fieldworkers providing supplies to 20 percent of users. The private sector provides contraceptives to 47 percent of all users, with pharmacies supplying 38 percent. The private sector share in providing family planning methods has increased from 43 in 2011 to 47 percent in 2014, while provision by the public sector has fallen by 3 percentage points.
- Twelve percent of currently married women in Bangladesh have an unmet need for family planning services; 7 percent have an unmet need for limiting births, and 5 percent have an unmet need for spacing births.
- Thirty percent of currently married women reported having seen/heard of a family planning message within the month prior to the survey. Television is the most popular source of family planning messages in Bangladesh, with 19 percent of women having seen a family planning message in this media.
- Recent exposure to family planning messages continues to decline. In 2004, 44 percent of currently married women reported having seen or heard family planning messages in the last month compared with only 30 percent in 2014.

Family planning is important for the health of a mother and her children, as well as for the family's economic situation. Family planning and access to contraception reduce maternal and child deaths. The Health, Population and Nutrition Sector Development Program (HPNSDP) of Bangladesh adopted strategies for making family planning services available, accessible, acceptable, and affordable to all women and men of reproductive age to increase overall use of family planning to 72 percent by 2016 (MOHFW 2011a; MOHFW 2011b). Moreover, according to the commitment of Family Planning 2020 this

effort will be increased to 80 percent by 2021 (Family Planning 2020). Examining current levels, trends, and differentials of use of family planning will be useful for monitoring the progress of HPNSDP.

This chapter presents results of contraceptive use and related information from the 2014 BDHS. Use of family planning is one of the primary determinants of family size. Information is presented on current use of contraceptives, use of socially marketed brands of pills and condoms, contraceptive discontinuation, unmet need for family planning, intention to use in the future, knowledge of fertile period, knowledge and use of menstrual regulation, contact with family planning workers, exposure to family planning messages in the media, and other issues associated with family planning.

7.1 CURRENT USE OF CONTRACEPTION

In BDHS surveys, current use of contraception is defined as the proportion of currently married women who report that they are using a family planning method at the time of the survey. Overall, 62 percent of currently married Bangladeshi women age 15-49 are currently using a contraceptive method, and 54 percent use modern methods (Table 7.1). The pill is by far the most widely used method (27 percent), followed by injectables (12 percent). Eight percent of currently married women use a long-acting or permanent method such as female or male sterilization, implants, and IUDs. Traditional methods are used by 8 percent of women, of which the majority (6 percent) use periodic abstinence.

Current use of contraception varies by age, reaching a peak of 74 percent among women age 30-34, followed closely by women age 35-39 (73 percent). The oral pill is the most widely used method among all age groups except those age 45-49, who are more likely to use periodic abstinence. As expected, women in older groups (age 30-49) are more likely to be sterilized than younger women.

Table 7.1 Current use of contraception by age

Percent distribution of currently married women age 15-49 by contraceptive method currently used, according to age, Bangladesh 2014

			Modern method							Any	Traditional method					
Age	Any method	Any modern method	Pill	Inject-ables	Con-doms	Female sterili-zation	Male sterili-zation	IUD	Im-plants	tradi-tional method	Periodic absti-nence	With-drawal	Other	Not cur-rently using	Total	Number of women
15-19	51.2	46.7	29.7	9.6	6.2	0.0	0.0	0.2	0.9	4.4	3.1	1.3	0.0	48.8	100.0	1,984
20-24	59.2	54.5	30.1	13.5	7.0	0.5	0.5	0.3	2.6	4.6	3.0	1.6	0.0	40.8	100.0	3,166
25-29	67.7	62.7	32.4	16.1	7.4	2.9	1.0	1.0	1.8	5.0	2.9	2.0	0.1	32.3	100.0	3,249
30-34	73.7	64.7	31.1	14.6	7.8	7.0	1.6	0.9	1.8	9.0	6.6	2.1	0.3	26.3	100.0	2,919
35-39	72.9	60.6	26.6	14.3	6.6	8.9	2.3	0.3	1.6	12.3	10.0	2.3	0.0	27.1	100.0	2,153
40-44	60.9	45.2	17.3	8.7	5.4	8.4	2.6	1.0	1.9	15.6	12.8	2.4	0.4	39.1	100.0	1,874
45-49	38.1	25.0	9.8	3.7	2.1	7.3	1.0	0.6	0.6	13.0	10.1	1.4	1.5	61.9	100.0	1,512
Total	62.4	54.1	27.0	12.4	6.4	4.6	1.2	0.6	1.7	8.4	6.2	1.9	0.3	37.6	100.0	16,858

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

7.2 DIFFERENTIALS IN CURRENT USE OF FAMILY PLANNING

Table 7.2 and Figure 7.1 show that contraceptive use varies by place of residence. Use of contraception is higher in urban (66 percent) than in rural areas (61 percent). With regard to method use, after oral pills, rural women are more likely to use injectables while urban couples prefer condoms. The contraceptive use rates are 63 percent or higher in all divisions except Chittagong (55 percent) and Sylhet (48 percent). According to FP 2020, these two divisions demand special focus to increase the use of contraceptives to 60 percent by 2021 (Family Planning 2020). In contrast, Rangpur and Rajshahi have the highest contraceptive use rates—almost 70 percent.

There is a very little variation in contraceptive use by women's education. Some variations in method choice are observed. Contraceptive pills are favored by women of all educational levels (between 20 and 32 percent). Women with no education are more likely to use female sterilization and traditional methods than educated women. Condom use is most popular among women with secondary or higher education (19 percent).

There is no difference in contraceptive use levels between women in the lowest and highest wealth quintiles. There are some differences in method choice of women by wealth quintiles. Overall, injectable use declines and condom use increases as economic status, measured by wealth quintile, increases. For example, 18 percent of women in the lowest wealth quintile use injectables compared with 6 percent of those in the highest wealth quintile. Condom use is only 1 percent among couples in the lowest wealth quintile compared with 16 percent among those in the highest wealth quintile. In addition, the use of any long-acting and permanent methods of contraception declines as economic status increases.

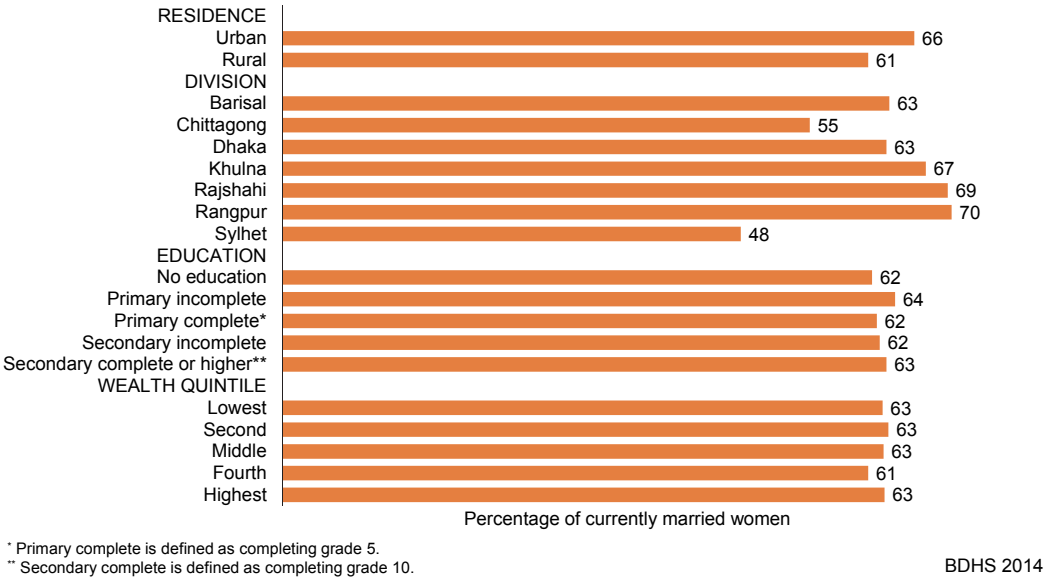
Table 7.2 Current use of contraception by background characteristics

Percent distribution of currently married women age 15-49 by contraceptive method currently used, according to background characteristics, Bangladesh 2014

			Modern method							Any	Traditional method					
Background characteristic	Any method	Any modern method	Pill	Inject-ables	Con-doms	Female sterili-zation	Male sterili-zation	IUD	Im-plants	tradi-tional method	Periodic absti-nence	With-drawal	Other	Not cur-rently using	Total	Number of women
Number of living children																
0	26.5	22.6	14.1	0.2	8.0	0.0	0.2	0.0	0.0	3.9	2.4	1.5	0.0	73.5	100.0	1,707
1-2	66.6	58.9	31.6	13.7	8.0	2.4	0.7	0.5	1.9	7.7	5.5	2.1	0.1	33.4	100.0	8,948
3-4	68.5	58.6	25.5	14.5	4.3	9.1	2.1	1.1	2.0	10.0	7.8	1.9	0.3	31.5	100.0	4,901
5+	58.1	44.7	17.8	12.0	1.4	8.4	3.0	0.4	1.7	13.4	10.5	1.5	1.4	41.9	100.0	1,302
Residence																
Urban	65.9	56.2	26.7	9.8	11.7	4.7	1.2	0.7	1.5	9.7	7.0	2.4	0.3	34.1	100.0	4,709
Rural	61.1	53.2	27.1	13.5	4.4	4.6	1.3	0.6	1.8	7.9	5.9	1.7	0.2	38.9	100.0	12,149
Division																
Barisal	63.3	54.6	27.2	17.2	4.4	3.1	0.7	0.2	1.9	8.7	6.8	1.7	0.2	36.7	100.0	1,051
Chittagong	55.0	47.2	24.1	12.0	4.8	3.6	0.7	0.7	1.2	7.8	5.6	2.0	0.1	45.0	100.0	3,121
Dhaka	63.0	54.2	27.5	10.8	8.5	4.0	1.2	0.6	1.8	8.7	6.4	1.8	0.6	37.0	100.0	5,857
Khulna	67.1	56.4	26.2	13.8	6.9	6.2	0.8	0.5	2.0	10.7	7.7	3.0	0.0	32.9	100.0	1,729
Rajshahi	69.4	60.7	27.9	15.9	7.4	5.6	1.2	0.7	1.9	8.7	6.6	2.0	0.1	30.6	100.0	2,007
Rangpur	69.8	63.0	33.2	14.2	3.9	5.2	3.2	1.1	2.2	6.7	5.1	1.5	0.2	30.2	100.0	1,946
Sylhet	47.8	40.9	21.4	6.5	4.0	6.7	1.2	0.3	0.8	6.9	5.7	1.3	0.0	52.2	100.0	1,147
Education																
No education	61.5	50.5	20.4	15.3	1.9	7.4	2.6	0.7	2.3	11.0	8.4	1.8	0.8	38.5	100.0	3,949
Primary incomplete	63.9	55.7	26.7	15.0	3.2	5.7	2.0	0.6	2.4	8.1	6.3	1.6	0.2	36.1	100.0	3,032
Primary complete[1]	62.0	54.3	28.7	15.3	3.0	4.1	0.9	0.8	1.4	7.7	6.1	1.5	0.0	38.0	100.0	1,884
Secondary incomplete	62.3	56.0	31.6	11.7	6.9	3.2	0.5	0.4	1.5	6.3	4.3	2.0	0.1	37.7	100.0	5,477
Secondary complete or higher[2]	63.0	53.2	26.3	4.0	19.1	2.2	0.1	0.9	0.6	9.7	7.1	2.6	0.1	37.0	100.0	2,516
Wealth quintile																
Lowest	62.6	55.1	25.6	17.6	1.2	5.7	2.2	0.3	2.5	7.4	5.5	1.7	0.3	37.4	100.0	3,097
Second	63.2	55.2	27.8	16.1	2.2	4.6	1.5	0.8	2.1	8.0	6.3	1.7	0.0	36.8	100.0	3,223
Middle	62.7	54.5	28.9	12.1	5.1	4.3	1.6	0.7	1.7	8.2	6.4	1.6	0.2	37.3	100.0	3,394
Fourth	61.1	52.8	27.6	11.5	6.6	4.5	0.6	0.6	1.5	8.2	5.8	1.7	0.7	38.9	100.0	3,556
Highest	62.8	52.9	25.0	5.9	15.8	4.0	0.5	0.7	0.8	9.9	7.0	2.8	0.1	37.2	100.0	3,587
Total	62.4	54.1	27.0	12.4	6.4	4.6	1.2	0.6	1.7	8.4	6.2	1.9	0.3	37.6	100.0	16,858

Note: If more than one method is used, only the most effective method is considered in this tabulation.
[1] Primary complete is defined as completing grade 5.
[2] Secondary complete is defined as completing grade 10.

Figure 7.1 **Contraceptive use by background characteristics**



7.3 TRENDS IN CURRENT USE OF FAMILY PLANNING

Use of contraception among married women in Bangladesh has increased gradually, from 8 percent in 1975 to 62 percent in 2014 (Table 7.3 and Figure 7.2). In the last decade, contraceptive use has increased by 4 percentage points from 58 percent in 2004 to 62 percent in 2014, while use of modern contraceptive methods increased by 7 percentage points from 47 percent to 54 percent during the same period. In the last three years, contraceptive use increased by 1 percentage point and modern methods use by 2 percentage points, while traditional methods use fell by 1 percentage point. Between 1991 and 2011 use of female sterilization among currently married women declined from 9 to 5 percent. Use of oral pills peaked in 2007 (29 percent) and stayed at 27 percent in 2011 and 2014. Injectable use continued to increase from 7 percent in 2007, to 11 percent in 2011, and to 12 percent in 2014. The use of any long-acting and permanent methods of contraception increased by 1 percentage point between 2007 and 2011 and remained at 8 percent between 2011 and 2014 (NIPORT et al. 2009; NIPORT et al. 2013). Male sterilization and implant usage show signs of increase between 2007 and 2014, although the current levels of use are very low at 1 percent and 2 percent, respectively.

Figure 7.3 shows that the use of modern methods has increased between 2011 and 2014 in all age groups except age 40 and over. This is due to the decline in the use of permanent methods among women age 45-49 from 14 percent in 2011 to 7 percent in 2014.

An increase of 10 percentage points would be needed to occur in the next two years, or an average of 5 percentage points per year, in order to achieve the HPNSDP goal of overall use of contraception by 72 percent by 2016. The HPNSDP also focuses on reducing regional differences in contraceptive use, particularly in the low-performing divisions, Chittagong and Sylhet. For these divisions, the HPNSDP originally aimed to increase modern contraceptive use to 50 percent by 2016. In 2014 this indicator was reset to 40 percent for Sylhet division and 45 percent for Chittagong division (MOHFW 2014). Based on the 2014 BDHS data, with a current prevalence of modern contraceptive use of 41 percent and 47 percent, respectively, Sylhet and Chittagong divisions have successfully reached the revised target. Between 2011 and 2014, modern contraceptive method use in Chittagong increased by 2 percentage points and in Sylhet by 6 percentage points (Figure 7.4).

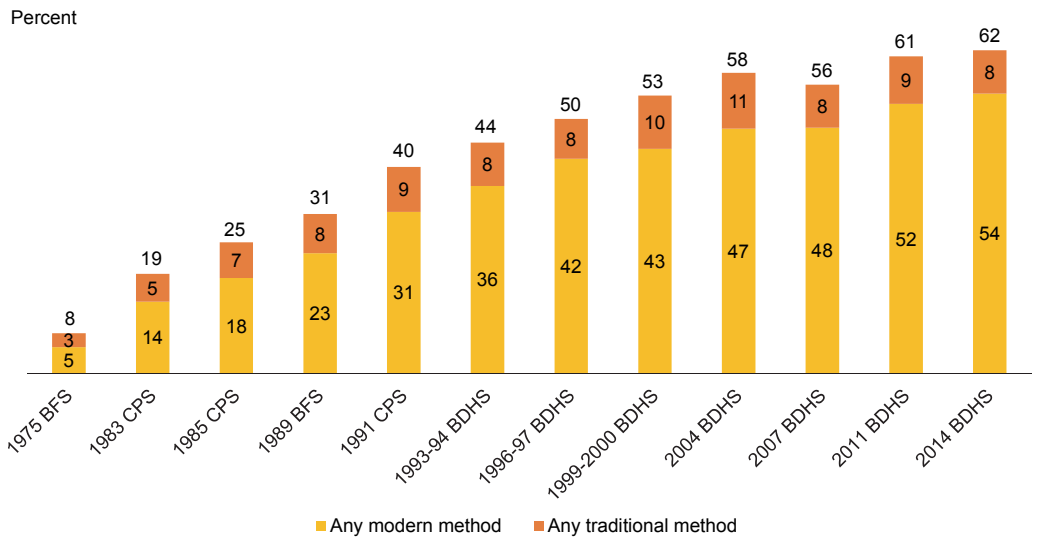
Table 7.3 Trends in current use of contraceptive methods

Percentage of currently married women age 10-49 who are currently using specific family planning methods, selected sources, Bangladesh 1975-2014

Method	1975 BFS	1983 CPS	1985 CPS	1989 BFS	1991 CPS	1993-94 BDHS	1996-97 BDHS	1999-2000 BDHS	2004 BDHS	2007 BDHS[1]	2011 BDHS[1]	2014 BDHS[1]
Any method	**7.7**	**19.1**	**25.3**	**30.8**	**39.9**	**44.6**	**49.2**	**53.8**	**58.1**	**55.8**	**61.2**	**62.4**
Any modern method	**5.0**	**13.8**	**18.4**	**23.2**	**31.2**	**36.2**	**41.5**	**43.4**	**47.3**	**47.5**	**52.1**	**54.1**
Pill	2.7	3.3	5.1	9.6	13.9	17.4	20.8	23.0	26.2	28.5	27.2	27.0
Injectables	u	0.2	0.5	0.6	2.6	4.5	6.2	7.2	9.7	7.0	11.2	12.4
Condom	0.7	1.5	1.8	1.8	2.5	3.0	3.9	4.3	4.2	4.5	5.5	6.4
Female sterilization	0.6	6.2	7.9	8.5	9.1	8.1	7.6	6.7	5.2	5.0	5.0	4.6
Male sterilization	0.5	1.2	1.5	1.2	1.2	1.1	1.1	0.5	0.6	0.7	1.2	1.2
IUD	0.5	1.0	1.4	1.4	1.8	2.2	1.8	1.2	0.6	0.9	0.7	0.6
Implants	u	u	u	u	u	u	0.1	0.5	0.8	0.7	1.1	1.7
Vaginal methods	0.0	0.3	0.2	0.1	u	u	u	u	u	u	u	u
Any traditional method	**2.7**	**5.4**	**6.9**	**7.6**	**8.7**	**8.4**	**7.7**	**10.3**	**10.8**	**8.3**	**9.2**	**8.4**
Periodic abstinence	0.9	2.4	3.8	4.0	4.7	4.8	5.0	5.4	6.5	4.9	6.9	6.2
Withdrawal	0.5	1.3	0.9	1.8	2.0	2.5	1.9	4.0	3.6	2.9	1.9	1.9
Other traditional methods	1.3	1.8	2.2	1.8	2.0	1.1	0.8	0.9	0.6	0.6	0.4	0.3
Number of women	u	7,662	7,822	10,907	9,745	8,980	8,450	9,720	10,582	10,192	16,635	16,858

u = Unknown (not available)
[1] Data from 2007, 2011, and 2014 are restricted to currently married women age 15-49. Other surveys refer to women age 10-49.
Sources: 1975 Bangladesh Fertility Survey (BFS) (Islam and Islam, 1993:43); 1983 Contraceptive Prevalence Survey (CPS) (Mitra and Kamal 1985:159); 1985 CPS (Mitra 1987:147); 1989 BFS (Huq and Cleland 1990:64); 1991 CPS (Mitra et al. 1993:53); 1993-1994 Bangladesh Demographic and Health Survey (BDHS) (Mitra et al. 1994:45); 1996-1997 BDHS (Mitra et al. 1997:50); 1999-2000 BDHS (NIPORT et al. 2001:53); 2004 BDHS (NIPORT et al. 2005:67); 2007 BDHS (NIPORT et al. 2008: 52);); and 2011 BDHS (NIPORT et al. 2013:84).

Figure 7.2 Trends in contraceptive use among currently married women, 1975-2014



Note: Contraceptive use in 2007, 2011, and 2014 is for currently married women age 15-49; other surveys refer to women age 10-49.

Figure 7.3 **Trends in modern method use by age of currently married women, 2011-2014**

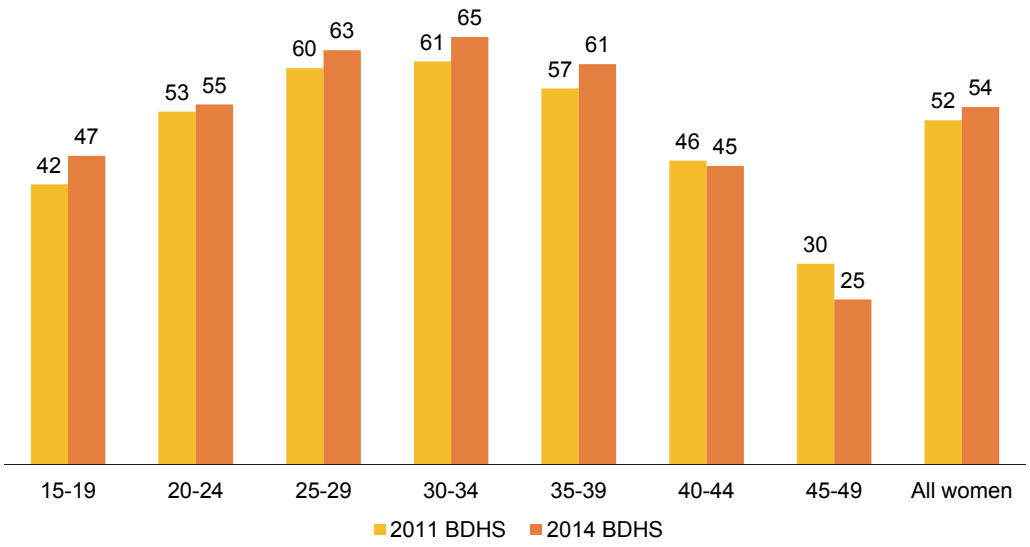
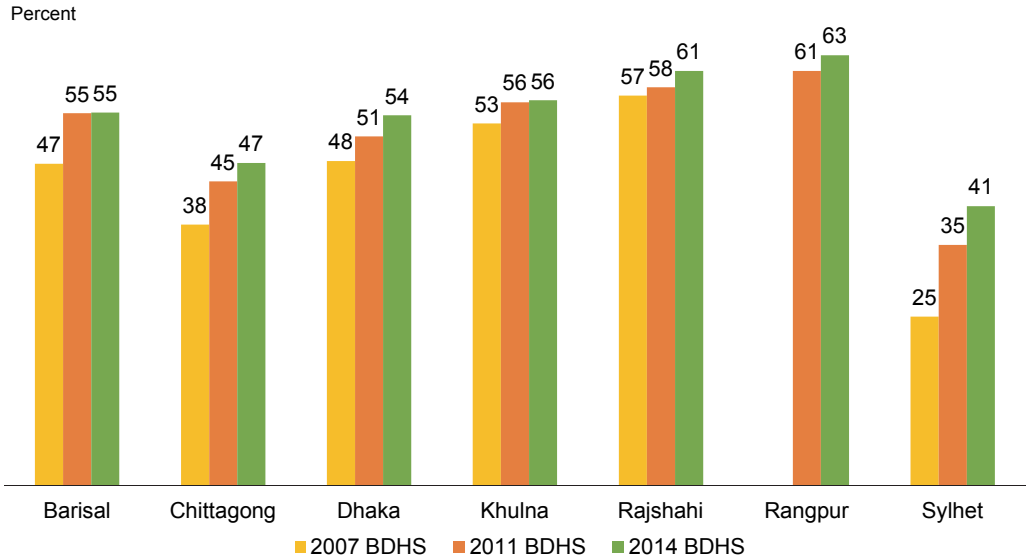


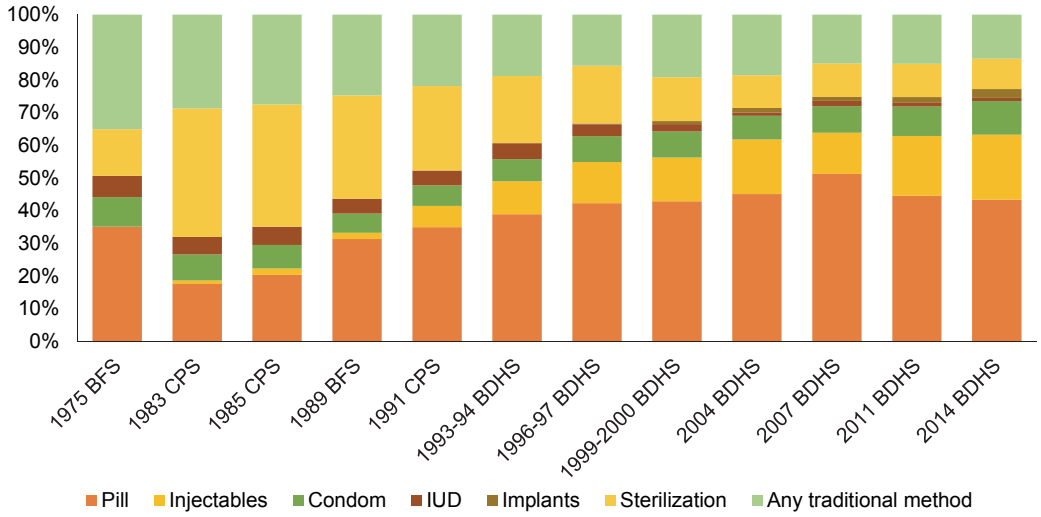
Figure 7.4 **Trends in use of modern contraceptives by division, 2007-2014**



Note: Rajshahi includes Rangpur division in 2007

The method mix has also changed over the past two decades. Currently only 8 percent of married couples use a long-acting or permanent method (LAPM), namely sterilization, IUD, and implants, which account for 13 percent of all contraceptive use. Use of LAPM was 12 percent in 1991, accounting for 30 percent of contraceptive use. Use of LAPM started to decline in the early 1990s, stabilized in 2007, hinted at a slight increase in 2011, and remained the same in 2014 (NIPORT et al. 2009; NIPORT et al. 2013). Since 2004 there has been a slow increase in the use of male sterilization and implants, although the usage rate of these methods remains very low. The plateauing of LAPM methods should be of concern, as fertility is now so low that most childbearing is completed by the mid- to late-twenties, and women face two subsequent decades of reproductive life during which they must protect themselves from unwanted pregnancies.

Figure 7.5 **Trends in contraceptive method mix among currently married women, age 10-49, 1975-2014**



Note: Contraceptive use in 2007, 2011, and 2014 is for women age 15-49; other surveys refer to women age 10-49.

7.4 TIMING OF STERILIZATION

Table 7.4 shows the distribution of sterilized women by the age at which they were sterilized, according to the number of years preceding the survey that the procedure was done. Because data on age at sterilization are derived from a question on the month and year of the operation, it is possible that the data are distorted by recall errors in reporting either the date of the operation or the date of birth or age of the woman. Women who decide to get sterilized generally undergo the procedure early in their reproductive years. Six in ten sterilized women had the procedure done before age 30, and about three in ten women were sterilized before age 25. The median age of sterilization is 28 years in the 2011 and 2014 BDHS (NIPORT et al. 2013).

Table 7.4 Timing of sterilization

Percent distribution of sterilized women age 15-49 by age at the time of sterilization and median age at sterilization, according to the number of years since the operation, Bangladesh 2014

Years since operation	Age at time of sterilization						Total	Number of women	Median age[1]
	<25	25-29	30-34	35-39	40-44	45-49			
<2	7.8	40.5	24.8	18.5	2.8	5.7	100.0	129	29.9
2-3	15.8	36.6	29.4	13.9	4.2	0.0	100.0	128	28.9
4-5	19.2	25.8	29.0	18.8	7.2	0.0	100.0	129	30.2
6-7	27.1	31.2	17.3	13.5	10.8	0.0	100.0	103	27.4
8-9	26.1	28.6	38.4	4.7	2.3	0.0	100.0	61	29.0
10+	49.8	31.9	13.8	4.5	0.0	0.0	100.0	226	a
Total	27.3	32.7	23.1	11.9	4.0	0.9	100.0	775	28.3

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

7.5 KNOWLEDGE AND USE OF MENSTRUAL REGULATION

Menstrual regulation (MR) is a procedure used to bring on menses in women who have missed their menstrual cycle. Existing polices of GOB allow a woman to go through MR procedure within the eight weeks from the first day of the last menstrual period (LMP) by a paramedic (that is, a trained family welfare visitor) or within ten weeks from the first day of the LMP by a trained medical doctor. The 2014 BDHS asked women if they knew about or had ever used menstrual regulation (MR). Women who have used MR were asked their source of services.

Table 7.5 shows that 45 percent of ever-married and 46 percent of currently married women know about MR. Among those who have ever heard of MR, 12 percent of ever-married and 13 percent of currently married women have ever used it. The use of MR increases among the ever-married and currently married women with the increase of age.

Table 7.5 Knowledge and use of menstrual regulation

Percentage of ever married and currently married women who know of menstrual regulation (MR) and the percentage who ever used MR, by age group, Bangladesh 2014

	Ever-married women				Currently married women			
Age	Percent who have ever heard of MR	Number of women	Percent ever used MR among women who have ever heard of MR	Number of women who have ever heard of MR	Percent who have ever heard of MR	Number of women	Percent ever used MR among women who have ever heard of MR	Number of women who have ever heard of MR
15-19	33.8	2,029	3.1	686	33.9	1,984	3.2	672
20-24	44.2	3,224	7.3	1,424	44.2	3,166	7.4	1,400
25-29	49.6	3,390	11.7	1,681	50.4	3,249	11.8	1,639
30-34	50.1	3,047	15.1	1,526	50.6	2,919	15.6	1,477
35-39	47.5	2,315	16.3	1,101	48.7	2,153	16.8	1,048
40-44	46.3	2,092	15.5	968	47.2	1,874	16.5	884
45-49	39.6	1,766	15.5	699	41.7	1,512	16.3	630
Total	45.3	17,863	12.3	8,084	46.0	16,858	12.5	7,749

The major source of MR among the ever-married women who have used MR in the last three years is public sector facilities (48 percent), followed by private medical sector (33 percent) and NGO sector (6 percent) facilities (Table 7.6). Private hospitals/ clinics and upazila health complexes are the major sources of MR (22 percent each) followed by medical college hospital/district hospital (13 percent) and qualified doctor's chamber (9 percent).

Table 7.6 Source of service for menstrual regulation in last three years

Percent distribution of ever-married women age 15-49 who have used menstrual regulation in the last three years by source of service, Bangladesh 2014

Source of service	Percent
Public sector	**47.5**
Medical college hospital/ district hospital	12.9
Maternal and child welfare center	4.6
Upazila health complex	22.3
Family welfare center	6.3
Family welfare visitor	1.1
Other public sector	0.3
Private sector	**33.0**
Private hospital/clinic	22.3
Qualified doctor's chamber	9.0
Non-qualified doctor's chamber	1.1
Other private medical sector	0.6
NGO sector	**5.6**
NGO static clinic	5.6
Other	0.4
Don't know	6.7
Missing	6.8
Total	100.0
Number of women	251

7.6 KNOWLEDGE OF FERTILE PERIOD

An elementary understanding of reproductive physiology, particularly knowledge of when in the ovulatory cycle a woman is most likely to become pregnant, is necessary in ensure success in the use of coitus-related methods such as the withdrawal, condom, and vaginal methods. Such knowledge is especially critical for the practice of periodic abstinence.

To investigate women's knowledge about their fertile period, the 2014 BDHS respondents were asked whether there are certain days a woman is more likely to become pregnant if she has sexual intercourse. Those who responded affirmatively to that question were asked whether this time is just before the period begins, during the period, right after the period ends, or halfway between two periods.

Table 7.7 presents knowledge of the fertile period during the ovulatory cycle of currently-married women according to current use and nonuse of periodic abstinence method. Forty-six percent of users and 24 percent of nonusers of the abstinence method perceive halfway between two menstrual periods as the fertile period. Four in 10 of both users and nonusers of the abstinence method perceive the fertile period to be right after the menstrual period ends. However, about 3 in 10 women perceive the fertile period has no specific time (18 percent), or they do not know about the fertile period (11 percent).

Table 7.7 Knowledge of fertile period

Percent distribution of currently married women age 15-49 by knowledge of the fertile period during the ovulatory cycle, according to current use of the rhythm method, Bangladesh 2014

Perceived fertile period	Users of periodic abstinence method	Nonusers of periodic abstinence method	All women
Just before her menstrual period begins	1.8	1.7	1.7
During her menstrual period	2.7	3.4	3.4
Right after her menstrual period end	39.7	41.2	41.1
Halfway between two menstrual periods	46.1	23.5	24.9
No specific time	6.6	18.7	18.0
Don't know	3.0	11.4	10.9
Total	100.0	100.0	100.0
Number of women	1,050	15,808	16,858

7.7 KNOWLEDGE AND USE OF ECP

The emergency contraceptive pill (ECP) is a form of contraception that women can use after unprotected intercourse. The 2014 BDHS asked women if they knew about or had ever used ECP.

Fourteen percent of currently married women know about ECP (Table 7.8). Among those who have ever heard of ECP, 13 percent have ever used it and 6 percent used within the last 12 months. Awareness about ECP decreases with the increase of number of living children. Urban women are twice as likely as rural women to have heard of ECP. Awareness of ECP increases with increase in the woman's education and wealth. Similar patterns are observed in the use of ECP.

Table 7.8 Knowledge and use of ECP by background characteristics by background characteristics

Percentage of currently married women age 15-49 who have heard of emergency contraceptive pill (ECP) and, among women who have heard of ECP, percentage who have ever used ECP and percentage who used ECP in the last 12 months, by background characteristics, Bangladesh 2014

			Among those who heard of ECP, percent:		
Background characteristic	Percent who have ever heard of ECP	Number women	Ever used ECP	Used ECP in last 12 months	Number of women who have heard of ECP
Number of living children					
0	15.4	1,707	15.2	11.9	262
1-2	16.3	8,948	13.3	5.6	1,461
3-4	10.8	4,901	14.0	5.4	530
5+	8.3	1,302	8.2	2.6	108
Residence					
Urban	21.4	4,709	13.7	7.1	1,008
Rural	11.1	12,149	13.2	5.4	1,353
Division					
Barisal	17.5	1,051	10.6	5.0	183
Chittagong	12.5	3,121	16.0	6.9	389
Dhaka	16.2	5,857	12.0	5.8	949
Khulna	15.2	1,729	16.9	7.6	263
Rajshahi	12.2	2,007	16.7	7.2	244
Rangpur	10.1	1,946	9.0	4.4	197
Sylhet	11.9	1,147	13.8	5.7	137
Education					
No education	5.9	3,949	16.0	3.4	233
Primary incomplete	8.7	3,032	10.7	4.2	265
Primary complete[1]	8.5	1,884	12.6	6.3	159
Secondary incomplete	14.0	5,477	11.1	4.7	767
Secondary complete or higher[2]	37.2	2,516	15.6	8.5	937
Wealth quintile					
Lowest	5.4	3,097	8.2	2.6	166
Second	7.9	3,223	13.5	5.9	254
Middle	11.3	3,394	16.5	5.6	383
Fourth	16.4	3,556	10.0	4.7	585
Highest	27.1	3,587	15.2	7.9	972
Total	14.0	16,858	13.4	6.1	2,361

[1] Primary complete is defined as completing grade 5.
[2] Secondary complete is defined as completing grade 10.

7.8 KNOWLEDGE AND PRACTICE OF LACTATIONAL AMENORRHEA METHOD

The lactational amenorrhea method (LAM) is a short-term family planning method based on the natural effect of breastfeeding on fertility. The act of breastfeeding, particularly exclusive breastfeeding, suppresses the release of hormones that are necessary for ovulation. Nine percent of currently married women know about LAM (Table 7.9). Among those who have ever heard of LAM, 21 percent reported having used it[1]. Awareness of LAM is higher among urban women (11 percent) than rural women (8 percent). However, ever use of LAM is higher among rural women (23 percent) than urban women (16 percent). Ever use of LAM is higher in Sylhet (30 percent) and Chittagong (27 percent) divisions, and among women in the lowest wealth quintile (24 percent).

Table 7.9 Knowledge and use of LAM by background characteristics by background characteristics

Percentage of currently married women age 15-49 who have heard of LAM and among women who have heard of LAM, percentage who have ever used LAM, by background characteristics, Bangladesh 2014

			Among those who heard of LAM:	
Background characteristic	Percent who have ever heard of LAM	Number of women	Percent ever used LAM	Number of women who have heard of LAM
Number of living children				
0	7.2	1,707	1.5	124
1-2	10.4	8,948	20.8	933
3-4	7.1	4,901	24.3	348
5+	6.5	1,302	29.3	85
Residence				
Urban	11.2	4,709	15.5	527
Rural	7.9	12,149	23.2	962
Division				
Barisal	12.1	1,051	19.0	127
Chittagong	9.3	3,121	26.8	289
Dhaka	7.8	5,857	16.7	455
Khulna	9.0	1,729	16.3	155
Rajshahi	8.6	2,007	24.5	174
Rangpur	10.0	1,946	16.3	194
Sylhet	8.3	1,147	30.0	95
Education				
No education	4.3	3,949	19.1	171
Primary incomplete	7.6	3,032	22.3	230
Primary complete[1]	6.7	1,884	23.4	125
Secondary incomplete	9.9	5,477	22.0	545
Secondary complete or higher[2]	16.6	2,516	17.3	418
Wealth quintile				
Lowest	4.7	3,097	24.1	146
Second	7.0	3,223	21.3	225
Middle	9.9	3,394	22.1	336
Fourth	8.9	3,556	20.5	316
Highest	13.0	3,587	17.9	467
Total	8.8	16,858	20.5	1,489

[1] Primary complete is defined as completing grade 5.
[2] Secondary complete is defined as completing grade 10.

7.9 SOURCES OF FAMILY PLANNING METHODS

To ascertain the sources of family planning methods in Bangladesh, the 2014 BDHS asked women who were currently using a modern method of contraception where they obtained the method the last time they used it. Because women often do not know what category their source fits into (public hospital, upazila health complex, family welfare center, or private clinic), interviewers were instructed to write the name of the facility in the questionnaire. Team supervisors verified that the name and the type of source coded were correct and consistent.

The sources of family planning methods are classified into four major categories: public-sector sources (including district hospital/medical college hospital, maternal and child welfare centers, upazila health complexes, family welfare centers, satellite/EPI clinics, community clinics, and government fieldworkers), private medical sources (including private hospitals and clinics, qualified or traditional

[1] This is self-reported use of LAM, with no checks on whether the requirements for LAM use are fulfilled.

doctors, and pharmacies), NGO-sector sources (including static clinics, satellite clinics, depot holders, and fieldworkers), and other private sources (including shops and friends or relatives).

Table 7.10 and Figure 7.6 show the percentage of current users of modern methods who obtained their method from a specific source. The table shows that 49 percent of modern contraceptive users obtained the method from the public sector, with 20 percent receiving the method from a government fieldworker. Overall, 43 percent of modern contraceptive users get their supplies from a private medical sector facility, with pharmacies being the most important source, serving 38 percent of users. Four percent of modern contraceptive users obtain their methods from a private non-medical source, mainly a shop (3 percent). Nongovernmental organizations (NGOs) supply contraceptives to 4 percent of users of modern methods.

The source of modern contraceptive methods varies largely by the specific method. Upazila health complex (32 percent), private hospitals/clinics (29 percent), and medical college hospitals/district hospitals (23 percent) are the key sources for female sterilization. Male sterilization, the IUD, and implants are almost exclusively obtained from a public sector facility, particularly at upazila health complexes, medical college hospitals/district hospitals and family welfare centers. The private sector, namely pharmacies, is the major supply source of pills (48 percent), injectables (22 percent), and condoms (75 percent). The government fieldworker is also an important source of pills (29 percent), as well as injectables (21 percent).

The SMC distributes the injectable brand SOMA-JECT through a network of private sector health providers called the Blue Star Program. Although information on the brand of injectables among the users was not collected in the 2014 BDHS, information in Table 7.10 can be used as proxy indicators to estimate the use of social marketing brands because the Blue Star Program is the only formal source of injectables in the private sector in Bangladesh. Table 7.10 shows that more than one-fifth of married women age 15-49 who currently use injectables obtained the injection from either qualified doctor's chambers or pharmacies, which are the sources of SOMA-JECT distribution. The supply source of injectables from pharmacies increased 8 percentage points during the last three years, which should be investigated by collecting the names of brands from respondents in the next BDHS.

Table 7.10 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, Bangladesh 2014

Source	Female sterilization	Male sterilization	Pill	IUD	Injectables	Implants	Condom	Total
Public sector	**68.7**	**84.5**	**42.3**	**92.1**	**61.0**	**93.1**	**14.9**	**48.7**
Medical college hospital/district hospital	23.0	28.0	1.1	15.1	2.0	14.2	1.9	4.5
Maternal and child welfare center	10.7	8.7	0.4	10.4	2.1	18.1	0.5	2.6
Upazila health complex	31.6	39.2	1.7	34.7	6.5	47.7	1.3	8.0
Family welfare center	3.3	5.5	4.4	31.0	12.4	11.0	2.3	6.5
Satellite clinic or EPI outreach center	0.0	0.0	1.9	0.0	7.6	0.0	0.3	2.7
Community clinic	0.0	0.0	3.6	0.9	9.8	0.5	1.4	4.3
Government fieldworker	0.0	0.0	29.0	0.0	20.6	1.5	7.0	20.1
Other public	0.0	3.1	0.1	0.0	0.1	0.0	0.1	0.1
Private medical sector	**28.8**	**7.5**	**49.1**	**6.6**	**28.8**	**2.2**	**76.0**	**43.0**
Private hospital	28.8	7.5	0.1	6.6	0.7	1.9	0.4	3.0
Qualified doctor	0.0	0.0	0.1	0.0	0.8	0.0	0.2	0.3
Traditional doctor	0.0	0.0	0.7	0.0	5.0	0.0	0.7	1.6
Pharmacy	0.0	0.0	48.2	0.0	22.2	0.3	74.6	38.1
Other private	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NGO sector	**2.0**	**3.0**	**3.1**	**1.3**	**9.6**	**4.8**	**2.0**	**4.4**
Static clinic	2.0	3.0	1.2	1.3	6.3	4.5	1.3	2.6
Satellite clinic	0.0	0.0	0.0	0.0	0.4	0.3	0.2	0.2
Depot holder	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.1
Field worker	0.0	0.0	1.7	0.0	2.8	0.0	0.5	1.5
Other private	**0.0**	**0.0**	**5.4**	**0.0**	**0.3**	**0.0**	**6.6**	**3.5**
Shop	0.0	0.0	3.9	0.0	0.2	0.0	6.1	2.7
Friend/relative	0.0	0.0	1.5	0.0	0.1	0.0	0.5	0.8
Other	0.1	0.3	0.1	0.0	0.1	0.0	0.5	0.1
Don't know	0.0	4.7	0.0	0.0	0.0	0.0	0.0	0.1
Missing	0.5	0.0	0.1	0.0	0.2	0.0	0.1	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	775	210	4,549	107	2,094	288	1,086	9,110

Figure 7.6 **Distribution of current users of modern methods by source of supply**

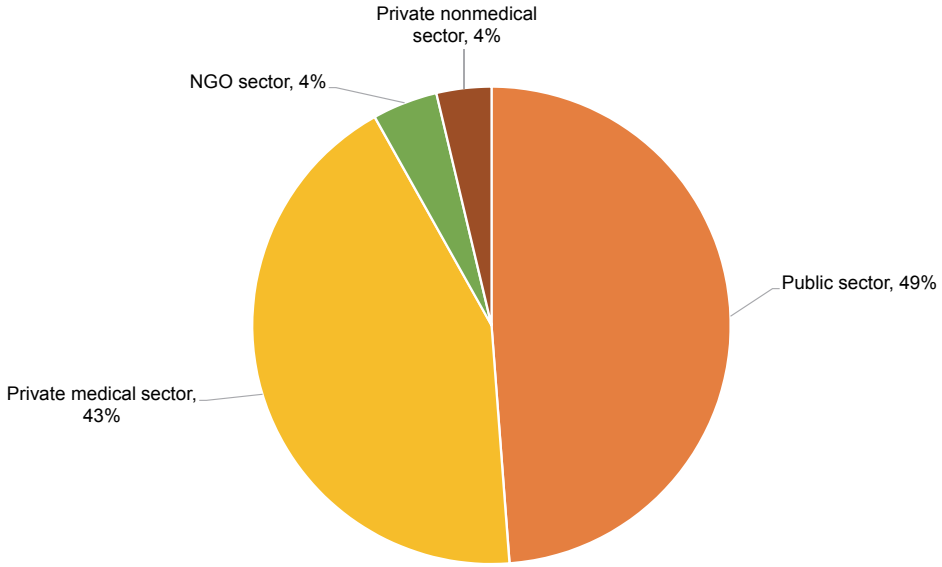
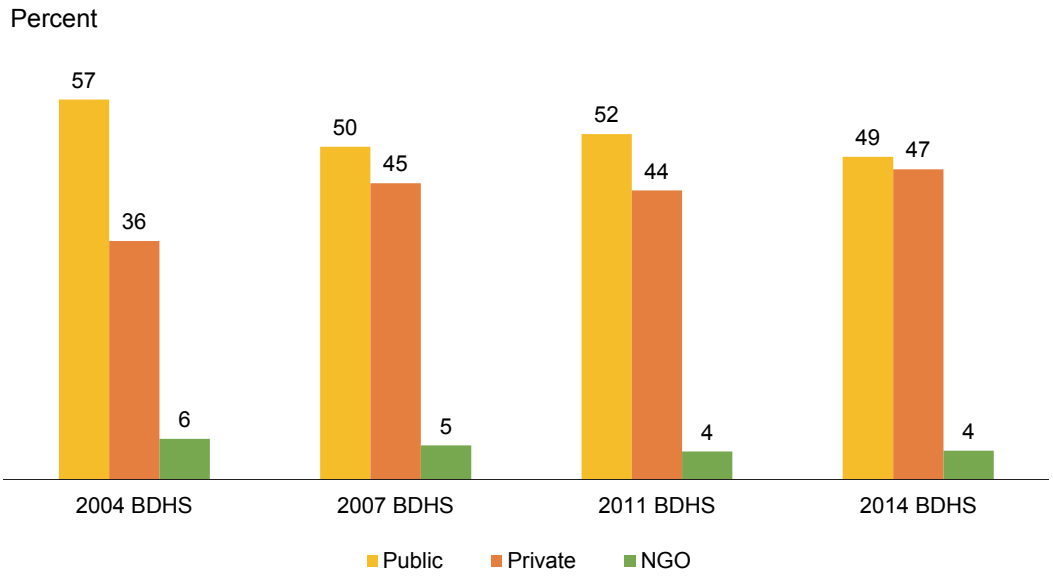


Figure 7.7 shows that the contribution of the public sector in providing modern family planning methods declined from 57 percent in 2004 to 49 percent in 2014. The contribution of the public sector declined mainly due to increased participation of the private sector in the family planning program. Between 2004 and 2014, the contribution of the private sector as a source of contraceptive supply has increased 11 percentage points, from 36 to 47 percent. The NGO-sector supply of contraceptives has decreased from 6 percent in 2004 to 4 percent in 2014.

Figure 7.7 **Trends in source of contraceptive methods, 2004-2014**



The 2014 BDHS asked women who have never used family planning whether they know a source of services for family planning. Table 7.11 shows that 64 percent of never users know a public sector source, 44 percent know a private medical sector source, and 12 percent know about an NGO source of family planning services. Twenty-six percent of never users do not know any source of family planning method.

Table 7.11 Knowledge of source of specific source of family planning method services

Percentage of currently married women age 15-49 who have never used family planning by known sources of family planning service, Bangladesh 2014

Known source known	Percent
Public sector	**64.3**
Medical college hospital/district hospital	13.0
Maternal and child welfare center	4.7
Upazila health complex	20.9
Family welfare center	17.8
Satellite clinic or EPI outreach center	5.3
Community clinic	9.3
Government fieldworker	33.1
Other public	0.1
Private medical sector	**44.3**
Private hospital/clinic	2.2
Qualified doctor's chamber	1.8
Non-qualified doctor's chamber	2.4
Pharmacy/drug store	41.2
NGO sector	**12.2**
Static clinic	5.6
Satellite clinic	0.7
Depot holder	0.2
Field worker	6.7
Other NGO	0.1
Other source	**0.2**
Friends/relatives	0.2
Don't know	26.1
Missing	0.1
Any source	**73.9**
Number of women	2,709

7.10 USE OF SOCIAL MARKETING BRANDS

Bangladesh has an active social marketing program that distributes family planning methods including pills, condoms, and injectables as well as other health and nutrition products such as oral rehydration salts (ORS), micronutrient powder, zinc tablets, sanitary napkins, and a safe delivery kit. These items are distributed through a network of retail outlets such as pharmacies, small shops, kiosks, a network of private health providers (Blue Star), and NGOs. The Social Marketing Company (SMC) currently carries several brands of oral contraceptives, including Femicon, Femipil, Noret-28, and the Progestin-only pill Minicon. Other oral pills, Combination-3 and Nordette-28, have been discontinued. Moreover, SMC is distributing IUDs and implants among a group of trained graduate physicians.

To obtain information on the proportion of users purchasing the social marketing brands, the 2014 BDHS interviewers asked current pill users to show the packet of pills they were using. If the user could show the packet, the interviewer recorded the brand on the questionnaire. If not, the interviewer showed the woman a chart depicting all major pill brands and asked the user to identify which brand she was currently using.

As shown in Table 7.12, 44 percent of pill users use social marketing brands compared with 52 percent who use Shuki, the government-supplied brand. Shuki is provided free of charge through government fieldworkers and clinics, and at a nominal charge through nongovernmental service providers. Three in ten pill users use Femicon, the most popular social marketing brand of pill. Femicon brand use is higher in urban (33 percent) than in rural (29 percent) areas. The next most widely used social marketing brand is Femipil (6 percent), with a small variation in the proportion of use between urban and rural areas. Minicon, a socially marketed progestin-only pill for lactating mothers, is used by 4 percent of pill users.

Table 7.12 Use of pill brands by residence

Percent distribution of currently married pill users by brand of pill used, according to urban-rural residence, Bangladesh 2014

Brand name	Residence		Total
	Urban	Rural	
Social marketing	**50.1**	**40.8**	**43.5**
Nordette-28	3.3	1.0	1.7
Femicon	33.4	29.2	30.4
Minicon	6.3	3.5	4.3
Femipill	5.4	5.9	5.8
Noret-28	1.6	1.1	1.2
Combination 3 (C 3)	0.1	0.1	0.1
Government	**42.3**	**55.1**	**51.6**
Shuki	42.3	55.1	51.6
Private	**7.6**	**4.1**	**4.9**
Ovostat	3.0	2.4	2.5
Desolon	0.2	0.1	0.1
Bredicon	0.4	0.2	0.2
Lynes	0.5	0.2	0.3
Marvelon	2.5	0.8	1.2
Rosen	0.1	0.0	0.0
Other	0.9	0.4	0.6
Total	100.0	100.0	100.0
Number of women	1,253	3,282	4,535

Note: Pill users who do not know the brand are excluded from the table.

The percentage of pill users using a social marketing brand increased consistently from 14 percent in 1993-94 to 45 percent in 2007, and then declined to 38 percent in 2011. SMC pill brand use increased to 44 percent in 2014. The use of Femicon increased by four percentage points from 26 percent in 2011 to 30 percent in 2014 (NIPORT et al. 2013).

To assess the social marketing program's reach in condom use, the 2014 BDHS gathered information on what type of condoms the couples used. Interviewers showed a chart depicting all major condom brands to women who reported that their husbands were currently using condoms. The women were asked to identify the brand used. Men would presumably be a more reliable source of data on condom brands; however, the data shown in Table 7.13 are derived from women.

Table 7.13 Use of condom brands by residence

Percent distribution of currently married condom users by brand of condom used, according to urban-rural residence, Bangladesh 2014

Brand name	Residence		Total
	Urban	Rural	
Social marketing	**66.4**	**57.1**	**62.0**
Raja	6.8	5.3	6.1
Panther	25.8	20.6	23.3
Hero	7.7	14.6	11.1
Sensation	19.2	13.9	16.6
U & ME	6.7	2.7	4.8
Xtreme	0.2	0.0	0.1
Government	**8.1**	**13.2**	**10.6**
Nirapad	8.1	13.2	10.6
Private	**18.4**	**24.9**	**21.6**
Moods	0.6	0.1	0.4
Gamy	0.5	0.8	0.6
Wonder life	0.1	0.1	0.1
Romantex	0.5	0.2	0.3
Durex	1.5	1.1	1.3
Love guard	1.3	0.0	0.7
Coral	6.0	5.6	5.8
Jippy	1.2	1.9	1.5
Green love	1.2	1.3	1.2
Carex	3.5	7.7	5.6
Deluxe Nirodh	1.3	3.1	2.2
Super Guard	0.7	3.0	1.9
Other	6.9	4.8	5.9
Total	100.0	100.0	100.0
Number of women	508	488	997

Note: Condom users who do not know the brand are excluded from the table.

Three in five condom users buy social marketing brands; 23 percent use Panther, 17 percent use Sensation, 11 percent use Hero, and 5 percent use U & ME. The Raja, Panther, Sensation, and U & ME brands are more popular in urban than rural areas, while Hero brand is more popular in rural areas. The percentage of condom users who obtain their supplies from the SMC has increased over the past three years, from 60 percent in 2011 to 62 percent in 2014 (NIPORT et al. 2013).

7.11 CONTRACEPTIVE DISCONTINUATION

A key concern for family planning programs is the rate at which users discontinue use of contraception and the reasons for such discontinuation. Life table contraceptive discontinuation rates are presented in Table 7.14. These rates are based on information collected in the 5-year, month-by-month

calendar of contraceptive use in the BDHS questionnaire. The analysis utilizes all episodes of contraceptive use from 3 to 62 months prior to the date of interview. The month of interview and the two preceding months are ignored to avoid the bias that might be introduced by an unrecognized pregnancy.

The rates presented in Table 7.14 are cumulative one-year discontinuation rates and represent the proportion of users who discontinue using a method within 12 months of starting. The rates are calculated by dividing the number of discontinuations at each duration of use in single months, by the number of months of exposure for that duration. The single-month rates are then cumulated to produce a one-year rate.

Table 7.14 First-year contraceptive discontinuation rates

Among women age 15-49 who started an episode of contraceptive use within the five years preceding the survey, the percentage of episodes discontinued within 12 months, by reason for discontinuation and specific method, Bangladesh 2014

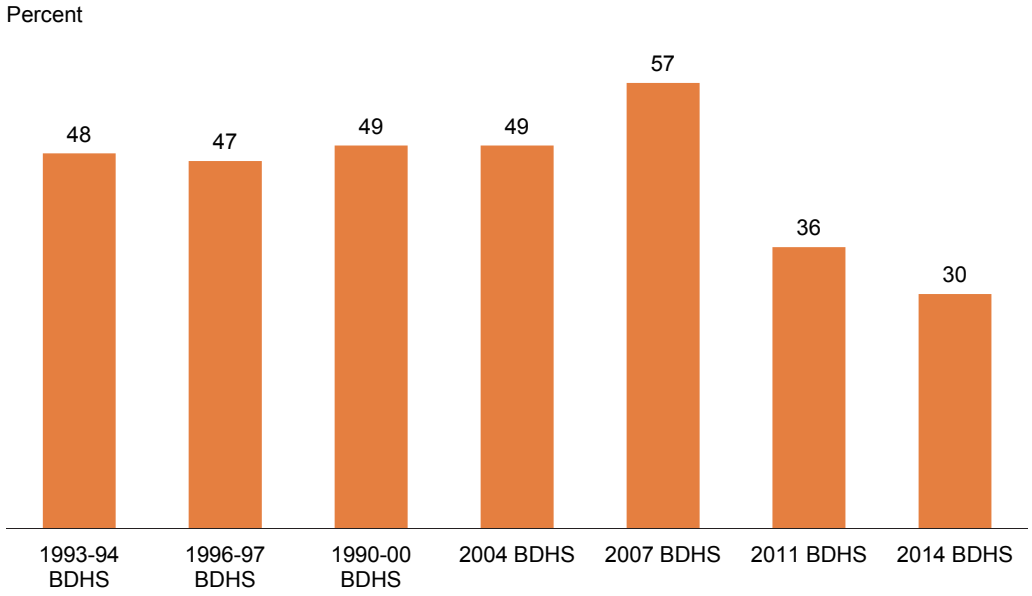
Method[1]	Method failure	Desire to become pregnant	Other fertility-related reasons[2]	Side effects/ health concerns	Wanted more effective method	Other method-related reasons[3]	Other reasons	Any reason[4]	Switched to another method[5]	Number of episodes of use[6]
Pill	4.9	8.1	6.6	10.3	1.1	1.4	1.9	34.2	11.0	6,136
Injectables	1.0	3.2	3.1	13.7	0.8	1.7	1.3	24.9	12.5	2,369
Condoms	3.6	11.3	4.7	5.1	2.6	5.8	6.7	39.9	18.0	1,627
Female sterilization	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	350
Implants	0.0	2.1	0.8	3.6	0.0	0.0	0.0	6.5	2.7	305
Periodic abstinence	3.6	3.1	1.5	0.2	5.3	2.3	1.8	17.8	8.7	774
Withdrawal	4.0	5.7	1.2	0.0	4.6	6.2	3.7	25.5	13.9	308
All methods	3.5	6.6	4.8	8.8	1.5	2.1	2.4	29.7	11.5	12,120

Note: Figures are based on life table calculations using information on episodes of use that began 3-62 months prior to the survey.
[1] Male sterilization, IUD, and other methods are not included due to small number of cases (fewer than 125 episodes of use).
[2] Includes infrequent sex/husband away, difficult to get pregnant/menopausal, and marital dissolution/separation
[3] Includes lack of access/too far, costs too much, and inconvenient to use
[4] Reasons for discontinuation are mutually exclusive and add to the total given in this column
[5] The episodes of use included in this column are a subset of the discontinued episodes included in the discontinuation rate. A woman is considered to have switched to another method if she used a different method in the month following discontinuation or if she gave "wanted a more effective method" as the reason for discontinuation and started another method within two months of discontinuation.
[6] Number of episodes of use includes both episodes of use that were discontinued during the period of observation and episodes of use that were not discontinued during the period of observation

The results indicate that about one-third users of contraceptive methods stop using the method within 12 months of starting. Not surprisingly, discontinuation rates are much higher for temporary methods like condoms (40 percent), pills (34 percent), and injectables (25 percent) than for long-term methods like the implants (7 percent).

FP 2020 has set a target to reduce the discontinuation rate to 20 percent by 2021 (Family Planning 2020). The all-method discontinuation rate has declined from 36 percent in 2011 to 30 percent in 2014. While the decline occurred for all methods in the past three years, it has been particularly large for withdrawal and periodic abstinence. Figure 7.8 shows that the all-method discontinuation rate has declined from 49 percent in 1993-94 to 30 percent in 2014.

Figure 7.8 **Trends in all method contraceptive discontinuation rates, 1993/94-2014**



Further information on reasons for contraceptive discontinuation is presented in Table 7.15. This table shows the percent distribution of all discontinuations occurring during the five years preceding the survey, regardless of whether they occurred during the first 12 months of use or not. The most common reason for discontinuation is the desire to become pregnant (31 percent), followed by side effects and health concerns, accounting for 26 percent of all discontinuations. The category of accidental pregnancies was cited as a reason for 14 percent of discontinuations.

Table 7.15 Reasons for discontinuation

Percent distribution of discontinuations of contraceptive methods in the five years preceding the survey by main reason stated for discontinuation, according to specific method, Bangladesh 2014

Reason	Pill	IUD	Injectables	Implants	Male condom	Periodic abstinence	Withdrawal	All methods[1]
Became pregnant while using	16.5	0.0	5.6	1.1	12.8	19.1	17.8	13.8
Wanted to become pregnant	33.8	19.4	23.8	20.9	34.7	26.2	26.9	31.1
Husband disapproved	0.6	0.0	0.5	1.4	9.0	1.9	10.7	1.9
Wanted a more effective method	3.5	4.3	2.7	6.9	6.7	17.9	11.3	4.8
Side effects/health concerns	24.5	46.7	45.5	51.1	11.1	1.2	1.6	25.8
Lack of access/too far	0.4	1.4	2.8	0.3	0.2	0.0	0.0	0.8
Cost too much	0.1	0.0	0.2	0.0	0.1	0.0	0.0	0.1
Inconvenient to use	3.7	4.2	2.4	5.0	11.0	5.2	15.0	4.6
Up to God/fatalistic	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Difficult to get pregnant/ menopausal	2.4	2.8	4.8	0.0	1.3	14.1	4.8	3.4
Infrequent sex/husband away	9.4	0.0	5.1	0.4	7.8	4.9	7.1	7.8
Marital dissolution/separation	0.8	10.3	0.9	4.6	1.2	1.3	0.5	1.0
Other	0.6	9.6	1.2	8.4	0.3	0.8	0.2	0.9
Don't know	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Missing	3.6	1.3	4.3	0.0	3.7	7.4	4.1	4.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of discontinuations	5,766	73	1,860	157	1,109	566	179	9,731

Note: Total includes 11 women who used other methods.

There are variations in reasons for discontinuation by method. Side effects/health concerns is the most common reason for discontinuation of the injectables (46 percent), implant (51 percent), and IUD (47 percent). Desire to become pregnant is the most common reason for discontinuing use of the pill (34 percent) and male condom (35 percent). This reason is also cited for periodic abstinence (26 percent), withdrawal (27 percent), injectables (24 percent), implants (21 percent), and IUD (19 percent). Method failure ("became pregnant while using") is the most common reason for discontinuation of periodic abstinence (19 percent), withdrawal (18 percent), and the pill (17 percent).

7.12 FUTURE USE OF CONTRACEPTION

An important indicator of the changing demand for family planning is the extent to which nonusers of contraception plan to use family planning in the future. Currently married women who were not using contraception at the time of the survey—defined as nonusers—were asked about their intention to use family planning in the future. The results are presented in Table 7.16, according to the number of living children the women had.

Overall, 58 percent of nonusers said they intended to use family planning methods and 39 percent said that they did not intend to use contraceptives. Only a few nonusers (3 percent) said they were unsure of their intention. Intention to use varies with the number of children. The proportion of nonusers who say they intend to use family planning in the future peaks at 78 percent for women with one child and falls sharply to 27 percent among women with four or more children. Figure 7.9 shows the proportion of nonusers intending to use family planning in the future has been decreasing gradually from 73 percent in 2004 to 65 percent in 2011 and to 58 percent in 2014. A further investigation is crucial to understand the reasons for decreasing trend of future intention to use contraception by the nonusers.

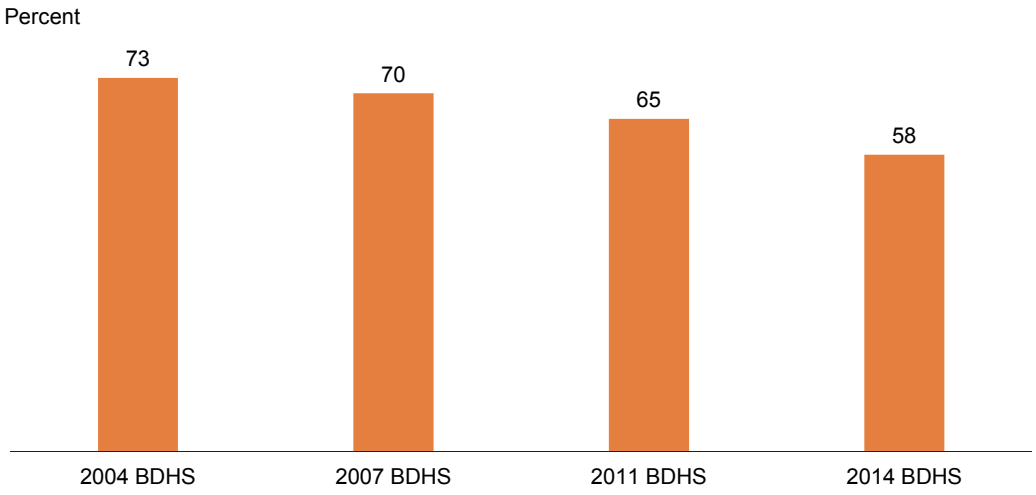
Table 7.16 Future use of contraception

Percent distribution of currently married women age 15-49 who are not using a contraceptive method by intention to use in the future, according to number of living children, Bangladesh 2014

	Number of living children[1]					
Intention	0	1	2	3	4+	Total
Intends to use	67.2	77.9	63.0	45.4	26.8	57.8
Unsure	6.3	3.4	1.7	1.9	1.3	2.7
Does not intend to use	26.4	18.5	35.1	52.6	71.9	39.3
Missing	0.0	0.1	0.2	0.1	0.0	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	790	1,767	1,510	1,053	1,210	6,330

[1] Includes current pregnancy

Figure 7.9 **Trends in future intention to use contraception by currently married women who are not using a contraceptive method, age 15-49, from 2004-2014**



Note: Intention to use contraception in 2007, 2011, and 2014 is for women age 15-49. In the 2004 BDHS it refers to women age 10-49.

Another question assessed future demand for specific contraceptive methods among currently married women who were not using contraception but who said they intend to use a method in the future. They were asked which method they would prefer to use. The results are presented in Table 7.17. Close to half of the prospective users prefer the pill (49 percent) and 20 percent prefer injectables. One in five nonusers (21 percent) were unsure what method they wanted to use.

Table 7.17 Preferred method of contraception for future use

Percent distribution of currently-married women age 15-49 who are not using a contraceptive method but who intend to use in the future by preferred method, according to age, Bangladesh 2014

Method	Age 15-29	Age 30-49	Total
Female sterilization	1.7	3.6	2.2
Male sterilization	0.0	0.0	0.0
Pill	49.7	47.4	49.2
IUD	0.2	0.1	0.2
Injection	20.1	19.6	20.0
Implants	0.9	1.1	1.0
Male condom	4.4	7.5	5.1
Periodic abstinence	0.6	3.2	1.2
Withdrawal	0.4	0.4	0.4
Other	0.1	0.4	0.2
Unsure	21.7	16.8	20.6
Total	100.0	100.0	100.0
Number of women	2,835	827	3,662

7.13 Reasons for Not Intending to Use Contraception

Table 7.18 presents the main reasons for not intending to use contraception in the future as reported by nonintenders (nonusers who do not intend to use family planning in the future). Approximately eight in ten of the nonintenders do not plan to use family planning for reasons related to fertility. The most common reason for nonuse is menopause/hysterectomy, cited by 33 percent of nonintenders, followed by those who are subfecund or infecund (27 percent). Sixteen percent of women do not intend to use a contraceptive method because of infrequent sex or no sex. Four percent of nonintenders, mostly women age 15-29, do not intend to use contraception because they want more children.

Nine percent of married women do not intend to use because of method-related reasons, mainly health concerns and interfere with body's normal process. Nine percent of nonintenders do not intend to use contraceptives because of opposition to family planning, either by themselves (6 percent), their husband (2 percent) or because of religious prohibitions (1 percent).

Table 7.18 Reason for not intending to use contraception

Percent distribution of currently married women age 15-49 who are not using contraceptive method and who do not intend to use in the future by main reason for not intending to use, according to age, Bangladesh 2014

Reason	Age 15-29	Age 30-49	Total
Fertility-related reasons	**54.9**	**83.2**	**79.1**
Infrequent sex/no sex	22.4	14.4	15.6
Menopausal/had hysterectomy	2.9	37.4	32.5
Subfecund/infecund	15.0	28.7	26.8
Wants as many children as possible	14.4	2.6	4.3
Opposition to use	**21.7**	**6.7**	**8.9**
Respondent opposed	9.9	5.0	5.7
Husband/partner opposed	7.7	1.0	1.9
Others opposed	0.5	0.0	0.1
Religious prohibition	3.5	0.8	1.2
Lack of knowledge	**1.3**	**0.1**	**0.3**
Knows no method	0.3	0.0	0.1
Knows no source	1.0	0.0	0.2
Method related reason	14.0	8.2	9.0
Health concerns	6.9	3.0	3.5
Fear of side effects	3.0	1.3	1.6
Lack of access/too far	0.0	0.2	0.2
Inconvenient to use	0.0	0.2	0.2
Interfere with body's normal process	4.1	3.5	3.6
Other	5.5	1.6	2.2
Don't know	1.2	0.1	0.2
Missing	1.5	0.1	0.3
Total	100.0	100.0	100.0
Number of women	357	2,134	2,490

7.14 UNMET NEED FOR FAMILY PLANNING SERVICES

This section provides information on the extent of need and potential demand for family planning services in Bangladesh. In the past, the definition of unmet need used information from the contraceptive calendar and other questions that were not included in every survey leading to calculate inconsistent unmet need for family planning. The revised definition (Bradley et al. 2012) uses only information that has been collected in every survey so that unmet need can be measured in the same way over time.

Unmet need for family planning refers to fecund women who are not using contraception but who wish to postpone the next birth (spacing) or stop childbearing altogether (limiting). Specifically, women are considered to have unmet need for spacing if they are:

- At risk of becoming pregnant, not using contraception, and either do not want to become pregnant within the next two years, or are unsure if or when they want to become pregnant.
- Pregnant with a mistimed pregnancy.
- Postpartum amenorrheic for up to two years following a mistimed birth and not using contraception.

Women are considered to have unmet need for limiting if they are:

- At risk of becoming pregnant, not using contraception, and want no (more) children.
- Pregnant with an unwanted pregnancy.
- Postpartum amenorrheic for up to two years following an unwanted birth and not using contraception.

Women who are classified as infecund have no unmet need because they are not at risk of becoming pregnant.

Women using contraception are considered to have met need. Women using contraception who say they want no (more) children are considered to have met need for limiting, and women who are using contraception and say they want to delay having a child, or are unsure if or when they want a/another child, are considered to have met need for spacing.

Unmet need, total demand, and percentage of demand satisfied by modern methods are defined as follows:

- **Unmet need:** the sum of unmet need for spacing plus unmet need for limiting
- **Total demand for family planning:** the sum of unmet need plus total contraceptive use
- **Percentage of demand satisfied:** total contraceptive use divided by the sum of unmet need plus total contraceptive use

Overall, 12 percent of currently married women in Bangladesh have an unmet need for family planning services, 5 percent have need for spacing, and 7 percent have need for limiting births (Table 7.19). The total demand for family planning (the sum of total unmet need and total contraceptive use) in Bangladesh is 74 percent, of which 73 percent has been satisfied by the use of modern methods (modern contraceptive use divided by the sum of contraceptive use and total unmet need).

Unmet need for family planning decreases with increasing age, from 17 percent among women age 15-19 to 7 percent among women age 45-49. Women in rural areas have a higher unmet need than urban women (13 compared with 10 percent). Across divisions, unmet need is highest in Sylhet (18 percent) and Chittagong (17 percent), and the lowest in Rangpur (7 percent).

Unmet need for family planning in Bangladesh has decreased from 14 percent in 2011 to 12 percent in 2014 (Figure 7.10). The HPNSDP results framework has set a target to reduce unmet need for family planning services to 9 percent by 2016 (MOHFW 2011), and FP2020 has set a target to reach 7 percent by 2021 (Family Planning 2020).

Table 7.19 Need and demand for family planning among currently married women

Percentage of currently married women age 15-49 with unmet need for family planning, percentage with met need for family planning, the total demand for family planning, and the percentage of the demand for contraception that is satisfied, by background characteristics, Bangladesh 2014

Background characteristic	Unmet need for family planning[1]			Met need for family planning (currently using)[2]			Total demand for family planning			Percentage of demand satisfied	Percentage of demand for modern methods satisfied[3]	Number of women
	For spacing	For limiting	Total	For spacing	For limiting	Total	For spacing	For limiting	Total			
Age												
15-19	15.7	1.5	17.1	45.6	5.5	51.2	61.3	7.0	68.3	74.9	68.4	1,984
20-24	10.8	4.0	14.7	37.6	21.6	59.2	48.3	25.6	73.9	80.1	73.8	3,166
25-29	5.5	6.8	12.2	19.6	48.1	67.7	25.1	54.9	79.9	84.7	78.5	3,249
30-34	1.8	9.4	11.2	7.1	66.6	73.7	9.0	76.0	85.0	86.8	76.2	2,919
35-39	0.7	9.6	10.2	1.5	71.4	72.9	2.2	81.0	83.2	87.7	72.9	2,153
40-44	0.2	8.2	8.4	0.4	60.4	60.9	0.6	68.7	69.3	87.9	65.3	1,874
45-49	0.0	7.0	7.0	0.3	37.8	38.1	0.3	44.8	45.1	84.4	55.5	1,512
Residence												
Urban	4.1	5.5	9.6	21.0	44.9	65.9	25.1	50.4	75.5	87.3	74.5	4,709
Rural	5.8	7.0	12.9	16.4	44.7	61.1	22.3	51.7	74.0	82.6	71.9	12,149
Division												
Barisal	5.2	6.1	11.3	19.0	44.3	63.3	24.1	50.4	74.6	84.9	73.2	1,051
Chittagong	8.3	9.0	17.3	15.7	39.3	55.0	24.0	48.3	72.3	76.0	65.3	3,121
Dhaka	5.1	7.0	12.1	19.4	43.5	63.0	24.5	50.5	75.0	83.9	72.3	5,857
Khulna	3.6	5.8	9.4	16.4	50.6	67.1	20.0	56.5	76.5	87.7	73.7	1,729
Rajshahi	3.2	4.5	7.7	18.7	50.6	69.4	22.0	55.1	77.0	90.0	78.8	2,007
Rangpur	3.2	3.6	6.7	18.5	51.3	69.8	21.7	54.8	76.5	91.2	82.4	1,946
Sylhet	8.8	8.9	17.7	11.9	35.9	47.8	20.7	44.8	65.5	73.0	62.4	1,147
Education												
No education	2.0	8.3	10.3	6.0	55.5	61.5	8.0	63.8	71.8	85.7	70.4	3,949
Primary incomplete	3.7	7.7	11.4	12.0	51.8	63.9	15.7	59.6	75.2	84.9	74.1	3,032
Primary complete[4]	5.7	5.8	11.5	17.4	44.6	62.0	23.0	50.4	73.4	84.4	73.9	1,884
Secondary incomplete	7.9	5.8	13.7	24.6	37.7	62.3	32.5	43.5	76.0	82.0	73.7	5,477
Secondary complete or higher[5]	6.9	5.0	11.9	28.1	34.8	63.0	35.0	39.9	74.9	84.1	71.1	2,516
Wealth quintile												
Lowest	5.3	7.8	13.1	14.0	48.5	62.6	19.4	56.3	75.7	82.7	72.9	3,097
Second	4.5	6.0	10.6	16.2	47.0	63.2	20.7	53.0	73.7	85.7	74.8	3,223
Middle	5.8	6.1	11.9	17.8	44.9	62.7	23.6	50.9	74.6	84.0	73.1	3,394
Fourth	5.8	7.1	13.0	19.3	41.8	61.1	25.1	48.9	74.1	82.5	71.4	3,556
Highest	5.1	6.2	11.3	20.6	42.3	62.8	25.7	48.4	74.1	84.8	71.4	3,587
Total	5.3	6.6	12.0	17.7	44.7	62.4	23.0	51.4	74.4	83.9	72.6	16,858

[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 last pregnancy was unwanted but who now say they want more children. Unmet need for spacing also includes amenorrheic women whose last birth was mistimed, or whose last birth was unwanted but who now say they want more children.
Unmet need for limiting: Includes women who are fecund and not using family planning and who say they do not want another child. In addition, unmet need for limiting includes pregnant women whose current pregnancy was unwanted but who now say they do not want more children or who are undecided whether they want another child. Unmet need for limiting also includes amenorrheic women whose last birth was unwanted but who now say they do not want more children or who are undecided whether they want another child.
[2] Using for spacing is defined as women who are using some method of family planning and say they want to have another child or are undecided whether to have another. Using for limiting is defined as women who are using and who want no more children. Note that the specific methods used are not taken into account here.
[3] Nonusers who are pregnant or amenorrheic and whose pregnancy was the result of a contraceptive failure are not included in the category of unmet need, but are included in total demand for contraception (since they would have been using had their method not failed). They are also considered as having their demand satisfied.
[4] Primary complete is defined as completing grade 5.
[5] Secondary complete is defined as completing grade 10.

Figure 7.10 **Trends in unmet need for family planning among currently married women age 15-49, 2011 and 2014 BDHS**

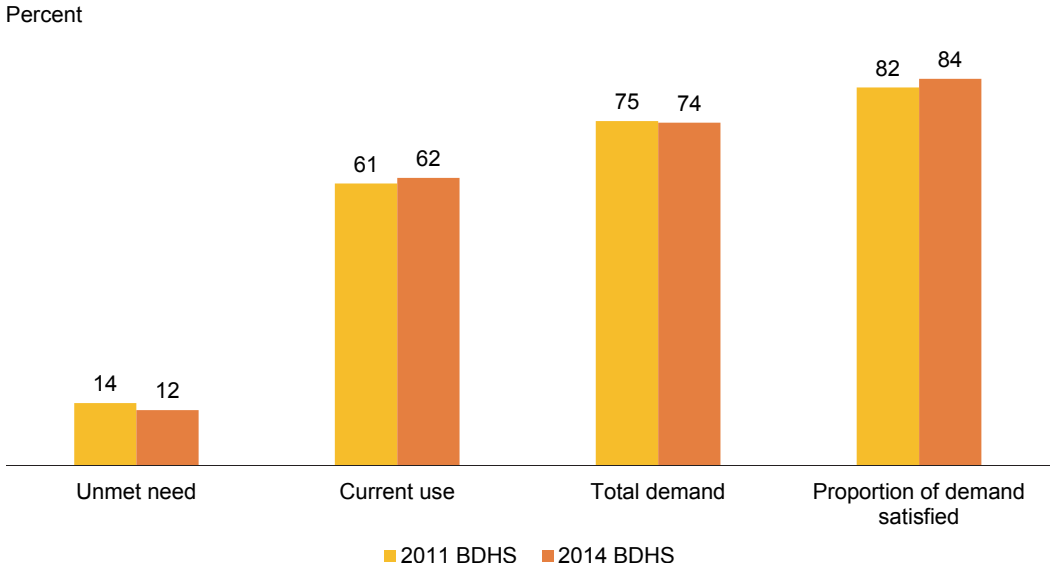
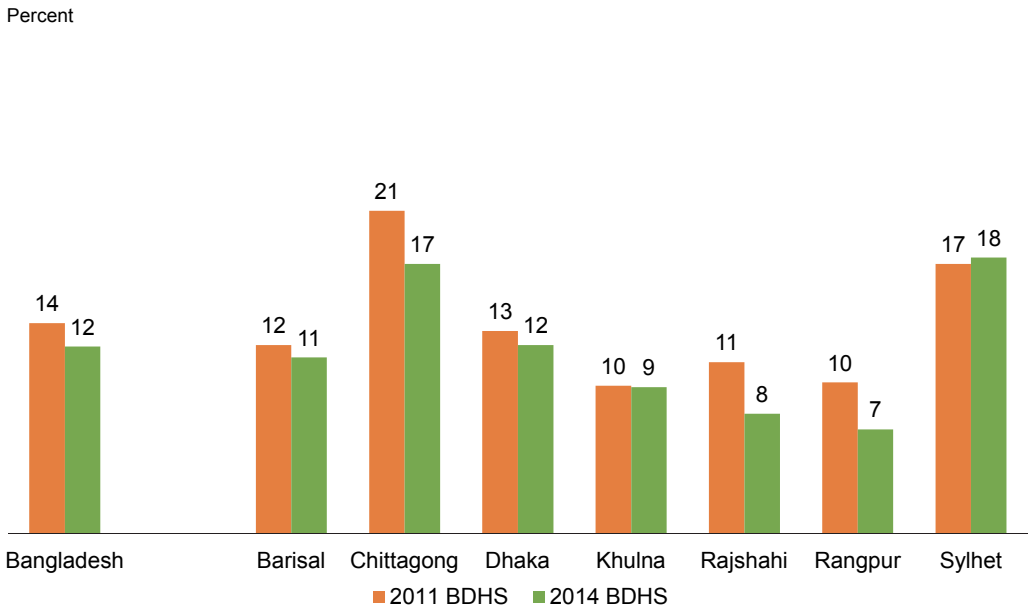


Figure 7.11 **Trends in unmet need for family planning services among currently married women age 15-49, by division, 2011-2014**



7.15 EXPOSURE TO FAMILY PLANNING MESSAGES

The media play an important role in communicating messages about family planning. In assessing the reach of family planning messages, the 2014 BDHS asked women whether they had heard or seen a message about family planning on the radio, on television, in a newspaper or magazine, on a billboard, poster, or leaflet, or at a community event in the month before the survey. Table 7.20 presents the proportion of currently married women who had heard or seen such a message from a media source, by background characteristics.

Table 7.20 Exposure to family planning messages

Percentage of women age 15-49 who heard or saw a family planning message on radio, on television, or in a newspaper in the last month, according to background characteristics, Bangladesh 2014

Background characteristic	Radio	Television	Newspaper/ magazine	None of these three media sources	Poster, billboard, or leaflet	Community event	Community health worker		At least one of these sources	Number of women
							Govern-ment	Non-government		
Age										
15-19	1.7	18.8	2.5	79.7	5.0	3.3	5.7	5.6	30.7	1,984
20-24	1.4	21.0	2.8	78.3	5.4	3.4	9.1	3.1	32.3	3,166
25-29	1.8	21.5	3.4	77.2	5.7	3.5	9.2	2.7	33.4	3,249
30-34	1.6	19.7	3.1	78.9	4.9	3.9	10.0	2.4	32.3	2,919
35-39	1.1	18.4	2.5	80.5	4.7	3.3	8.3	2.1	29.3	2,153
40-44	0.9	15.9	2.9	83.3	4.5	2.8	6.8	1.1	23.7	1,874
45-49	1.0	15.6	3.0	83.4	3.1	2.7	4.2	1.6	22.0	1,512
Residence										
Urban	1.1	29.8	6.1	69.0	8.1	3.5	4.9	2.9	37.6	4,709
Rural	1.6	15.1	1.7	83.8	3.7	3.3	9.3	2.6	27.1	12,149
Division										
Barisal	1.7	19.3	3.9	79.0	7.9	9.2	7.9	3.0	32.0	1,051
Chittagong	1.1	21.3	2.6	78.0	2.6	3.4	5.7	1.7	27.8	3,121
Dhaka	1.2	22.1	3.6	76.8	5.8	3.0	8.8	3.0	33.8	5,857
Khulna	2.0	18.6	2.3	80.2	6.8	2.5	8.5	1.9	30.0	1,729
Rajshahi	1.2	13.7	1.8	85.2	5.4	1.9	9.9	1.9	26.4	2,007
Rangpur	2.4	15.8	2.8	82.5	3.9	4.0	8.7	4.6	28.5	1,946
Sylhet	1.4	15.2	2.4	84.1	2.6	2.6	6.5	3.1	24.4	1,147
Education										
No education	0.4	8.6	0.1	91.1	1.1	2.0	6.6	1.8	17.6	3,949
Primary incomplete	1.3	11.4	0.2	87.8	1.6	1.9	8.3	3.1	22.2	3,032
Primary complete[1]	1.1	15.9	0.6	83.5	3.3	3.6	10.1	2.5	28.0	1,884
Secondary incomplete	1.6	23.1	2.2	75.9	5.5	3.6	8.7	3.4	34.5	5,477
Secondary complete or higher[2]	3.2	39.4	13.8	57.1	15.0	6.5	7.4	2.4	50.8	2,516
Wealth quintile										
Lowest	1.1	2.9	0.3	96.3	1.7	1.7	7.4	3.8	15.5	3,097
Second	1.4	6.7	0.7	91.9	1.8	2.4	10.3	2.2	20.2	3,223
Middle	2.0	17.5	1.1	81.3	3.6	3.1	10.9	2.9	30.4	3,394
Fourth	1.2	26.8	2.4	72.4	5.8	4.3	7.2	2.8	35.3	3,556
Highest	1.4	38.7	9.4	59.8	10.9	5.0	4.8	1.9	45.9	3,587
Total	1.4	19.2	2.9	79.6	4.9	3.4	8.1	2.7	30.0	16,858

[1] Primary complete is defined as completing grade 5.
[2] Secondary complete is defined as completing grade 10.

Television is the most popular source for family planning messages in Bangladesh with 19 percent of currently married women age 15-49 having seen a family planning message in this media. Five percent of women saw a family planning message in either a poster, billboard, or leaflet, and 3 percent of women read about family planning in a newspaper or magazine. Overall, 80 percent of women were not exposed to family planning messages in any of the three main media (radio, television, and print media).

Not surprisingly, women residing in urban areas are much more likely to have been exposed to family planning messages in any media than their rural counterparts. This is especially true for messages on television and in print media. Women residing in rural areas are more exposed to family planning messages through community health workers and radio than those living in urban areas.

Education has a positive influence on media exposure. For example, 9 percent of uneducated women are exposed to family planning information on television compared with 39 percent of women with a secondary or higher education. Exposure to family planning messages increases with the increase in wealth.

Exposure to family planning messages in the mass media for women age 15-49 has declined over the last three years. Exposure to family planning messages on the radio declined from 3 percent in the 2011 BDHS to 1 percent in the 2014 BDHS, exposure through the television declined from 24 percent in 2011 to 19 percent in 2014, and exposure through poster, billboard, or leaflet declined slightly from 6 percent in 2011 to 5 percent in 2014 (NIPORT et al. 2013).

7.16 FIELDWORKER VISITS

In the 2014 BDHS, women were asked whether a family planning fieldworker had visited them in the six months prior to the survey. Table 7.21 shows that 20 percent of currently married women said they were visited by a fieldworker in the six months before the survey. This proportion is 5 percentage points higher than that recorded in the 2011 BDHS. One-fourth of women visited by a fieldworker received a family planning method from the worker.

Table 7.21 Contact with family planning fieldworkers: Type of service

Percentage of currently-married women age 15-49 who reported being visited by a fieldworker in the past six months, the percent distribution of various types of services provided by the fieldworker, by background characteristics, Bangladesh 2014

Background characteristic	Percentage of women who reported being visited by fieldworker in the past 6 months	Number of women	Services provided by the fieldworker: Talked	Gave family planning method	Talked and gave family planning method	Total	Number of women
Age							
15-19	19.5	1,984	73.8	14.5	11.7	100.0	386
20-24	22.5	3,166	70.2	20.8	9.0	100.0	713
25-29	22.3	3,249	57.8	29.0	13.2	100.0	724
30-34	20.9	2,919	56.3	28.8	14.9	100.0	609
35-39	19.7	2,153	57.1	32.0	10.9	100.0	425
40-44	16.8	1,874	56.3	29.6	14.1	100.0	316
45-49	9.6	1,512	60.7	26.3	12.9	100.0	145
Residence							
Urban	15.7	4,709	68.5	20.6	10.9	100.0	737
Rural	21.2	12,149	60.1	27.3	12.6	100.0	2,581
Division							
Barisal	21.4	1,051	66.4	15.0	18.6	100.0	225
Chittagong	13.2	3,121	69.3	16.2	14.5	100.0	411
Dhaka	20.5	5,857	58.4	29.5	12.2	100.0	1,199
Khulna	21.0	1,729	64.4	21.5	14.1	100.0	363
Rajshahi	23.0	2,007	59.6	34.7	5.8	100.0	462
Rangpur	22.9	1,946	58.9	28.6	12.5	100.0	446
Sylhet	18.4	1,147	70.6	17.8	11.6	100.0	211
Education							
No education	16.2	3,949	56.6	29.6	13.8	100.0	641
Primary incomplete	20.8	3,032	56.7	28.7	14.6	100.0	631
Primary complete[1]	20.2	1,884	63.6	27.1	9.2	100.0	381
Secondary incomplete	21.9	5,477	63.0	24.9	12.1	100.0	1,199
Secondary complete or higher[2]	18.5	2,516	72.4	18.1	9.5	100.0	467
Wealth quintile							
Lowest	19.7	3,097	58.0	28.8	13.3	100.0	609
Second	22.6	3,223	57.8	29.4	12.8	100.0	727
Middle	24.4	3,394	58.5	27.4	14.1	100.0	829
Fourth	18.7	3,556	64.7	24.9	10.4	100.0	666
Highest	13.6	3,587	75.2	15.5	9.3	100.0	487
Total	19.7	16,858	62.0	25.8	12.2	100.0	3,318

[1] Primary complete is defined as completing grade 5.
[2] Secondary complete is defined as completing grade 10.

Eleven percent of currently-married women said they were visited by a government family planning fieldworker, while 4 percent were visited by a government health worker and 5 percent by an NGO fieldworker (Table 7.22). Married women who live in rural areas are twice as likely to be visited by a government fieldworker (both family planning and health workers) than women in urban areas.

Table 7.22 Contact with family planning fieldworkers: Type of fieldworker

Percentage of currently married women age 15-49 who reported being visited by a fieldworker in the past six months, by type of fieldworker, according to background characteristics, Bangladesh 2014

Background characteristic	Visited in the last six months by a					Number of women
	Government FP worker	Government health worker	NGO worker	Other	Missing	
Age						
15-19	8.4	3.2	8.0	0.2	0.0	1,984
20-24	11.9	4.6	6.1	0.1	0.0	3,166
25-29	12.7	4.7	5.3	0.0	0.1	3,249
30-34	12.5	4.2	4.4	0.2	0.0	2,919
35-39	11.7	4.2	4.0	0.1	0.1	2,153
40-44	9.7	3.6	3.8	0.0	0.0	1,874
45-49	5.9	1.8	1.9	0.3	0.0	1,512
Residence						
Urban	7.0	2.9	5.7	0.1	0.0	4,709
Rural	12.5	4.4	4.7	0.1	0.0	12,149
Division						
Barisal	9.9	4.9	7.0	0.2	0.0	1,051
Chittagong	7.0	3.2	3.2	0.1	0.0	3,121
Dhaka	11.1	4.0	5.7	0.0	0.1	5,857
Khulna	13.3	3.6	3.9	0.3	0.0	1,729
Rajshahi	15.0	4.6	3.6	0.1	0.0	2,007
Rangpur	12.1	3.7	7.5	0.1	0.0	1,946
Sylhet	8.9	5.3	4.3	0.1	0.1	1,147
Education						
No education	9.0	3.4	4.0	0.1	0.0	3,949
Primary incomplete	11.4	4.7	4.7	0.2	0.0	3,032
Primary complete[1]	12.5	3.6	4.8	0.1	0.0	1,884
Secondary incomplete	12.3	4.3	5.6	0.1	0.0	5,477
Secondary complete or higher[2]	9.3	3.6	5.9	0.1	0.1	2,516
Wealth quintile						
Lowest	10.9	4.1	4.9	0.1	0.0	3,097
Second	12.7	5.8	4.5	0.0	0.0	3,223
Middle	14.3	4.7	5.7	0.2	0.0	3,394
Fourth	10.5	3.3	5.0	0.1	0.1	3,556
Highest	6.6	2.2	4.9	0.1	0.0	3,587
Total	10.9	4.0	5.0	0.1	0.0	16,858

[1] Primary complete is defined as completing grade 5.
[2] Secondary complete is defined as completing grade 10.

7.17 SATELLITE CLINICS

As shown in Table 7.23, 63 percent of ever-married women are aware of the existence of a satellite clinic in their community. Awareness of satellite clinics is lower among younger women, women in urban areas, women in Rajshahi, Rangpur and Sylhet divisions, women who completed secondary or higher education, and women in the highest wealth quintile.

Seventeen percent of women who were aware of satellite clinics in their community reported visiting such a clinic in the three months before the 2011 BDHS. More than half of the women who visited a satellite clinic received immunization services for children, while one-fourth of women received family planning methods and 15 percent visited to obtain vitamin A for their children. Other reasons for visiting satellite clinics include receiving tetanus toxoid injections (5 percent), antenatal care services (3 percent), and child growth monitoring (3 percent).

Table 7.23 Satellite clinics

Percentage of ever-married women age 15-49 who reported a satellite clinic in their community, the percentage who visited a satellite clinic in the past three months, and the percentage who reported various types of services provided at the satellite clinic, by background characteristics, Bangladesh 2014

			Of those who reported a satellite clinic in the community		Of those who visited a satellite, clinic percentage receiving services in:								
Background characteristic	Percentage reporting a satellite clinic taking place in the community	Number of women	Percentage who visited satellite clinic in the past 3 months	Number of women	Family planning methods	Immunizations	Child growth monitoring	Tetanus toxoid injections	Antenatal care	Vitamin A for children	Others	Don't know/ missing	Number of women
Age													
15-19	57.5	2,029	24.6	1,166	8.6	76.0	0.9	7.8	3.7	9.4	2.9	0.0	287
20-24	63.0	3,224	24.4	2,030	16.5	64.5	1.9	4.9	3.4	16.5	2.5	0.3	495
25-29	63.2	3,390	20.3	2,141	26.3	55.2	4.7	4.4	1.3	15.5	3.9	0.6	435
30-34	65.3	3,047	15.9	1,989	32.5	48.8	3.9	3.0	2.8	18.9	5.0	1.2	315
35-39	63.1	2,315	11.5	1,460	41.5	37.2	2.4	7.0	3.3	14.1	8.1	0.5	169
40-44	65.1	2,092	7.6	1,362	34.1	45.8	2.0	8.3	5.5	16.0	8.3	0.0	103
45-49	61.2	1,766	6.6	1,081	33.9	48.7	0.6	0.9	1.2	16.8	5.3	0.6	71
Residence													
Urban	59.6	5,047	15.2	3,009	20.3	59.8	3.9	4.5	2.2	12.5	4.7	0.8	459
Rural	64.1	12,816	17.2	8,221	25.4	56.6	2.4	5.3	3.1	16.3	4.1	0.4	1,417
Division													
Barisal	62.6	1,111	15.2	695	32.5	51.5	2.0	6.6	3.5	12.8	2.1	0.7	106
Chittagong	66.6	3,301	17.7	2,197	21.0	64.9	2.9	5.5	2.0	13.8	1.5	0.6	390
Dhaka	64.6	6,223	16.2	4,018	20.6	59.2	1.8	3.9	2.8	16.2	3.7	0.3	652
Khulna	65.6	1,838	15.3	1,205	35.3	51.3	5.1	11.0	4.6	22.0	7.9	0.4	185
Rajshahi	57.4	2,103	17.7	1,206	26.7	51.9	2.3	4.1	2.3	11.0	7.2	0.8	214
Rangpur	59.7	2,056	16.9	1,227	32.9	48.3	4.2	3.0	1.3	10.4	6.1	0.8	208
Sylhet	55.1	1,232	18.0	679	9.4	62.7	2.8	5.7	6.7	23.9	3.7	0.0	122
Education													
No education	63.1	4,455	12.0	2,810	28.1	51.1	3.7	2.4	1.9	15.5	4.5	0.2	336
Primary incomplete	63.8	3,223	18.3	2,057	30.2	52.6	3.0	7.5	2.4	13.1	3.3	0.6	376
Primary complete[1]	66.7	1,986	19.6	1,325	31.1	51.2	1.4	4.7	5.0	13.7	4.0	0.7	260
Secondary incomplete	63.6	5,628	18.8	3,581	19.3	60.9	2.0	5.1	2.4	16.3	4.7	0.4	673
Secondary complete or higher[2]	56.6	2,571	15.9	1,456	14.8	70.9	4.7	5.6	3.9	17.9	4.2	0.7	231
Wealth quintile													
Lowest	62.7	3,359	18.3	2,107	27.9	53.8	1.9	4.0	2.2	16.7	3.1	0.2	385
Second	64.5	3,408	19.1	2,196	28.6	49.8	1.2	7.1	3.6	15.1	6.4	0.7	419
Middle	66.4	3,560	17.2	2,363	25.1	56.1	3.4	4.6	2.7	15.2	2.6	0.6	406
Fourth	66.0	3,758	15.5	2,479	18.4	66.2	3.5	3.1	2.4	14.0	5.0	0.3	385
Highest	55.2	3,778	13.5	2,084	18.8	63.3	4.3	7.2	3.7	15.9	3.8	0.6	281
Total	62.9	17,863	16.7	11,230	24.1	57.4	2.8	5.1	2.9	15.3	4.2	0.5	1,875

[1] Primary complete is defined as completing grade 5.
[2] Secondary complete is defined as completing grade 10.

7.18 COMMUNITY CLINICS

The government of Bangladesh has planned to establish 13,861 community clinics in the rural areas. Each clinic is expected to provide health care services to a community of 6,000 population. As of 2014, 12,527 community clinics are operating to provide health services (PMMU 2014). These clinics provide comprehensive primary health care, family planning services, and nutritional services from a single center.

A question was asked of all ever-married women age 15-49 in the survey about whether their village or area has a community clinic, whether they visit that clinic, and if so, for what services. As shown in Table 7.24, 28 percent of ever-married women are aware of the community clinic in their locality. Awareness of community clinics is lower among women in Dhaka, Sylhet, and Chittagong divisions and women with high wealth status.

Twenty-four percent of women who were aware of community clinics reported visiting such a clinic in the three months before the 2014 BDHS. Among these women, 62 percent visited the community clinic to obtain medicine for general health, 26 percent for family planning services, and 11 percent for immunization services for their children. Other reasons for visiting community clinics are insignificant: vitamin A for children (3 percent), tetanus toxoid injections (3 percent), antenatal care services (4 percent), and child growth monitoring (1 percent).

Table 7.24 Community clinics

Percentage of ever-married women age 15-49 who reported a community clinic in their community, the percentage who visited a community clinic in the past three months, and the percentage who reported various types of services provided at the clinic, by background characteristics, Bangladesh 2014

			Of those who reported a community clinic in the community		Of those who visited a community clinic percentage receiving services in:								
Background characteristic	Percentage reporting a community clinic in the community	Number of women	Percentage who visited clinic in the past three months	Number of women	Family planning methods	Immuni-zations	Child growth monitor-ing	Tetanus toxoid injec-tions	Ante-natal care	Vitamin A for children	Medicine for general health	Others	Number of women
Age													
15-19	29.0	2,029	22.2	588	17.5	20.0	0.5	7.5	14.4	2.5	49.0	1.9	131
20-24	27.4	3,224	21.2	882	26.6	16.9	1.9	6.5	7.3	3.3	50.4	1.1	187
25-29	28.4	3,390	23.9	961	30.2	11.7	1.8	3.5	2.6	5.7	59.7	0.5	230
30-34	28.9	3,047	25.9	882	33.7	6.0	0.2	1.0	3.0	1.6	62.4	1.0	228
35-39	27.0	2,315	26.2	626	29.4	10.1	0.2	2.9	1.7	4.7	60.5	2.0	164
40-44	27.3	2,092	22.3	571	20.7	3.0	0.4	0.5	0.0	0.5	79.4	3.4	127
45-49	27.1	1,766	22.1	478	13.8	3.7	0.5	0.6	1.0	1.8	80.0	1.6	106
Residence													
Urban	15.3	5,047	14.8	774	14.4	19.3	1.1	4.4	5.6	2.2	56.0	0.6	115
Rural	32.9	12,816	25.1	4,214	27.6	9.5	0.8	3.2	4.0	3.2	62.2	1.6	1,057
Division													
Barisal	41.5	1,111	19.4	461	29.6	11.0	1.1	5.7	5.1	2.8	55.4	1.5	89
Chittagong	27.3	3,301	21.1	902	23.6	12.9	0.0	2.2	4.8	4.3	57.8	2.8	190
Dhaka	20.9	6,223	17.6	1,303	25.5	13.0	0.0	5.4	3.4	0.5	60.7	0.0	229
Khulna	31.5	1,838	29.5	578	34.2	13.2	3.4	6.4	3.3	9.8	57.3	3.4	170
Rajshahi	30.4	2,103	24.5	638	20.4	10.6	0.3	2.3	4.1	0.7	67.3	1.2	157
Rangpur	41.3	2,056	33.6	849	29.4	3.0	0.2	0.5	5.3	1.7	65.6	0.6	286
Sylhet	20.8	1,232	19.7	256	8.3	21.6	4.7	1.6	1.0	3.8	66.2	2.6	51
Education													
No education	24.3	4,455	24.1	1,084	27.8	4.3	0.4	1.1	0.8	2.0	69.6	0.4	261
Primary incomplete	27.8	3,223	24.3	897	23.5	8.8	1.6	3.8	1.3	3.2	64.7	2.0	218
Primary complete[1]	32.2	1,986	23.9	640	29.0	10.0	0.3	3.2	7.0	4.5	58.0	1.6	153
Secondary incomplete	29.9	5,628	24.7	1,682	26.6	12.6	0.5	4.0	6.1	2.2	58.9	1.6	416
Secondary complete or higher[2]	26.7	2,571	18.1	685	23.3	20.0	2.4	4.7	6.7	6.8	53.1	2.5	124
Wealth quintile													
Lowest	28.8	3,359	28.7	968	27.3	9.3	1.4	1.6	3.3	4.6	65.0	0.2	277
Second	33.0	3,408	26.3	1,125	30.9	7.8	0.5	4.9	5.0	3.4	59.6	0.6	296
Middle	31.7	3,560	27.0	1,127	26.8	7.6	0.8	1.6	3.9	1.6	62.4	2.0	304
Fourth	26.7	3,758	20.1	1,003	21.0	12.9	0.0	2.7	4.3	1.3	62.4	3.7	202
Highest	20.3	3,778	12.0	765	18.0	26.6	2.3	10.0	5.0	7.0	54.0	1.8	92
Total	27.9	17,863	23.5	4,988	26.3	10.5	0.9	3.3	4.2	3.1	61.6	1.5	1,172

[1] Primary complete is defined as completing grade 5.
[2] Secondary complete is defined as completing grade 10.

INFANT AND CHILD MORTALITY 8

Key Findings

- Under-5 mortality for the five-year period before the survey is 46 deaths per 1,000 live births. At this level, Bangladesh has achieved the Millennium Development Goal 4 target—48 deaths per 1,000 live births by 2015—ahead of time.
- The infant mortality rate for the five years preceding the survey is 38 deaths per 1,000 live births. At this mortality level, 1 in 26 children in Bangladesh dies before reaching his or her first birthday.
- Neonatal mortality, that is, deaths in the first month of life, is 28 per 1,000 live births, and these deaths comprise 61 percent of all under-5 deaths. The neonatal mortality rate is nearly three times greater than postneonatal mortality.
- In the last two decades under-5 and infant mortality declined by 65 percent and 56 percent, respectively. Neonatal mortality declined by 46 percent while postneonatal mortality fell by 71 percent.
- The perinatal mortality rate is 44 deaths per 1,000 pregnancies.
- Sylhet division has the highest under-5 mortality rate among all the divisions.

Infant and child mortality rates reflect a country's level of socioeconomic development and quality of life. The rates are also useful in identifying promising directions for health and nutrition programs in any country. Mortality levels are one of the main indicators of the standard of living or development of a population. Thus, identifying segments of the child population that are at greater risk of dying contributes to efforts to improve child survival and lower the exposure of young children to risk.

This chapter presents information on levels, trends, and differences in mortality among children under age 5 in Bangladesh. Specifically, it presents information on neonatal, postneonatal, infant, child, and under-5 mortality. Information on perinatal mortality and patterns of fertility associated with mortality is also presented. Mortality estimates are disaggregated by socioeconomic characteristics, such as urban-rural residence, geographic division, mother's level of education, and household wealth, as well as selected demographic characteristics, which may be used to identify segments of the population requiring special attention.

The data for mortality estimates were collected in the birth history section of the Woman's Questionnaire. The 2014 BDHS asked all ever-married women age 15-49 to provide a complete history of their live births, including the sex, month, and year of each birth, survival status, and age at the time of the survey or age at death. Age at death was recorded in days for children dying in the first month of life, in months for children dying before their second birthday, and in years for children dying at later ages. This information is used to directly estimate the infant and child mortality rates[1].

[1] A detailed description of the method for calculating the probabilities presented here is given in Rutstein (1984).

The mortality rates presented here are defined as follows:

Neonatal mortality:	the probability of dying within the first month of life
Post-neonatal mortality:	the difference between infant and neonatal mortality
Infant mortality:	the probability of dying before the first birthday
Child mortality:	the probability of dying between the first and fifth birthday
Under-5 mortality:	the probability of dying between birth and the fifth birthday

All rates are expressed per 1,000 live births except for child mortality, which is expressed per 1,000 children surviving to their first birthday (12 months of age).

8.1 ASSESSMENT OF DATA QUALITY

The reliability of mortality estimates calculated from retrospective birth histories depends upon the extent to which birth dates and ages at death are accurately reported and recorded. Omission of either births or deaths is a serious problem since they affect the level of the mortality estimates. Errors in reporting of birth dates may cause a distortion of trends over time, while errors in reporting of age at death can distort the age pattern of mortality.

Estimated rates of infant and child mortality are subject to both sampling and nonsampling errors. Sampling errors for various mortality estimates are provided in Appendix B, and this section describes the results of various checks for nonsampling errors—in particular, underreporting of deaths in early childhood (which would result in an underestimate of mortality) and misreporting of the date of birth or age at death (which could distort the age pattern of under-5 mortality). Both problems are likely to be more pronounced for children born further in the past than for children born recently. Underreporting of infant deaths is usually most serious for deaths that occur very early in infancy. If deaths in the early neonatal period are selectively underreported, there will be an abnormally low ratio of deaths during the first seven days of life to all neonatal deaths and an abnormally low ratio of neonatal to infant mortality. Changes in these ratios over time can be examined to test the hypothesis that underreporting of early infant deaths is more common for births that occurred further in the past than for births that occurred more recently. Failure to report deaths will result in mortality figures that are low, and if underreporting is more severe for children born longer ago than for children born recently, any decrease in mortality will tend to be understated.

Results from Appendix Table C.5 suggest that early neonatal deaths have not been seriously underreported in the 2014 BDHS because the ratios of deaths under seven days to all neonatal deaths are acceptable. For 0 to 19 years before the survey, the overall percentage of neonatal deaths occurring during the first week of life is 76 percent. A ratio of about 70 percent is often considered normal.[2] This percentage decreases somewhat with increasing years before the survey, from 81 percent of neonatal deaths for the periods 0 to 4 years preceding the survey to 76 percent for the period 15 to 19 years preceding the survey. The ratios of neonatal to infant deaths (Appendix Table C.6) are also consistently high (between 65 percent and 75 percent) for the various periods preceding the survey.

Another problem inherent in most retrospective surveys is heaping of age at death on certain digits (for example, 6, 12, and 18 months). If the net result of misreporting is the transference of deaths between age segments for which the rates are calculated, misreporting of the age at death will bias estimates of the age pattern of mortality. For instance, an overestimate of child mortality relative to infant mortality may result if children dying during the first year of life are reported as having died at age 1 or older. Thus, heaping at 12 months can bias the mortality estimates because a certain fraction of these deaths, which are reported to have occurred after infancy (i.e., at age 12-23 months), may have actually occurred during infancy (i.e.,

[2] There are no models for mortality patterns during the neonatal period. However, one review of data from developing countries concluded that at a 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).

at age 0-11 months). In such cases, heaping would bias infant mortality ($_1q_0$) downward and child mortality ($_4q_1$) upward.

In the 2014 BDHS, there appears to be a preference for reporting age at death at 3, 5, 7, 10, 15, 18, and 21 days (Appendix Table C.5). An examination of the distribution of deaths under age 2 during the 19 years preceding the survey by month of death (Appendix Table C.6) indicates some heaping of deaths at 3, 5, 8, 12, and 18 months of age. Some heaping on 12 months and recording of deaths at "1 year" is found despite the strong emphasis on this problem during the training of interviewers for the BDHS fieldwork.[3] However, this brief assessment of the internal consistency of childhood mortality data suggests that the extent of digit preference is such that it will not substantially alter the rates.

Appendix Table C.4 can be used to assess the quality of information recorded on date of birth. The results show that there was evidence of shifting in the reporting of births from calendar year 2009 to 2008. This shifting usually results from interviewers transferring births out of the five-year period for which child data are collected on maternal and child health indicators (January 2009 to date of interview for the 2014 BDHS) in an attempt to reduce the length of the interview. The data also show that transference is proportionately higher for dead children than for living children, which may underestimate the true level of childhood mortality rates for the five-year period before the survey.

It is seldom possible to establish mortality levels with confidence for a period of more than 15 years before a survey. Even within the recent 15-year period considered here, apparent trends in mortality rates should be interpreted with caution for several reasons. First, there may be differences in the completeness of death reporting related to the length of time before the survey. Second, the accuracy of reports of age at death and of date of birth may deteriorate with time. Third, sampling variability of mortality rates tends to be high, especially for groups with relatively few births. Fourth, mortality rates are truncated as they go back in time because women currently age 50 or older who were bearing children during earlier periods were not included in the survey. This truncation affects mortality trends in particular. For example, for the period 10 to 14 years before the survey, the rates do not include any births to women age 40-49 because these women were over age 50 at the time of the survey and therefore not eligible to be interviewed. Because these older women were likely to have a somewhat greater risk of dying than younger women, the mortality rates for the period may be slightly underestimated. Estimates for more recent periods are less affected by truncation bias because fewer older women are excluded. However, the extent of this bias depends on the proportion of births omitted.

8.2 Levels and Trends in Infant and Child Mortality

Mortality rates for children under age 5 are presented in Table 8.1 for the three five-year periods preceding the survey. Data from the 2014 BDHS shows that under-5 mortality in the five years preceding the survey (which corresponds approximately to the calendar years 2010-2014) is 46 deaths per 1,000 live births. This means Bangladesh already has achieved Millennium Development Goal 4, an under-5 mortality target of 48 deaths per 1,000 births.

The infant mortality rate is 38 deaths per 1,000 live births, and the child mortality rate is 8 deaths per 1,000 children. During infancy, the risk of dying in the first month of life (28 deaths per 1,000 live births) is nearly three times greater than in the subsequent 11 months (10 deaths per 1,000 live births). It is also notable that deaths in the neonatal period account for 61 percent of all under-5 deaths.

[3] Interviewers were trained to probe for the exact number of months lived by the child if the age at death was reported as "1 year."

Table 8.1 Early childhood mortality rates

Neonatal, postneonatal, infant, child, and under-5 mortality rates for five-year periods preceding the survey, Bangladesh 2014

Years preceding the survey	Neonatal mortality (NN)	Post-neonatal mortality (PNN)[1]	Infant mortality ($_1q_0$)	Child mortality ($_4q_1$)	Under-5 mortality ($_5q_0$)
0-4	28	10	38	8	46
5-9	36	14	49	13	61
10-14	36	21	57	16	72

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

Trends in Childhood Mortality

Another approach to looking at trends in mortality levels compares estimates from surveys conducted at different points in time. Since 1993-1994 the DHS surveys in Bangladesh have obtained childhood mortality rates for the five-year period preceding the survey. In examining the estimates, it is important to remember that the reporting of mortality events is generally better for the five-year period immediately before a survey since mothers are more likely to forget or fail to mention deaths further back in time. Thus the estimate for the five-year period immediately prior to each of the surveys in shown in Table 8.2 is likely to be the most accurate.

Over the last two decades, the data confirm a steady downward trend in childhood mortality (Table 8.2 and Figure 8.1). A Bangladeshi child was around three times more likely to die before reaching his/her fifth birthday in the early-1990s than in 2014. As the overall rates have decreased, mortality has become increasingly concentrated in the earliest months of life. Between the 1989-1993 and 2010-2014 periods, infant mortality declined by 56 percent, from 87 to 38 deaths per 1,000 live births. An almost 20 percent further reduction in infant mortality is needed to achieve the Health, Population, and Nutrition Sector Development Program (HPNSDP) target of 31 deaths per 1,000 live births in 2016 (MOHFW 2011a).

The corresponding decline in postneonatal mortality was even more impressive. There was a 71 percent decline from 35 deaths per 1,000 live births in 1989-1993 to 10 deaths per 1,000 live births in 2010-2014 and a 65 percent decline in under-5 mortality from 133 to 46 deaths per 1,000 live births over the same period.

Comparison of neonatal, infant, and under-5 mortality rates in Bangladesh over the last 20 years reveals that neonatal mortality declined at a slower pace than infant and child mortality, with the result that neonatal deaths have changed from 60 percent of all infant deaths in 1993-1994 to 74 percent in 2010-2014. The decline in childhood mortality continues, but at the current pace, it would be difficult to achieve the HPNSDP target of 21 neonatal deaths per 1,000 live births for the neonatal mortality rate by 2016 (MOHFW 2011b).

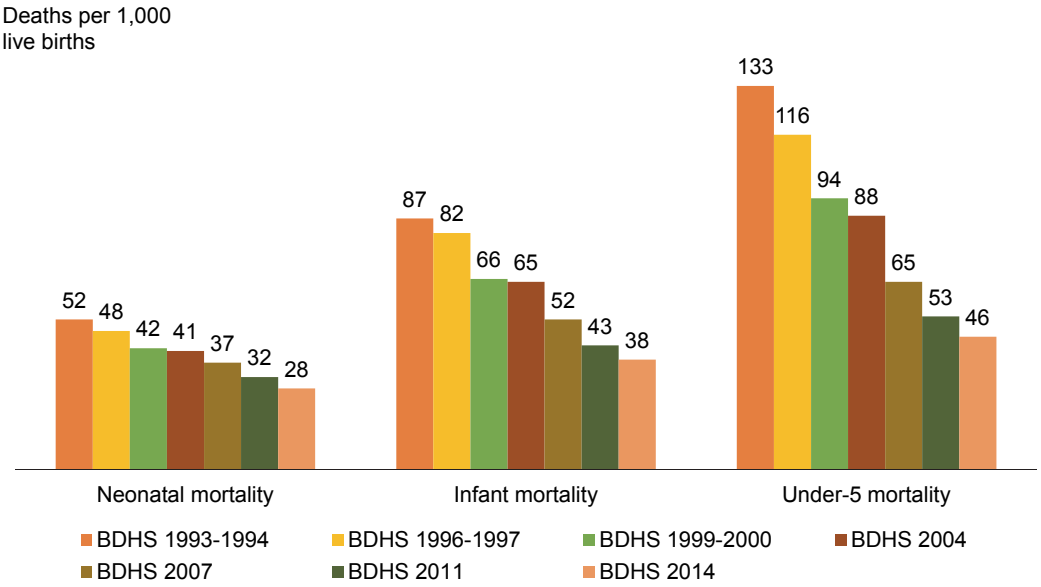
Table 8.2 Trend in early childhood mortality

Neonatal, postneonatal, infant, child, and under-5 mortality rates for five-year periods preceding the BDHS surveys

Data source	Approximate reference period	Neonatal mortality (NN)	Post-neonatal mortality[1] (PNN)	Infant mortality ($_1q_0$)	Child mortality ($_4q_1$)	Under-5 mortality ($_5q_0$)
BDHS 2014	2010-2014	28	10	38	8	46
BDHS 2011	2007-2011	32	10	43	11	53
BDHS 2007	2002-2006	37	15	52	14	65
BDHS 2004	1999-2003	41	24	65	24	88
BDHS 1999-2000	1995-1999	42	24	66	30	94
BDHS 1996-1997	1992-1996	48	34	82	37	116
BDHS 1993-1994	1989-1993	52	35	87	50	133

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

Figure 8.1 **Trends in childhood mortality rates, 1989-2014**



8.3 SOCIOECONOMIC DIFFERENTIALS IN INFANT AND CHILD MORTALITY

Selected socioeconomic and demographic differentials in early childhood mortality for the five years preceding the survey are presented in Table 8.3 and Figure 8.2. These findings must be interpreted with caution given the low precision of mortality estimates due to sampling error.

Table 8.3 Early childhood mortality rates by socioeconomic characteristics

Neonatal, postneonatal, infant, child, and under-5 mortality rates for the 5-year period preceding the survey, by background characteristics, Bangladesh 2014

Background characteristic	Neonatal mortality (NN)	Post-neonatal mortality (PNN)[1]	Infant mortality ($_1q_0$)	Child mortality ($_4q_1$)	Under-5 mortality ($_5q_0$)
Residence					
Urban	21	13	34	3	37
Rural	31	9	40	10	49
Division					
Barisal	21	5	26	9	35
Chittagong	24	12	36	14	50
Dhaka	25	10	35	5	41
Khulna	41	7	47	9	56
Rajshahi	31	7	38	5	43
Rangpur	27	7	34	5	39
Sylhet	39	16	55	12	67
Mother's education					
No education	26	12	38	13	50
Primary incomplete	31	12	43	10	52
Primary complete[2]	31	12	42	3	45
Secondary incomplete	33	10	43	7	49
Secondary complete or higher[3]	13	4	18	9	27
Wealth quintile					
Lowest	35	8	43	10	53
Second	35	17	52	12	63
Middle	34	6	41	6	47
Fourth	23	8	31	7	37
Highest	14	10	24	6	30

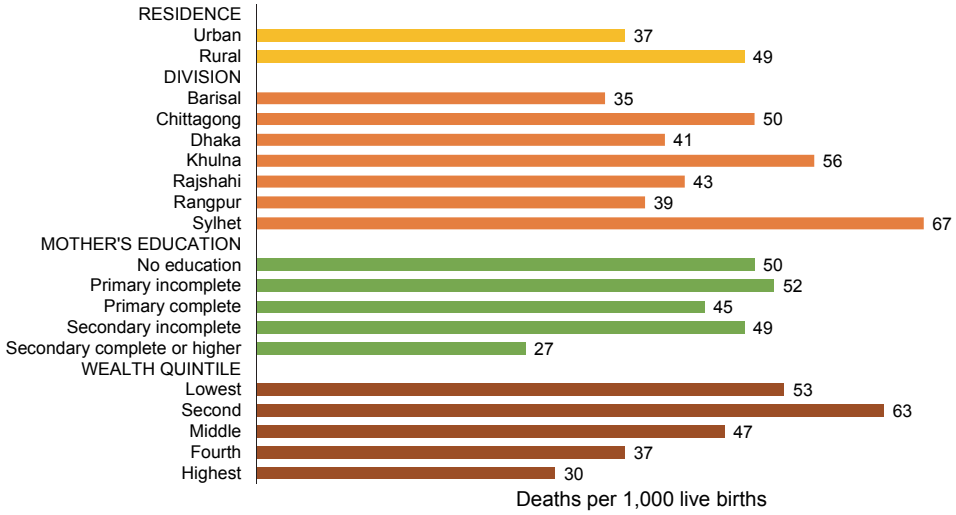
[1] Computed as the difference between the infant and neonatal mortality rates
[2] Primary complete is defined as completing grade 5.
[3] Secondary complete is defined as completing grade 10.

Table 8.3 shows that urban-rural differences in early childhood mortality favor urban children who have a lower probability of dying at any stage of early childhood than rural children. Under-5 mortality in urban areas is 37 per 1,000 live births, 24 percent lower than in rural areas (49 per 1,000). Between 2011 and 2014, mortality rates among children under age 5 have declined faster in urban areas than in rural areas. For example, the infant mortality rate has declined 21 percent in urban areas and 7 percent in rural areas (NIPORT et al. 2013), increasing the urban-rural gap in childhood mortality rates from 5 to 12 deaths per 1,000 live births.

The 2014 BDHS data show wide variations in estimates of childhood mortality by division. In general, Sylhet has the highest rates and Barisal has the lowest rates. For instance, the under-5 mortality rate is 67 deaths per 1,000 births in Sylhet and 35 deaths per 1,000 births in Barisal. The infant mortality rate is 55 deaths per 1,000 live births in Sylhet and 26 deaths per 1,000 live births in Barisal. The child mortality rate, however, is highest in Chittagong (14 deaths per 1,000 births).

Mother's level of education is inversely related to her child's risk of dying. Higher levels of educational attainment are generally associated with lower mortality risks because education exposes mothers to information about better nutrition, use of contraception to limit and space births, health care during pregnancy, and childhood illness, vaccinations, and treatments. The 2014 BDHS shows that children born to women who never attended school are almost twice as likely to die by the fifth birthday compared with children born to mothers with a secondary complete or higher education (50 and 27 deaths per 1,000 live births, respectively).

Figure 8.2 **Under-5 mortality rates by socioeconomic characteristics**



Note: Rates are for the 5-year period preceding the survey.

Similarly, a child's risk of dying is associated with the economic status of the household. All childhood mortality rates, except the postneonatal mortality rate, are lowest for births to mothers in the highest wealth quintile. For instance, for mothers in the highest wealth quintile, the risk of a child dying by age 5 is 30 deaths per 1,000 live births. This compares with 53 deaths per 1,000 live births to mothers in the lowest quintile. For all childhood mortality, the rates are highest among children in the second wealth quintile.

8.4 Demographic Differentials in Infant and Child Mortality

This section examines the pattern of mortality rates by demographic variables, which correlate with levels of infant and child death. Table 8.4 and Figure 8.3 show the relationship between early childhood mortality and selected demographic variables, including the sex of the child, mother's age at birth, birth order, length of previous birth intervals, and mother's perception concerning the size of the child at birth.

Table 8.4 Early childhood mortality rates by demographic characteristics

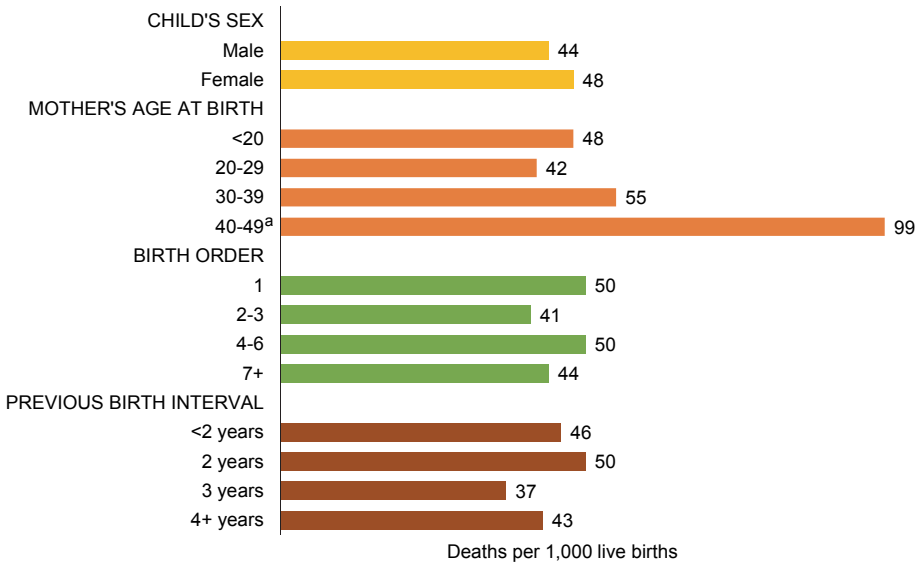
Neonatal, post-neonatal, infant, child, and under-5 mortality rates for the 5-year period preceding the survey, by demographic characteristics, Bangladesh 2014

Demographic characteristic	Neonatal mortality (NN)	Post-neonatal mortality (PNN)[1]	Infant mortality ($_1q_0$)	Child mortality ($_4q_1$)	Under-5 mortality ($_5q_0$)
Child's sex					
Male	31	6	37	8	44
Female	26	14	39	9	48
Mother's age at birth					
<20	31	11	42	6	48
20-29	27	8	34	8	42
30-39	28	13	40	15	55
40-49	*	*	(96)	*	(99)
Birth order					
1	33	10	43	7	50
2-3	25	10	35	7	41
4-6	24	11	34	16	50
7+	*	(3)	40	4	44
Previous birth interval[2]					
<2 years	22	8	30	16	46
2 years	27	10	36	14	50
3 years	24	9	33	4	37
4+ years	26	10	36	6	43
Birth size[3]					
Small/very small	34	11	46	na	na
Average or larger	27	9	37	na	na

Notes: Figures in parentheses have 250-499 years of exposure for that group. An asterisk indicates that the exposure years for the group are fewer than 250.
na = Not available
[1] Computed as the difference between the infant and neonatal mortality rates
[2] Excludes first-order births
[3] Rates for the five-year period before the survey

As expected, neonatal mortality is higher among boys than girls (31 deaths and 26 deaths per 1,000 live births, respectively) as by nature from the time of conception, boy babies are more vulnerable than girl babies. All other mortality rates, except neonatal mortality, are higher for girls than for boys. With the exception of the 2004 and 2007 BDHS, all BDHS surveys reported both higher postneonatal and child mortality for girls than for boys—a pattern that has been observed in other countries of South Asia where strong son preference is thought to result in relative nutritional and medical neglect of girl children (Das Gupta 1987; Basu 1989). The 2014 BDHS indicates that under-5 mortality is 9 percent higher in girls than boys (48 deaths and 44 deaths per 1,000 live births respectively).

Figure 8.3 **Under-5 mortality rates by demographic characteristics**



Note: Rates are for the 5-year period preceding the survey. Previous birth interval excludes first-order births.
[a] based on fewer than 500 unweighted cases

The relationship between mother's age at birth and childhood mortality rates exhibits a U-shaped pattern—children of both the youngest and the oldest mothers experience the highest mortality risks. The 2014 BDHS shows a similar pattern for all mortality estimates except for child mortality rates. Neonatal and infant mortality rates also have a U-shaped relationship with birth order. The effect of older maternal age at birth on mortality is evident in Table 8.4.

There is no clear relationship between birth order and childhood mortality. It seems to show a U-shaped pattern. But the relationship of birth order and child mortality shows an inverted U pattern; 16 deaths per 1,000 live births among children in the birth order category of 4-6 births and 4-7 deaths per 1,000 live births among other order births.

The length of the previous birth interval is associated with mortality levels. Retherford and others (1989) observed increased mortality among births taking place fewer than two years after a previous birth, even after controlling for other demographic and socioeconomic variables. As shown in Table 8.4, all childhood mortality rates are lower at birth intervals of two years or more. The child mortality rate among children born fewer than two years after a previous birth is 16 deaths per 1,000 live births compared with 6 deaths among children born after an interval of four or more years.

Studies have shown that children's birth weight is an important determinant of their survival (UNICEF and WHO, 2004). Data on birth weight are not available in the 2014 BDHS. However, mothers in the 2014 BDHS were asked whether, according to their perception, their child was very large, larger than average, average, smaller than average, or very small at birth. This perception has been found to be a good proxy for a child's weight. For example, infant mortality for children considered by their mothers to be small or very small is 46 deaths per 1,000 live births compared with 37 deaths per 1,000 live births for children regarded as average or larger size at birth. This gap appears to be due to higher infant mortality among small/very small children than among babies of average or larger size.

8.5 PERINATAL MORTALITY

Perinatal deaths are those caused by pregnancy losses occurring after seven completed months of gestation (stillbirths) and those deaths within the first seven days of life (early neonatal deaths). The perinatal mortality rate is calculated by dividing the total number of perinatal deaths by the total number of pregnancies reaching seven months of gestation. The distinction between a stillbirth and an early neonatal

death is a delicate one, often depending on the observed presence or absence of some signs of life after delivery. The causes of stillbirths and early neonatal deaths overlap, and examining just one or the other can understate the true level of mortality around delivery. For these reasons, it is suggested that both events be combined and examined together. In the 2014 BDHS, information on stillbirths is available for the five years preceding the survey and is collected using the calendar at the end of the Woman's Questionnaire.

Table 8.5 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, Bangladesh 2014

Background characteristic	Number of stillbirths[1]	Number of early neonatal deaths[2]	Perinatal mortality rate[3]	Number of pregnancies of 7+ months duration
Mother's age at birth				
<20	50	65	44	2,621
20-29	93	94	41	4,511
30-39	30	24	51	1,066
40-49	4	1	71	71
Previous pregnancy interval in months[4]				
First pregnancy	77	73	51	2,949
<15	25	14	50	770
15-26	11	25	45	802
27-38	9	10	25	788
39+	55	61	39	2,960
Residence				
Urban	39	33	35	2,095
Rural	138	150	47	6,174
Division				
Barisal	8	10	38	465
Chittagong	35	33	38	1,783
Dhaka	59	58	41	2,891
Khulna	12	21	53	623
Rajshahi	18	20	45	848
Rangpur	14	19	41	811
Sylhet	30	23	63	848
Mother's education				
No education	37	27	47	1,365
Primary incomplete	32	35	49	1,361
Primary complete[5]	33	18	53	968
Secondary incomplete	53	89	43	3,304
Secondary complete or higher[6]	22	14	29	1,271
Wealth quintile				
Lowest	45	49	50	1,883
Second	47	41	55	1,597
Middle	38	45	52	1,604
Fourth	24	30	33	1,626
Highest	23	18	26	1,559
Total	177	183	44	8,269

[1] Stillbirths are fetal deaths in pregnancies lasting seven or more months.
[2] Early neonatal deaths are deaths at age 0-6 days among live-born children.
[3] The sum of the number of stillbirths and early neonatal deaths divided by the number of pregnancies of seven or more months' duration, expressed per 1,000.
[4] Categories correspond to birth intervals of <24 months, 24-35 months, 36-47 months, and 48+ months.
[5] Primary complete is defined as completing grade 5.
[6] Secondary complete is defined as completing grade 10.

Table 8.5 presents the number of stillbirths, early neonatal deaths, and the perinatal mortality rate for the five-year period prior to the 2014 BDHS by selected background characteristics. The perinatal mortality rate in Bangladesh is 44 deaths per 1,000 pregnancies. Perinatal mortality is higher among mothers age 30 or older. Perinatal mortality in rural areas is 34 percent higher than in urban areas (47 and 35 per 1,000 pregnancies in rural and urban areas, respectively). Among divisions, Sylhet has the highest perinatal mortality rate. Perinatal mortality is highest in first pregnancy (51 deaths per 1,000 pregnancies). Overall, perinatal mortality has a negative association with the mother's education and wealth status; that is, it is lowest for women who have completed secondary or higher education and for women in the highest wealth quintile.

8.6 HIGH-RISK FERTILITY BEHAVIOR

Numerous studies have found a strong relationship between maternal fertility patterns and children's survival risks. Typically, the probability of dying in early childhood is much greater if children are born to mothers who are too young or too old, if they are born after a short birth interval, or if they are born to mothers with high parity. Very young mothers may experience difficult pregnancies and deliveries because of their physical immaturity. To the contrary, older women may also experience age-related problems during pregnancy and delivery. For this analysis, a mother is classified as 'too young' if she is less than 18 and 'too old' if she is over age 34 at the time of delivery. A 'short birth interval' is defined as a birth occurring within 24 months of a previous birth. A child is of 'high birth order' if the mother had previously given birth to three or more children (i.e., the child is of birth order four or higher). Short succeeding birth intervals are not included, even though they can influence the survivorship of a child, because of the problem of reverse causal effect (i.e., a short succeeding birth interval can be the result of the death of a child rather than being the cause of the death of a child). A birth may have from zero to three high-risk characteristics. All risk categories are potentially avoidable except for first order births to mothers age 18-34.

Table 8.6 High-risk fertility behavior

Percent distribution of children born in the five years preceding the survey by category of elevated risk of mortality and the risk ratio, and percent distribution of currently married women by category of risk if they were to conceive a child at the time of the survey, Bangladesh 2014

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	39.1	1.00	35.3
Unavoidable risk category			
First order births between ages 18 and 34 years	24.4	1.07	7.1
Single high-risk category			
Mother's age <18	15.3	1.14	2.4
Mother's age >34	1.0	1.70	8.7
Birth interval <24 months	4.2	1.19	7.5
Birth order >3	10.7	1.07	11.7
Subtotal	31.3	1.14	30.3
Multiple high-risk category			
Age <18 and birth interval <24 months[2]	0.9	0.40	0.9
Age >34 and birth interval <24 months	0.0	*	0.1
Age >34 and birth order >3	2.6	1.11	23.2
Age >34 and birth interval <24 months and birth order >3	0.2	*	0.5
Birth interval <24 months and birth order >3	1.7	1.00	2.6
Subtotal	5.3	0.96	27.3
In any avoidable high-risk category	36.6	1.12	57.6
Total	100.0	na	100.0
Number of births/women	8,092	na	16,858

Note: Risk ratio is the ratio of the proportion dead among births in a specific high-risk category to the proportion dead among births not in any high-risk category. An asterisk indicates that the exposure years for the group are fewer than 250.
na = Not applicable
[1] Women are assigned to risk categories according to the status they would have at the birth of a child if they were to conceive at the time of the survey: current age less than 17 years and 3 months or older than 34 years and 2 months, latest birth less than 15 months ago, or latest birth being of order 3 or higher.
[2] Includes the category age <18 and birth order >3

Table 8.6 shows the percent distribution of births in the five-year period before the survey and of currently married women at the time of the survey according to these elevated risk factors. The table also examines the relative risk of dying for children by comparing the proportion dead in each specified high-risk category with the proportion dead among children not in any high-risk category. First births, although often at increased risk, are included in the 'not in any high-risk' category in this analysis, because they are

not considered an avoidable risk. The purpose of this table is to identify areas in which changes in reproductive behavior would be likely to reduce infant and child mortality. Mortality risk is represented by the proportion of children born during the five years preceding the survey who had died by the time of the survey.

Among children born in the five years preceding the survey, 39 percent are not in any high-risk category, and 37 percent are in an avoidable high-risk category. Of those avoidable, 31 percent are in a single high-risk category, and 5 percent are in a multiple high-risk category. Births to women between ages 18 and 34 (24 percent) fall in the category of unavoidable risk. In the single risk category, 15 percent of births are associated with the mother's young age (younger than 18 years) and 11 percent are a birth order of three or higher.

Risk ratios, which describe the relationship between a particular risk category and a reference category, are used to compare mortality by risk category. A child who falls into any of the elevated mortality risk categories is 1.12 times more likely to die than a child who does not fall in any high-risk category. If the risk categories are viewed separately, children's risk of dying is 1.7 times higher if the mother's age is more than 34 years at the time of birth. The risk of dying is 1.19 times higher if the child is born within two years of a previous birth. However, only 4 percent of the births fall in this category. Children are 1.11 times more likely to die when their mother's age at birth is over 34 years and the birth order is more than three.

The last column in Table 8.6 presents the distribution of currently married women by category of increased risk if they were to conceive at the time of the survey. Although many women are protected from pregnancy due to use of family planning, postpartum insusceptibility, and prolonged abstinence, for the sake of simplicity, only those who have been sterilized are included in the 'not in any high-risk' category. The criteria for placing women into specific risk categories are adjusted to take into account the gestation time for an additional birth.

The 2014 BDHS results indicate that 58 percent of currently married women in Bangladesh who have given birth in the five years preceding the survey have the potential of giving birth to a child who is in an avoidable high-risk category of mortality. Thirty percent are in a single high-risk category, and 27 percent have the potential for having a birth in a multiple high-risk category. Thirty-five percent of the women are not at any elevated risk of mortality.

MATERNAL AND NEWBORN HEALTH 9

Key Findings

- Sixty-four percent of women who gave birth in the three years preceding the survey received antenatal care from a medically trained provider, up from 55 percent in 2011. This increase is mainly due to an increase in ANC from a qualified doctor.
- Thirty-one percent of women have four or more antenatal care visits during the course of pregnancy, an improvement from about one in every four (26 percent) in 2011.
- Forty-two percent of births in the past three years were assisted by a medically trained provider. The percentage of births attended by a skilled provider has increased 2.6 times since 2004 due to the increase in deliveries at medical facilities. The national health sector program aims to have 50 percent of all deliveries made by a skilled birth attendant.
- Thirty-seven percent of births in the past three years were delivered in a health facility.
- Bangladesh aims to reduce inequity in the use of maternal health services. In 2014,15 percent of deliveries among women in the lowest wealth quintile occurred in a facility compared with 70 percent of deliveries among women in the highest wealth quintile.
- Twenty-three percent of all births were delivered by C-section. Among births delivered in a health facility, 61 percent were delivered by C-section.
- In the three years before the survey, 36 percent of women received postnatal care for their last birth from a medically trained provider within two days of their delivery, up from 27 percent in 2011.
- Newborn care practices have improved considerably since 2007 in Bangladesh. Among non-institutional births in the three years preceding the survey, the use of boiled instruments to cut the umbilical cord has increased from 62 percent in 2007 to 83 percent in 2014. The practice of drying within five minutes of birth has also increased from 6 percent in 2007 to 67 percent in 2014. The practice of waiting at least 72 hours after birth to bathe the newborn is more common in 2014 than it was in 2007, having increased from 17 percent to 34 percent.

A health care system striving to reduce morbidity and mortality related to pregnancy must focus on maternal and newborn health. The health care that a woman receives during pregnancy, at the time of delivery, and soon after delivery is important for the survival and well-being of both the mother and the child. The government of Bangladesh is committed to achieving the target for Millennium Development Goal (MDG) 4 and MDG 5. The BMMS 2010 (NIPORT et al., 2011) indicated a substantial reduction in the maternal mortality ratio (MMR), an annual rate of decrease of 5.6 percent. The MMR fell from 322 deaths per 100,000 live births (or between 253 and 391 at 95 percent confidence interval [CI]) in 1998-2001 to 194 deaths per 100,000 live births (149 to 238 at 95 percent CI) in 2007-2010, indicating a degree of success in the health sector. Moreover, Bangladesh has set targets to achieve the goal of the Health, Population and Nutrition Sector Development Program (HPNSDP) to reduce MMR to less than 143 deaths per 100,000 live births and to reduce the under-five mortality rate from 146 deaths per 1,000 live births in 1990 to 48 deaths per 1,000 live births by 2016. The Ministry of Health and Family Welfare (MOHFW) has

developed various policies and strategies to improve maternal and newborn health. With a strong emphasis on improving access and equity in the use of essential maternal and neonatal services, the MOHFW is implementing the program through two operational plans of HPNSDP under the Directorate General of Health Services and the Directorate General of Family Planning (MOHFW 2011).

This chapter provides information from the 2014 BDHS on several aspects of maternal and newborn health, including antenatal care, delivery, postnatal care, and newborn care. In the 2014 BDHS, women who had given birth in the three years preceding the survey were asked a number of questions about maternal and child health care. For the last live birth in that period, mothers were asked whether they had received antenatal care during pregnancy and whether they had sought postnatal care for themselves and their children. Information was also collected on the place of delivery and on attendance at birth for all births in the three years preceding the survey. In addition, questions on newborn care, including cord cutting, drying, and bathing of the newborn following birth, were asked about the most recent live birth in the three years preceding the survey.

Tables in this chapter present findings from the most recent pregnancies and births in the three years preceding the survey. To allow for comparison with data from previous surveys, data from the 2004, 2007, and 2011 BDHS reports have been re-tabulated to include births in the three years preceding the surveys. This information will assist planners and other collaborators in the health sector to formulate appropriate strategies and interventions to provide good-quality health services and a series of well-timed interventions that should further improve maternal and newborn health.

9.1 ANTENATAL CARE

Antenatal care (ANC) from a medically trained provider is important to monitor the status of a pregnancy, identify the complications associated with the pregnancy, and prevent adverse pregnancy outcomes. To be most effective, there should be regular ANC throughout pregnancy. Information on ANC was assessed for women who gave birth in the three years preceding the survey. Among women with two or more live births during the three-year period, data refer to the most recent live birth only.

9.1.1 Antenatal Care Coverage

Table 9.1 shows the percent distribution of mothers with a live birth, by source of antenatal care received during pregnancy. Women were asked to report on all persons they saw for ANC for their last birth. However, if a woman saw more than one provider, only the provider with the highest qualifications was considered in the tabulation of results.

Seventy-eight percent of women with a birth in the three years preceding the survey received antenatal care at least once from a provider. About two-thirds of women (64 percent) received ANC from a medically trained provider, that is, a qualified doctor, nurse, midwife, paramedic, family welfare visitor (FWV), community skilled birth attendant (CSBA), or sub-assistant community medical officer (SACMO). Younger women, women with a lower birth order, and women who live in urban areas are more likely to receive ANC from a trained provider compared with other women. Women in Khulna are most likely to receive ANC from a medically trained provider (74 percent), while women in Sylhet are least likely (53 percent). The likelihood of receiving ANC from a medically trained provider increases with women's education level and wealth status. For example, coverage of ANC from a trained provider ranges from 36 percent for women in the lowest wealth quintile to 90 percent for women in the highest quintile. In the last three years, the huge gap in use of ANC from a trained provider between the richest and the poorest women has declined only slightly, from 57 percentage points in 2011 to 54 percentage points in 2014 (NIPORT et al. 2013).

Table 9.1 Antenatal care

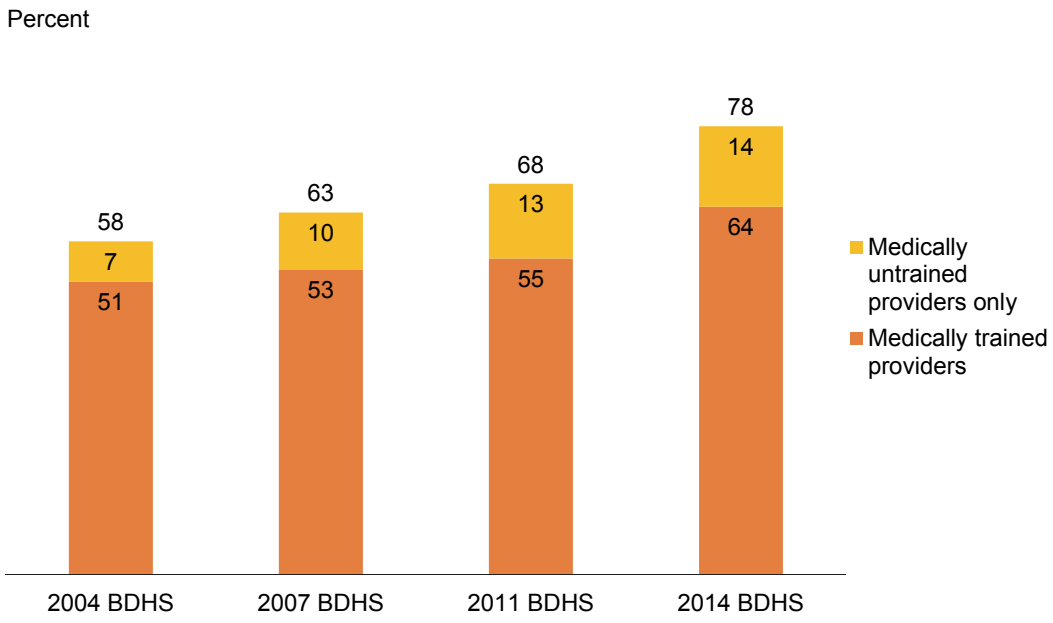
Percent distribution of women age 15-49 who had a live birth in the three years preceding the survey, by antenatal care (ANC) provider during pregnancy for the most recent birth and the percentage receiving ANC from a skilled provider for the most recent birth, according to background characteristics, Bangladesh 2014

Background characteristic	Medically trained provider																
	Qualified doctor	Nurse/ midwife/ paramedic	FWV	CSBA	MA/ SACMO	CHCP	HA/ FWA	Trained birth attendant	Untrained birth attendant	Unqualified provider	NGO worker	Other	No one	Total	Any ANC	ANC from medically trained provider[1]	Number of women
Mother's age at birth																	
<20	57.5	4.1	2.5	0.1	0.1	1.1	3.9	0.2	0.0	0.7	9.9	0.2	19.6	100.0	80.2	64.4	1,472
20-34	58.3	3.0	2.4	0.2	0.1	1.4	5.0	0.1	0.0	0.8	6.7	0.1	21.8	100.0	78.0	64.0	2,971
35-49	52.5	2.0	1.9	0.6	0.0	1.0	8.2	0.0	0.2	0.4	3.9	0.0	29.3	100.0	70.7	57.0	184
Birth order																	
1	64.9	4.0	2.0	0.0	0.1	1.0	3.9	0.1	0.0	0.7	7.8	0.1	15.3	100.0	84.5	71.0	1,857
2-3	56.7	3.1	2.9	0.2	0.1	1.8	5.3	0.1	0.0	0.7	7.5	0.2	21.3	100.0	78.5	63.0	2,133
4-5	45.6	2.7	2.3	0.2	0.3	0.6	5.0	0.0	0.1	1.3	7.9	0.0	34.2	100.0	65.8	51.0	484
6+	27.4	1.3	0.4	0.7	0.0	1.1	6.3	0.0	0.0	0.8	5.8	0.0	56.2	100.0	43.8	29.8	154
Residence																	
Urban	74.0	3.3	1.6	0.0	0.0	0.6	3.5	0.1	0.0	0.5	5.9	0.2	10.5	100.0	89.3	78.8	1,209
Rural	52.1	3.4	2.7	0.2	0.2	1.6	5.2	0.1	0.0	0.9	8.2	0.1	25.3	100.0	74.6	58.6	3,418
Division																	
Barisal	50.6	2.7	3.9	0.4	0.5	2.2	8.1	0.0	0.0	1.0	3.6	0.3	26.8	100.0	72.8	58.0	268
Chittagong	60.1	4.0	2.1	0.0	0.0	1.3	2.4	0.1	0.0	1.1	3.3	0.2	25.4	100.0	74.4	66.3	1,011
Dhaka	61.0	2.1	1.1	0.1	0.0	0.8	5.9	0.0	0.0	0.7	12.2	0.0	16.1	100.0	83.9	64.3	1,634
Khulna	67.1	3.2	3.4	0.0	0.3	2.3	5.5	0.2	0.0	0.4	5.8	0.6	11.3	100.0	88.1	73.9	371
Rajshahi	55.0	5.0	3.5	0.4	0.0	1.1	6.2	0.2	0.0	0.6	3.5	0.3	24.2	100.0	75.5	63.9	464
Rangpur	51.9	5.5	4.6	0.0	0.4	2.5	3.5	0.2	0.0	0.0	12.7	0.0	18.7	100.0	81.3	62.4	450
Sylhet	46.6	3.0	2.5	0.6	0.4	0.7	2.9	0.3	0.1	1.6	3.8	0.1	37.5	100.0	62.4	53.1	428
Educational attainment																	
No education	33.8	3.0	1.9	0.3	0.1	1.1	8.7	0.1	0.0	0.7	7.3	0.1	42.9	100.0	57.0	39.0	655
Primary incomplete	41.5	3.9	2.9	0.4	0.2	1.2	6.5	0.1	0.0	1.0	9.2	0.3	32.9	100.0	66.9	48.8	749
Primary complete[2]	48.9	3.7	2.8	0.0	0.1	1.1	4.4	0.1	0.0	0.9	10.8	0.0	27.2	100.0	72.8	55.4	544
Secondary incomplete	64.6	3.0	2.5	0.1	0.1	1.8	3.7	0.1	0.0	0.9	8.6	0.2	14.5	100.0	85.3	70.2	1,892
Secondary complete or higher[3]	83.6	3.7	2.0	0.1	0.0	0.5	2.6	0.1	0.0	0.2	1.9	0.1	5.3	100.0	94.6	89.4	787
Wealth quintile																	
Lowest	28.7	3.0	3.7	0.0	0.2	1.1	8.6	0.1	0.0	1.0	11.0	0.1	42.5	100.0	57.4	35.6	1,003
Second	48.5	3.8	3.3	0.1	0.2	1.4	4.9	0.1	0.0	0.6	7.0	0.2	29.8	100.0	69.9	55.9	876
Middle	58.1	3.4	2.6	0.4	0.2	2.7	4.0	0.2	0.0	0.7	9.2	0.1	18.6	100.0	81.4	64.6	882
Fourth	69.3	3.9	1.6	0.3	0.1	1.2	3.5	0.1	0.0	1.5	8.2	0.0	10.3	100.0	89.7	75.2	955
Highest	86.7	2.6	0.7	0.0	0.0	0.3	2.4	0.0	0.0	0.1	2.3	0.3	4.5	100.0	95.2	90.0	912
Total	57.9	3.3	2.4	0.2	0.1	1.3	4.7	0.1	0.0	0.8	7.6	0.1	21.4	100.0	78.4	63.9	4,627

Note: If more than one source of antenatal care was mentioned, only the provider with the highest qualifications is considered in this tabulation.
FWV = family welfare visitor, CSBA = community skilled birth assistant, SACMO = sub-assistant community medical officer, HA = health assistant, FWA = family welfare assistant, CHCP = community health care provider
[1] Medically trained providers include: qualified doctor, nurse/midwife/paramedic, FWV, CSBA, and SACMO
[2] Primary complete is defined as completing grade 5.
[3] Secondary complete is defined as completing grade 10.

Figure 9.1 shows that coverage of antenatal care for births in the three years preceding the surveys has increased substantially from 58 percent in 2004 to 78 percent in 2014. During the same period, ANC from a medically trained provider increased from 51 percent to 64 percent. Between 2011 and 2014, ANC from any provider increased by 10 percentage points, from 68 percent to 78 percent, and ANC from a medically trained provider increased by 9 percentage points, from 55 to 64 percent. The sharp increase in ANC in the three years between BDHS 2011 and BDHS 2014 is mostly due to an increase in ANC from medically trained providers, mainly qualified doctors, whose role in ANC increased from 43 percent in 2011 to 58 percent in 2014. This is a positive trend because there has been a concern that between 2004 and 2011 ANC from a medically trained provider had changed very little (4 percentage points, from 51 percent to 55 percent).

Figure 9.1 **Trend in use of antenatal care, 2004-2014**



9.1.2 Place of Antenatal Care

The place where a woman receives antenatal care influences the frequency and quality of care received. Information on the source of ANC also assists policymakers with decisions on how to allocate resources. Table 9.2 shows the percentage of women with a live birth in the three years preceding the survey who received ANC for the most recent birth, according to the place where they received that care. Because women may visit more than one type of facility for ANC during the same pregnancy, the categories are not mutually exclusive and do not sum to 100 percent. The private sector is the leading source for ANC (52 percent), followed by the public sector (36 percent), and the nongovernmental organizations (NGO) sector (11 percent). Sixteen percent of women received ANC at home.

The place where a woman receives antenatal care does not vary much by age. In contrast, women with fewer than four live births (i.e., birth order of 1 to 3), women in urban areas, women who have completed secondary or higher education, and women in the highest wealth quintile are more likely to receive ANC from the private sector. For example, 69 percent of women who completed secondary or higher education received ANC from the private sector compared with 38 percent of women with no education. Women in the lower two wealth quintiles are more likely to seek ANC from the public sector than from the private sector.

Table 9.2 Place of antenatal care

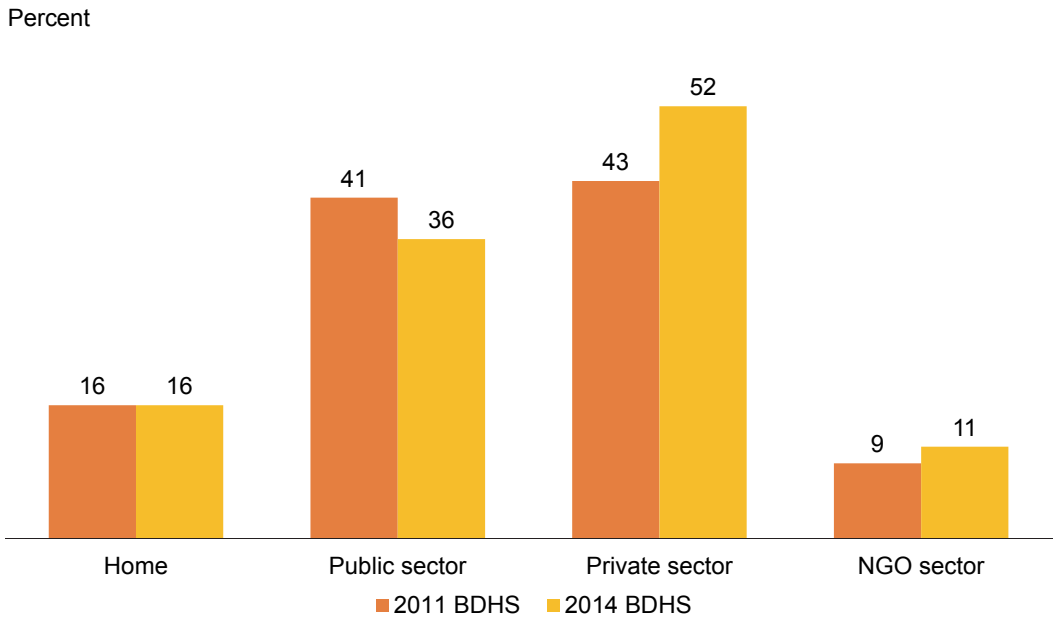
Among women age 15-49 who had a live birth in the three years preceding the survey, the percentage who received antenatal care (ANC) during the pregnancy of the most recent birth by place of ANC care, according to background characteristics, Bangladesh 2014

Background characteristic	Place of antenatal care					Number of women
	Home	Public sector	Private sector	NGO sector	Other	
Mother's age at birth						
<20	18.1	37.6	48.2	11.6	0.5	1,183
20-34	15.3	35.5	53.6	11.5	0.5	2,322
35-49	14.4	37.0	53.1	6.6	0.0	130
Birth order						
1	14.7	35.1	54.4	11.8	0.5	1,572
2-3	16.2	37.4	50.8	11.7	0.5	1,678
4-5	20.8	37.0	46.4	8.7	0.0	318
6+	31.3	32.1	42.3	5.1	0.0	67
Residence						
Urban	10.4	31.6	56.5	14.9	0.3	1,083
Rural	18.7	38.2	49.8	9.8	0.5	2,553
Division						
Barisal	14.1	49.3	38.9	7.5	0.0	196
Chittagong	7.6	35.2	58.8	10.0	0.7	754
Dhaka	19.3	26.3	57.3	13.8	0.2	1,371
Khulna	18.7	47.0	44.0	11.8	1.6	329
Rajshahi	17.6	43.7	50.1	5.0	0.4	352
Rangpur	22.8	53.6	33.1	11.3	0.4	366
Sylhet	12.1	33.6	50.7	13.6	0.2	267
Educational attainment						
No education	24.7	38.0	38.0	13.9	0.3	374
Primary incomplete	23.9	40.9	37.0	10.7	1.1	503
Primary complete[1]	18.2	37.4	45.8	17.2	0.0	396
Secondary incomplete	14.9	37.0	53.3	11.0	0.4	1,618
Secondary complete or higher[2]	8.6	29.9	68.7	8.2	0.4	745
Wealth quintile						
Lowest	30.0	41.3	33.0	7.9	0.2	577
Second	21.9	44.0	43.1	9.6	0.7	614
Middle	15.1	41.3	45.8	13.0	0.1	718
Fourth	13.1	35.6	56.0	13.8	0.8	856
Highest	7.1	23.9	71.2	11.1	0.4	870
Total	16.2	36.2	51.8	11.3	0.4	3,635

[1] Primary complete is defined as completing grade 5.
[2] Secondary complete is defined as completing grade 10.

Comparable data from the 2011 and 2014 BDHS surveys show a decrease in the proportion of women who received ANC from the public sector (from 41 percent in 2011 to 36 percent in 2014) and an increase of 9 and 2 percentage points in the private and NGO sector, respectively (Figure 9.2).

Figure 9.2 **Trend in place of antenatal care, 2011-2014**



9.1.3 Number of Antenatal Visits

Under normal circumstances, the World Health Organization (WHO) recommends that a pregnant woman should have at least four antenatal care visits (WHO 2007). Table 9.3 presents information on the number of antenatal visits for the most recent live birth in the three years preceding the survey. Thirty-one percent of women with a live birth in the three years before the survey made four or more ANC visits during their pregnancy. Urban women were more likely than rural women to have made four or more antenatal visits (46 percent compared with 26 percent). For urban women this percentage has hardly changed between 2011 and 2014 (from 45 to 46 percent), while in rural areas the percentage of women who made four or more antenatal care visits increased from 20 percent to 26 percent between surveys.

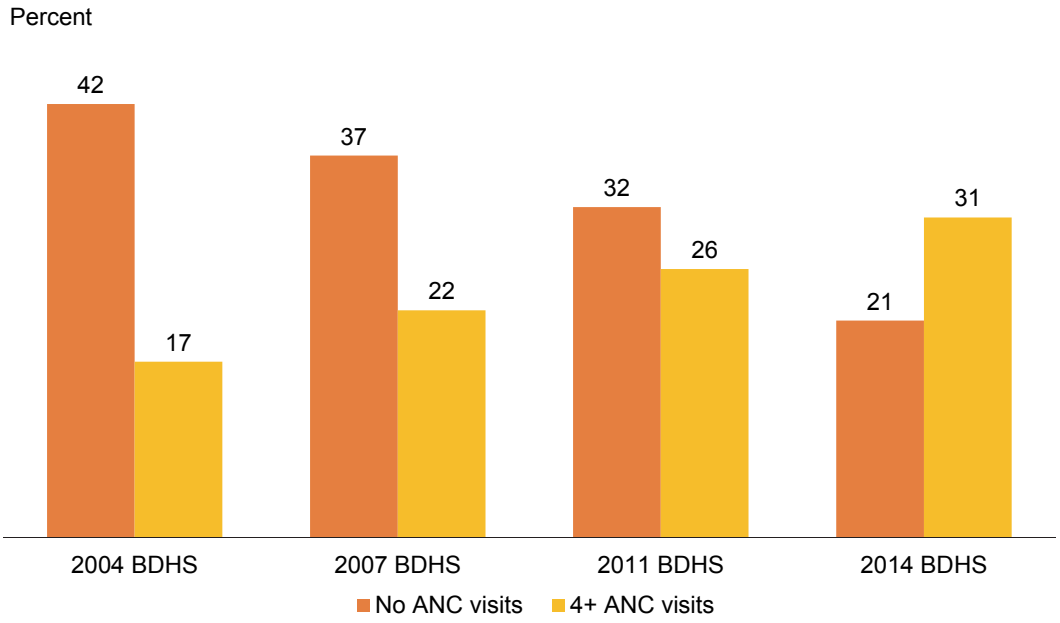
Table 9.3 Number of antenatal care visits

Percent distribution of women age 15-49 who had a live birth in the three years preceding the survey by number of antenatal care (ANC) visits for the most recent live birth, according to residence, Bangladesh 2014

	Residence		
Number of ANC visits	Urban	Rural	Total
None	10.5	25.3	21.4
1	12.2	19.9	17.9
2	16.8	15.9	16.2
3	14.7	12.7	13.2
4 or more	45.5	26.1	31.2
Don't know/missing	0.2	0.1	0.1
Median number of visits (for those with ANC)	4.1	3.1	3.4
Total	100.0	100.0	100.0
Number of women	1,209	3,418	4,627

The HPNSDP results framework sets a target of 50 percent of pregnant women making at least four antenatal care visits to be achieved by 2016 (MOHFW 2011). Data from the 2014 BDHS show that Bangladesh lags far behind in reaching this target. A comparison of the 2014 BDHS with the 2004, 2007, and 2011 BDHS surveys shows that the percentage of women who had no ANC visit has declined from 42 percent in 2004 to 21 percent in 2014. At the same time, the percentage of pregnant women who made four or more antenatal visits has increased, from 17 percent in 2004 to the current level of 31 percent (Figure 9.3).

Figure 9.3 **Trend in number of antenatal care visits, 2004-2014**



9.1.4 Components of Antenatal Care

The content of antenatal care is an essential component of ANC service quality. Focused ANC hinges on the principle that every pregnancy is at risk of complications. Therefore, apart from receiving basic care, every pregnant woman should be monitored for complications. Ensuring that pregnant women receive information and undergo screening for complications should be a routine part of all ANC visits. To assess ANC services, mothers in the 2014 BDHS were asked a number of questions about the care they received. These included measurement of weight and blood pressure, assessment of urine and blood samples and an ultrasonogram. In addition, women were asked if they had been informed of signs of pregnancy complications.

The proportion of pregnant women who sought antenatal care and had their weight and blood pressure measured was found to be high (84 and 88 percent, respectively) (Table 9.4). Overall, 65 and 55 percent of women reported that they had urine and blood taken for testing, respectively. More than half (57 percent) of mothers who received ANC reported that they were informed about pregnancy complications during the ANC visit. Remarkably, an ultrasonogram was done on 71 percent of women.

The quality of antenatal care was closely related to mother's education, wealth, residence, and birth order. Women with a birth order of one, women who had completed secondary or higher education, and women in the highest wealth quintile were more likely to receive most of the services. For example, 93 percent of women with secondary or higher education had their weight measured compared with 78 percent of women with no education. Women in the lowest wealth quintile were less often provided information about pregnancy complications (48 percent) compared with women in the highest wealth quintile (64 percent). Urban women (62 percent) were more likely to be informed of signs of pregnancy complications compared with rural women (55 percent).

The overall quality of antenatal care has improved since 2007. The percentage who had their urine samples taken, blood samples taken, and ultrasonogram performed increased by 10, 17, and 34 percentage points respectively. Also, the percentage of pregnant women who were informed of complications during pregnancy increased by 18 percentage points. In contrast, the percentage of pregnant women whose weight and blood pressure were measured has remained high and almost the same. Measuring weight and blood pressure are the most common components of ANC.

Table 9.4 Components of antenatal care

Percentage of women age 15-49 with a live birth in the three years preceding the survey, for which mother received specific antenatal care services for the most recent birth, according to background characteristics, Bangladesh 2014

	Among women who received antenatal care for their most recent birth in the past three years, the percentage with selected services						
Background characteristic	Weighed	Blood pressure measured	Urine sample taken	Blood sample taken	Ultra-sonogram	Informed of signs of pregnancy complications	Number of women with ANC for their most recent birth
Mother's age at birth							
<20	83.2	88.3	62.8	53.0	69.5	57.0	1,183
20-34	84.2	88.3	66.5	56.0	71.6	57.1	2,322
35-49	84.2	85.3	48.0	43.1	68.8	53.6	130
Birth order							
1	84.9	90.0	67.3	60.2	74.7	59.6	1,572
2-3	84.8	87.7	65.1	52.4	69.4	53.9	1,678
4-5	76.0	83.1	52.1	40.9	62.7	58.3	318
6+	72.6	83.6	47.9	40.7	55.9	62.6	67
Residence							
Urban	88.9	92.8	74.2	65.6	78.6	62.3	1,083
Rural	81.7	86.3	60.6	49.9	67.5	54.6	2,553
Division							
Barisal	86.5	92.5	63.6	55.1	64.1	62.4	196
Chittagong	84.9	88.2	69.3	61.8	74.0	59.0	754
Dhaka	81.8	88.6	65.5	55.8	75.7	60.2	1,371
Khulna	90.3	88.3	61.5	55.4	73.6	48.8	329
Rajshahi	81.5	82.6	55.3	45.1	73.3	49.0	352
Rangpur	87.7	91.7	57.6	41.0	51.4	51.3	366
Sylhet	79.7	85.7	73.3	57.5	61.6	58.6	267
Education							
No education	78.3	81.1	50.1	33.4	49.3	55.9	374
Primary incomplete	78.6	85.2	52.2	38.1	53.2	52.5	503
Primary complete[1]	81.7	86.9	63.6	45.2	63.9	62.2	396
Secondary incomplete	83.1	88.2	64.8	56.4	74.6	55.0	1,618
Secondary complete or higher[2]	93.0	94.5	80.5	77.3	88.9	61.7	745
Wealth quintile							
Lowest	74.5	79.0	45.5	27.5	41.6	48.4	577
Second	81.2	85.1	54.1	42.5	62.1	54.2	614
Middle	81.1	87.8	60.4	46.4	71.2	56.1	718
Fourth	85.1	90.0	70.9	62.5	75.5	58.3	856
Highest	93.0	95.1	82.1	79.9	91.5	63.9	870
Total	83.9	88.2	64.6	54.6	70.8	56.9	3,635

[1] Primary complete is defined as completing grade 5.
[2] Secondary complete is defined as completing grade 10.

9.2 DELIVERY CARE

Proper medical attention and hygienic conditions during delivery can reduce the risk of complications and infections that can cause death or serious illness for the mother or the newborn. Hence, it is important to increase the proportion of births delivered in a safe, clean environment and under the supervision of health professionals. The Bangladesh Maternal Health Strategy, which encourages women to deliver under the care of medically trained birth attendants, promotes safe motherhood through various activities, especially delivery by a skilled birth attendant (SBA). Women interviewed in the 2014 BDHS reported on the place and type of assistance during delivery of all children born in the three years before the survey. The tables presented in this report on delivery-related services are based on all live births in the three years preceding the survey.

9.2.1 Place of Delivery

Table 9.5 presents the percent distribution of live births in the three years preceding the survey by place of delivery, according to background characteristics. Thirty-seven percent of births in the three years before the survey were delivered at a health facility. Overall, 22 percent of the births were delivered in a private facility, 13 percent were delivered in a public facility, and 2 percent in an NGO facility. Sixty-two percent of births were delivered at home. The likelihood of delivering in a health facility is lower for women

age 35 or older compared with younger women. Facility delivery decreases sharply as birth order increases. Women's number of antenatal care visits, education level, and wealth status have a positive relationship with the likelihood of delivering in a health facility. Across divisions, Khulna has the highest proportion of births delivered at a health facility (55 percent), while Sylhet has the lowest (23 percent).

Table 9.5 Place of delivery

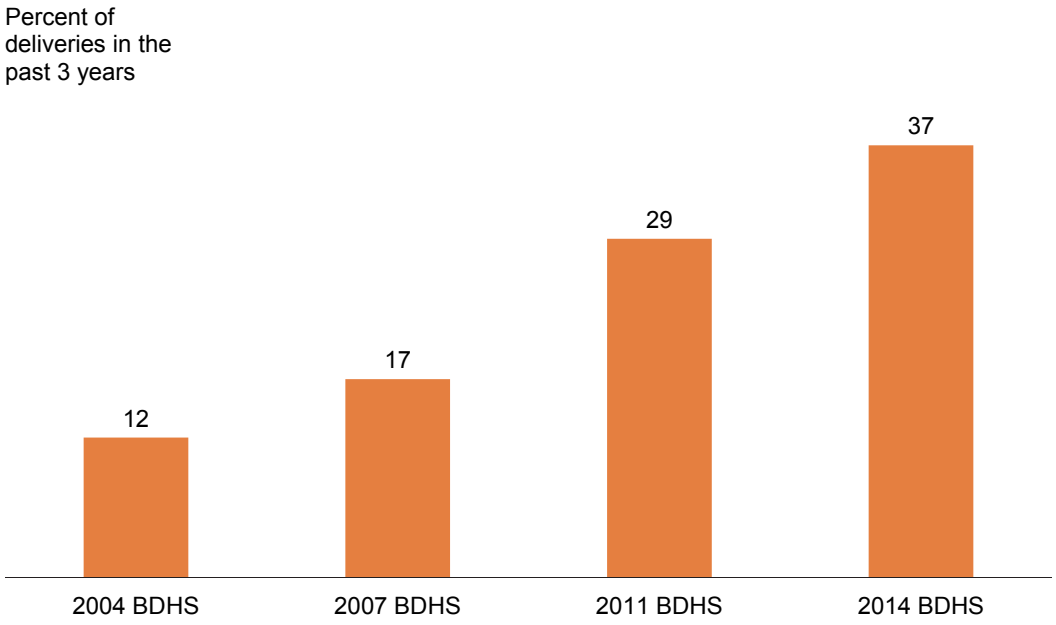
Percent distribution of live births in the three years preceding the survey by place of delivery, percentage delivered in a health facility, and percentage delivered by C-section, according to background characteristics, Bangladesh 2014

Background characteristic	Health facility				Home	Other/ missing	Total	Percentage delivered in a health facility	Percentage delivered by C-section	Number of births
	Public sector	Private sector	NGO	Birthing hut						
Mother's age at birth										
<20	12.2	21.8	2.2	0.0	63.7	0.2	100.0	36.1	21.3	1,562
20-34	13.3	22.9	2.2	0.2	60.9	0.4	100.0	38.5	24.0	3,144
35-49	9.5	17.9	3.4	0.0	69.3	0.0	100.0	30.7	17.4	198
Birth order										
1	14.5	29.7	2.3	0.0	53.2	0.3	100.0	46.4	29.7	1,990
2-3	13.1	20.4	2.1	0.2	63.9	0.4	100.0	35.6	21.3	2,247
4-5	8.1	8.5	2.6	0.3	80.4	0.0	100.0	19.3	9.1	502
6+	3.3	3.2	2.5	0.0	91.0	0.0	100.0	9.0	3.7	166
Antenatal care visits[1]										
None	5.4	5.2	0.3	0.0	89.1	0.1	100.0	10.8	4.5	992
1-3	13.8	21.7	2.1	0.2	62.0	0.1	100.0	37.7	22.1	2,187
4+	17.1	37.2	4.1	0.2	41.1	0.3	100.0	58.4	41.1	1,442
Residence										
Urban	15.8	35.6	5.4	0.6	42.3	0.3	100.0	56.8	38.1	1,267
Rural	11.8	17.7	1.1	0.0	69.1	0.3	100.0	30.6	17.6	3,637
Division										
Barisal	10.9	17.2	1.8	0.0	69.0	1.1	100.0	29.9	17.7	279
Chittagong	11.9	20.0	3.3	0.3	64.4	0.1	100.0	35.2	18.3	1,074
Dhaka	11.4	27.0	2.1	0.2	59.1	0.1	100.0	40.5	29.1	1,740
Khulna	19.2	31.9	3.4	0.1	45.0	0.4	100.0	54.6	33.0	387
Rajshahi	15.3	22.9	0.9	0.0	60.7	0.2	100.0	39.2	22.3	488
Rangpur	16.5	16.1	1.7	0.0	65.3	0.3	100.0	34.3	17.5	461
Sylhet	9.9	11.3	1.4	0.0	76.6	0.8	100.0	22.6	10.9	474
Education										
No education	8.0	6.3	1.3	0.1	83.8	0.4	100.0	15.7	7.0	704
Primary incomplete	11.1	9.4	2.5	0.0	76.5	0.4	100.0	23.0	10.1	801
Primary complete[2]	12.5	15.5	1.7	0.1	69.6	0.6	100.0	29.6	13.8	579
Secondary incomplete	14.2	23.7	2.4	0.3	59.3	0.2	100.0	40.3	24.6	1,999
Secondary complete or higher[3]	15.5	50.3	2.7	0.0	31.3	0.2	100.0	68.6	51.2	821
Wealth quintile										
Lowest	8.4	6.1	0.4	0.0	84.8	0.3	100.0	14.9	6.7	1,084
Second	11.9	11.3	0.9	0.0	75.6	0.3	100.0	24.1	10.4	932
Middle	14.6	17.4	2.0	0.0	65.5	0.5	100.0	34.0	18.4	942
Fourth	15.1	27.6	3.5	0.0	53.6	0.1	100.0	46.3	29.2	995
Highest	14.6	51.1	4.5	0.8	28.8	0.3	100.0	70.2	51.4	950
Total	12.8	22.4	2.2	0.2	62.2	0.3	100.0	37.4	22.9	4,904

Note: Total include six births with missing information on number of antenatal care visits.
[1] Includes only the most recent birth in the three years preceding the survey
[2] Primary complete is defined as completing grade 5.
[3] Secondary complete is defined as completing grade 10.

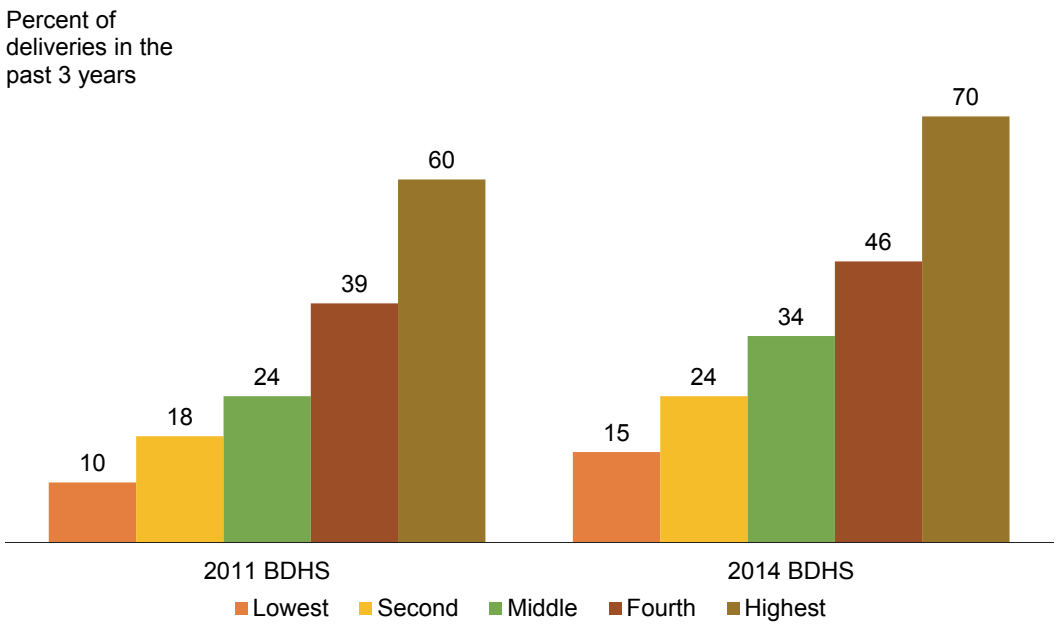
Although still low, the proportion of births delivered at health facilities has continued to increase from 12 percent in 2004 to 17 percent in 2007, 29 percent in 2011, and to the current level of 37 percent in 2014 (Figure 9.4) The increase since 2007 is mostly due to a sharp increase in delivery at private facilities (from 8 percent in 2007 to 15 percent in 2011 and to 22 percent in 2014), and to a less significant increase in deliveries in public facilities (from 8 percent in 2007 to 12 percent in 2011 and to 13 percent in 2014).

Figure 9.4 **Trend in facility births, 2004-2014**



Bangladesh has been making progress in reducing the gap between the poorest and the richest women in the use of facilities for delivery. In the 2014 BDHS, 15 percent of births to women in the lowest wealth quintile were delivered in a health facility compared with 70 percent of births in the highest wealth quintile (Figure 9.5). This translates to a ratio of about 1 to 5. In the effort to achieve equity in delivery in a health facility, the HPNSDP sets a ratio of less than 1 to 4 between women in the lowest and the highest quintiles (MOHFW 2011). The corresponding ratios in the 2007 BDHS and 2011 BDHS among births in the three years before the survey are 1 to 8 and 1 to 6, respectively.

Figure 9.5 **Health facility delivery by wealth quintile, 2011 and 2014**



9.2.2 Caesarean Section

Table 9.5 also shows the percentage of live births delivered by Caesarean section during the three years preceding the survey. The percentage of C-section births is sometimes considered to be a proxy indicator of women's access to skilled care for complicated deliveries. In 2014, 23 percent of live births in

the three years preceding the survey were delivered by C-section, which implies that 6 in every 10 births in a health facility are delivered by C-section. Urban women are twice as likely as rural women to deliver by C-section (38 percent in urban areas and 18 percent in rural areas). Among women with secondary or higher education and women in the highest wealth quintile, half of births were delivered by C-section.

The percentage of births delivered by C-section has been increasing over time, from 4 percent in 2004, to 9 percent in 2007, to 17 percent in 2011, and to the current level of 23 percent (Figure 9.6).

Figure 9.6 **Trend in births delivered by C-section, 2004-2014**

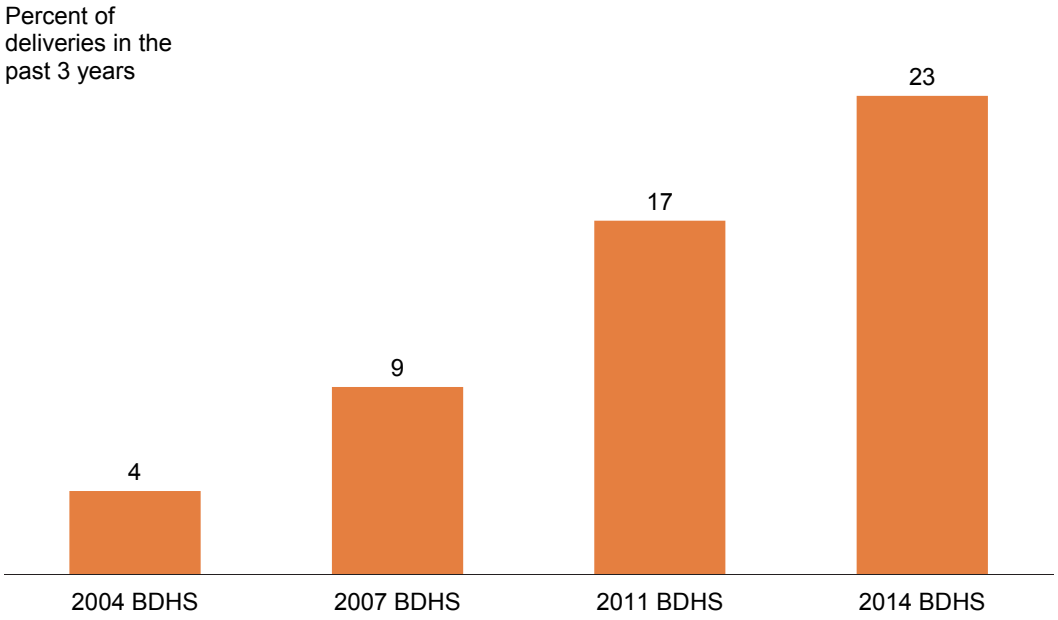


Table 9.6 presents the percent distribution of women who gave birth in a health facility in the three years preceding the survey by duration of stay in the facility and type of delivery. Among women who gave birth by C-section, 97 percent stayed at the hospital for more than three days compared with 13 percent of women who had a vaginal birth. Among women who had a vaginal birth in a health facility, 38 percent were discharged less than 11 hours after delivery, and about 44 percent were discharged one to two days after delivery.

Table 9.6 Length of stay in the health facility after delivery

Among women with a birth in the three years preceding the survey who delivered their last birth in a health facility, the percent distribution by duration of stay in the health facility following their last live birth, according to type of delivery, Bangladesh 2014

Type of delivery	<11 hours	12-23 hours	1-2 days	3+ days	Missing	Total	Number of women
Vaginal birth	38.4	4.1	44.4	12.7	0.4	100.0	656
Caesarean section	0.8	0.1	2.5	96.7	0.0	100.0	1,121

The 2014 BDHS collected information on the reasons for which a doctor proposed to have the birth delivered by C-section. Table 9.7 shows the findings for the most recent live births in the three years preceding the survey. The most common reasons cited include mal-presentation of the baby (42 percent) and failure to progress in labor (21 percent).

Table 9.7 Reasons for C-section

Percentage of most recent live births in the three years preceding the survey proposed by doctor for delivery by C-section by reasons for C-section, Bangladesh 2014

Reasons for C-section	Percentage of births by C-section
Avoid labor pain	3.2
Mal presentation	41.5
Premature baby	1.7
Cord prolapsed	2.6
Multiple births	0.2
Failure to progress in labor	21.1
Pre-eclampsia	2.9
Diabetes	0.5
Less pressure on baby's brain	9.7
Convenience	5.8
Other complications	38.6
Number of births by C-section	627

Note: 274 births delivered by C-section had a previous birth by C-section and have not been included in the table.

9.2.3 Assistance during Delivery

Obstetric care from a trained provider during delivery is critical for the reduction of maternal and neonatal mortality. Table 9.8 shows the percent distribution of all live births in the three years preceding the survey by type of assistance during delivery, according to background characteristics. Forty-two percent of births in Bangladesh were attended by medically trained personnel, that is, a qualified doctor, nurse, midwife, family welfare visitor (FWV), or community skilled birth attendant (CSBA)[1]. Additionally, trained traditional birth attendants assisted in 10 percent of deliveries. However, more than one-third of births in Bangladesh were assisted by dais or untrained traditional birth attendants (37 percent), and 6 percent of deliveries were assisted by relatives and friends.

[1] In Bangladesh, although medical assistants (MAs) and sub-assistant community medical officers (SACMOs) are considered medically trained providers for antenatal care and postnatal care, they are not considered medically trained providers for childbirth.

Table 9.8 Assistance during delivery

Percent distribution of live births in the three years preceding the survey by person providing assistance during delivery, percentage of birth assisted by a medically trained provider, according to background characteristics, Bangladesh 2014

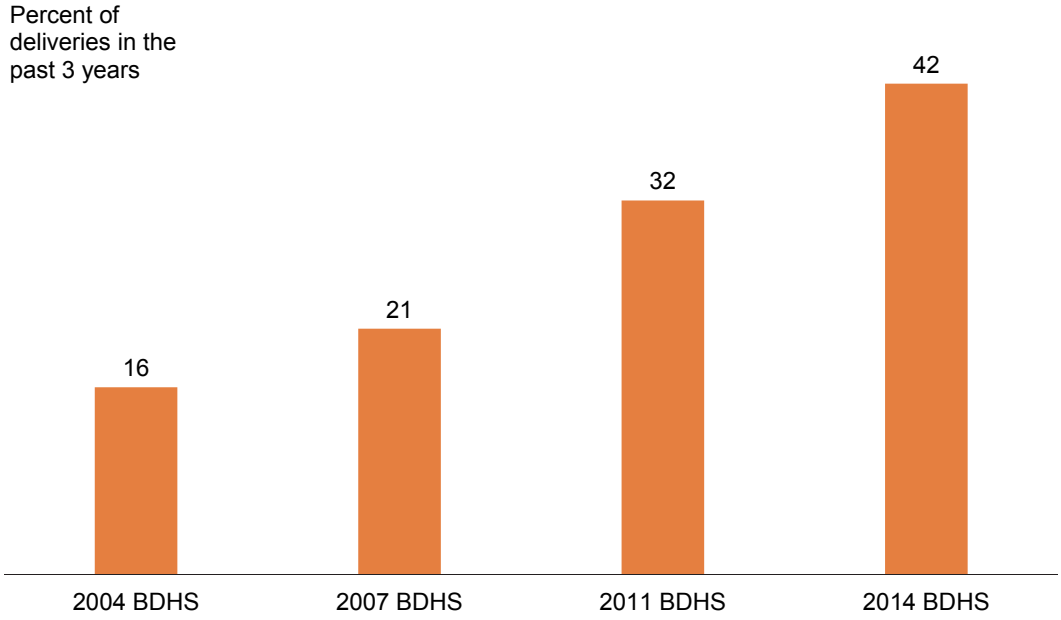
Background characteristic	Medically trained provider															
	Qualified doctor	Nurse/ midwife/ para-medic	FWV	CSBA	CHCP	HA/FWA	NGO worker	Trained traditional birth attendant	Un-trained traditional birth attendant	Un-qualified doctor	Relatives/ friends/ others	No one	Missing	Total	Percentage delivered by a medically trained provider[1]	Number of births
Mother's age at birth																
<20	30.0	11.2	0.4	0.1	0.2	1.3	0.9	10.2	37.9	2.1	5.4	0.0	0.2	100.0	41.8	1,562
20-34	31.7	10.7	0.3	0.0	0.1	1.2	0.6	10.1	36.6	1.7	6.5	0.1	0.2	100.0	42.8	3,144
35-49	24.8	7.3	0.0	0.0	0.0	0.4	0.0	10.7	46.1	0.0	10.3	0.5	0.0	100.0	32.0	198
Birth order																
1	39.7	11.8	0.4	0.1	0.1	1.1	0.8	9.5	29.8	2.0	4.5	0.0	0.2	100.0	52.0	1,990
2-3	28.9	10.9	0.3	0.1	0.1	1.0	0.5	10.6	38.2	1.8	7.3	0.0	0.2	100.0	40.2	2,247
4-5	13.0	8.5	0.1	0.0	0.2	2.1	1.1	10.8	55.0	1.0	8.0	0.3	0.0	100.0	21.5	502
6+	6.8	3.2	0.0	0.0	0.0	1.4	0.0	10.0	65.9	1.2	9.6	1.9	0.0	100.0	10.0	166
Antenatal care visits[1]																
None	8.0	6.2	0.2	0.1	0.0	0.6	0.4	9.2	63.2	1.8	10.4	0.2	0.0	100.0	14.4	992
1-3	30.3	11.9	0.2	0.1	0.2	1.2	0.8	11.3	35.6	2.4	5.7	0.1	0.0	100.0	42.6	2,187
4+	50.3	12.3	0.5	0.0	0.1	1.7	0.9	8.3	21.7	1.1	3.0	0.0	0.0	100.0	63.2	1,442
Place of delivery																
Public sector	67.5	29.0	1.3	0.0	0.2	0.0	0.6	0.4	0.1	0.0	0.8	0.0	0.0	100.0	97.9	628
Private sector	90.8	9.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	100.0	99.9	1,096
NGO sector	47.5	36.7	0.0	0.0	0.6	10.2	0.0	4.7	0.0	0.0	0.3	0.0	0.0	100.0	84.2	110
Home	1.2	6.7	0.2	0.1	0.2	1.4	0.9	16.1	60.2	2.9	9.9	0.1	0.1	100.0	8.2	3,048
Residence																
Urban	48.9	11.2	0.4	0.0	0.0	1.9	0.7	6.7	25.3	1.3	3.7	0.0	0.0	100.0	60.5	1,267
Rural	24.6	10.6	0.3	0.1	0.2	0.9	0.7	11.4	41.7	2.0	7.2	0.1	0.3	100.0	35.6	3,637
Division																
Barisal	24.0	12.1	0.2	0.3	0.2	0.3	0.2	12.7	42.7	2.3	3.8	0.2	0.8	100.0	36.7	279
Chittagong	28.7	14.5	0.6	0.0	0.1	0.7	0.6	6.7	41.6	1.7	4.5	0.0	0.2	100.0	43.9	1,074
Dhaka	37.1	6.2	0.0	0.1	0.2	1.0	0.6	10.6	34.6	1.4	8.0	0.1	0.0	100.0	43.5	1,740
Khulna	42.2	15.8	0.2	0.0	0.0	1.3	0.6	8.9	24.3	1.2	5.4	0.0	0.2	100.0	58.2	387
Rajshahi	29.2	11.5	0.7	0.2	0.0	0.0	0.5	6.4	44.1	2.8	4.3	0.1	0.2	100.0	41.6	488
Rangpur	24.7	12.9	0.3	0.0	0.2	5.5	1.5	16.8	29.1	2.9	5.7	0.3	0.1	100.0	37.9	461
Sylhet	15.7	11.1	0.3	0.1	0.0	0.2	0.9	13.4	47.2	1.4	8.9	0.0	0.7	100.0	27.1	474
Education																
No education	10.6	6.5	0.1	0.0	0.0	1.0	0.8	11.5	57.8	2.1	9.1	0.2	0.4	100.0	17.1	704
Primary incomplete	16.1	10.4	0.2	0.0	0.4	2.0	0.5	12.3	48.5	1.5	7.9	0.1	0.3	100.0	26.6	801
Primary complete[2]	22.2	10.5	0.7	0.1	0.3	0.3	0.0	11.5	45.4	1.4	6.9	0.4	0.3	100.0	33.5	579
Secondary incomplete	33.3	12.4	0.2	0.1	0.1	1.2	0.9	9.9	33.0	2.5	6.5	0.0	0.1	100.0	46.0	1,999
Secondary complete or higher[3]	63.2	11.2	0.6	0.0	0.0	1.1	0.8	6.8	14.4	0.4	1.4	0.0	0.1	100.0	75.0	821
Wealth quintile																
Lowest	10.9	6.8	0.2	0.0	0.0	1.1	0.7	13.3	54.6	2.5	9.5	0.1	0.4	100.0	17.9	1,084
Second	17.9	11.7	0.2	0.1	0.6	1.3	0.8	10.7	47.0	2.3	7.2	0.1	0.2	100.0	29.9	932
Middle	26.3	12.0	0.5	0.0	0.1	0.9	0.6	9.2	37.7	2.3	9.8	0.2	0.3	100.0	38.8	942
Fourth	38.0	13.3	0.4	0.2	0.0	1.2	0.6	11.8	30.0	1.3	3.1	0.0	0.1	100.0	52.0	995
Highest	63.7	10.3	0.3	0.0	0.0	1.4	0.7	5.3	16.0	0.5	1.6	0.0	0.0	100.0	74.4	950
Total	30.9	10.8	0.3	0.1	0.1	1.2	0.7	10.2	37.4	1.8	6.3	0.1	0.2	100.0	42.1	4,904

Note: If the respondent mentioned more than one person attending during delivery, only the most qualified person is considered in this tabulation. Total includes 6 births with missing information on ANC visits and 22 births delivered in a delivery hut.
FWV = family welfare visitor, CSBA = community skilled birth attendant, CHCP = community health care provider, HA = health assistant, FWA = family welfare assistant
[1] Medically trained provider includes doctor, nurse, midwife, paramedic, FWV, and CSBA.
[2] Primary complete is defined as completing grade 5.
[3] Secondary complete is defined as completing grade 10.

First-order births are more likely to be assisted by a medically trained provider (52 percent). Medically assisted births are more common among women in urban areas (61 percent), women who have completed secondary or higher education (75 percent), and women in the highest wealth quintile (74 percent). Among divisions, Khulna has the highest proportion of births assisted by medically trained providers (58 percent), while Sylhet has the lowest (27 percent).

The HPNSDP target for delivery by a medically trained provider is set at 50 percent by 2016 (MOHFW, 2011). Over the past 10 years, the proportion of deliveries by medically trained providers has increased 2.6 times, from 16 percent in 2004 to the current level of 42 percent (Figure 9.7). This is almost solely due to an increase in institutional delivery, given that the great majority of births delivered at home are delivered by unskilled individuals (92 percent in 2014) (Table 9.8).

Figure 9.7 **Trend in skilled attendance at deliveries, 2004-2014**



9.3 POSTNATAL CARE FOR MOTHERS AND CHILDREN

Postnatal care is a crucial component of safe motherhood and neonatal health. Postnatal checkups provide an opportunity to assess and treat delivery complications and to counsel mothers on how to care for themselves and their newborn infant. A large proportion of maternal and neonatal deaths occur during the 24 hours following delivery (UNICEF 2012). In addition, the first two days following delivery are critical for monitoring complications for both mothers and their newborns.

To assess the extent to which mothers receive postnatal care, the 2014 BDHS asked the respondent whether she and her child had received a health checkup after the delivery, the timing of the first check, and the type of health provider for the last birth in the three years preceding the survey.

9.3.1 Postnatal Checkup for Mother

The 2014 BDHS data show that 39 percent of mothers and 36 percent of children in Bangladesh received postnatal care from a medically trained provider within 42 days after delivery, the vast majority within the crucial first two days of delivery (36 percent of women and 32 percent of children) (Table 9.9). On the other hand, 61 percent of mothers and 64 percent of children did not receive a postnatal checkup from a medically trained provider.

Occurrence of a postnatal checkup from a medically trained provider within two days of delivery has increased from 20 percent of mothers in 2007 to 27 percent in 2011 to the current level of 36 percent

(Figure 9.8). This demonstrates that the revised target of HPNSDP 2011-2016 for postnatal checkup for mothers from a medically trained provider within two days of delivery (35 percent) has already been achieved in 2014. For children, a postnatal checkup from a medically trained provider within the first two days increased from 20 percent in 2007 to the current level of 32 percent.

Table 9.9 Postnatal care for mothers and children

Percent distribution of last births in the three years preceding the survey for which the mother and/or children received postnatal care from any provider and a medically trained provider[1], by timing of postnatal care, Bangladesh 2014

	Women		Children	
Timing	Any provider	Medically trained provider[1]	Any provider	Medically trained provider[1]
Within 2 days of delivery	59.1	36.4	54.3	31.5
3-6 days after delivery	2.5	1.3	2.2	1.2
7-41 days after delivery	1.9	1.1	5.5	3.3
Did not receive postnatal check up	35.8	60.6	37.5	63.5
Don't know/missing	0.7	0.6	0.5	0.5
Total	100.0	100.0	100.0	100.0
Number	4,627	4,627	4,627	4,627

Note: Women and children who received a checkup after 41 days are assumed to have not received postnatal care.
[1] Medically trained provider includes qualified doctor, nurse, midwife, paramedic, family welfare visitor (FWV), community skilled birth attendants (CSBA) and SACMO.

Figure 9.8 **Trend in use of postnatal care for women and children from a medically trained provider within two days of delivery, 2004-2014**

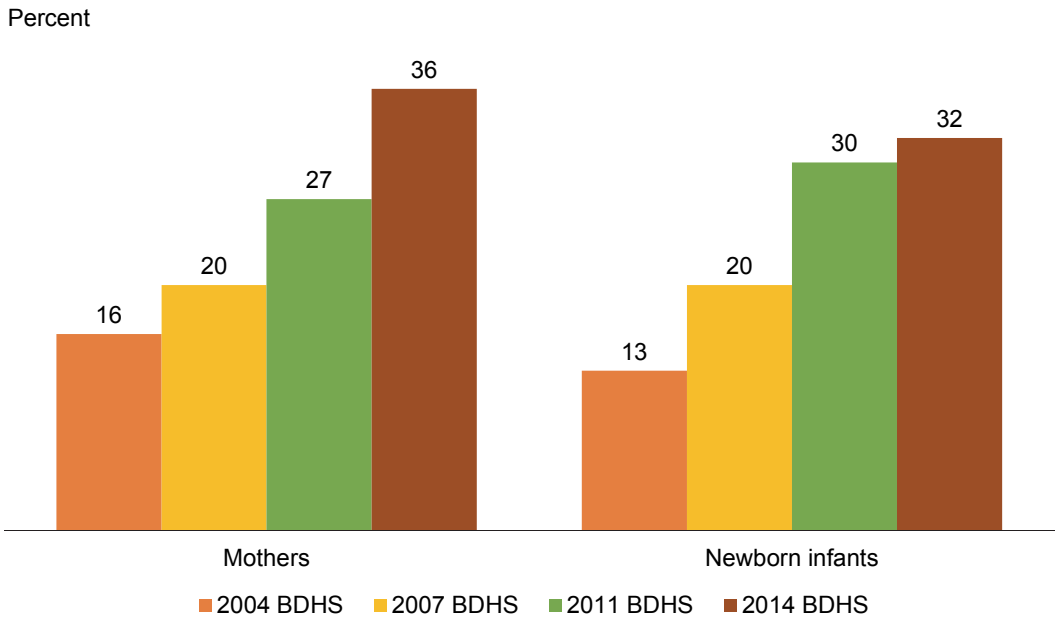


Table 9.10 shows the percent distribution of women age 15-49 who give birth in the three years preceding the survey by time after delivery of the mother's first postnatal check-up for the last live birth from a medically trained provider, according to background characteristics. Twenty-eight percent of women received a postnatal checkup within the first four hours after delivery, 4 percent received a checkup between 4 and 23 hours, and 5 percent were seen one to two days following delivery.

Table 9.10 Timing of first postnatal checkup for the mother

Percent distribution of women age 15-49 who give birth in the three years preceding the survey by time after delivery of the mother's first postnatal check-up for the last live birth from a medically trained provider; and percentage of women age 15-49 with no postnatal checkup, according to background characteristics, Bangladesh 2014

Background characteristic	Time after delivery of mother's first postnatal checkup						No postnatal checkup[1]	Total	Number of women
	Less than 4 hours	4-23 hours	1-2 days	3-6 days	7-41 days	Don't know/ missing			
Mother's age at birth									
<20	28.1	4.5	3.2	0.8	1.4	0.9	61.1	100.0	1,472
20-34	27.8	4.3	5.1	1.6	0.9	0.5	59.8	100.0	2,971
35-49	20.7	1.6	6.7	1.3	0.5	0.0	69.1	100.0	184
Birth order									
1	34.4	5.7	5.1	1.2	1.6	0.9	51.1	100.0	1,857
2-3	25.9	3.7	4.8	1.7	0.9	0.5	62.5	100.0	2,133
4-5	15.6	2.3	2.6	0.4	0.3	0.0	78.8	100.0	484
6+	7.5	0.2	1.1	0.0	0.0	0.0	91.2	100.0	154
Place of delivery									
Health facility	64.6	10.3	10.8	2.0	1.9	1.2	9.1	100.0	1,784
Elsewhere	4.4	0.4	0.6	0.9	0.5	0.2	92.9	100.0	2,841
Residence									
Urban	42.8	6.1	7.0	1.7	1.8	0.4	40.2	100.0	1,209
Rural	22.3	3.6	3.7	1.2	0.8	0.7	67.8	100.0	3,418
Division									
Barisal	25.5	3.8	5.0	1.1	0.9	0.1	63.6	100.0	268
Chittagong	27.7	4.0	4.6	1.4	0.9	0.3	61.0	100.0	1,011
Dhaka	27.9	4.1	4.7	1.5	1.1	0.9	59.7	100.0	1,634
Khulna	37.1	7.9	5.8	0.8	1.8	0.9	45.6	100.0	371
Rajshahi	29.6	5.0	5.1	1.4	1.4	1.0	56.6	100.0	464
Rangpur	28.4	3.1	2.5	2.0	0.5	0.2	63.4	100.0	450
Sylhet	16.9	2.7	3.8	0.4	1.1	0.0	75.1	100.0	428
Education									
No education	12.5	1.4	2.1	0.6	1.0	0.0	82.5	100.0	655
Primary incomplete	18.4	2.6	2.5	0.5	0.5	0.4	75.1	100.0	749
Primary complete[2]	22.3	1.7	2.5	0.6	0.5	0.9	71.6	100.0	544
Secondary incomplete	29.6	4.5	5.0	1.7	0.9	0.7	57.6	100.0	1,892
Secondary complete or higher[3]	48.1	9.3	8.8	2.3	2.6	1.0	27.9	100.0	787
Wealth quintile									
Lowest	11.1	1.4	2.6	0.7	0.6	0.5	83.1	100.0	1,003
Second	15.9	3.1	3.8	0.3	0.6	0.1	76.2	100.0	876
Middle	26.4	2.8	3.7	1.3	1.1	0.9	63.9	100.0	882
Fourth	34.0	6.2	3.8	1.8	1.0	0.5	52.9	100.0	955
Highest	51.7	7.7	9.1	2.6	2.2	1.1	25.7	100.0	912
Total	27.6	4.2	4.5	1.3	1.1	0.6	60.6	100.0	4,627

Note: Total includes 2 children with missing information on place of delivery. Medically trained provider includes qualified doctor, nurse, midwife, paramedic, family welfare visitor (FWV), community skilled birth attendants (CSBA), and MA/SACMO.
[1] Includes women who received a checkup after 41 days and women who received a checkup from non-medically trained providers
[2] Primary complete is defined as completing grade 5.
[3] Secondary complete is defined as completing grade 10.

The skill of the provider who performs the first postnatal checkup has important implications for maternal and neonatal health. Table 9.11 shows that among women who gave birth in the last three years, 25 percent of women received care from a qualified doctor, and 12 percent received care from a nurse, midwife, paramedic, or family welfare visitor (FWV) within two days after birth. Forty-one percent of women who gave birth received no postnatal checkup within two days of birth.

The likelihood of receiving postnatal care from a medically trained provider within two days of delivery differs substantially by mother's age, birth order, place of delivery, residence, education, and wealth quintile. Women younger than age 35 at the time of birth (36-37 percent), women having their first child (45 percent), urban women (56 percent), women who have completed a secondary education or higher (66 percent), and women in the highest wealth quintile (69 percent) are much more likely to receive the first postnatal checkup from a medically-trained provider in the first two days after delivery compared with other women. Receiving the first postnatal checkup from a trained provider within two days of delivery is most common in Khulna (51 percent) and least common in Sylhet (23 percent).

Table 9.11 Type of provider of first postnatal checkup for the mother

Percent distribution of women age 15-49 who give birth in the three years preceding the survey by type of provider of the mother's first postnatal health check in the two days after the last live birth, and the percentage of women with a live birth in the three years preceding the survey who received a postnatal checkup from a medically-trained provider in the first two days after giving birth, according to background characteristics, Bangladesh 2014

Background characteristic	Type of provider						Percentage receiving checkup within 2 days of delivery from a medically trained provider	Number of women
	Qualified doctor	Nurse/midwife/ paramedic/ FWV	CSBA/SACMO	Non-medically trained provider	No postnatal checkup in the first two days after birth[1]	Total		
Mother's age at birth								
<20	24.0	11.9	0.0	23.5	40.7	100.0	35.8	1,472
20-34	25.7	11.5	0.0	22.2	40.7	100.0	37.2	2,971
35-49	20.8	8.3	0.0	24.5	46.5	100.0	29.0	184
Birth order								
1	32.0	13.2	0.0	19.1	35.7	100.0	45.2	1,857
2-3	23.1	11.3	0.0	22.4	43.2	100.0	34.4	2,133
4-5	12.2	8.3	0.0	33.0	46.6	100.0	20.5	484
6+	6.2	2.6	0.0	38.0	53.2	100.0	8.8	154
Place of delivery								
Health facility	61.0	24.8	0.0	1.5	12.7	100.0	85.8	1,784
Elsewhere	2.3	3.1	0.0	36.0	58.6	100.0	5.4	2,841
Residence								
Urban	40.8	15.1	0.0	18.8	25.3	100.0	55.9	1,209
Rural	19.3	10.2	0.0	24.0	46.4	100.0	29.5	3,418
Division								
Barisal	22.0	12.2	0.2	22.3	43.4	100.0	34.3	268
Chittagong	24.2	12.1	0.0	23.7	40.0	100.0	36.3	1,011
Dhaka	27.8	9.0	0.0	24.0	39.2	100.0	36.8	1,634
Khulna	32.2	18.7	0.0	12.5	36.6	100.0	50.9	371
Rajshahi	24.6	15.1	0.0	24.1	36.1	100.0	39.7	464
Rangpur	22.7	11.2	0.0	24.0	42.0	100.0	33.9	450
Sylhet	14.3	9.0	0.1	21.1	55.5	100.0	23.4	428
Education								
No education	9.3	6.6	0.1	28.8	55.3	100.0	16.0	655
Primary incomplete	13.1	10.4	0.0	30.2	46.2	100.0	23.6	749
Primary complete[2]	15.3	11.2	0.0	29.4	44.1	100.0	26.5	544
Secondary incomplete	26.6	12.5	0.0	20.2	40.7	100.0	39.1	1,892
Secondary complete or higher[3]	52.0	14.3	0.0	11.8	22.0	100.0	66.2	787
Wealth quintile								
Lowest	9.7	5.4	0.0	28.3	56.6	100.0	15.1	1,003
Second	13.0	9.8	0.1	27.6	49.6	100.0	22.8	876
Middle	20.9	12.0	0.0	21.2	45.9	100.0	32.9	882
Fourth	28.1	15.9	0.0	22.1	33.9	100.0	43.9	955
Highest	53.9	14.5	0.0	13.8	17.7	100.0	68.5	912
Total	24.9	11.5	0.0	22.7	40.9	100.0	36.4	4,627

Note: Total includes 2 children with missing information on place of delivery. Medically trained provider includes doctor, nurse, midwife, paramedic, family welfare visitor (FWV), community skilled birth attendants (CSBA) and SACMO.
[1] Includes women who received a checkup after 41 days
[2] Primary complete is defined as completing grade 5.
[3] Secondary complete is defined as completing grade 10.

The content of postnatal care is an essential component of service quality. Focused postnatal care hinges on the principle that the first few days after birth are very crucial for both mother and child. The 2014 BDHS is the first DHS survey in Bangladesh to collect information on components of postnatal care for both mother and child.

Among mothers who sought postnatal care, 43 percent had their breasts examined, 41 percent were assessed for any vaginal discharge, 84 percent had their temperature measured, and over half (56 percent) received counseling on the danger signs (Table 9.12). These examinations are more likely to be conducted by a medically trained provider than a non-medically trained provider.

Table 9.12 Components of postnatal care for the mother

Among women age 15-49 who give birth in three years preceding the survey and received postnatal care (PNC) services within two days of delivery, percentage receiving specific components of PNC and type of PNC provider, Bangladesh 2014

Component of PNC	PNC provider		
	Medically trained	Non-medically trained	Any provider
Breast examination	45.5	39.0	43.0
Check vaginal discharge	42.4	38.2	40.8
Check temperature	84.7	83.2	84.2
Counsel on danger signs	56.7	54.3	55.8
Number of women	1,685	1,052	2,737

9.3.2 Postnatal Checkup for the Newborn

Table 9.13 shows that 26 percent of the newborns had a postnatal checkup within 4 hours after birth, and 28 percent of newborns had a postnatal checkup within 24 hours after birth from a medically trained provider. Differences by mother's age, birth order, place of birth, residence, education, and wealth quintile are pronounced and are similar to patterns for mothers' timing of postnatal checkups.

Table 9.13 Timing of first postnatal checkup for the children

Percent distribution of last births in the three years preceding the survey by time after birth of first postnatal checkup from a medically-trained provider, according to background characteristics, Bangladesh 2014

Background characteristic	Time after birth of newborn's first postnatal checkup							No postnatal checkup[1]	Total	Number of births
	Less than 1 hour	1-3 hours	4-23 hours	1-2 days	3-6 days	7-41 days	Don't know/ missing			
Mother's age at birth										
<20	13.2	12.5	3.0	2.2	0.8	2.9	0.6	64.7	100.0	1,472
20-34	13.6	12.5	2.6	3.8	1.4	3.4	0.3	62.3	100.0	2,971
35-49	8.4	7.6	1.7	1.4	1.9	3.6	1.8	73.5	100.0	184
Birth order										
1	16.0	16.1	3.8	3.4	1.1	3.0	0.7	55.8	100.0	1,857
2-3	13.2	11.2	2.1	3.8	1.5	3.8	0.2	64.2	100.0	2,133
4-5	6.6	6.1	1.8	0.7	0.6	2.3	0.8	81.1	100.0	484
6+	3.3	2.5	0.2	0.8	0.3	1.6	0.0	91.2	100.0	154
Place of delivery										
Health facility	31.0	28.7	6.7	7.0	1.3	3.0	1.1	21.3	100.0	1,784
Elsewhere	2.2	2.0	0.2	0.8	1.2	3.4	0.1	90.1	100.0	2,841
Residence										
Urban	23.1	18.8	4.4	4.7	1.2	2.7	0.6	44.5	100.0	1,209
Rural	9.8	10.0	2.1	2.7	1.3	3.5	0.4	70.2	100.0	3,418
Division										
Barisal	14.4	9.9	3.3	3.0	1.6	4.6	0.0	63.2	100.0	268
Chittagong	16.5	10.7	2.2	3.6	1.6	4.5	0.6	60.3	100.0	1,011
Dhaka	14.0	11.2	2.6	2.7	0.9	3.2	0.3	65.2	100.0	1,634
Khulna	13.3	19.2	4.6	4.5	1.0	3.5	1.8	52.2	100.0	371
Rajshahi	12.7	15.1	3.9	4.5	1.0	1.3	0.2	61.2	100.0	464
Rangpur	9.4	15.6	2.2	2.2	2.4	2.1	0.9	65.2	100.0	450
Sylhet	7.3	9.3	1.3	2.9	0.8	3.1	0.0	75.4	100.0	428
Education										
No education	4.8	5.6	0.9	1.1	0.7	1.8	0.4	84.7	100.0	655
Primary incomplete	9.5	6.4	1.5	1.6	0.6	1.8	0.2	78.3	100.0	749
Primary complete[2]	10.8	9.5	1.0	2.8	0.2	5.0	0.6	70.1	100.0	544
Secondary incomplete	13.9	13.4	3.4	3.3	1.4	3.6	0.5	60.6	100.0	1,892
Secondary complete or higher[3]	24.3	22.8	4.8	6.7	2.6	3.9	0.7	34.3	100.0	787
Wealth quintile										
Lowest	3.5	6.1	1.1	2.5	1.0	2.7	0.1	83.1	100.0	1,003
Second	6.9	7.9	0.9	1.5	1.0	4.5	0.2	77.2	100.0	876
Middle	11.6	9.8	1.9	3.4	0.7	3.4	0.4	68.9	100.0	882
Fourth	17.1	14.3	4.1	2.6	1.5	3.7	0.7	56.0	100.0	955
Highest	27.7	23.8	5.4	6.2	1.9	2.2	1.1	31.7	100.0	912
Total	13.3	12.3	2.7	3.2	1.2	3.3	0.5	63.5	100.0	4,627

Note: Total includes two children with missing information on place of delivery. Medically trained provider includes doctor, nurse, midwife, paramedic, family welfare visitor (FWV), community skilled birth attendant (CSBA), and SACMO.
[1] Includes women who received a checkup after 41 days and women who received checkup from non-medically trained providers
[2] Primary complete is defined as completing grade 5.
[3] Secondary complete is defined as completing grade 10.

Table 9.14 presents the percent distribution of last births in the three years preceding the survey by type of provider of postnatal checkup for the newborn during the first two days after delivery, according to background characteristics. Among all newborns, 23 percent received their checkup from a qualified doctor, and 9 percent received a checkup from a nurse, midwife, paramedic, or FWV within the first two days after birth. Twenty-three percent of newborns received their first postnatal checkup from a non-medically trained provider within the first two days after birth. Forty-six percent of newborns received no postnatal checkup in the first two days after birth.

Table 9.14 Type of provider of first postnatal checkup for the newborn

Percent distribution of last births in the three years preceding the survey by type of provider of the child's first postnatal health check during the two days after birth and the percentage of births with postnatal checkup in the first two days after birth from medically-trained provider, according to background characteristics, Bangladesh 2014

Background characteristic	Type of provider						Percentage receiving checkup within 2 days of delivery from a medically trained provider	Number of women
	Qualified doctor	Nurse/ midwife/ paramedic/ FWV	CSBA/ SACMO	Non-medically trained provider	No postnatal checkup in the first two days after birth[1]	Total		
Mother's age at birth								
<20	21.7	9.2	0.0	24.1	45.1	100.0	30.9	1,472
20-34	24.0	8.5	0.0	21.9	45.6	100.0	32.6	2,971
35-49	14.1	5.0	0.0	28.6	52.2	100.0	19.1	184
Birth order								
1	29.4	9.9	0.0	20.0	40.7	100.0	39.3	1,857
2-3	21.6	8.6	0.0	21.3	48.5	100.0	30.2	2,133
4-5	9.0	6.2	0.0	33.6	51.3	100.0	15.2	484
6+	5.5	1.5	0.0	44.1	49.0	100.0	6.9	154
Place of delivery								
Health facility	55.3	18.0	0.0	1.4	25.3	100.0	73.3	1,784
Elsewhere	2.5	2.7	0.0	36.3	58.5	100.0	5.2	2,841
Residence								
Urban	39.0	11.9	0.0	19.3	29.8	100.0	50.9	1,209
Rural	17.2	7.4	0.0	24.1	51.3	100.0	24.6	3,418
Division								
Barisal	18.8	11.6	0.2	23.4	45.9	100.0	30.6	268
Chittagong	23.6	9.5	0.0	22.5	44.4	100.0	33.0	1,011
Dhaka	24.6	5.9	0.0	24.4	45.1	100.0	30.5	1,634
Khulna	27.3	14.2	0.0	10.9	47.5	100.0	41.6	371
Rajshahi	24.9	11.3	0.0	24.1	39.7	100.0	36.2	464
Rangpur	20.2	9.2	0.0	26.2	44.4	100.0	29.4	450
Sylhet	14.0	6.7	0.0	22.4	56.9	100.0	20.7	428
Education								
No education	7.5	4.9	0.0	30.5	57.1	100.0	12.4	655
Primary incomplete	11.2	7.8	0.0	29.4	51.5	100.0	19.0	749
Primary complete[2]	15.6	8.5	0.0	28.0	48.0	100.0	24.1	544
Secondary incomplete	24.9	9.1	0.0	21.1	44.9	100.0	33.9	1,892
Secondary complete or higher[3]	47.1	11.5	0.0	10.6	30.8	100.0	58.6	787
Wealth quintile								
Lowest	9.2	4.0	0.0	27.6	59.3	100.0	13.1	1,003
Second	11.2	6.0	0.1	26.2	56.6	100.0	17.2	876
Middle	17.3	9.4	0.0	23.9	49.4	100.0	26.7	882
Fourth	25.7	12.5	0.0	22.6	39.2	100.0	38.1	955
Highest	51.8	11.4	0.0	13.5	23.4	100.0	63.1	912
Total	22.9	8.6	0.0	22.8	45.7	100.0	31.5	4,627

Note: Total includes two children with missing information on place of delivery. Medically trained provider includes doctor, nurse, midwife, paramedic, family welfare visitor (FWV), community skilled birth attendant (CSBA), and SACMO.
[1] Includes women who received a checkup after 41 days
[2] Primary complete is defined as completing grade 5.
[3] Secondary complete is defined as completing grade 10.

Among the newborns who received a postnatal checkup, there was not much difference in the percentages receiving services from a medically trained provider compared with a non-medically trained provider, except in measurement of weight. Within two days of birth, those who received PNC from a medically trained provider (74 percent) were more likely to have their weight measured compared to those who received PNC from a non-medically trained provider (18 percent) (Table 9.15).

Table 9.15 Components of postnatal checkup for the newborn

Among last births in the three years preceding the survey who received postnatal care (PNC) within two days after birth, percentage receiving specific components of PNC, according to PNC provider, Bangladesh 2014

Specific PNC services received	Postnatal care provider		
	Medically trained provider	Non-medically trained provider	Any provider
Examined the cord	80.9	81.0	80.9
Counseled on danger signs	54.9	47.4	51.7
Assessed temperature	88.0	78.7	84.1
Counseled mother on breastfeeding	76.6	74.7	75.8
Observed breastfeeding	39.2	33.2	36.7
Assessed weight	74.2	18.1	50.6
Number of children	1,458	1,061	2,519

9.4 NEWBORN CARE

Newborn primary care focuses on the use of clean instruments to cut the umbilical cord, cord care, bathing delays, prevention of hypothermia, and keeping the newborn warm. The 2014 BDHS is the third DHS survey in Bangladesh to collect information on newborn care. Women who gave birth in the past three years, but who did not deliver their last-born child in a health facility, were asked about newborn care practices, including cord cutting, drying, and bathing of the newborn following birth.

9.4.1 Care of the Umbilical Cord

According to the 2014 BDHS, a blade is the most common instrument used to cut the umbilical cord (97 percent); 19 percent of the births used a blade from the delivery kit and 78 percent used a blade from other sources (Table 9.16).

The instrument used to cut the cord was boiled before use in 83 percent of non-institutional births. The use of a boiled instrument to cut the umbilical cord varies slightly by background characteristics. For example, a boiled instrument was used in 85 percent of the births to women residing in urban areas compared with 83 percent in rural areas. Similarly, the use of a boiled instrument ranges from a low of 81 percent of births to mothers in the lowest wealth quintile to a high of 85 percent in the highest quintile.

Table 9.16 Type of instrument used to cut the umbilical cord

Percent distribution of non-institutional births which were women's most recent live birth in the three years preceding the survey by type of instrument used to cut the umbilical cord, and the percentage of instruments boiled before the cord was cut, according to background characteristics, Bangladesh 2014

Background characteristic	Instrument used to cut the umbilical cord							Percentage of instruments boiled before the cord was cut	Number of births
	Blade from delivery kit	Blade from other source	Bamboo strips	Scissors	Other	Don't know	Total		
Mother's age at birth									
<20	21.6	74.5	1.1	1.2	0.1	1.5	100.0	76.7	920
20-34	18.0	79.9	0.8	0.6	0.1	0.6	100.0	86.0	1,793
35-49	14.1	79.7	4.4	0.6	0.0	1.2	100.0	87.9	123
Birth order									
1	22.9	73.2	1.0	1.2	0.1	1.5	100.0	76.2	959
2-3	19.0	78.8	0.8	0.6	0.1	0.7	100.0	85.8	1,349
4-5	14.1	83.6	1.5	0.8	0.0	0.0	100.0	88.1	387
6+	6.0	90.4	2.6	0.0	0.0	1.1	100.0	89.8	141
Residence									
Urban	20.7	76.5	0.1	0.9	0.0	1.8	100.0	84.9	501
Rural	18.6	78.5	1.3	0.8	0.1	0.7	100.0	82.7	2,335
Division									
Barisal	25.8	72.0	1.6	0.2	0.0	0.3	100.0	78.5	186
Chittagong	12.2	83.9	2.3	0.4	0.0	1.1	100.0	85.6	648
Dhaka	16.4	81.6	0.5	0.7	0.0	0.8	100.0	83.1	941
Khulna	15.7	79.7	0.5	3.7	0.0	0.3	100.0	88.9	166
Rajshahi	17.1	78.1	0.7	1.0	0.8	2.3	100.0	69.6	278
Rangpur	44.3	53.5	0.2	1.3	0.0	0.8	100.0	84.6	292
Sylhet	16.7	81.7	1.1	0.4	0.0	0.1	100.0	87.9	326
Education									
No education	9.3	88.4	1.7	0.0	0.0	0.7	100.0	83.9	549
Primary incomplete	15.6	81.5	1.6	0.9	0.2	0.2	100.0	79.4	570
Primary complete[1]	16.5	80.9	1.2	0.7	0.2	0.4	100.0	85.6	376
Secondary incomplete	23.0	73.9	0.5	1.2	0.0	1.4	100.0	82.8	1,100
Secondary complete or higher[2]	34.8	62.1	0.7	1.0	0.0	1.4	100.0	87.1	241
Wealth quintile									
Lowest	14.1	83.3	1.3	0.3	0.2	0.7	100.0	81.4	848
Second	17.6	78.8	2.2	0.7	0.0	0.7	100.0	83.5	660
Middle	21.5	76.4	0.6	0.9	0.0	0.7	100.0	81.8	573
Fourth	21.3	76.3	0.2	1.4	0.0	0.8	100.0	86.2	500
Highest	28.7	67.0	0.0	1.6	0.0	2.7	100.0	84.6	255
Total	19.0	78.2	1.1	0.8	0.1	0.9	100.0	83.1	2,836

[1] Primary complete is defined as completing grade 5.
[2] Secondary complete is defined as completing grade 10.

The use of a blade from a delivery kit has increased substantially between surveys, from 6 percent in 2007 to 14 percent in 2011 and to 19 percent in 2014, while the use of boiled instruments has increased only slightly, from 62 percent in 2007 to 84 percent in 2011 and then dropped 83 percent in 2014 (Figure 9.9).

Figure 9.9 **Trend in use of appropriate cord care, 2007-2014**

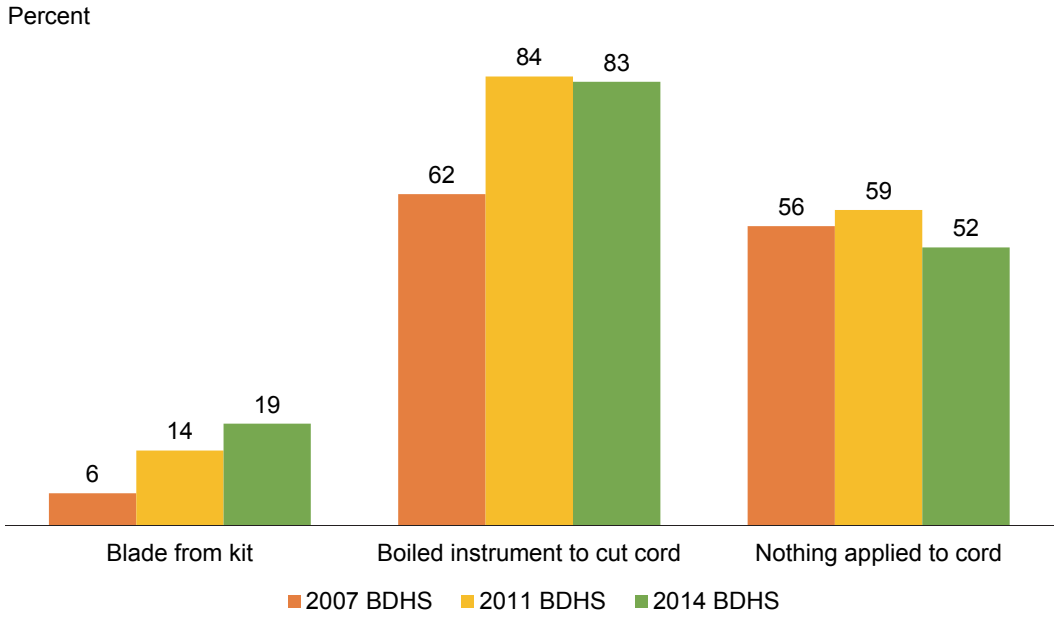


Table 9.17 shows what material was applied to the cord immediately after cutting it, according to the mother's background characteristics. In over a half of the cases (52 percent), nothing was applied to the cord after it was cut. When something was applied to the cord, mustard oil with garlic and antibiotics were the most common materials (19 and 17 percent, respectively), followed by antiseptics (9 percent), and Boric powder (4 percent). Other materials used were turmeric juice or powder, chewed rice, shidur (vermillion), gention violet, and ginger juice, but their use is not widespread, about 1 percent or less.

The practice of applying nothing to the umbilical cord was applicable till July 2013, when the National Core Committee approved of the recommended practice of applying chlorhexidine to the umbilical cord. Although the recommendation was approved before the 2014 BDHS survey fieldwork, the practice did not start until July 2015. The question regarding the application of chlorhexidine was asked in the survey, but did not have any significant number of responses, and hence the results are not included in Table 9.17.

The practice of applying nothing to the umbilical cord increased slightly from 56 percent in 2007 to 59 percent in 2011, but dropped to 52 percent in 2014 (Figure 9.9).

Table 9.17 Application of material after the umbilical cord was cut

Percentage of non-institutional births which were the mother's most recent live birth in the three years preceding the survey by material applied to the cord immediately after cutting and tying it, according to background characteristics, Bangladesh 2014

	Material applied to the cord														
Background characteristic	Anti-biotics	Anti-septic	Spirit/ alcohol	Mustard oil with garlic	Chewed rice	Turmeric juice/ powder	Ginger juice	Shidur	Boric powder	Gentian violet (blue ink)	Talcum powder	Other[1]	Don't know	Nothing applied to the cord	Num-ber of births
Mother's age at birth															
<20	15.7	7.8	0.7	19.1	0.1	0.6	0.2	0.0	3.1	1.0	0.1	1.3	1.6	53.4	920
20-34	17.1	9.6	0.1	18.4	0.2	1.1	0.3	1.6	3.7	1.3	0.2	0.7	0.3	52.2	1,793
35-49	18.2	10.7	0.0	22.8	0.0	2.2	0.3	0.0	3.7	0.0	0.0	0.3	0.6	48.2	123
Birth order															
1	15.6	8.9	0.7	19.3	0.1	1.0	0.2	0.2	3.5	1.5	0.2	1.3	1.6	50.8	959
2-3	17.4	9.0	0.1	18.5	0.3	0.5	0.3	1.8	2.6	0.9	0.1	0.8	0.2	54.0	1,349
4-5	16.2	8.4	0.0	17.9	0.1	2.6	0.2	0.5	7.7	0.8	0.3	0.3	0.2	51.2	387
6+	18.5	11.5	0.0	19.9	0.0	1.0	0.5	0.5	0.0	2.5	0.0	0.2	1.2	51.1	141
Residence															
Urban	21.3	11.1	0.0	18.0	0.0	0.3	0.6	0.5	4.2	1.1	0.3	0.8	1.2	47.0	501
Rural	15.7	8.6	0.4	18.9	0.2	1.1	0.2	1.2	3.3	1.2	0.1	0.9	0.7	53.6	2,335
Division															
Barisal	13.1	8.9	0.2	41.2	0.0	1.0	0.0	0.0	2.0	1.0	0.0	1.1	1.5	35.0	186
Chittagong	14.1	8.5	0.2	27.7	0.2	1.6	0.0	0.6	1.3	1.0	0.0	0.2	0.2	51.3	648
Dhaka	15.6	9.1	0.4	11.5	0.0	0.8	0.1	0.6	5.9	2.0	0.1	1.3	0.6	56.6	941
Khulna	28.7	12.8	1.8	15.1	0.1	0.4	0.0	2.9	2.5	1.3	0.0	1.3	0.5	42.6	166
Rajshahi	18.1	13.2	0.0	17.3	0.7	0.5	0.0	0.7	0.8	0.0	0.3	0.3	0.2	53.9	278
Rangpur	19.1	5.5	0.0	13.8	0.0	0.3	0.0	0.7	2.4	0.0	0.0	0.4	1.9	59.1	292
Sylhet	17.8	7.7	0.3	16.7	0.6	1.6	1.9	3.4	5.5	1.2	0.5	1.2	1.4	50.2	326
Education															
No education	14.6	7.8	0.0	19.7	0.1	1.8	0.6	0.9	4.8	1.0	0.0	0.2	0.5	53.7	549
Primary incomplete	15.6	8.4	0.8	20.7	0.3	2.3	0.3	1.4	3.3	1.5	0.0	1.4	0.3	50.6	570
Primary complete[1]	15.1	6.6	0.0	19.5	0.4	0.5	0.2	1.0	4.5	2.2	0.2	1.0	0.5	54.7	376
Secondary incomplete	17.7	9.5	0.4	18.0	0.2	0.2	0.1	1.1	3.0	0.9	0.3	1.0	0.3	52.8	1,100
Secondary complete or higher[2]	22.4	15.3	0.0	14.1	0.0	0.0	0.0	0.0	1.8	0.0	0.0	0.2	4.8	48.5	241
Wealth quintile															
Lowest	11.0	7.8	0.1	19.6	0.0	1.3	0.4	1.5	4.3	1.4	0.2	1.0	0.6	57.0	848
Second	19.2	8.0	0.2	18.2	0.5	0.8	0.2	1.2	2.8	1.0	0.1	0.5	0.1	54.0	660
Middle	18.2	9.5	0.9	15.9	0.2	1.6	0.3	0.9	2.4	0.6	0.0	0.4	0.5	53.4	573
Fourth	18.6	9.5	0.4	20.1	0.3	0.2	0.3	0.6	3.7	1.3	0.0	2.1	0.9	47.6	500
Highest	22.0	14.1	0.0	21.4	0.0	0.4	0.0	0.0	4.5	1.5	0.6	0.0	3.2	40.1	255
Total	16.7	9.0	0.3	18.8	0.2	1.0	0.3	1.0	3.5	1.2	0.1	0.9	0.8	52.4	2,836

Note: Total includes 10 births with information missing on mothers' educational attainment
[1] Primary complete is defined as completing grade 5.
[2] Secondary complete is defined as completing grade 10.

9.4.2 Drying and Bathing the Newborn

Newborns should be dried within minutes after birth, placed on the mother's bare chest after birth, and should not be bathed in the first 24 hours in order to reduce the risk of hypothermia (WHO 2012). The 2014 BDHS asked mothers with non-institutional deliveries in the past three years about all three components of thermal care of newborn: when the newborn was first dried, whether the newborn was given skin-to-skin care, and when the newborn was first bathed. The tables are based on births in the past three years.

Table 9.18 shows that one in four (25 percent) of the newborns was put on the chest to allow for skin-to-skin contact. This practice is more common among births to younger mothers, low parity births, and births in Dhaka and Khulna. The skin-to-skin practice has no clear relationship with the mother's education or wealth status.

Table 9.18 shows that 67 percent of the newborns were dried within the recommended 5 minutes of birth, 83 percent of the newborns were dried within 10 minutes, and 9 percent after 10 minutes. Seven percent of newborns were not dried.

There is little variation in early drying of newborns by background characteristics. Among divisions, newborns in Rajshahi and Rangpur are more likely to be dried within five minutes of birth (75 and 74 percent, respectively) compared with newborns in other divisions (70 percent and lower). Early drying does not vary significantly with mother's education. However, early drying of newborns is more prevalent among newborns in the highest wealth quintile (75 percent).

The practice of immediate drying after birth has improved considerably since 2007, when only 6 percent of newborns were dried within five minutes, compared with 51 percent in 2011 and 67 percent in 2014.

Table 9.18 Newborn care practices: timing of drying

Percent distribution of non-institutional births which were women's most recent live birth in the three years preceding the survey by timing of drying the newborn, according to background characteristics, Bangladesh 2014

Background characteristic	Percentage of births that have skin-to-skin contact	Timing of drying after delivery						Number of births
		0-4 minutes	5-9 minutes	10+ minutes	Newborn not dried before washing	Don't know/ missing	Total	
Mother's age at birth								
<20	25.2	66.1	16.3	10.0	5.4	2.1	100.0	920
20-34	25.0	67.5	15.8	8.7	6.4	1.5	100.0	1,793
35-49	17.5	65.5	13.2	3.9	16.3	1.1	100.0	123
Birth order								
1	24.5	67.1	15.8	10.7	4.4	2.0	100.0	959
2-3	26.5	66.0	17.4	7.9	6.9	1.8	100.0	1,349
4-5	23.0	71.3	12.4	9.6	6.3	0.4	100.0	387
6+	13.5	62.9	10.4	5.6	18.7	2.4	100.0	141
Residence								
Urban	22.4	68.1	19.0	6.0	5.1	1.8	100.0	501
Rural	25.2	66.7	15.2	9.6	6.9	1.7	100.0	2,335
Division								
Barisal	25.6	56.2	30.3	9.6	2.5	1.4	100.0	186
Chittagong	19.8	65.6	14.9	10.9	6.9	1.8	100.0	648
Dhaka	28.6	63.7	17.5	9.1	8.4	1.4	100.0	941
Khulna	29.5	71.7	14.6	8.7	2.0	3.0	100.0	166
Rajshahi	21.2	74.6	11.9	8.0	2.7	2.9	100.0	278
Rangpur	23.5	73.9	14.8	9.2	0.8	1.3	100.0	292
Sylhet	24.5	70.3	9.6	4.9	13.7	1.5	100.0	326
Education								
No education	20.1	65.0	14.8	7.4	11.6	1.2	100.0	549
Primary incomplete	25.4	67.3	14.0	9.7	6.9	2.2	100.0	570
Primary complete[1]	23.5	69.4	12.6	6.4	10.2	1.4	100.0	376
Secondary incomplete	27.5	66.4	17.5	10.8	3.4	1.8	100.0	1,100
Secondary complete or higher[2]	23.3	69.5	20.3	6.1	2.6	1.5	100.0	241
Wealth quintile								
Lowest	25.7	66.3	12.9	10.1	9.5	1.3	100.0	848
Second	22.0	65.4	14.1	8.5	9.2	2.8	100.0	660
Middle	27.5	61.3	20.5	12.3	4.0	1.9	100.0	573
Fourth	25.9	72.5	17.2	6.1	3.1	1.1	100.0	500
Highest	20.1	75.1	17.1	4.4	2.3	1.1	100.0	255
Total	24.7	67.0	15.9	8.9	6.5	1.7	100.0	2,836

[1] Primary complete is defined as completing grade 5.
[2] Secondary complete is defined as completing grade 10.

The 2014 BDHS assessed the timing of a newborn's first bath. Table 9.19 shows that 34 percent of newborns were first bathed 72 hours or more following birth, which is the recommended practice in Bangladesh. Thirty-two percent of the newborns were bathed within the first 6 hours of birth, while 39 percent were bathed in the first 24 hours.

Bathing 72 hours or more after birth is most common among children born to women younger than age 20 and for birth order 2-3. Among divisions, Rangpur (51 percent) has the highest proportion of newborns bathed after 72 hours of delivery, while Chittagong and Khulna (28 to 31 percent) have the lowest proportions. Waiting to give a newborn the first bath is also associated with the mother's education. Twenty-three percent of newborns to women with no education are bathed at least 72 hours after birth compared with 45 percent of newborns whose mothers have completed secondary or higher education.

Table 9.19 Newborn care practices: Timing of first bath

Percent distribution of non-institutional births which were women's most recent live birth in the three years preceding the survey by timing of first bath, according to background characteristics, Bangladesh 2014

Background characteristic	Timing of first bath after delivery								Number of births
	0-5 hours	6-11 hours	12-23 hours	24-71 hours	72+ hours	Baby not bathed[1]	Don't know/ missing	Total	
Mother's age at birth									
<20	31.2	3.8	2.2	24.1	36.6	1.6	0.5	100.0	920
20-34	31.8	4.6	1.9	25.9	34.1	1.4	0.3	100.0	1,793
35-49	48.2	4.0	2.4	21.3	22.0	1.3	0.7	100.0	123
Birth order									
1	30.4	4.1	2.2	25.6	35.4	1.9	0.5	100.0	959
2-3	29.7	5.2	1.8	25.1	36.6	1.1	0.5	100.0	1,349
4-5	35.9	2.8	2.0	29.3	28.1	1.8	0.1	100.0	387
6+	61.2	2.2	3.1	10.7	22.7	0.2	0.0	100.0	141
Residence									
Urban	33.9	5.4	0.8	28.8	30.0	0.6	0.5	100.0	501
Rural	32.0	4.1	2.3	24.3	35.3	1.6	0.4	100.0	2,335
Division									
Barisal	26.9	3.4	1.6	31.0	33.2	1.9	1.9	100.0	186
Chittagong	39.6	3.3	1.6	26.3	28.2	0.8	0.2	100.0	648
Dhaka	32.0	6.4	1.8	24.6	33.8	1.3	0.1	100.0	941
Khulna	24.0	3.9	2.2	36.5	31.1	1.4	0.8	100.0	166
Rajshahi	26.4	5.5	1.7	27.5	35.9	2.3	0.6	100.0	278
Rangpur	12.8	2.5	5.8	27.1	50.7	0.5	0.6	100.0	292
Sylhet	48.6	1.9	0.5	11.2	34.6	3.2	0.1	100.0	326
Education									
No education	42.8	7.9	3.3	21.7	23.2	0.9	0.3	100.0	549
Primary incomplete	37.3	4.3	0.5	26.2	29.4	1.7	0.7	100.0	570
Primary complete[2]	33.3	3.2	0.8	21.7	38.6	2.0	0.5	100.0	376
Secondary incomplete	26.3	3.4	2.3	27.5	38.8	1.5	0.2	100.0	1,100
Secondary complete or higher[3]	22.7	2.4	3.6	24.9	44.6	1.3	0.4	100.0	241
Wealth quintile									
Lowest	38.5	3.9	2.5	24.4	28.7	1.6	0.3	100.0	848
Second	33.4	3.4	2.2	22.6	35.7	2.1	0.6	100.0	660
Middle	31.6	3.9	1.4	22.8	38.9	1.1	0.4	100.0	573
Fourth	24.3	7.6	1.2	28.7	37.0	1.1	0.1	100.0	500
Highest	26.3	3.0	3.1	32.0	34.4	0.7	0.6	100.0	255
Total	32.3	4.3	2.0	25.1	34.4	1.5	0.4	100.0	2,836

Note: Total includes 10 births with information missing on mothers' educational attainment.
[1] Majority of cases accounted for by early neonatal deaths
[2] Primary complete is defined as completing grade 5.
[3] Secondary complete is defined as completing grade 10.

9.4.3 Essential Newborn Care

The National Neonatal Health Strategy and Guidelines for Bangladesh recommend a set of essential newborn care practices (MOHFW 2009). Essential newborn care focuses on the use of clean instruments to cut the umbilical cord, applying nothing to the cord, immediate drying (within five minutes) keeping the baby warm, delaying bathing to 72 hours after birth, and initiating breastfeeding within 1 hour of delivery.

Table 9.20 Essential newborn care

Percent distribution of non-institutional births which were their mother's most recent live birth in the three years preceding the survey by essential newborn care received, according to background characteristics, Bangladesh 2014

Essential newborn care practices	Percentage of non-institutional births with newborn care practices
Instrument boiled before the cord was cut	83.1
Nothing applied to the umbilical cord after it was cut and tied	52.4
Dried within 0-4 minutes of birth	66.9
Delayed bathing (bathed 72+ hours after delivery)	34.3
Immediate breastfeeding (breastfed within 1 hour after birth)	57.2
All the essential newborn care practices	6.1
Number of births	2,836

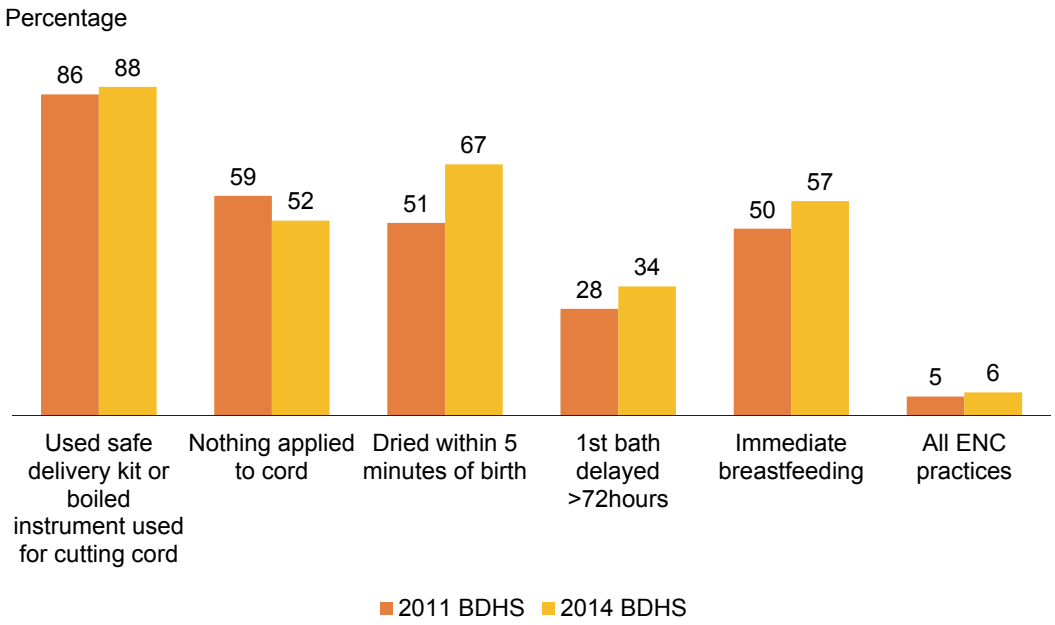
To assess the extent to which newborn care practices have been followed, Table 9.20 summarizes the essential newborn care practices among non-institutional last live births in the three years preceding the survey. Overall, only 6 percent of newborns receive all the essential newborn care practices. This proportion was 5 percent in 2011 (Figure 9.10).

A comparison of the 2011 and 2014 BDHS findings shows considerable improvement in newborn bathing practices in Bangladesh (Figure 9.10). Using a clean delivery kit/bag or boiling the blade to cut the cord has increased slightly from 86 percent in 2011 to 88 percent in 2014. The recommended practice of applying nothing to

the umbilical cord of the newborn has declined from 59 to 52 percent. In contrast, use of the recommended practice of drying the newborns within 5 minutes of birth has increased substantially, from 51 to 67 percent.

Adherence to recommended practices regarding initiation of breastfeeding within one hour of birth and delayed bathing of the newborn has increased in the last three years. The recommended practice of first bathing babies at least 72 hours after birth has increased from 17 percent in 2007 to 28 percent in 2011 and further increased to 34 percent in 2014. Initiation of breastfeeding within one hour of birth increased from 50 percent in 2011 to 57 percent in 2014.

Figure 9.10 **Trend in use of essential newborn care practices, 2011-2014**



CHILD HEALTH 10

Key Findings

- Among children age 12-23 months in 2014, 78 percent are fully vaccinated by 12 months of age.
- Six percent of children under age 5 had diarrhea in the two weeks preceding the survey. Of these children, 36 percent were taken for treatment to a health facility or health provider. Among children with diarrhea, 77 percent received ORS, 84 percent received oral rehydration therapy (ORT), which is ORS or recommended home fluid, and 38 percent received both ORT and zinc.
- The use of ORT and zinc to treat children with diarrhea increased from 20 percent in 2007 to 38 percent in 2014; ORT use increased from 81 to 84 percent, but ORS use remained at 77 percent.
- Five percent of children under age 5 had symptoms of acute respiratory infection (ARI) in the two weeks preceding the survey. For 42 percent of these children, treatment was sought from a health facility or health provider, and 34 percent were given antibiotics to treat the illness.
- Thirty-seven percent of children under age 5 had a fever in the two weeks preceding the survey. Of these children, 55 percent were taken to a health facility or health provider for treatment. Among those who received treatment, 9 percent received antibiotic drugs. Over half (55 percent) of the drugs were prescribed by a health professional/worker.

This chapter presents findings from several areas of importance to child health; characteristics of the neonate (birth weight and size at birth), vaccination status of children, and important childhood illnesses and their treatment. The information on birth weight and neonate's size assists in monitoring programs to decrease neonatal and infant mortality by reducing the incidence of low birth weight.

The presentation of information on vaccination coverage focuses on the age group 12-23 months. Overall coverage levels at the time of the survey and by age 12 months are shown for this age group. Additionally, the source of the vaccination information (whether based on a written vaccination card or on the mother's recall) is shown. Differences in vaccination coverage between different subgroups of the population are an aid in program planning.

Examining treatment practices and the contact with health services for children with the three most important childhood illnesses—diarrhea, acute respiratory infection (ARI), and fever—can help in the assessment of national programs aimed at reducing mortality from these illnesses. Information is provided on the prevalence and treatment of ARI and its treatment with antibiotics and the prevalence of fever and its treatment with antimalarial drugs and antibiotics. The treatment of diarrheal disease with oral rehydration therapy (including increased fluids) aids in the assessment of programs that recommend such treatment. Because the appropriate use of zinc can help reduce the severity and duration of diarrheal disease, information is also provided on this treatment.

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 chances of survival. Children whose birth weight is less than 2.5 kilograms, i.e., low birth weight (LBW), have a higher than average risk of early childhood death. Because birth weight was

not collected in the 2014 BDHS, the mother's perception of the baby's birth size was obtained. A mother's report of a child being "very small" or "smaller than average," even though subjective, is considered as a useful proxy for LBW.

Table 10.1 presents the information on child's size at birth according to their mothers' estimate. Overall, 7 percent of children were considered by their mothers to be very small at birth, 13 percent smaller than average, and 80 percent average or larger in size. There are small differences in mother's perception of their children's size at birth by mother's age at birth and by birth order. Across divisions of the country, mothers in Sylhet are more likely than mothers in other divisions to think that their children are smaller than average. Mothers in Rangpur, on the other hand, are more likely than mothers in other divisions to consider their babies as average or larger than average. In general, a mother's perception that her child's size at birth is average or larger increases with her education and wealth status. For instance, 73 percent of children whose mothers have no education are considered average or larger compared with 86 percent of children whose mothers have completed secondary or higher education.

Table 10.1 Child's size and weight at birth

Percent distribution of live births in the three years preceding the survey by mother's estimate of baby's size at birth, according to background characteristics, Bangladesh 2014

Background characteristic	Percent distribution of all live births by size of child at birth				Total	Number of births
	Very small	Smaller than average	Average or larger	Don't know/ missing		
Mother's age at birth						
<20	6.7	14.4	78.9	0.0	100.0	1,562
20-34	6.6	12.3	80.9	0.2	100.0	3,144
35-49	10.6	18.2	71.2	0.0	100.0	198
Birth order						
1	6.5	14.5	78.9	0.1	100.0	1,979
2-3	6.9	10.9	82.0	0.3	100.0	2,256
4-5	7.8	15.1	77.0	0.0	100.0	503
6+	4.9	22.3	72.8	0.0	100.0	167
Residence						
Urban	5.2	13.5	81.2	0.1	100.0	1,267
Rural	7.3	13.1	79.5	0.1	100.0	3,637
Division						
Barisal	6.3	10.9	82.2	0.6	100.0	279
Chittagong	5.9	15.9	78.1	0.1	100.0	1,074
Dhaka	7.8	13.2	78.9	0.1	100.0	1,740
Khulna	6.9	11.3	81.8	0.0	100.0	387
Rajshahi	5.7	9.6	84.7	0.0	100.0	488
Rangpur	4.0	9.6	86.5	0.0	100.0	461
Sylhet	8.9	17.1	73.4	0.6	100.0	474
Mother's education						
No education	7.9	18.6	73.1	0.4	100.0	704
Primary incomplete	7.6	15.3	76.8	0.4	100.0	801
Primary complete[1]	5.8	12.6	81.5	0.0	100.0	579
Secondary incomplete	7.1	12.1	80.8	0.1	100.0	1,999
Secondary complete or higher[2]	5.0	9.6	85.5	0.0	100.0	821
Wealth quintile						
Lowest	8.1	15.7	76.1	0.1	100.0	1,084
Second	6.6	13.8	79.4	0.1	100.0	932
Middle	8.6	11.1	80.0	0.3	100.0	942
Fourth	5.8	13.0	81.1	0.0	100.0	995
Highest	4.6	11.9	83.4	0.2	100.0	950
Total	6.8	13.2	79.9	0.1	100.0	4,904

[1] Primary complete is defined as completing grade 5.
[2] Secondary complete is defined as completing grade 10.

10.2 VACCINATION OF CHILDREN

In 1979, the government of Bangladesh initiated the Expanded Program on Immunization (EPI) against six preventable diseases (tuberculosis; diphtheria, pertussis, and tetanus; polio; and measles). Efforts intensified after 1985, when Bangladesh committed itself to reaching universal child immunization by 1990 (Jamil et al. 1999). Universal immunization of children against the major vaccine-preventable diseases

(tuberculosis, diphtheria, pertussis, tetanus, hepatitis, *haemophilus influenzae* type B, poliomyelitis, pneumonia, measles, and rubella) is globally recognized as one of the most cost-effective programs to reduce infant and child morbidity and mortality. The EPI incorporated the hepatitis B (HepB) vaccine in 2003 (EPI 2004). The hepatitis B vaccine was initially distributed in seven districts and one City Corporation, and then gradually expanded to all districts of Bangladesh by October 2005. *Haemophilus influenzae* type B (Hib) vaccine was introduced in Bangladesh in 2009. This was done in the form of pentavalent vaccine that included diphtheria, pertussis, and tetanus (DPT), HepB, and the new Hib vaccine. Measles and rubella vaccine were introduced in the EPI in 2012 (EPI 2013).

The EPI is a priority program for the government of Bangladesh. It follows the international guidelines recommended by the World Health Organization (WHO). According to the Bangladesh immunization guidelines, children are considered fully vaccinated when they have received doses of the "standard eight" antigens—one dose of the vaccine against tuberculosis (BCG), three doses of pentavalent (DPT, Hib, and HepB), three doses of polio vaccine (excluding polio vaccine given at birth), and one dose of measles and rubella vaccine. One dose of BCG is given at birth or at first contact with health workers; the pentavalent and polio vaccines require three doses at approximately 6, 10, and 14 weeks; and the measles and rubella vaccine is given soon after 9 months. WHO recommends giving children all of these vaccines before their first birthday and recording the vaccinations on a vaccination card given to the parents.

The 2014 BDHS collected data on childhood vaccinations for all surviving children born during the five-year period before the survey. In Bangladesh, immunizations are routinely recorded on a vaccination card. For each child, mothers were asked whether they had the vaccination card and, if so, to show the card to the interviewer. If the mother was able to show the vaccination card, the dates of vaccinations were transferred from the card to the survey questionnaire. If the vaccination card was not available, mothers were asked to recall whether the child had received each vaccine.

10.2.1 Vaccination Coverage

Table 10.2 presents information on vaccination coverage according to the source of information. The data are for children age 12-23 months, thereby including only those children who have reached the age by which they should be fully vaccinated. According to information from both vaccination cards and mother's reports, 84 percent of children age 12-23 months are fully vaccinated. The level of coverage for BCG, three doses of pentavalent vaccine, and three doses of polio vaccine is 91 percent or higher. Coverage for measles vaccine is slightly lower (86 percent). Coverage for the pentavalent and polio vaccines declines with the dosage, from 97 percent each for the first dose to 91 percent each for the third dose. Only 2 percent of children age 12-23 months have not received any vaccinations.

Table 10.2 Vaccinations by source of information

Percentage of children age 12-23 months who received specific vaccines at any time before the survey, by source of information (vaccination card or mother's report), and percentage vaccinated by age12 months, Bangladesh 2014

Source of information	BCG	Penta-valent 1	Penta-valent 2	Penta-valent 3	Polio 1	Polio 2	Polio 3	Measles	All basic vaccina-tions[1]	No vaccina-tions	Number of children
Vaccinated at any time before survey											
Vaccination card	73.8	73.8	72.8	70.8	73.7	72.7	70.4	65.8	65.2	0.0	1,207
Mother's report	24.1	23.2	22.6	20.5	23.7	22.8	21.0	20.3	18.6	2.0	426
Either source	97.9	97.0	95.4	91.3	97.4	95.5	91.4	86.1	83.8	2.0	1,633
Vaccinated by 12 months of age[2]	97.8	97.0	95.3	90.9	97.4	95.4	91.1	79.9	78.0	2.0	1,633

Note: Data for polio vaccination were adjusted for a likely misreporting. It appears that, for some children, mothers may have reported that the first polio dose took place "soon after birth", when in fact the dose was polio 1 and not polio 0. To correct for any such errors, the total number of doses of pentavalent and polio was checked, because the two vaccinations are usually given at the same time. For children reported as having received the same or fewer pentavalent doses than polio doses, the first dose of polio was assumed to be polio 1, not polio 0. For example, children who were reported by the mother to have received all three doses of pentavalent and polio 0, polio 1, and polio 2 only, it was assumed that polio 0 was in fact polio 1, polio 1 was in fact polio 2, and polio 2 was in fact polio 3.
[1] BCG, measles, and three doses each of pentavalent and polio vaccine (excluding polio vaccine given at birth and polio 4)
[2] For children whose information is based on the mother's report, the proportion of vaccinations given during the first year of life is assumed to be the same as for children with a written record of vaccination.

Vaccinations are most effective when given at the proper age. Therefore, in line with the WHO guidelines, it is recommended that children complete the schedule of immunizations during their first year of life (i.e., by age 12 months). Overall, 78 percent of children age 12-23 months had received all the recommended vaccinations before their first birthday. The Health, Population and Nutrition Sector Development Program (HPNSDP) 2011-2016 sets a target of 90 percent coverage for measles vaccine by age 12 months by 2016 (MOHFW 2011). The 2014 BDHS shows that 80 percent of children have received the measles vaccine by age 12 months.

10.2.2 Differentials in Vaccination Coverage

Table 10.3 shows differences in vaccination coverage by background characteristics. Vaccination coverage does not vary by the sex of the child. Birth order is negatively related to the likelihood of being fully vaccinated—as birth order increases, vaccination coverage declines. Among administrative divisions, the highest level of coverage is seen in Rangpur (90 percent) and the lowest in Sylhet (61 percent). As expected, mother's education and wealth status are positively associated with children's likelihood of being fully vaccinated. For instance, 95 percent of children whose mothers completed secondary or higher education are fully vaccinated compared with 74 percent of children whose mothers have no education. Table 10.3 also shows that vaccination cards were seen for 74 percent of children age 12-23 months.

Table 10.3 Vaccinations by background characteristics

Percentage of children age 12-23 months who received specific vaccines at any time before the survey (according to a vaccination card or the mother's report), and percentage with a vaccination card seen, by background characteristics, Bangladesh 2014

Background characteristic	BCG	Penta-valent 1	Penta-valent 2	Penta-valent 3	Polio 1	Polio 2	Polio 3	Measles	All basic vaccina-tions[1]	No vaccina-tions	Percent-age with a vaccination card seen	Number of children
Sex												
Male	98.3	96.9	95.4	90.4	97.5	95.4	90.9	85.9	83.6	1.5	74.0	862
Female	97.5	97.1	95.5	92.3	97.4	95.6	92.0	86.4	84.1	2.5	73.8	772
Birth order												
1	98.9	97.7	96.3	92.2	98.5	96.5	92.0	88.5	85.9	1.0	70.4	660
2-3	97.8	97.4	95.8	92.8	97.5	95.8	92.7	86.7	84.8	2.1	76.4	767
4-5	97.9	95.9	92.7	88.0	95.7	92.5	89.2	79.0	76.6	2.1	76.3	151
6+	87.8	87.1	87.1	67.3	87.1	87.1	71.6	69.1	64.9	12.2	75.0	55
Residence												
Urban	98.9	98.5	97.2	93.6	98.6	97.5	93.0	90.0	87.6	1.0	74.3	423
Rural	97.6	96.5	94.8	90.4	97.0	94.8	90.8	84.8	82.5	2.3	73.8	1,210
Division												
Barisal	97.8	97.0	95.1	91.6	97.5	95.6	88.2	87.5	81.5	1.8	78.7	92
Chittagong	96.9	96.3	92.7	88.3	96.7	92.7	88.9	87.6	83.3	2.9	69.1	349
Dhaka	99.1	98.4	98.2	93.9	98.7	98.2	93.9	88.4	87.4	0.9	72.6	624
Khulna	98.9	98.1	95.1	92.0	98.1	95.7	92.6	86.2	85.5	1.1	78.2	129
Rajshahi	98.3	97.8	95.1	93.0	97.7	95.0	92.9	86.0	83.6	1.7	77.5	163
Rangpur	100.0	99.5	99.0	97.9	100.0	99.0	97.9	90.3	90.0	0.0	85.6	146
Sylhet	91.3	87.5	86.0	76.0	89.0	86.6	77.9	65.6	61.1	8.3	67.7	129
Mother's education												
No education	93.9	92.7	87.1	80.1	92.9	87.3	80.8	75.6	73.8	6.1	74.2	209
Primary incomplete	97.8	96.8	95.2	87.7	97.1	95.0	87.5	78.5	75.2	2.2	79.9	234
Primary complete[2]	96.4	95.1	93.9	88.4	95.5	94.2	89.7	79.1	76.2	3.2	71.5	225
Secondary incomplete	99.1	98.1	97.1	94.2	98.8	97.3	94.5	89.7	87.9	0.8	72.8	701
Secondary complete or higher[3]	99.4	99.4	99.0	97.9	99.2	98.9	96.4	97.5	94.8	0.6	73.4	264
Wealth quintile												
Lowest	96.5	94.0	90.1	81.3	94.3	90.2	81.6	73.4	69.4	3.5	74.7	376
Second	97.3	97.4	97.4	93.0	97.5	97.5	93.3	85.7	83.4	2.4	73.8	292
Middle	98.1	97.2	94.7	93.2	98.1	95.0	94.1	88.8	87.2	1.8	71.2	323
Fourth	98.2	97.6	96.7	93.9	98.1	96.9	94.0	91.0	89.7	1.7	74.2	336
Highest	99.8	99.6	99.3	97.0	99.6	99.3	95.8	93.9	91.9	0.2	75.6	307
Total	97.9	97.0	95.4	91.3	97.4	95.5	91.4	86.1	83.8	2.0	73.9	1,633

Note: Data for polio vaccination were adjusted for a likely misreporting. It appears that, for some children, mothers may have reported that the first polio dose took place "soon after birth," when in fact the dose was polio 1 and not polio 0. To correct for any such errors, the total number of doses of pentavalent and polio was checked, since the two vaccinations are usually given at the same time. For children reported as having received the same or fewer pentavalent doses than polio doses, the first dose of polio was assumed to be polio 1, not polio 0. For example, children who were reported by the mother to have received all three doses of pentavalent and polio 0, polio 1, and polio 2 only, it was assumed that polio 0 was in fact polio 1, polio 1 was in fact polio 2, and polio 2 was in fact polio 3.

[1] BCG, measles, and three doses each of pentavalent and polio vaccine (excluding polio vaccine given at birth and polio 4)

[2] Primary complete is defined as completing grade 5.

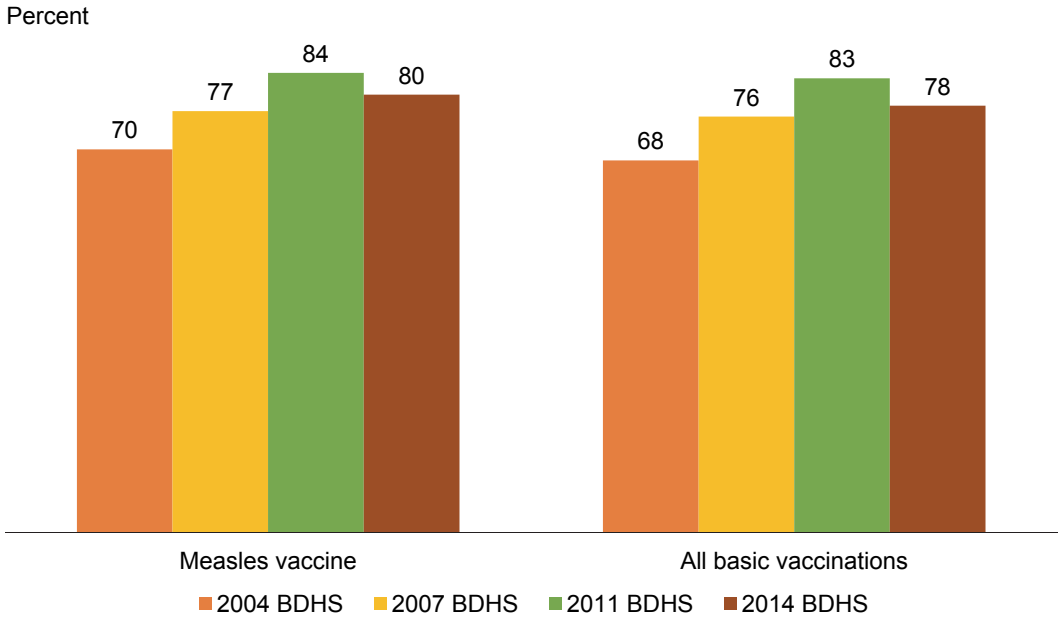
[3] Secondary complete is defined as completing grade 10.

10.2.3 Trends in Vaccination Coverage

Figure 10.1 shows that the proportion of children receiving all basic vaccinations by age 12 months increased between surveys in 2004 and 2011. Between 2011 and 2014, coverage of measles vaccination decreased by 4 percentage points and coverage of all basic vaccinations decreased by 5 percentage points (NIPORT et al. 2013). This decline in immunization coverage is of concern. It cannot be ruled out completely that the vaccination coverage rate in the 2014 BDHS may be underestimated. Whenever a vaccination card was available, this served as the source of information. If there was no written vaccination record, or if the vaccination was not recorded on the card, mothers were specifically asked whether the child had received BCG, measles, pentavalent, and polio vaccine, including the number of doses of polio and pentavalent vaccines.

In BDHS 2014, for 26 percent of children age 12-23 months a vaccination card was not shown to the interviewer, and information on their vaccination was based on mother's recall. Probing guidelines used by the interviewers lacked some clarity and that may have affected vaccination rates derived through recall. Research has shown that both of the existing sources of vaccination information (vaccination card and mothers' recall) are inadequate in terms of completeness and accuracy (Islam et. al. 2009).

Figure 10.1 **Trend in vaccination coverage by age 12 months, 2004-2014**



10.3 CHILDHOOD ILLNESS AND TREATMENT

This section discusses three illnesses that are major contributors to childhood morbidity and mortality in Bangladesh: diarrhea, acute respiratory infection (ARI), and fever. Estimates of the prevalence of these illnesses are presented, as well as data concerning types of treatment and feeding practices during diarrhea.

10.3.1 Childhood Diarrhea

Diarrhea remains a leading cause of childhood morbidity and mortality in developing countries. Dehydration from diarrhea has been an important contributing cause of childhood mortality. The administration of oral rehydration therapy (ORT) is a simple means of countering the effects of dehydration. During diarrhea, the child is given a solution prepared either by mixing water with the salts in a commercially prepared oral rehydration packet (ORS)—also called *khabar* or packet saline in Bangladesh—or by making a homemade solution of sugar, salt, and water, also called *labon gur*. Oral rehydration therapy has a long

history of use in Bangladesh because it was developed more than four decades ago by the International Center for Diarrheal Disease Research, Bangladesh (ICDDR,B). Currently, ORS packets are available through health facilities and at shops and pharmacies, many of which are marketed by the Social Marketing Company and other pharmaceutical companies.

Research has shown that zinc provides a very effective treatment for diarrhea among children under age 5. Zinc treatment reduces the severity and duration of diarrhea as well as the likelihood of future episodes of diarrhea and the need for hospitalization. Studies conducted at the ICDDR,B have helped to build an evidence base for integrating zinc treatment into current child health practice and policies (ICDDR,B 2008).

In the 2014 BDHS, respondents were asked if their children under age 5 had experienced an episode of diarrhea in the two weeks before the survey. Table 10.4 shows that 6 percent of children under age 5 were reported to have had diarrhea, including 1 percent with blood in the stools. The prevalence of diarrhea is highest at age 6-23 months, a period during which solid foods are first introduced into the child's diet. This pattern is believed to be associated with increased exposure to illness as a result of both weaning and the greater mobility of the child, as well as the immature immune system of children in this age group. The prevalence of diarrhea is slightly higher among children living in households with non-improved toilet facilities. Diarrhea prevalence is higher for children in Barisal, Chittagong, and Dhaka, while children in Rangpur have the lowest reported diarrhea prevalence compared with children in other divisions. The relationship between diarrhea prevalence and mother's education and wealth is not linear, but prevalence is lowest among children of mothers who have completed secondary or higher education, and also lowest among children living in households in the fourth wealth quintile.

Table 10.4 Prevalence of diarrhea

Percentage of children under age 5 who had diarrhea in the two weeks preceding the survey, by background characteristics, Bangladesh 2014

Background characteristic	Diarrhea in the two weeks preceding the survey: All diarrhea	Diarrhea with blood	Number of children
Age in months			
<6	6.0	0.9	657
6-11	6.7	1.0	857
12-23	8.5	0.9	1,633
24-35	5.1	0.8	1,563
36-47	4.0	0.8	1,535
48-59	4.3	1.4	1,515
Sex			
Male	5.7	0.7	4,051
Female	5.6	1.3	3,710
Source of drinking water[1]			
Improved	5.7	1.0	7,564
Not improved	5.3	1.7	190
Toilet facility[2]			
Improved, not shared	4.9	0.8	3,413
Shared[3]	5.5	0.7	1,766
Non-improved	6.8	1.4	2,581
Residence			
Urban	5.7	0.6	1,984
Rural	5.7	1.1	5,777
Division			
Barisal	6.5	1.3	444
Chittagong	6.7	0.8	1,668
Dhaka	6.5	1.3	2,733
Khulna	3.6	0.7	580
Rajshahi	4.3	0.8	797
Rangpur	2.7	1.0	768
Sylhet	6.1	0.6	771
Mother's education			
No education	5.9	2.4	1,270
Primary incomplete	6.3	1.3	1,269
Primary complete[4]	6.1	0.9	896
Secondary incomplete	5.9	0.6	3,102
Secondary complete or higher[5]	3.8	0.2	1,223
Wealth quintile			
Lowest	6.1	1.6	1,754
Second	6.4	2.0	1,462
Middle	5.9	0.5	1,500
Fourth	4.6	0.5	1,551
Highest	5.2	0.3	1,493
Total	5.7	1.0	7,760

Note: Total includes children with missing information on source of drinking water and toilet facility.
[1] See Table 2.1 for definition of categories.
[2] See Table 2.2 for definition of categories.
[3] Shared facilities of an otherwise improved type
[4] Primary complete is defined as completing grade 5.
[5] Secondary complete is defined as completing grade 10.

10.3.2 Treatment of Childhood Diarrhea

For children with diarrhea in the two weeks before the survey, the mother was asked what she did to treat the diarrhea. Because the prevalence of diarrhea varies seasonally, the survey results pertain only to the period from June to October, when the fieldwork took place. Table 10.5 shows that 36 percent of children under age 5 with diarrhea were taken to a health facility or provider for treatment. Overall, 84 percent of children with diarrhea were given oral rehydration therapy (ORT)—either a solution made from oral rehydration salt (ORS packets) (77 percent) or a homemade sugar-salt solution (20 percent)—while 9 percent received no treatment at all for diarrhea. Figure10.2 shows that use of ORT increased from 81 percent in 2011 to 84 percent in 2014.

Table 10.5 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 background characteristics, Bangladesh 2014

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			Number of children with diarrhea
		ORS packets	Recom-mended home fluids (RHF)	Either ORS or RHF[1]	Increased fluids	ORT or increased fluids	Zinc syrup	Zinc tablets	No treatment	
Age in months										
<6	*	*	*	*	*	*	*	*	*	39
6-11	39.5	62.5	19.2	72.3	15.3	72.3	39.9	11.1	17.2	57
12-23	42.1	82.8	18.3	90.0	27.4	90.9	46.3	10.1	5.7	138
24-35	41.1	89.6	23.8	92.9	23.6	92.9	45.6	18.8	5.6	79
36-47	25.0	75.1	19.2	82.7	24.2	85.1	33.0	18.9	4.4	61
48-59	(35.1)	(81.7)	(26.8)	(93.4)	(22.4)	(94.1)	(11.1)	(15.3)	(5.1)	65
Sex										
Male	37.2	80.8	20.5	87.9	25.0	88.9	39.1	10.7	7.4	232
Female	35.2	72.9	18.4	80.2	20.6	83.7	32.0	15.3	10.8	208
Type of diarrhea										
Non-bloody	39.4	77.2	17.2	82.4	25.1	84.7	38.1	11.4	10.1	367
Bloody	21.1	75.6	31.6	93.2	12.3	94.9	24.5	20.7	3.8	72
Residence										
Urban	53.4	83.4	17.3	88.5	24.4	89.6	36.0	10.5	9.7	112
Rural	30.4	74.8	20.2	82.8	22.4	85.3	35.7	13.7	8.8	328
Division										
Barisal	(32.5)	(85.8)	(19.2)	(88.5)	(17.6)	(88.5)	(46.4)	(14.6)	(11.5)	29
Chittagong	40.5	79.5	29.2	83.8	14.1	83.8	33.8	15.1	12.1	111
Dhaka	37.2	81.8	12.8	88.9	25.3	89.6	37.7	12.4	3.9	177
Khulna	(34.9)	(70.0)	(25.9)	(84.3)	(38.5)	(88.9)	(32.5)	(12.2)	(11.1)	21
Rajshahi	(34.3)	(72.3)	(23.3)	(82.4)	(27.5)	(82.4)	(17.8)	(6.1)	(14.6)	34
Rangpur	*	*	*	*	*	*	*	*	*	21
Sylhet	(32.7)	(66.7)	(15.8)	(79.2)	(23.0)	(83.2)	(39.0)	(12.3)	(13.1)	47
Mother's education										
No education	36.8	85.9	15.3	87.9	21.0	87.9	35.3	14.7	9.4	74
Primary incomplete	27.1	66.5	21.8	73.6	21.8	82.5	35.1	16.9	13.9	80
Primary complete[2]	22.4	69.5	16.7	80.3	8.3	81.2	22.2	6.5	6.1	55
Secondary incomplete	39.5	80.3	19.4	89.1	28.9	90.0	43.5	11.6	8.3	184
Secondary complete or higher[3]	(54.8)	(76.9)	(25.7)	(82.5)	(21.3)	(82.5)	(23.0)	(15.7)	(6.1)	46
Wealth quintile										
Lowest	29.9	71.8	26.1	84.2	37.0	89.5	44.1	12.9	9.2	107
Second	30.6	74.5	20.8	84.0	14.8	84.0	26.4	16.1	9.3	94
Middle	32.1	77.7	15.4	81.9	9.9	83.5	34.4	6.8	10.2	89
Fourth	31.1	82.7	19.9	84.2	25.9	84.2	31.2	12.3	9.8	72
Highest	61.3	81.3	13.1	87.5	25.5	90.3	41.2	16.6	6.4	78
Total	36.3	77.0	19.5	84.3	22.9	86.4	35.7	12.9	9.0	440

Note: ORT includes fluid prepared from oral rehydration salt (ORS) packets, pre-packaged ORS fluid, and recommended home fluids (RHF). Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that an estimate is based on fewer than 25 unweighted cases and has been suppressed.
[1] Excludes pharmacy, shop, and traditional practitioner
[2] Primary complete is defined as completing grade 5.
[3] Secondary complete is defined as completing grade 10.

In 2014, 20 percent of children under age 5 with recent diarrhea were given recommended home fluids (RHF), double the percentage in 2011, at 10 percent. The use of commercially available ORS packets has remained virtually unchanged in recent surveys, at 77 percent in 2007, 78 percent in 2011, and 77 percent in 2014 (NIPORT et al. 2009). The percentage of children receiving increased fluids has decreased slightly, from 25 percent in 2011 to 23 percent in 2014 (NIPORT et al. 2013).

Zinc is another diarrheal treatment, available in the market in the form of tablets and syrup. Zinc is not a substitute for ORT, but when taken in addition to ORT, it can reduce the severity and duration of diarrhea. Table 10.6 shows that, overall, 46 percent of children under age 5 with diarrhea received ORT only, 6 percent received zinc only, and 38 percent received both ORT and zinc. Figure 10.2 shows that the use of ORT and zinc to treat children with diarrhea has been increasing, from 20 percent in 2007 and 34 percent in 2011 to the level of 38 percent in the 2014 BDHS. The combined treatment of ORT and zinc varies little by child's age after age 6 months. Male children are more likely than female children to receive ORT and zinc

(40 and 36 percent, respectively). Children living in urban areas are more likely to receive ORT and zinc (40 percent) compared with children living in rural areas (37 percent). Treatment of diarrhea with ORT and zinc ranges from 21 percent among children in Rajshahi and Rangpur to 52 percent in Barisal.

Figure 10.2 **Trend in use of ORT and zinc for treatment of diarrhea in children under age 5, 2007-2014**

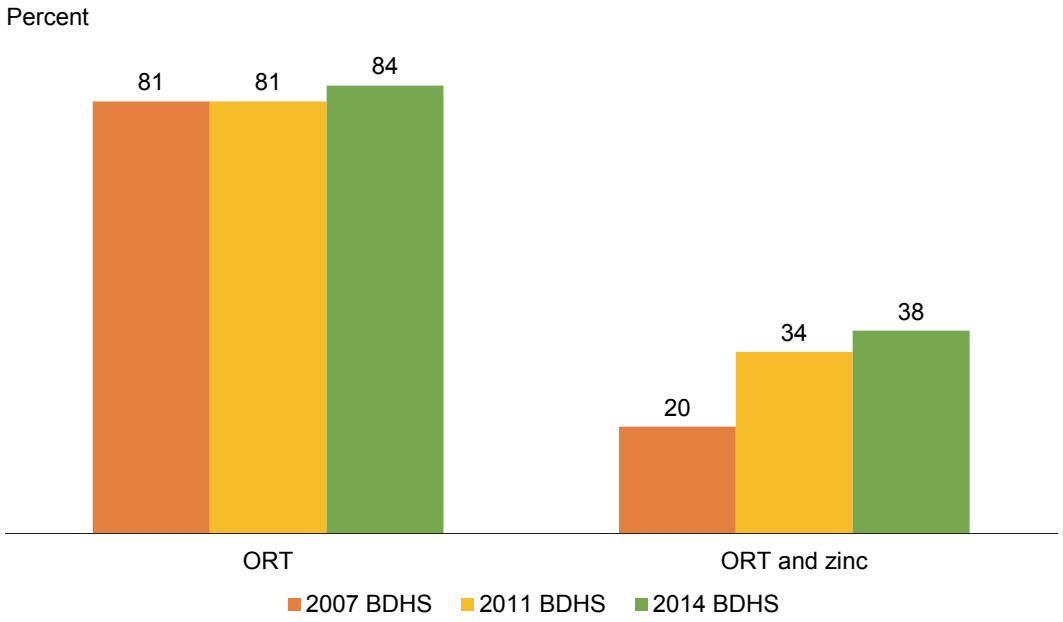


Table 10.6 Diarrhea treatment with ORT and zinc

Among children under age 5 who had diarrhea in the two weeks preceding the survey, percentage who received oral rehydration therapy (ORT) but not zinc syrup or tablets, percentage who received zinc but not ORT, and percentage who received both ORT and zinc, by background characteristics, Bangladesh 2014

Background characteristic	ORT but not zinc	Zinc syrup/ tablets but not ORT	ORT and zinc	Number of children with diarrhea
Age in months				
<6	*	*	*	39
6-11	36.5	10.5	35.8	57
12-23	43.2	4.3	46.8	138
24-35	33.7	1.4	59.3	79
36-47	49.4	10.5	33.3	61
48-59	(70.9)	(0.8)	(22.5)	65
Sex				
Male	47.8	4.3	40.1	232
Female	44.5	8.0	35.8	208
Type of diarrhea				
Non-bloody	46.0	4.7	38.5	363
Bloody	46.0	12.9	36.7	76
Residence				
Urban	48.1	1.8	40.4	112
Rural	45.6	7.5	37.3	328
Division				
Barisal	(36.1)	(0.0)	(52.3)	29
Chittagong	45.0	4.2	38.7	111
Dhaka	49.2	7.2	39.7	177
Khulna	(48.5)	(0.0)	(35.7)	21
Rajshahi	(61.5)	(3.1)	(20.8)	34
Rangpur	*	*	*	21
Sylhet	(36.5)	(3.7)	(42.7)	47
Mother's education				
No education	45.0	2.7	43.0	74
Primary incomplete	38.1	10.1	35.4	80
Primary complete[1]	64.2	12.7	16.0	55
Secondary incomplete	41.8	2.3	47.3	184
Secondary complete or higher[2]	(58.4)	(11.3)	(24.2)	46
Wealth quintile				
Lowest	36.8	6.2	47.4	107
Second	54.0	6.7	30.0	94
Middle	50.7	6.3	31.2	89
Fourth	47.6	6.0	36.6	72
Highest	43.4	4.9	44.1	78
Total	46.2	6.0	38.1	440

Note: ORT includes fluid prepared from oral rehydration salt (ORS) packets, pre-packaged ORS fluid, and recommended home fluids (RHF). Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that an estimate is based on fewer than 25 unweighted cases and has been suppressed.
[1] Primary complete is defined as completing grade 5.
[2] Secondary complete is defined as completing grade 10.

10.3.3 Feeding Practices during Diarrhea

Mothers are encouraged to continue feeding children normally when they have diarrhea and to increase the amount of fluids they offer. The 2014 BDHS asked mothers who had a child under age 5 with a recent episode of diarrhea how much they gave the child to drink and eat during the diarrheal episode compared with their usual practice. Table 10.7 shows that 23 percent of children with diarrhea received more fluids than usual, while 42 percent received the usual amount. About one-third of mothers (35 percent) still engage in the dangerous practice of curtailing fluid intake when a child has diarrhea. The percentage of children with diarrhea receiving more liquids than usual has declined from 25 percent in 2011 to 23 percent in 2014 (NIPORT et al. 2013). Table 10.7 also shows that 34 percent of children with diarrhea were given the same amount of food as usual, and 58 percent were given less food.

Table 10.7 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 background characteristics, Bangladesh 2014

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[1]	Number of children with diarrhea
	More	Same as usual	Some-what less	Much less	None	Don't know/ missing	Total	More	Same as usual	Some-what less	Much less	None	Never gave food	Don't know/ missing	Total			
Age in months																		
<6	*	*	*	*	*	*	100.0	*	*	*	*	*	*	*	100.0	*	*	39
6-11	15.3	52.4	19.5	12.8	0.0	0.0	100.0	2.3	56.9	18.5	14.8	2.0	5.5	0.0	100.0	13.7	56.2	57
12-23	27.4	39.5	21.1	12.0	0.0	0.0	100.0	2.8	29.2	49.1	15.1	3.7	0.0	0.0	100.0	25.2	73.3	138
24-35	23.6	39.5	26.2	8.5	0.0	2.1	100.0	3.1	35.4	44.7	13.0	1.7	0.0	2.1	100.0	20.4	77.0	79
36-47	24.2	36.0	18.8	20.9	0.0	0.0	100.0	0.0	32.6	39.8	27.6	0.0	0.0	0.0	100.0	19.1	63.2	61
48-59	(22.4)	(48.4)	(18.1)	(11.1)	(0.0)	(0.0)	100.0	(12.3)	(19.7)	(49.5)	(16.5)	(2.0)	(0.0)	(0.0)	100.0	21.2	75.7	65
Sex																		
Male	25.0	36.0	21.2	17.1	0.0	0.7	100.0	2.9	26.2	42.0	22.1	2.2	3.6	1.0	100.0	23.3	64.9	232
Female	20.6	47.8	18.6	12.6	0.4	0.0	100.0	4.4	41.7	36.2	14.6	2.1	1.0	0.0	100.0	17.1	67.3	208
Type of diarrhea																		
Non-bloody	19.9	42.3	22.2	15.0	0.2	0.5	100.0	2.6	33.8	38.6	18.9	2.6	2.9	0.7	100.0	17.1	62.8	363
Bloody	35.8	39.0	9.9	15.3	0.0	0.0	100.0	8.7	33.1	41.0	17.2	0.0	0.0	0.0	100.0	33.9	80.6	76
Residence																		
Urban	24.4	49.3	13.5	11.3	0.0	1.5	100.0	3.8	47.1	27.5	15.9	1.5	2.7	1.5	100.0	22.8	69.4	112
Rural	22.4	38.9	22.2	16.3	0.2	0.0	100.0	3.6	28.9	43.3	19.4	2.4	2.3	0.2	100.0	19.5	64.9	328
Division																		
Barisal	(17.6)	(23.4)	(28.3)	(30.6)	(0.0)	(0.0)	100.0	(0.0)	(32.8)	(40.5)	(26.7)	(0.0)	(0.0)	(0.0)	100.0	(16.3)	(61.8)	29
Chittagong	14.1	52.0	24.9	9.1	0.0	0.0	100.0	4.7	37.1	40.2	13.7	3.4	0.9	0.0	100.0	11.6	67.9	111
Dhaka	25.3	38.6	15.1	20.1	0.0	0.9	100.0	3.6	24.9	46.7	20.9	2.3	0.7	0.9	100.0	25.3	66.7	177
Khulna	(38.5)	(28.9)	(5.6)	(23.6)	(3.5)	(0.0)	100.0	(3.4)	(50.6)	(18.0)	(24.5)	(0.0)	(3.5)	(0.0)	100.0	(34.7)	(67.6)	21
Rajshahi	(27.5)	(36.5)	(30.6)	(5.4)	(0.0)	(0.0)	100.0	(3.9)	(24.3)	(36.6)	(23.6)	(2.8)	(8.9)	(0.0)	100.0	(16.7)	(54.1)	34
Rangpur	*	*	*	*	*	*	100.0	*	*	*	*	*	*	*	100.0	*	*	21
Sylhet	(23.0)	(46.2)	(23.0)	(7.7)	(0.0)	(0.0)	(100.0)	(4.9)	(41.0)	(28.1)	(15.2)	(1.4)	(9.3)	(0.0)	(100.0)	(16.7)	(66.0)	47
Mother's education																		
No education	21.0	48.7	25.9	4.4	0.0	0.0	100.0	4.9	35.7	50.1	7.6	1.3	0.5	0.0	100.0	19.1	79.1	74
Primary incomplete	21.8	38.3	21.8	18.0	0.0	0.0	100.0	2.0	33.6	31.5	21.3	3.1	8.4	0.0	100.0	20.7	55.5	80
Primary complete[2]	8.3	51.9	26.7	10.0	0.0	3.1	100.0	0.0	50.3	29.5	17.1	0.0	0.0	3.1	100.0	6.6	67.4	55
Secondary incomplete	28.9	35.0	14.6	21.0	0.4	0.0	100.0	4.8	25.8	41.6	23.0	2.9	1.5	0.4	100.0	25.2	63.9	184
Secondary complete or higher[3]	(21.3)	(49.4)	(20.7)	(8.6)	(0.0)	(0.0)	100.0	(4.3)	(40.5)	(37.5)	(15.4)	(1.4)	(0.9)	(0.0)	100.0	(18.8)	(70.3)	46
Wealth quintile																		
Lowest	37.0	27.1	21.9	14.0	0.0	0.0	100.0	3.6	34.6	45.1	12.7	0.9	2.5	0.6	100.0	35.7	75.6	107
Second	14.8	43.7	21.2	19.5	0.8	0.0	100.0	0.7	25.8	42.2	21.5	6.5	3.2	0.0	100.0	12.6	61.1	94
Middle	9.9	49.5	20.4	20.2	0.0	0.0	100.0	2.1	31.7	42.8	21.2	0.0	2.2	0.0	100.0	8.8	62.0	89
Fourth	25.9	45.6	19.9	6.3	0.0	2.4	100.0	9.4	29.0	38.4	19.9	0.9	0.0	2.4	100.0	18.8	62.0	72
Highest	25.5	46.1	15.4	12.9	0.0	0.0	100.0	3.8	47.8	24.3	18.5	2.2	3.4	0.0	100.0	23.2	67.3	78
Total	22.9	41.6	20.0	15.0	0.2	0.4	100.0	3.6	33.5	39.3	18.5	2.2	2.4	0.5	100.0	20.3	66.1	440

Note: It is recommended that children should be given more liquids to drink during diarrhea and food should not be reduced. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that an estimate is based on fewer than 25 unweighted cases and has been suppressed.

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

[2] Primary complete is defined as completing grade 5.

[3] Secondary complete is defined as completing grade 10.

10.3.4 Acute Respiratory Infections

Acute respiratory infection (ARI) is a leading cause of childhood illness and death. Early diagnosis and treatment with antibiotics can reduce the number of deaths caused by ARI, particularly deaths resulting from pneumonia. Respondents in the 2014 BDHS were asked if their children under age 5 had experienced symptoms of ARI in the two weeks before the survey. Table 10.8 shows that, overall, 5 percent of children under age 5 had symptoms of ARI in the two weeks preceding the survey. The prevalence of ARI decreases slightly with the increasing age of the child. Children living in rural areas are more likely to suffer from ARI than children living in urban areas. A higher proportion of children living in Rajshahi and Sylhet have symptoms of ARI compared with other divisions.

Table 10.8 Prevalence and treatment of symptoms of ARI

Among children under age 5, the percentage who had symptoms of acute respiratory infection (ARI) in the two weeks preceding the survey and among children with symptoms of ARI, the percentage for whom advice or treatment was sought from a health facility or provider and the percentage who received antibiotics as treatment, according to background characteristics, Bangladesh 2014

	Among children under age 5:		Among children under age 5 with symptoms of ARI:						
Background characteristic	Percentage with symptoms of ARI[1]	Number of children	Percentage for whom advice or treatment was sought from a health facility or provider[2]	Pharmacy	Traditional doctor	Other	No one	Percentage who received antibiotics	Number of children
Age in months									
<6	6.7	657	(43.5)	(21.5)	(22.4)	(6.7)	(12.3)	(33.1)	44
6-11	8.5	857	42.1	34.1	28.3	4.8	4.3	41.0	73
12-23	6.5	1,633	50.0	25.5	18.4	1.4	10.2	33.3	106
24-35	5.6	1,563	45.1	14.4	19.2	2.8	16.6	27.5	88
36-47	3.9	1,535	25.9	39.7	26.3	1.6	8.0	39.8	59
48-59	3.1	1,515	(36.8)	(18.6)	(42.2)	(0.0)	(11.5)	(32.1)	47
Sex									
Male	6.1	4,051	38.8	25.7	24.8	3.0	12.4	33.2	248
Female	4.5	3,710	46.7	25.2	24.1	2.3	7.9	35.6	169
Residence									
Urban	4.3	1,984	52.1	22.8	12.2	3.1	11.8	33.2	86
Rural	5.7	5,777	39.3	26.2	27.7	2.6	10.2	35.6	331
Division									
Barisal	4.1	444	(38.6)	(22.5)	(31.4)	(0.0)	(17.6)	(45.3)	18
Chittagong	4.9	1,668	46.3	22.9	20.7	2.8	12.6	38.7	81
Dhaka	5.2	2,733	43.2	31.4	19.3	0.0	8.7	33.9	141
Khulna	6.0	580	(44.8)	(15.2)	(46.0)	(4.3)	(5.4)	(32.3)	35
Rajshahi	6.6	797	37.3	28.7	20.5	5.7	12.3	31.9	53
Rangpur	5.2	768	(30.1)	(22.4)	(41.6)	(9.2)	(4.2)	(47.5)	40
Sylhet	6.3	771	45.0	20.3	18.6	1.9	16.8	16.5	49
Mother's education									
No education	4.5	1,270	31.2	37.9	14.6	3.9	15.0	21.2	57
Primary incomplete	5.8	1,269	37.5	26.9	26.6	2.9	14.0	37.7	74
Primary complete[3]	9.2	896	44.3	23.7	25.0	3.4	6.2	22.3	82
Secondary incomplete	5.3	3,102	45.1	22.1	30.1	2.6	6.9	43.1	163
Secondary complete or higher[4]	3.3	1,223	(48.0)	(22.8)	(11.5)	(0.0)	(21.6)	(34.3)	40
Wealth quintile									
Lowest	6.8	1,679	37.6	27.3	26.4	1.2	14.3	22.8	114
Second	6.3	1,405	43.5	28.3	27.5	1.1	6.0	35.2	89
Middle	5.3	1,419	37.0	26.8	27.3	6.7	5.6	43.5	75
Fourth	5.1	1,557	39.3	25.3	26.1	2.2	11.9	33.8	80
Highest	3.5	1,701	57.8	16.5	10.8	3.9	14.9	44.7	59
Total	5.4	7,760	42.0	25.5	24.5	2.7	10.6	34.2	417

Note: Figures in parentheses are based on 25-49 unweighted cases.
[1] Symptoms of ARI (cough accompanied by short, rapid breathing that was chest-related and/or by difficult breathing that was chest-related) is considered a proxy for pneumonia.
[2] Excludes pharmacy and traditional practitioner
[3] Primary complete is defined as completing grade 5.
[4] Secondary complete is defined as completing grade 10.

Forty-two percent of children with symptoms of ARI were taken to a health facility or a medically trained provider for treatment. This is a slightly higher percentage than that recorded in the 2011 BDHS (35 percent) (NIPORT et al. 2013). Female children are more likely than male children to be taken to a health facility or trained provider when ill with ARI (47 percent versus 39 percent), a reverse of the findings in the 2011 BDHS (29 percent of female children versus 40 percent of male children). Urban children are more likely than rural children to receive treatment at a health facility or from a medically trained provider (52 percent versus 39 percent). In addition, treatment was sought from a pharmacy for 26 percent of children, and 25 percent were treated by a traditional doctor.

In the 2014 BDHS, the interviewing teams were provided with a list of drug names to facilitate identifying whether the drug given to a child reported to have ARI symptoms is an antibiotic or not. About one-third of children (34 percent) were given antibiotics. This proportion is much lower than the target of 50 percent of children age 0-59 months that was set in the HPNSDP 2011-16 (MOHFW 2011). While it may seem that the use of antibiotics to treat ARI has decreased, from 71 percent in 2011 to 34 percent in 2014, the estimates are not comparable because the methodology for obtaining the information in the two surveys differs. In the 2011 BDHS, respondents were asked which drugs children with ARI symptoms took. The responses were recorded and checked against a precoded list of antimalarial drugs, two types of antibiotics, and other drugs. This likely resulted in an overestimation of the use of antibiotics. In an attempt to obtain a more accurate estimate on the use of antibiotics to treat ARI in children, interviewers in the 2014 BDHS were instructed to ask the name of the drug(s) used. If the woman did not know the name of the drug, the respondent was asked to show the drug or the packaging of the drug. As in the 2011 BDHS, multiple responses were allowed to account for multiple drugs taken for the illness in the past two weeks. In the 2014 BDHS, the list consisted of six types of antimalarial drugs, seven types of antibiotics, and other drugs. The interviewers were also given a detailed list of various drugs that are commonly given to children with ARI and are available in the market. Table 10.8 shows that children age 6-11 months, female children, children living in rural areas, and children living in households in the highest wealth quintile are more likely than other children to receive antibiotics for symptoms of ARI.

10.4 FEVER

Fever is a major manifestation of malaria and other acute infections in children. Malaria and fever contribute to high levels of malnutrition and morbidity. Table 10.9 shows the percentage of children under age 5 who had a fever during the two weeks preceding the survey and their treatments. Among children under age 5, 37 percent had a fever in the two weeks before the survey. Children age 6-23 months are more likely to have fever than either younger or older children. The prevalence of fever is highest among children in Sylhet division (43 percent) and lowest in Khulna (31 percent).

Fifty-five percent of the children with fever were taken to a health facility or trained medical provider for treatment. The percentage of children with fever for whom medical care is sought from a health facility or medical provider has increased from 27 percent in 2011 (NIPORT et al. 2013). Table 10.9 shows that urban children and children in Khulna division are more likely than rural children and children in other divisions to receive this kind of treatment. The likelihood of being taken to a health facility or medical provider for treatment increases with a mother's education and wealth. For example, 49 percent of children in the lowest wealth quintile were taken to a health facility or a medical provider for treatment of their fever compared with 60 percent of children in the highest wealth quintile.

Table 10.9 also shows that 9 percent of children with fever received antibiotics. Children age 48-59 months, male children, and children in Barisal division are more likely than other children to receive antibiotic treatment. Five percent of children received antimalarial drugs.

Table 10.9 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 for whom advice or treatment was sought from a health facility or provider, the percentage who took antimalarial drugs, and the percentage who received antibiotics as treatment, and among children with fever who were treated with antibiotic drugs, the percentage for whom the drug was prescribed by a health professional, by background characteristics, Bangladesh 2014

	Among children under age 5:		Among children under age 5 with fever:				Among children under age 5 with fever who were treated with antibiotic drugs:	
Background characteristic	Percentage with fever	Number of children	Percentage for whom advice or treatment was sought from a health facility or provider[1]	Percentage who took antimalarial drugs	Percentage who took antibiotic drugs	Number of children with fever	Percentage prescribed by a health professional/ worker	Number of children who took antibiotic drugs
Age in months								
<6	34.7	657	55.3	2.7	10.3	228	*	24
6-11	46.6	857	65.7	5.1	8.2	399	(53.0)	33
12-23	39.3	1,633	55.6	3.6	7.9	643	49.3	51
24-35	35.9	1,563	53.3	5.3	8.3	562	(64.2)	46
36-47	34.6	1,535	48.6	4.0	7.6	531	(32.8)	41
48-59	32.3	1,515	56.3	8.7	11.9	490	(74.5)	58
Sex								
Male	37.0	4,051	56.6	6.1	10.1	1,498	59.9	151
Female	36.5	3,710	54.0	3.8	7.5	1,354	47.7	101
Residence								
Urban	33.8	1,984	59.1	3.5	6.3	670	(67.0)	42
Rural	37.8	5,777	54.2	5.5	9.6	2,182	52.6	210
Division								
Barisal	37.9	444	51.2	3.3	17.0	168	(40.3)	29
Chittagong	38.4	1,668	59.2	8.3	7.7	641	(51.9)	49
Dhaka	34.0	2,733	51.1	4.7	8.0	930	(72.1)	75
Khulna	31.3	580	63.3	4.2	4.7	182	*	9
Rajshahi	37.1	797	53.3	1.1	10.0	296	(41.6)	30
Rangpur	40.0	768	59.2	3.3	11.1	307	(53.8)	34
Sylhet	42.6	771	56.0	6.2	8.4	328	(50.7)	27
Mother's education								
No education	36.0	1,270	51.1	4.5	10.4	457	(58.7)	48
Primary incomplete	38.4	1,269	51.4	6.9	8.4	487	(69.6)	41
Primary complete[2]	38.7	896	50.1	2.6	6.2	347	(38.2)	21
Secondary incomplete	37.3	3,102	56.7	5.2	8.8	1,156	42.9	102
Secondary complete or higher[3]	33.1	1,223	65.5	5.1	10.0	405	(75.4)	40
Wealth quintile								
Lowest	36.6	1,754	48.7	4.6	6.5	642	28.9	42
Second	35.8	1,462	54.3	4.5	9.3	524	(41.6)	49
Middle	42.4	1,500	58.4	4.9	11.1	635	72.5	70
Fourth	36.8	1,551	56.4	6.7	9.1	571	52.2	52
Highest	32.1	1,493	60.2	4.4	8.1	480	(72.0)	39
Total	36.8	7,760	55.4	5.0	8.8	2,852	55.0	252

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that an estimate is based on fewer than 25 unweighted cases and has been suppressed.
[1] Excludes pharmacy, shop, market, and traditional practitioner
[2] Primary complete is defined as completing grade 5.
[3] Secondary complete is defined as completing grade 10.

Among children under age 5 with fever who were treated with antibiotics, 55 percent were prescribed by health professionals, an increase of 22 percentage points from 33 percent in 2011. Male children, urban children, and children in Dhaka division are more likely than other children to receive prescribed medication. Children whose mothers have secondary or higher education and children living in households in the highest wealth quintile are most likely to receive a prescribed antibiotic drug compared with children whose mothers have less education and children living in households in the lowest wealth quintile.

In the 2014 BDHS, mothers of children with fever in the two weeks preceding the survey were asked to report in chronological order where they sought advice or treatment for their child. Table 10.10 shows the first source of treatment. Among children with fever, 69 percent were taken first to a private medical sector, a level 4 percentage points higher than in the 2011 BDHS. Ten percent of children with fever received their first treatment from the public sector, 2 percentage points more than in the 2011 BDHS. The proportion of children with fever who were not treated has declined substantially, from 24 percent in 2011 to 16 percent in 2014 (NIPORT et al. 2013).

Table 10.10 First source of treatment of fever

Percent distribution of children under age 5 who had fever in the two weeks preceding the survey by the first source of treatment, according to background characteristics, Bangladesh 2014

Background characteristic	Public sector	NGO sector	Private medical sector	Other source	No treatment sought	Total	Number of children with fever
Age in months							
<6	13.4	0.6	54.0	12.2	19.8	100.0	228
6-11	9.7	0.5	72.8	3.7	13.3	100.0	399
12-23	9.4	0.5	70.9	3.6	15.5	100.0	643
24-35	13.1	1.2	64.9	2.7	18.2	100.0	562
36-47	6.7	0.2	70.1	5.1	17.9	100.0	531
48-59	9.4	1.5	72.1	2.3	14.7	100.0	490
Sex							
Male	9.0	0.7	70.8	3.5	16.1	100.0	1,498
Female	11.1	0.9	66.3	5.0	16.7	100.0	1,354
Residence							
Urban	12.3	0.8	69.6	4.8	12.5	100.0	670
Rural	9.3	0.7	68.4	4.0	17.6	100.0	2,182
Division							
Barisal	15.5	0.0	60.9	0.8	22.8	100.0	168
Chittagong	9.7	1.3	69.0	3.4	16.6	100.0	641
Dhaka	9.5	0.2	70.9	2.9	16.6	100.0	930
Khulna	16.1	0.6	63.0	3.4	17.0	100.0	182
Rajshahi	8.4	1.0	65.9	7.1	17.6	100.0	296
Rangpur	8.8	0.3	66.6	11.0	13.4	100.0	307
Sylhet	8.2	2.0	73.5	2.7	13.6	100.0	328
Mother's education							
No education	10.4	0.2	66.1	4.2	19.0	100.0	457
Primary incomplete	9.3	0.9	66.9	5.7	17.1	100.0	487
Primary complete[1]	8.6	1.2	71.2	2.7	16.4	100.0	347
Secondary incomplete	9.5	0.7	70.1	4.1	15.6	100.0	1,156
Secondary complete or higher[2]	12.9	1.0	67.4	4.0	14.7	100.0	405
Wealth quintile							
Lowest	10.4	0.4	65.9	5.7	17.6	100.0	642
Second	9.1	0.3	66.7	4.5	19.5	100.0	524
Middle	11.6	0.9	68.4	4.1	14.9	100.0	635
Fourth	11.4	1.0	68.8	2.6	16.1	100.0	571
Highest	6.6	1.2	74.8	3.8	13.7	100.0	480
Total	10.0	0.8	68.7	4.2	16.4	100.0	2,852

[1] Primary complete is defined as completing grade 5.
[2] Secondary complete is defined as completing grade 10.

NUTRITION OF CHILDREN AND WOMEN 11

Key Findings

- Thirty-six percent of children under age 5 are stunted, 14 percent are wasted, and 33 percent are underweight. The HPNSDP 2011-16 targets for 2016 for stunting and underweight have been achieved.
- Breastfeeding is almost universal in Bangladesh; 96 percent of children are breastfed during the first year of life and 87 percent of children are breastfed until age 2. Fifty-one percent of children are breastfed within one hour after birth, and 89 percent are breastfed within one day after delivery.
- Fifty-five percent of children under age 6 months are exclusively breastfed. Median duration of exclusive breastfeeding is 2.8 months.
- Twenty-seven percent of Bangladeshi children receive a prelacteal feed. The likelihood of receiving a prelacteal feed is higher for births assisted by a health professional and for births delivered at a health facility.
- Bottle feeding is common in Bangladesh; 22 percent of infants 6-9 months are fed with a bottle with a nipple. Bottle feeding is most common among children age 4-5 months (26 percent).
- Complementary foods are not introduced in a timely fashion for all children. Seventy percent of breastfed children age 6-9 months receive complementary foods.
- Overall, only 23 percent of children age 6-23 months are fed appropriately based on recommended infant and young child feeding (IYCF) practices.
- Sixty two percent of children received vitamin A supplementation in the 6 months preceding the survey. The HPNSDP 2011-16 target for 2016 is 90 percent.
- Thirty-one percent of ever-married women age 15-19 are undernourished (BMI <18.5). However, women's nutritional status has improved considerably in the last 10 years. The percentage of women undernourished (BMI<18.5) has declined from 34 to 19 percent between 2004 and 2014.
- On the other hand, overweight or obesity (BMI ≥25) among ever-married women age 15-49 has been increasing over the past decade from 9 percent in 2004 to 24 percent in 2014.
- Using a lower cutoff point, with BMI ≥23 as a measure of overweight or obesity among ever-married women age 15-49, the proportion has increased from 17 percent in 2004 to 39 percent in 2014.

Nutritional status is the result of complex interactions between food consumption, overall health status, and care practices. Adequate nutrition is a prerequisite for attaining good health, quality of life, and national productivity. Although problems related to poor nutrition affect the entire population, women and children are especially vulnerable because of their unique physiology and socioeconomic characteristics. The period from birth to age 2 is crucial for optimal growth, health, and development. Unfortunately, this period is often marked by protein-energy and micronutrient deficiencies that interfere with optimal physical growth and cognitive development. Malnourished children have lower resistance to infection and are more likely to die from common childhood ailments, such as diarrheal diseases

and respiratory infections (Black et al. 2008). Malnutrition in adults results in reduced productivity, increased susceptibility to infections, slow recovery from illness, and for women, increased risk of adverse pregnancy outcomes (Victor et al. 2008). A woman of poor nutritional status—indicated by a low body mass index (BMI), short stature, anemia, or other micronutrient deficiencies—has a heightened risk of obstructed labor, having a baby with low birth weight, producing low-quality breast milk, and dying from postpartum hemorrhage. Morbidity, in general, is also high for both the woman and her baby. Effects of undernutrition are passed from one generation to the next, as undernourished girls tend to become short adults and thus are more likely to have small children (Victor et al. 2008).

Poor nutritional status is one of the most important health and welfare problems in Bangladesh. Young children and women of reproductive age are especially vulnerable to nutritional deficits and micronutrient deficiencies. At the individual level, inadequate or inappropriate feeding patterns lead to malnutrition. Numerous socioeconomic and cultural factors influence patterns of feeding and nutritional status.

Overweight and obesity is also a growing concern in Bangladesh. Overweight individuals are predisposed to a wide range of health problems such as diabetes and heart disease as well as poor birth outcomes for women. Maternal overweight and obesity at the time of pregnancy increases the risk for childhood obesity that continues into adolescence and early adulthood, with the potential to transmit obesity to the next generation (Black et al. 2013).

The 2014 BDHS survey measured height and weight of children under age 5 and of ever-married women of reproductive age. The survey also collected data on feeding practices for infants and young children, including breastfeeding, the feeding of solid and semi-solid foods, diversity of foods, and frequency of feeding. Information was also collected on the feeding of micronutrients—vitamin A and iron—and vitamin A supplementation among children and women.

11.1 NUTRITIONAL STATUS OF CHILDREN

The 2014 BDHS collected data on the nutritional status of children by measuring the height and weight of all children under age 5 in the selected households. The nutritional status assessment helps to identify subgroups of the child population that face increased risk of faltered growth and provides data for comparison with previous surveys in trend analyses.

11.1.1 Measurement of Nutritional Status among Young Children

The nutritional status of children in the survey population is compared with the World Health Organization (WHO) Child Growth Standards, which are based on an international sample of ethnically, culturally, and genetically diverse healthy children living under optimum conditions that are conducive to achieve a child's full genetic growth potential (WHO 2006). The WHO Child Growth Standards identify breastfed children as the normative model for growth and development and document how children should grow under optimum conditions and with optimum infant feeding and child health practices. Use of the WHO Child Growth Standards is based on the finding that well-nourished children in all population groups for which data exist follow very similar growth patterns before puberty. These standards can therefore be used to assess the nutritional status of children all over the world, regardless of ethnicity, social and economic influences, and feeding practices.

Three standard indices of physical growth that describe the nutritional status of children are:

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

Each of these indices provides different information about growth and body composition that can be used to assess nutritional status.

Height-for-age measures linear growth. A child who is more than two standard deviations below the median (-2 SD) of the WHO reference population in terms of height-for-age is considered short for his or her age, or stunted. This condition reflects the cumulative effect of chronic malnutrition. If a child is below three standard deviations (-3 SD) from the reference median, then the child is considered severely stunted. Stunting reflects a failure to receive adequate nutrition over a long period of time and is worsened by recurrent and chronic illness. Height-for-age, therefore, reflects the long-term effects of malnutrition in a population and does not vary appreciably according to recent dietary intake.

Weight-for-height describes current nutritional status. A child who is more than two standard deviations below (-2 SD) the reference median for weight-for-height is considered to be too thin for his or her height, or wasted. This condition reflects acute or recent nutritional deficit. As with stunting, wasting is considered severe if the child is more than three standard deviations below the reference median. Severe wasting is closely linked to mortality risk.

Weight-for-age is a composite index of weight-for-height and height-for-age. Thus, it does not distinguish between acute malnutrition (wasting) and chronic malnutrition (stunting). A child can be underweight for his or her age because the child is stunted, is wasted, or both. Children whose weight-for-age is below two standard deviations (-2 SD) from the median of the reference population are classified as underweight. Children whose weight-for-age is below three standard deviations (-3 SD) from the median of the reference population are considered severely underweight. Weight-for-age is an overall indicator of a population's nutritional health.

Z-score means are also calculated as summary statistics representing the nutritional status of children in a population. These mean scores describe the nutritional status of the entire population without the use of a cut-off. A mean Z-score of less than 0 (i.e., a negative mean value for stunting, wasting, or underweight) suggests that the distribution of an index has shifted downward and that most if not all children in the population suffer from undernutrition relative to the reference population.

11.1.2 Data Collection

In the survey, all children under age 6 listed in the selected households were eligible for height and weight measurement, although the data analysis is restricted to children under age 5. Each interviewing team carried two weighing scales and two height boards. Weight was measured using lightweight SECA scales with digital screens, designed and manufactured under the authority of the United Nations Children's Fund (UNICEF). The height/length boards were specially produced by Shorr Productions for use in survey settings. Recumbent length was recorded for children under age 2 or shorter than 85 centimeters. Standing height was measured for all other children.

11.1.3 Levels of Child Malnutrition

Table 11.1 shows the percentage of children under age 5 classified as malnourished according to height-for-age, weight-for-height, and weight-for-age indices, by various background characteristics. A total of 8,325 children under age 5 (unweighted) in the BDHS sample households were eligible for anthropometric measurements. The following analysis focuses on the 7,318 children (88 percent) for whom complete and credible anthropometric and age data are available.

Height-for-age (stunting)

The data show that 36 percent of children under 5 are considered to be short for their age or stunted and 12 percent are severely stunted (below -3 SD). The prevalence of stunting increases with age, from 14 percent of children under age 6 months to 46 percent of children 18-23 months, and then decreases to 38 percent among children age 48-59 months. Severe stunting shows a similar pattern, with children age 18-23 months having the highest proportion of severe stunting (17 percent). Stunting is slightly higher among male children (37 percent) than among female children (35 percent). Stunting is more prevalent among children who were born less than 24 months after a preceding birth (47 percent).

Table 11.1 Nutritional status of children

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 background characteristics, Bangladesh 2014

	Height-for-age[1]			Weight-for-height				Weight-for-age				
Background characteristic	Percentage below -3 SD	Percentage below -2 SD[2]	Mean Z-score (SD)	Percentage below -3 SD	Percentage below -2 SD[2]	Percentage above +2 SD	Mean Z-score (SD)	Percentage below -3 SD	Percentage below -2 SD[2]	Percentage above +2 SD	Mean Z-score (SD)	Number of children
Age in months												
<6	3.8	14.0	(0.6)	4.9	19.9	4.3	(0.8)	3.6	19.0	0.0	(1.0)	583
6-8	3.1	16.2	(0.7)	4.8	16.2	2.4	(0.7)	2.9	16.1	1.7	(1.0)	389
9-11	6.5	22.6	(1.1)	5.8	20.1	1.5	(0.8)	6.3	24.8	1.0	(1.2)	437
12-17	10.6	30.6	(1.5)	6.0	17.6	1.3	(0.9)	8.5	29.4	0.3	(1.4)	809
18-23	16.5	46.3	(1.8)	2.0	12.4	1.4	(0.8)	8.9	34.7	0.3	(1.5)	744
24-35	13.4	41.4	(1.8)	2.2	12.6	1.1	(0.9)	9.0	36.7	0.6	(1.6)	1,446
36-47	14.2	44.5	(1.8)	1.7	11.4	1.0	(0.9)	8.2	36.6	0.0	(1.7)	1,457
48-59	12.3	38.4	(1.7)	2.4	13.7	0.9	(1.0)	8.4	37.6	0.3	(1.7)	1,452
Sex												
Male	11.8	36.7	(1.5)	3.7	15.0	1.5	(0.9)	7.5	32.2	0.4	(1.5)	3,801
Female	11.4	35.4	(1.5)	2.4	13.6	1.4	(0.9)	7.9	33.1	0.4	(1.5)	3,516
Birth interval in months[3]												
First birth[4]	8.4	31.6	(1.4)	2.8	14.0	2.1	(0.8)	5.9	28.8	0.6	(1.4)	2,749
<24	15.9	47.4	(1.8)	1.4	15.9	0.3	(1.0)	10.5	43.8	0.0	(1.7)	485
24-47	16.4	43.6	(1.8)	4.3	16.1	1.2	(1.0)	10.7	39.1	0.2	(1.7)	1,461
48+	11.2	34.8	(1.5)	3.1	13.4	1.1	(0.9)	7.3	31.0	0.4	(1.4)	2,429
Size at birth[3]												
Very small	18.1	43.1	(1.8)	7.5	26.4	1.0	(1.3)	13.3	51.2	0.0	(2.0)	282
Small	18.7	43.3	(1.8)	4.8	20.6	1.2	(1.1)	15.7	43.1	0.5	(1.8)	562
Average or larger	8.4	29.9	(1.3)	3.3	13.9	1.9	(0.7)	5.4	25.7	0.6	(1.2)	3,497
Mother's interview status												
Interviewed	11.5	36.2	(1.5)	3.1	14.4	1.4	(0.9)	7.7	32.7	0.4	(1.5)	7,123
Not interviewed[5]	17.3	32.4	(1.5)	3.6	13.7	0.7	(0.9)	9.2	31.8	0.0	(1.5)	195
Residence												
Urban	9.8	30.8	(1.3)	3.1	12.2	1.8	(0.7)	6.6	26.1	0.9	(1.3)	1,828
Rural	12.3	37.9	(1.6)	3.1	15.1	1.3	(0.9)	8.1	34.8	0.2	(1.6)	5,490
Division												
Barisal	10.4	39.9	(1.5)	3.9	17.7	1.4	(1.0)	7.5	36.9	0.8	(1.5)	424
Chittagong	14.1	38.0	(1.6)	3.8	15.6	1.4	(0.9)	8.7	36.0	0.4	(1.5)	1,541
Dhaka	10.1	33.9	(1.5)	2.1	11.9	2.1	(0.8)	7.0	28.5	0.5	(1.4)	2,546
Khulna	7.3	28.1	(1.4)	3.0	13.5	0.4	(0.9)	5.2	25.5	0.1	(1.4)	565
Rajshahi	9.8	31.1	(1.4)	3.7	17.3	0.9	(1.0)	6.6	32.1	0.1	(1.5)	780
Rangpur	9.8	36.0	(1.5)	5.0	17.7	1.3	(1.1)	8.0	36.8	0.3	(1.6)	762
Sylhet	19.8	49.6	(1.9)	2.2	12.1	0.8	(0.9)	11.5	39.8	0.1	(1.7)	700
Mother's education[6]												
No education	18.4	47.4	(1.9)	3.0	14.7	0.6	(1.0)	12.1	41.9	0.2	(1.8)	1,161
Primary incomplete	16.6	44.3	(1.8)	3.5	14.6	0.9	(1.0)	10.1	38.5	0.1	(1.7)	1,165
Primary complete[7]	13.4	43.2	(1.8)	3.6	16.6	0.6	(1.1)	10.3	40.1	0.0	(1.7)	828
Secondary incomplete	8.8	33.2	(1.5)	2.8	13.9	1.9	(0.9)	5.9	30.1	0.4	(1.4)	2,868
Secondary complete or higher[8]	4.1	18.4	(0.9)	3.3	13.2	2.4	(0.7)	3.1	17.9	1.3	(1.0)	1,101
Wealth quintile												
Lowest	18.8	49.2	(1.9)	3.7	17.1	0.5	(1.1)	12.8	45.1	0.1	(1.9)	1,661
Second	13.3	42.2	(1.7)	3.6	16.5	0.9	(1.0)	8.8	38.7	0.0	(1.7)	1,383
Middle	10.8	35.9	(1.6)	2.8	12.8	2.2	(0.9)	7.1	32.1	0.1	(1.5)	1,464
Fourth	8.5	31.0	(1.4)	2.7	13.1	0.7	(0.8)	5.4	27.3	0.3	(1.3)	1,465
Highest	5.4	19.4	(1.0)	2.8	11.7	3.0	(0.6)	3.5	17.4	1.5	(1.0)	1,345
Total	11.6	36.1	(1.5)	3.1	14.3	1.4	(0.9)	7.7	32.6	0.4	(1.5)	7,318

Note: Table is based on children who stayed in the household on 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 reference.
Table is based on children with valid dates of birth (month and year) and valid measurement of both height and weight.
[1] Recumbent length is measured for children under age 2, or in the few cases when the age of the child is unknown and the child is less than 85 cm; standing height is measured for all other children.
[2] Includes children who are below -3 standard deviations (SD) from the WHO Child Growth Standards population median
[3] Excludes children whose mothers were not interviewed
[4] First-born twins (triplets, etc.) are counted as first births because they do not have a previous birth interval.
[5] Includes children whose mothers are deceased and those not in the household
[6] For women who are not interviewed, information is taken from the Household Questionnaire. Excludes children whose mothers are not listed in the Household Questionnaire
[7] Primary complete is defined as completing grade 5.
[8] Secondary complete is defined as completing grade 10.

The 2014 BDHS asked mothers their perception of their child's birth size: average or larger, small, or very small. Perceived birth size is used as a proxy for birth weight because the majority of deliveries in Bangladesh occur at home and newborns are not weighed at birth. Table 11.1 shows that among children who are perceived by their mothers to be very small or small, 43 percent are stunted. A previous study in Bangladesh showed a similar result; children's birth weight is an important determinant of their nutritional status (Rahman and Chowdhury 2007).

Rural children are more likely to be stunted than urban children (38 percent compared with 31 percent). Stunting is most prevalent in Sylhet (50 percent) and lowest in Khulna (28 percent). Children of mothers with no education are much more likely to be stunted (47 percent) than children whose mothers have completed secondary and higher education (18 percent). The differentials in stunting across wealth quintiles are larger, at 49 percent of children whose mothers are in the lowest wealth quintile compared with 19 percent of children whose mothers are in the wealthiest quintile.

Weight-for-height (wasting)

Overall, 14 percent of children are considered wasted or too thin for their height, and 3 percent are severely wasted. Moderate wasting peaks at age 9-11 months (20 percent) and severe wasting at age 12-17 months (6 percent). Wasting among male children is similar to that among female children (15 percent and 14 percent, respectively). Wasting is not strongly correlated with the length of the preceding birth interval. Children who are very small at birth are almost twice as likely to be wasted as children who are of average size or larger at birth (26 percent and 14 percent, respectively). Children living in urban areas are less likely to be wasted (12 percent) than children living in rural areas (15 percent). By division, wasting among children ranges from 12 percent in Dhaka to 18 percent in Rangpur and Barisal. The prevalence of wasting does not show a linear relationship with mother's education and wealth quintile, as indicated by the highest prevalence of wasting among children of women with completed primary education (17 percent) and among children of women from the lowest wealth quintiles (17 percent).

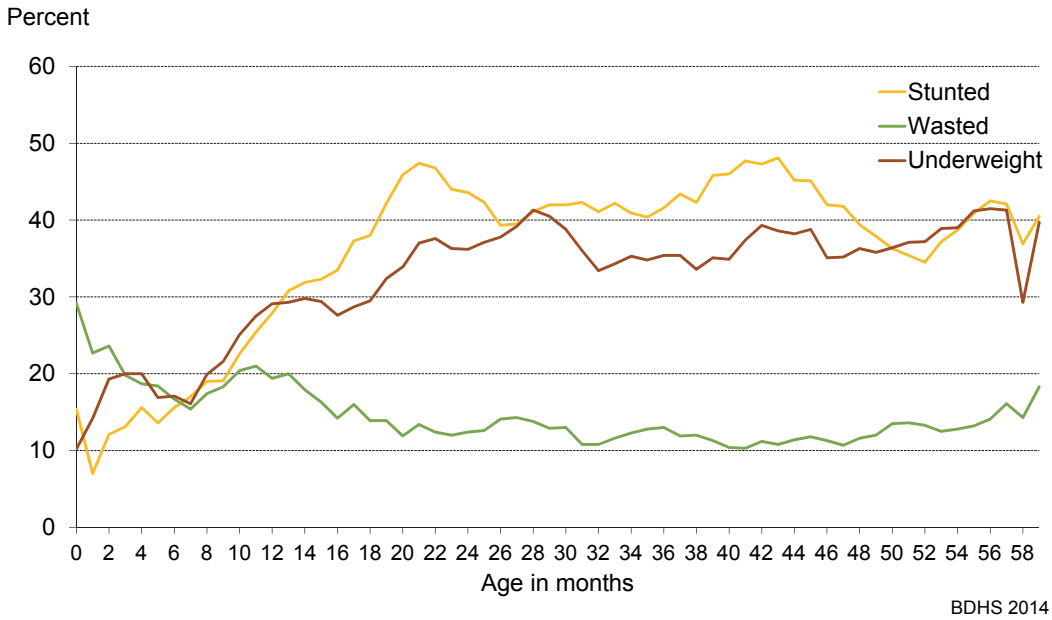
Weight-for-age (underweight)

Table 11.1 shows that 33 percent of children under age 5 are underweight (low weight-for-age), and 8 percent are severely underweight. Under Millennium Development Goal 1, Bangladesh has set a target to halve the rate of underweight children between 1990 and 2015. Using the WHO standard, the MDG1 target is 31 percent, whereas using the NCHS reference, the target is 33 percent. Using the WHO standard, therefore, according to the 2014 BDHS data Bangladesh is 2 percentage points short of reaching the MDG1 target for underweight.

Nineteen percent of children under age 6 months are underweight. At 6-8 months, 16 percent of children are underweight. The rate of underweight continues to increase with age, peaking at 38 percent at age 48-59 months (Figure 11.1). Female children are only slightly more likely to be underweight (33 percent) compared with male children (32 percent). The data show a strong correlation between underweight children and their perceived birth size. Babies perceived by mothers as very small at birth are much more likely to be underweight (51 percent) than those perceived as average or larger at birth (26 percent).

Rural children are more likely to be underweight (35 percent) than urban children (26 percent). Sylhet has the highest proportion of underweight children (40 percent), while among the other divisions the proportion ranges from 26 percent in Khulna to 40 percent in Sylhet. As with wasting and stunting, mother's education is associated with underweight; the percentage of children who are underweight is lowest among children of mothers with a secondary and higher education (18 percent) and highest among children of mothers with no education (42 percent). A similar negative relationship is observed between household wealth and the percentage of underweight children; children in the poorest households are more likely to be underweight (45 percent) compared with children in the wealthiest households (17 percent).

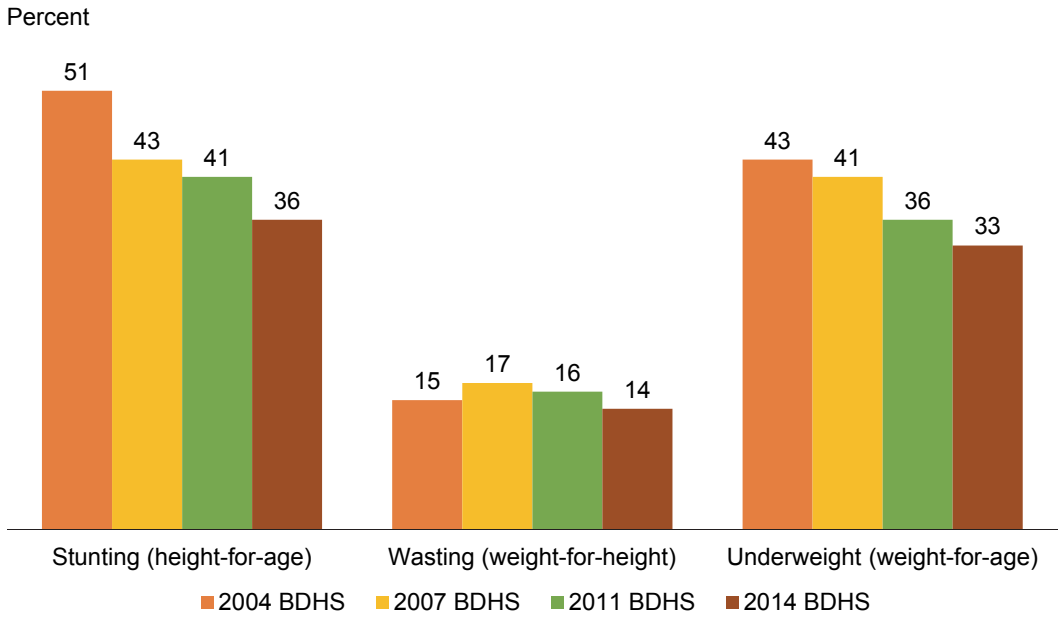
Figure 11.1 **Nutritional status of children by age**



11.1.4 Trends in Children's Nutritional Status

There has been some improvement in child nutritional status over the past decade (Figure 11.2). The level of stunting among children under age 5 has declined from 51 percent in 2004 to 36 percent in 2014. In the last three years it declined by 5 percentage points. Wasting increased to 17 percent in 2007 from 15 percent in 2004 and has gradually declined since then, to 14 percent in 2014. The level of underweight has declined from 43 percent in 2004 to 33 percent in 2014. The HPNSDP 2011-16 targets for 2016 are 38 percent for stunting and 33 percent for underweight. The 2014 BDHS data show that these targets have been achieved.

Figure 11.2 **Trends in nutritional status of children under age 5, 2004-2014**



11.2 BREASTFEEDING AND COMPLEMENTARY FEEDING

Feeding practices play a pivotal role in determining the optimal growth and development of infants. Poor breastfeeding and infant feeding practices have adverse consequences for the health and nutritional status of children. These consequences, in turn, affect their mental and physical development. Breastfeeding also affects mothers by physiologically suppressing the return of fertility, thereby lengthening the interval between pregnancies.

UNICEF and WHO recommend that children be exclusively breastfed (that is, given no other liquid or solid food or plain water) for the first six months and then should be given solid or semi-solid complementary foods beginning in the seventh month of life. The standard indicator of exclusive breastfeeding is the percentage of children under age 6 months who are exclusively breastfeeding. The standard indicator of timely complementary feeding is the percentage of children age 6-8 months who receive solid, semi-solid, or soft foods. WHO recommends that breastfeeding should continue through the second year of life. Use of bottles with nipples is not recommended for feeding at any age (WHO 2008).

11.2.1 Initiation of Breastfeeding

Early initiation of breastfeeding is important for both the mother and the child. There are a number of reasons to encourage early breastfeeding. Mothers benefit from early suckling because it stimulates production of breast milk and facilitates the release of oxytocin, which helps to contract the uterus and reduce 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 encourages bonding between the mother and her newborn.

The 2014 BDHS collected data on infant feeding for the youngest children under age 2 who were living with their mother, using a 24-hour recall period. Table 11.2 presents the breastfeeding status of all last-born children born in the two years preceding the survey, by background characteristics. The table shows the percentage of children according to whether they were ever breastfed, when they started breastfeeding, and whether they were fed anything other than breast milk before beginning breastfeeding. Breastfeeding is almost universal in Bangladesh; 98 percent of last-born children who were born in the two years preceding the survey were breastfed at some point in their life. There are no marked differences by background characteristics in the proportion of children ever breastfed.

Overall, 51 percent of children are breastfed within one hour after birth, and 89 percent are breastfed within one day. These results are for last-born children born in the two years preceding the survey. Table 11.2 indicates no marked differences in the timing of initial breastfeeding within one hour of birth by the sex of the child. Rural children are more likely to be breastfed within one hour of birth compared with urban children (53 percent and 45 percent, respectively). Notable variations can be seen by geographic division. The proportion of children breastfed within one hour of birth is highest in Rangpur (60 percent) and lowest in Khulna (39 percent).

The timing of initiation of breastfeeding varies by other background characteristics. Less likely to begin breastfeeding within one hour of birth are children born in a health facility (38 percent), children attended by a health professional at delivery (40 percent), children of mothers who completed secondary or higher education (45 percent), and children from households in the highest wealth quintile (44 percent). Similar patterns were also reported in the 2011 BDHS.

11.2.2 Prelacteal Breastfeeding

Prelacteal feeding is the practice of giving other liquids to a child during the first three days of life. The practice of prelacteal feeding is discouraged because it limits the frequency of suckling by the infant and exposes the child to the risk of gastrointestinal infection. Twenty-seven percent of Bangladeshi children

receive a prelacteal feed. The likelihood of receiving a prelacteal feed is higher for births assisted by a health professional and for births delivered at a health facility.

Prelacteal feeding is more common in Rajshahi (37 percent), Dhaka (34 percent) and Khulna (33 percent) than in other divisions. Children of mothers with limited education and less wealth are less likely to receive prelacteal feeds. The 2014 BDHS did not collect information on whether the child received the first milk (colostrum). However, the 2007 BDHS reported that 92 percent of last-born children in the five years preceding the survey who were ever breastfed received colostrum (NIPORT et al. 2009).

Table 11.2 Initial breastfeeding

Among last-born children who were born in the two years preceding the survey, the percentage who were ever breastfed and the percentages who started breastfeeding within one hour and within one day of birth; and among last-born children born in the two years preceding the survey who were ever breastfed, the percentage who received a prelacteal feed, by background characteristics, Bangladesh 2014

	Among last-born children born in the past two years:				Among last-born children born in the past two years who were ever breastfed:	
Background characteristic	Percentage ever breastfed	Percentage who started breastfeeding within one hour of birth	Percentage who started breastfeeding within one day of birth[1]	Number of last-born children	Percentage who received a prelacteal feed[2]	Number of last-born children ever breastfed
Sex						
Male	98.3	50.7	89.4	1,705	28.8	1,676
Female	98.0	50.9	88.7	1,500	25.6	1,470
Assistance at delivery						
Health professional[3]	97.9	40.1	86.1	1,421	30.1	1,392
Traditional birth attendant	97.8	67.1	94.3	344	24.1	337
Other	98.4	57.5	90.8	1,419	25.3	1,397
Place of delivery						
Health facility	97.5	37.7	84.5	1,187	32.5	1,158
At home	98.5	58.9	91.8	1,927	24.6	1,897
Other	99.6	50.3	91.5	89	18.4	89
Residence						
Urban	98.6	45.2	87.0	835	31.9	824
Rural	98.0	52.7	89.8	2,370	25.7	2,322
Division						
Barisal	98.4	52.0	89.0	185	22.9	182
Chittagong	98.8	45.8	91.1	682	19.4	674
Dhaka	98.5	51.8	90.3	1,182	33.6	1,165
Khulna	96.0	39.1	81.7	250	33.1	239
Rajshahi	98.0	52.5	84.8	323	37.0	316
Rangpur	98.6	59.6	92.5	292	16.9	288
Sylhet	96.3	56.5	86.9	292	18.0	281
Mother's education						
No education	98.6	55.6	87.6	433	24.2	427
Primary incomplete	98.8	54.6	89.8	509	26.5	503
Primary complete[4]	98.3	54.0	88.4	396	25.0	389
Secondary incomplete	97.6	49.0	89.1	1,317	28.8	1,285
Secondary complete or higher[5]	98.3	45.4	90.0	550	28.8	541
Wealth quintile						
Lowest	98.4	56.9	89.9	699	24.1	688
Second	97.5	50.2	86.2	618	27.4	602
Middle	98.4	50.1	91.5	641	25.7	631
Fourth	98.3	51.9	90.6	631	25.9	620
Highest	98.2	44.0	86.9	616	34.0	605
Total	98.1	50.8	89.1	3,205	27.3	3,146

Note: Table is based on last-born children born in the two years preceding the survey regardless of whether the children are living or dead at the time of interview. Total includes missing 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, paramedic, FWV, and CSBA
[4] Primary complete is defined as completing grade 5.
[5] Secondary complete is defined as completing grade 10.

11.3 BREASTFEEDING STATUS BY AGE

Breast milk contains all the nutrients needed by children in the first six months of life. Supplementing breast milk before age 6 months is discouraged because it increases the likelihood of contamination, and hence risk of diarrhea. It is recommended that complementary feeding (giving solid or semi-solid foods to infants in addition to breast milk) start at the beginning of the seventh month of life, because at this age breast milk is no longer sufficient to maintain the child's growth (WHO 2008). Children should be fed small quantities of solid and semi-solid foods while continuing to breastfeed. The amount of food is increased gradually from 6 to 23 months, which is the period of transition to eating the regular family diet.

The 2014 BDHS collected data on infant feeding for the youngest children under age 2 who were living with their mother, using a 24-hour recall period. Table 11.3 and Figure 11.3 show that almost all Bangladeshi babies are breastfed for the first year of life. Children are breastfed for an extended time; at age 20-23 months, 87 percent of children are still being breastfed. Complementary foods are introduced at an early age. Among infants under age 2 months, 80 percent are exclusively breastfed, while other infants are given water (7 percent), other milk (9 percent), and complementary foods (2 percent) in addition to breast milk.

Table 11.3 Breastfeeding status by age

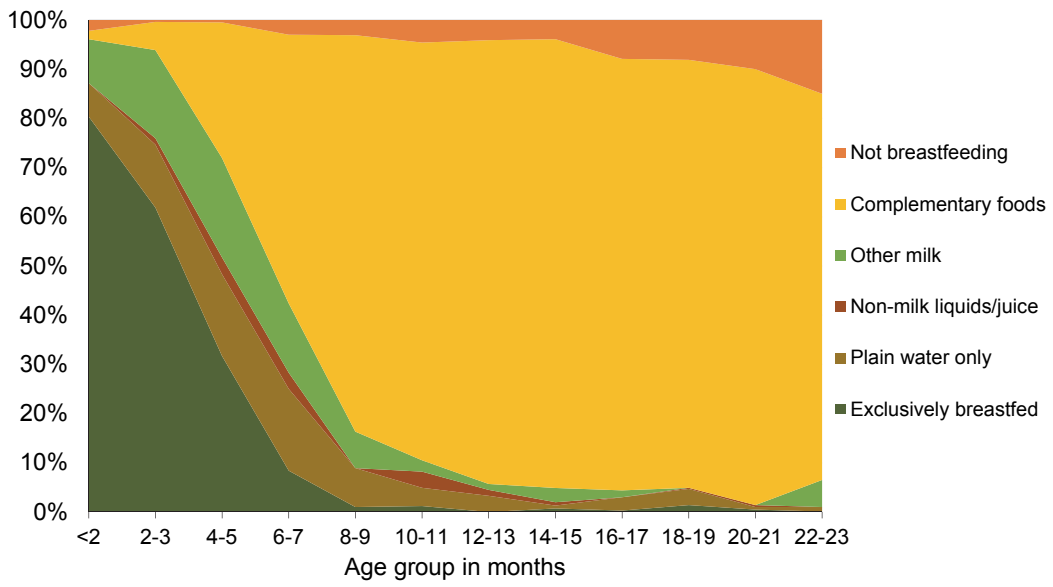
Percent distribution of youngest children under age 2 who are living with their mother by breastfeeding status and the percentage currently breastfeeding; and the percentage of all children under age 2 using a bottle with a nipple, according to age in months, Bangladesh 2014

		Breastfeeding status									
Age in months	Not breast-feeding	Exclusively breastfed	Breast-feeding and consuming plain water only	Breast-feeding and consuming non milk liquids[1]	Breast-feeding and consuming other milk	Breast-feeding and consuming comple-mentary foods	Total	Percentage currently breast-feeding	Number of youngest child under two years living with their mother	Percentage using a bottle with a nipple	Number of all children under age 2
0-1	2.2	80.3	6.8	0.0	8.9	1.7	100.0	97.8	173	7.9	174
2-3	0.4	61.8	12.1	1.1	17.5	7.1	100.0	99.6	230	19.4	232
4-5	0.5	31.7	16.4	2.8	19.3	29.3	100.0	99.5	248	25.9	251
6-8	2.7	6.1	12.5	1.8	12.3	64.5	100.0	97.3	401	20.4	403
9-11	4.4	0.9	4.3	0.7	2.8	86.9	100.0	95.6	452	21.6	454
12-17	5.2	0.3	2.2	0.4	1.8	90.1	100.0	94.8	834	14.8	849
18-23	11.2	0.7	1.5	0.1	0.1	86.4	100.0	88.8	755	13.5	784
0-3	1.2	69.8	9.8	0.6	13.8	4.8	100.0	98.8	403	14.5	406
0-5	0.9	55.3	12.3	1.4	15.9	14.1	100.0	99.1	651	18.9	657
6-9	3.1	4.5	10.9	1.3	10.2	70.0	100.0	96.9	551	22.0	554
12-15	4.0	0.3	1.9	0.5	2.0	91.2	100.0	96.0	570	14.6	582
12-23	8.0	0.5	1.9	0.3	1.0	88.3	100.0	92.0	1,589	14.1	1,633
20-23	12.7	0.3	0.7	0.1	0.2	86.1	100.0	87.3	511	12.1	531

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, 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 other milk 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] Non-milk liquids include juice, juice drinks, clear broth or other liquids

Table 11.3 presents the percentage of children using a bottle with a nipple. Bottle feeding is common in Bangladesh; 22 percent of infants age 6-9 months are fed with a bottle with a nipple. Bottle feeding is most common among children age 4-5 months (26 percent). At age 6-8 months, 20 percent of children are bottle fed, and 12 percent of children age 20-23 months use bottles with nipple.

Figure 11.3 **Infant feeding practices by age**



BDHS 2014

Fifty-five percent of infants under age 6 months are exclusively breastfed. This proportion is lower than that reported in the 2011 BDHS (64 percent) (Figure 11.4). Between the 2007 BDHS and the 2011 BDHS there was a sharp increase in exclusive breastfeeding, from 43 percent to 64 percent. Intensive mass media campaigns for several years preceding the 2011 survey could have impacted the status of mothers reporting on breastfeeding in 2011. The 2011 BDHS report and results dissemination discussed the increased level of breastfeeding. It was not clear whether the increase was the result of reporting bias or actual change, and if the latter, whether this higher level would be sustained. The 2013 Utilization of Essential Service Delivery Survey and the 2012-13 Multiple Indicator Cluster Survey reported lower exclusive breastfeeding rates of 60 percent (Sultana et al. 2014) and 56 percent (BBS and UNICEF 2014), respectively.

In spite of the decline in exclusive breastfeeding between 2011 and 2014, the prevalence of exclusive breastfeeding of infants up to age 6 months in 2014 is 5 percentage points higher than the HPNSDP target of 50 percent exclusive breastfeeding by 2016 (MOHFW 2011).

Figure 11.4 **Trends in exclusive breastfeeding practices among children age 0-5 months, 2004-2014**

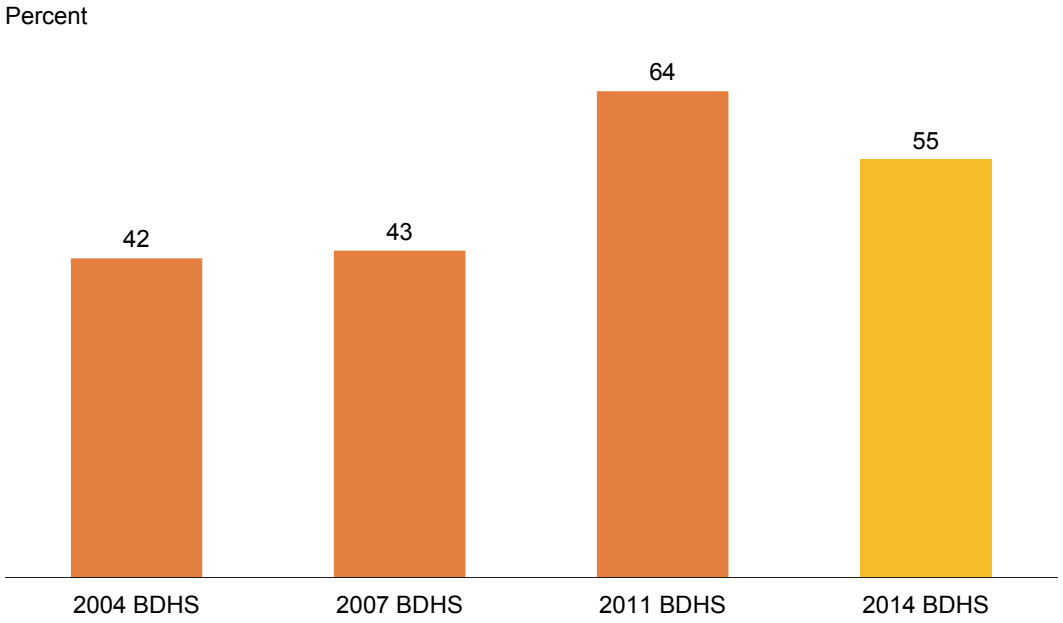
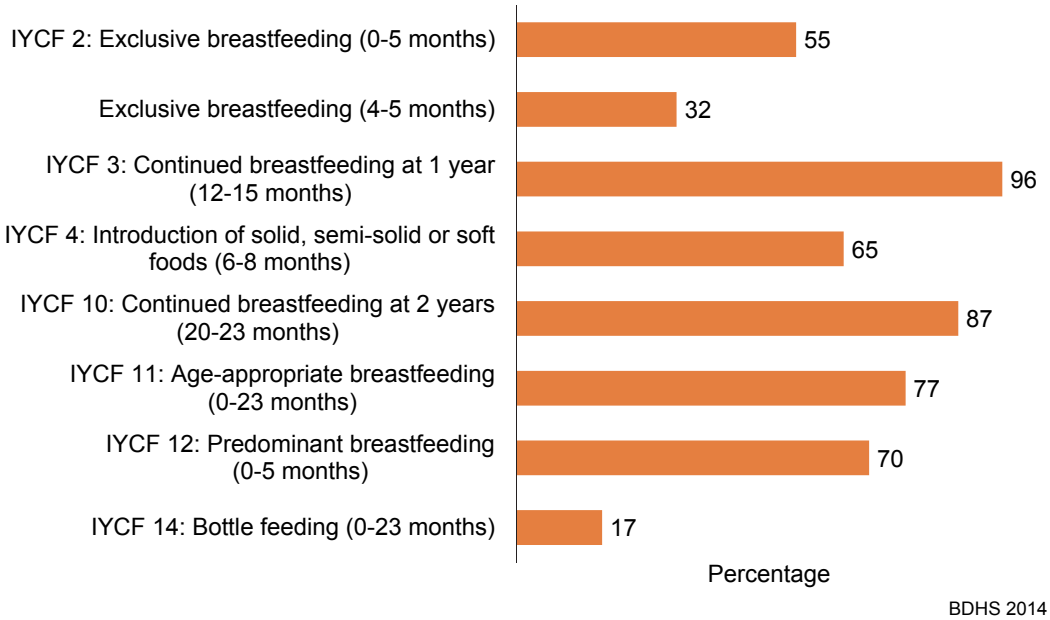


Figure 11.5 shows the 2011 BDHS results for key infant and young child feeding (IYCF) practices on breastfeeding for youngest children under age 2 who are living with their mother. Although 55 percent of all children under age 6 months are exclusively breastfed, only 32 percent of those age 4-5 months are exclusively breastfed. Almost all children (96 percent) continue breastfeeding at age 1, and 87 percent continue to breastfeed until age 2. Sixty-five percent of children are introduced to complementary foods at an appropriate age. Seventy-seven percent of children age 0-23 months are breastfed appropriately for their age, i.e., exclusive breastfeeding for children age 0-5 months and continued breastfeeding along with complementary foods for children age 6-23 months. Predominant breastfeeding (receiving breast milk and only plain water or non-milk liquids such as juice, clear broth, and other liquids) is prevalent in 70 percent of the children. Seventeen 17 percent of children under age 2 are bottle-fed.

Figure 11.5 **IYCF indicators on breastfeeding status**



11.4 DURATION OF BREASTFEEDING

Table 11.4 shows the median duration and frequency of breastfeeding by selected background characteristics. The estimates of median and mean duration 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 among Bangladeshi children in 2014 is 31 months. The median duration of exclusive breastfeeding is 2.8 months, while the median duration of predominant breastfeeding is 4.4 months. The mean duration of any breastfeeding is 28.6 months, while the mean duration of exclusive breastfeeding is 4 months and of predominant breastfeeding 5.6 months. The median duration of exclusive breastfeeding and predominant breastfeeding has decreased since 2011. The median duration of exclusive breastfeeding decreased from 3.5 months to 2.8 months, and the median duration of predominant breastfeeding decreased from 4.9 months to 4.4 months.

The median durations of any, exclusive, and predominant breastfeeding do not vary much across background characteristics. The median duration of any breastfeeding is one month shorter in urban areas than in rural areas (30 months versus 31 months). Duration of exclusive breastfeeding increases slightly with mother's education. In contrast, the median duration of exclusive breastfeeding generally decreases as household wealth increases. Differentials in exclusive breastfeeding and predominant breastfeeding across subgroups of children are smaller than for any breastfeeding.

Table 11.4 Median duration of breastfeeding

Median duration of any breastfeeding, exclusive breastfeeding, and predominant breastfeeding among children born in the three years preceding the survey, by background characteristics, Bangladesh 2014

Background characteristic	Median duration (months) of breastfeeding among children born in the past three years[1]		
	Any breastfeeding	Exclusive breastfeeding	Predominant breastfeeding[2]
Sex			
Male	31.2	2.8	4.2
Female	30.8	2.8	4.6
Residence			
Urban	29.6	2.7	4.6
Rural	31.4	2.8	4.3
Division			
Barisal	33.1	*	3.7
Chittagong	26.2	3.4	5.7
Dhaka	31.2	*	3.1
Khulna	na	3.6	4.5
Rajshahi	33.9	2.7	3.9
Rangpur	na	4.0	4.9
Sylhet	30.5	3.9	5.3
Education			
No education	32.6	2.9	4.7
Primary incomplete	32.3	(2.4)	3.5
Primary complete[3]	31.4	3.0	4.2
Secondary incomplete	30.2	2.6	4.2
Secondary complete or higher[4]	28.8	3.5	5.1
Wealth quintile			
Lowest	31.6	(2.2)	4.2
Second	0.0	3.6	4.5
Middle	31.4	2.6	4.3
Fourth	30.7	2.9	4.1
Highest	28.1	2.8	4.8
Total	31.0	2.8	4.4
Mean for all children	28.6	4.0	5.6

Note: Median and mean durations are based on the distributions at the time of the survey of the proportion of births by months since birth. Includes children living and deceased at the time of the survey
na = Median duration of more than 36 months
* = Median is based on fewer than 25 unweighted cases.
[1] It is assumed that non-last-born children and last-born children not currently living with the mother are not currently breastfeeding.
[2] Either exclusively breastfed or received breast milk and plain water, and/or non-milk liquids only
[3] Primary complete is defined as completing grade 5.
[4] Secondary complete is defined as completing grade 10.

11.5 TYPES OF COMPLEMENTARY FOODS

In the 2014 BDHS, women who had at least one child living with them who was born in 2012 or later were asked questions about the types of liquids and foods the child had consumed during the day or night preceding the interview. Mothers who had more than one child born in 2012 or later were asked questions about the youngest child living with them. Specifically, mothers were asked about the number of times the child had eaten solid or semi-solid food during the period.

The results are subject to a number of limitations. The dietary data on children are subject to recall errors on the mother's part. In addition, a mother may not be able to report fully on a child's intake of food and liquids if the child was fed by other individuals during the period. The information in Table 11.5 is restricted to the youngest children under age 2 living with the mother at the time of the survey. Information on type of foods and liquids consumed by young children is useful in assessing timely and appropriate complementary feeding.

For many breastfeeding children, liquids other than breast milk are introduced earlier than the recommended age of 6 months. Six percent of breastfeeding children under age 2 months are given infant formula and 3 percent receive other milk in addition to breast milk. Two percent of breastfeeding children under age 2 months are given solid or semi-solid food.

Table 11.5 Foods and liquids consumed by children in the day or night preceding the interview

Percentage of youngest children under age 2 who are living with the mother by type of foods consumed in the day or night preceding the interview, according to breastfeeding status and age, Bangladesh 2014

	Liquids			Solid or semi-solid foods										
Age in months	Infant formula	Other milk[1]	Other liquids[2]	Fortified baby foods	Food made from grains[3]	Fruits and vege-tables rich in vitamin A[4]	Other fruits and vege-tables	Food made from roots and tubers	Food made from legumes and nuts	Meat, fish, poultry	Eggs	Cheese, yogurt, other milk product	Any solid or semi-solid food	Number of children
BREASTFEEDING CHILDREN														
0-1	6.4	2.9	0.7	0.0	1.8	0.0	0.0	1.8	0.0	0.0	1.8	0.0	1.8	169
2-3	8.4	9.9	5.1	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	5.7	229
4-5	14.3	10.5	14.9	3.1	7.7	14.4	0.7	6.5	0.2	0.4	0.6	3.1	27.7	246
6-8	10.8	26.4	20.5	6.3	35.5	18.5	5.7	12.9	2.4	10.8	13.4	4.8	64.3	390
9-11	8.8	26.9	24.1	9.0	69.8	29.5	19.0	34.8	6.5	32.7	19.8	3.6	88.3	432
12-17	5.2	28.8	23.1	6.5	83.0	44.4	17.2	44.0	6.4	46.9	31.1	6.8	94.8	790
18-23	2.4	30.4	26.6	4.3	88.4	52.7	27.9	53.1	11.5	63.0	37.0	8.2	95.1	670
6-23	6.0	28.5	23.8	6.3	74.0	39.6	18.7	39.6	7.2	42.8	27.7	6.3	88.4	2,283
Total	6.9	24.0	20.3	5.3	58.5	32.1	14.7	31.6	5.6	33.4	21.7	5.3	71.8	2,928
NONBREASTFEEDING CHILDREN														
12-17	(29.6)	(52.5)	(28.4)	(9.4)	(84.1)	(64.0)	(25.6)	(52.2)	(9.7)	(54.8)	(37.7)	(7.1)	(100.0)	43
18-23	14.0	49.0	32.9	6.1	91.1	54.5	38.8	60.6	11.4	65.3	50.3	12.6	98.8	84
6-23	20.1	48.3	29.3	8.4	81.6	53.6	31.8	51.8	11.4	58.3	41.9	13.1	96.5	158
Total	19.4	47.4	29.0	8.1	78.5	52.4	30.7	49.8	11.0	56.2	40.3	12.6	93.7	164

Note: Breastfeeding status and food consumed refer to a "24-hour" period (yesterday and last night).
[1] Other milk includes fresh, tinned and powdered cow or other animal milk.
[2] Doesn't include plain water. Includes juice, juice drinks, clear broth, or other non-milk liquids
[3] Includes fortified baby food
[4] Includes pumpkin, red or yellow sweet potatoes, squash, carrots, dark green leafy vegetables like spinach, poi sag, methi, kolmi, kochu, palak, ripe mangoes, papayas, ripe kathal, bangi or other Vitamin A rich fruits and other locally grown fruits and vegetables that are rich in vitamin A

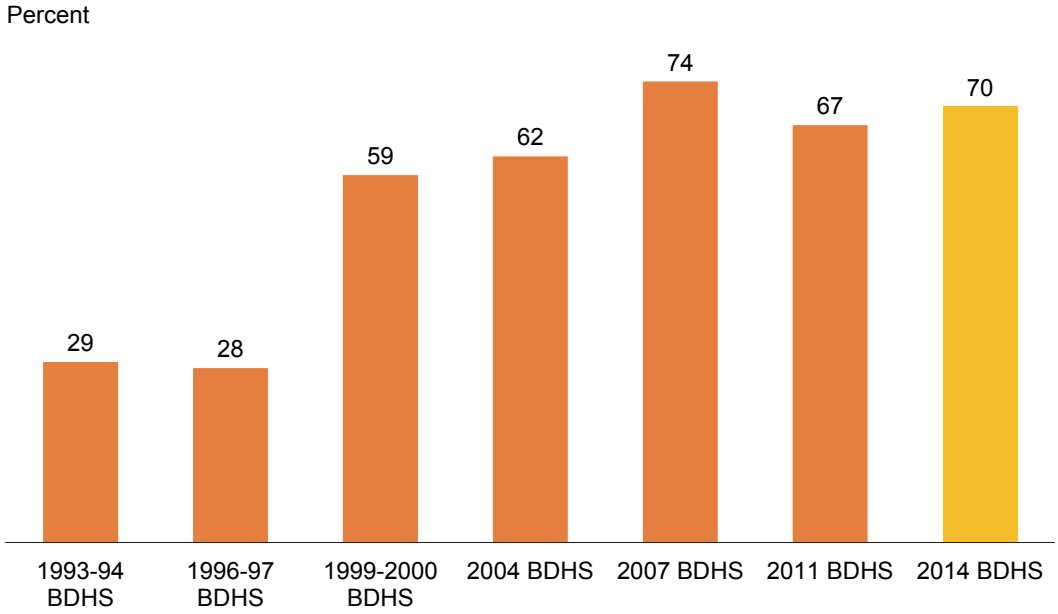
By age 9 months, every child is expected to be receiving at least one daily feeding of solid or semi-solid foods. Table 11.5, however, indicates that 12 percent of breastfeeding children age 9-11 months did not receive any solid or semi-solid food on the day before the interview.

Overall, 74 percent of breastfeeding children age 6-23 months consume foods made from grains (including fortified baby foods), 40 percent consume vitamin A-rich fruits and vegetables, 43 percent have meat, fish, or poultry, and 28 percent consume eggs. In addition to being breastfed, 6 percent of these children receive infant formula, 29 percent receive other milk, and 6 percent receive cheese, yogurt, or other milk products.

As expected, non-breastfed children age 6-23 months are more likely than breastfed children to receive the different types of liquids and solid and semi-solid foods. The difference in the consumption of solid and semi-solid food between breastfed and non-breastfed children is especially marked in the consumption of fortified baby foods, meat, fish or poultry, and cheese, yogurt, or other milk products. However, caution should be exercised when interpreting these results because the number of non-breastfed children is small compared with the number of breastfed children.

Figure 11.6 presents trends in the consumption of solid and semi-solid or soft foods by children age 6-9 months since 1993-94. The trends in complementary feeding indicate an increase in the timely introduction of solid or semi-solid foods, with a slight decrease since 2007.

Figure 11.6 **Trends in complementary feeding for breastfeeding children age 6-9 months**



11.6 INFANT AND YOUNG CHILD FEEDING PRACTICES

Infant and young child feeding (IYCF) practices include initiating timely feeding of solid or semi-solid foods at 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 for IYCF practices for children age 0-23 months (PAHO/WHO 2003; WHO 2005; WHO 2008). Although breastfeeding is recommended for infants up to age 2, some infants have stopped breastfeeding before reaching age 2 because their mothers are HIV-positive, have died, or for some other reason do not breastfeed (WHO 2005).

Minimum dietary diversity means feeding the child food from at least four food groups. This cut-off was selected because it is associated with better-quality diets for both breastfed and non-breastfed children. Studies have shown that plant-based complementary foods by themselves are insufficient to meet the needs for certain micronutrients (WHO and UNICEF1998). Therefore it is recommended that meat, poultry, fish, or eggs be eaten daily or as often as possible. Vegetarian diets may not meet children's nutrient requirements unless supplements or fortified products are used. Vitamin A-rich fruits and vegetables should be consumed daily.

Children's diets should include an adequate fat content, because fat provides essential fatty acids, facilitates absorption of fat-soluble vitamins (such as vitamin A), and enhances dietary energy density and palatability. Consumption of food from at least four food groups means that the child has a high likelihood of consuming at least one animal source of food and at least one fruit or vegetable in addition to a staple food (grains, roots, or tubers) (WHO 2008). The four food groups should come from a list of seven food groups: grains, roots, and tubers; legumes and nuts; dairy products (milk, yogurt, cheese); flesh foods (meat, fish, poultry, and liver/organ meat); eggs; vitamin A-rich fruits and vegetables; and other fruits and vegetables.

The minimum dietary diversity may be reported separately for breastfed and non-breastfed children. However, diversity scores for breastfed and non-breastfed children should not be directly compared, because breast milk is not counted in any of the above stated food groups. The recommended number of feedings is as follows:

- Breastfed infants age 6-8 months should be fed meals of complementary foods two to three times per day, with one or two snacks as desired; breastfed children 9-23 months should be fed meals three to four times per day, with one or two snacks.

- Non-breastfed children age 6-23 months should receive milk products at least twice a day to ensure their calcium needs are met. In addition, they need animal-source foods and vitamin A-rich fruits and vegetables. Therefore, four food groups are considered a minimum acceptable number of food groups for non-breastfed young children. Non-breastfed children should be fed meals four to five times per day, with one or two snacks as desired (WHO 2005).

- Meal frequency is considered a proxy for energy intake from foods other than breast milk; therefore, the feeding frequency indicator for non-breastfed children includes both milk feeds and solid/semi-solid feeds (WHO 2008). The minimum feeding frequencies are based on the energy needs from complementary foods estimated from age-specific total daily energy requirements.

- Infants with low intake of breast milk would need to be fed more frequently. However, overly frequent feeding may lead to the displacement of breast milk (PAHO and WHO 2003).

Table 11.6 shows infant and young child feeding (IYCF) practices for the youngest children age 6-23 months living with their mother. The percentage of children who are fed with appropriate feeding practices is calculated by taking into account current guidelines on the number of food groups and the number of times a child should eat during the day or night preceding the survey.

Overall, 23 percent of children age 6-23 months are fed appropriately according to recommended IYCF practices; that is, they are given milk or milk products and foods from the recommended number of food groups and are fed at least the recommended minimum number of times. Infant and child feeding practices have changed very little between 2011 and 2014 BDHS (an increase of 2 percentage points), and are far below the revised HNPSDP target of 45 percent for 2016 (MOHFW 2014).

The results in Table 11.6 show that 26 percent of breastfed children age 6-23 months are fed foods from four or more food groups, and 63 percent are fed the minimum number of times. Nearly all breastfed and non-breastfed children age 6-23 months are given breast milk or other milk products (97 percent). Overall, 28 percent of children receive the appropriately diverse diet, and 64 percent of children are fed the recommended number of times with solid or semi-solid foods. Because 98 percent of children age 6-23 months are ever breastfed, the number of non-breastfed children is too small to come to any meaningful conclusions.

Feeding according to IYCF recommendations is uncommon among children age 6-8 months (7 percent), increasing to 34 percent among children age 18-23 months. Male children and female children are equally likely to be fed according to appropriate IYCF practices. Adherence to IYCF practices is better in urban areas than in rural areas (29 percent compared with 21 percent). The recommended IYCF practices are least common in Sylhet (17 percent) and most common in Khulna (31 percent). IYCF practices improve as mother's education levels and wealth status increase. Overall the level of IYCF practice is low among all subgroups. Even in the highest wealth quintile, only 1 in 3 children receive appropriate feeding. These findings indicate, among other things, a lack of knowledge on appropriate feeding practices for infant and young children.

Table 11.6 Infant and young child feeding (IYCF) practices

Percentage of youngest children age 6-23 months living with their mother who are fed according to three IYCF feeding practices based on breastfeeding status, number of food groups, and times they are fed during the day or night preceding the survey, by background characteristics, Bangladesh 2014

	Among breastfed children age 6-23 months, percentage fed:				Among non-breastfed children age 6-23 months, percentage fed:					Among all children age 6-23 months, percentage fed:				
Background characteristic	4+ food groups[1]	Minimum meal frequency[2]	Both 4+ food groups and minimum meal frequency	Number of breast-fed children age 6-23 months	Milk or milk products[3]	4+ food groups[1]	Minimum meal frequency[4]	With 3 IYCF practices[5]	Number of non-breast-fed children age 6-23 months	Breast milk, milk, or milk products[6]	4+ food groups[1]	Minimum meal frequency[7]	With 3 IYCF practices	Number of all children 6-23 months
Age in months														
6-8	7.6	50.3	7.1	390	*	*	*	*	11	98.6	7.5	50.5	6.9	401
9-11	17.1	51.1	14.4	432	*	*	*	*	20	99.4	18.6	52.5	15.1	452
12-17	27.5	67.7	25.1	790	(70.0)	(42.8)	(77.1)	(19.1)	43	98.4	28.3	68.2	24.8	834
18-23	42.0	71.2	35.5	670	50.1	51.3	79.4	19.7	84	94.4	43.1	72.2	33.7	755
Sex														
Male	26.1	63.3	23.3	1,202	62.1	39.5	83.8	13.6	79	97.7	26.9	64.6	22.7	1,280
Female	26.7	61.8	22.8	1,082	57.8	52.3	72.2	25.6	80	97.1	28.4	62.5	23.0	1,161
Residence														
Urban	32.1	65.9	28.2	571	73.2	46.7	82.4	31.7	61	97.4	33.5	67.5	28.6	632
Rural	24.5	61.5	21.3	1,712	51.6	45.5	75.1	12.0	97	97.4	25.6	62.3	20.8	1,809
Division														
Barisal	29.7	61.4	25.3	131	*	*	*	*	5	98.4	29.2	62.1	24.3	136
Chittagong	22.4	55.1	18.2	471	(46.7)	(42.4)	(73.6)	(16.5)	51	94.7	24.4	56.9	18.0	522
Dhaka	25.6	60.4	23.3	843	(71.9)	(53.0)	(77.5)	(25.3)	75	97.7	27.9	61.8	23.5	919
Khulna	34.5	80.0	31.2	183	*	*	*	*	8	98.0	35.1	80.1	31.0	191
Rajshahi	28.2	73.4	27.1	244	*	*	*	*	6	99.6	28.0	73.9	27.0	250
Rangpur	28.8	67.0	24.2	212	*	*	*	*	1	99.7	29.3	67.2	24.1	214
Sylhet	24.4	57.0	18.2	199	*	*	*	*	11	96.5	24.8	58.5	17.2	210
Mother's education														
No education	14.3	52.5	10.6	316	*	*	*	*	15	97.5	15.5	54.5	10.5	331
Primary incomplete	15.9	55.5	14.4	346	*	*	*	*	19	97.4	17.2	57.1	14.3	365
Primary complete[8]	21.1	58.7	18.0	288	*	*	*	*	16	98.5	20.7	59.4	17.1	303
Secondary incomplete	29.0	66.9	25.4	965	53.3	48.1	64.9	17.3	70	96.8	30.2	66.8	24.8	1,035
Secondary complete or higher[9]	43.9	69.9	39.6	369	(78.1)	(60.8)	(92.5)	(40.4)	39	97.9	45.5	72.1	39.7	408
Wealth quintile														
Lowest	17.2	53.9	14.6	509	*	*	*	*	23	97.4	17.9	55.2	14.3	532
Second	22.4	61.8	18.0	448	*	*	*	*	17	97.4	22.6	61.8	17.8	466
Middle	26.8	65.0	22.8	451	(62.7)	(51.3)	(68.9)	(16.7)	35	97.3	28.6	65.3	22.3	486
Fourth	31.9	66.1	28.7	460	(72.3)	(45.2)	(91.8)	(12.0)	32	98.2	32.7	67.8	27.7	492
Highest	35.4	67.8	32.9	415	(69.1)	(53.8)	(77.7)	(32.8)	51	96.6	37.4	68.9	32.9	466
Total	26.4	62.6	23.0	2,283	59.9	45.9	77.9	19.6	158	97.4	27.6	63.6	22.8	2,442

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

[1] Food groups: a. infant formula, milk other than breast milk, cheese or yogurt or other milk products; b. foods made from grains, roots, and tubers, including porridge and fortified baby food from grains; c. vitamin A-rich fruits and vegetables (and red palm oil); d. other fruits and vegetables; e. eggs; f. meat, poultry, fish, and shellfish (and organ meats); g. legumes and nuts

[2] At least twice a day for breastfed infants 6-8 months and at least three times a day for breastfed children 9-23 months

[3] Includes two or more feedings of commercial infant formula, fresh, tinned, and powdered animal milk, and yogurt

[4], Minimum meal frequency is receiving solid or semisolid food or milk feeds at least four times a day

[5] Fed with other milk or milk products at least twice a day, receive solid or semisolid foods from at least four food groups not including the milk or milk products food group, and receive the minimum meal frequency

[6] Breastfeeding, or not breastfeeding and receiving two or more feedings of commercial infant formula, fresh, tinned, and powdered animal milk, and yogurt

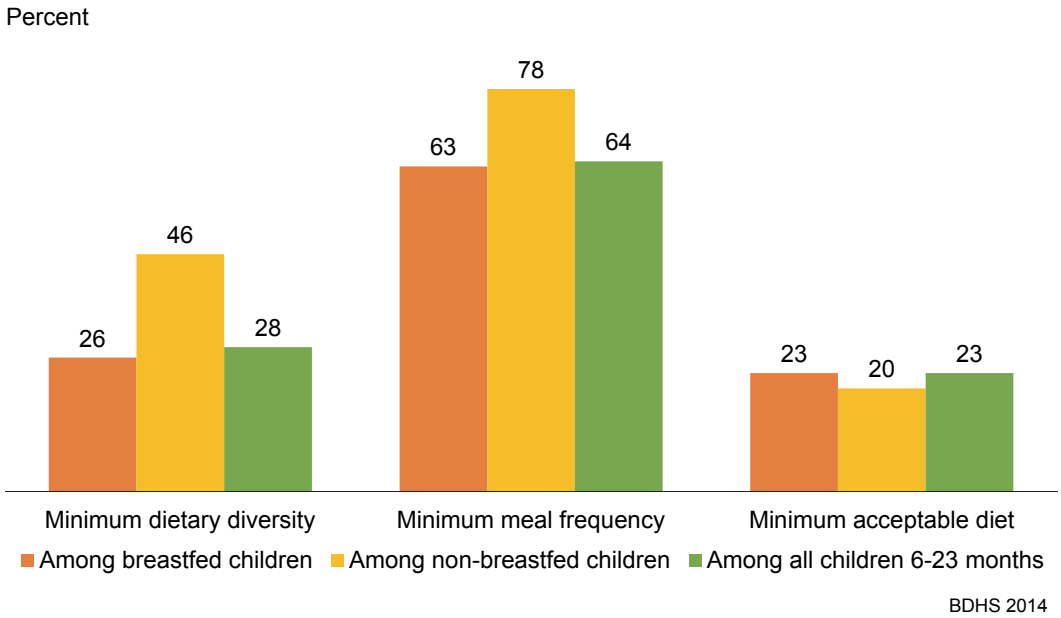
[7] Children are fed the minimum recommended number of times per day according to their age and breastfeeding status as described in footnotes 2 and 4

[8] Primary complete is defined as completing grade 5.

[9] Secondary complete is defined as completing grade 10.

Figure 11.7 shows IYCF practices according to minimum standard of acceptable feeding practices. In terms of dietary diversity, a higher proportion of non-breastfed children meet the minimum requirements (46 percent) than breastfed children (26 percent). Minimum meal frequency is also higher among non-breastfed children. (78 percent compared with 63 percent among breastfed children). There are smaller differences between breastfed and non-breastfed children in meeting the minimum acceptable diet criteria.

Figure 11.7 **Percentage fed according to minimum standard of acceptable feeding practices**



11.7 MICRONUTRIENT INTAKE AMONG CHILDREN

Micronutrient deficiency is a major contributor to childhood morbidity and mortality. Children can receive micronutrients from foods, fortified food, and direct supplementation. The 2014 BDHS collected information on consumption of foods rich in vitamin A and iron, vitamin A and iron supplementation, and deworming status for children age 6-59 months.

Table 11.7 presents data regarding the intake of key micronutrients among children age 6-59 months. The table shows, by background characteristics, the percentage of youngest children age 6-23 months who are living with their mother and who consumed foods rich in vitamin A and iron in the day or night preceding the survey. In addition, the table shows the proportion of all children age 6-59 months who were given vitamin A supplements or deworming medication in the six months preceding the survey and the proportion who were given iron supplements in the week before the survey.

11.7.1 Consumption of Micronutrient-rich Foods

Table 11.7 shows that 67 percent of youngest children age 6-23 months who were living with their mother consumed foods rich in vitamin A in the day or night preceding the survey. The proportion of children consuming vitamin A-rich foods increases with age, from 31 percent among children age 6-8 months to 85 percent among children age 18-23 months. Consumption of vitamin A-rich foods is similar among male and female children. A higher proportion of non-breastfed children consume vitamin A rich foods than breastfed children (83 percent compared with 66 percent). Urban children are more likely to consume vitamin A-rich foods (68 percent) compared with children in rural areas (66 percent). The proportion of children consuming vitamin A-rich foods is highest in Khulna division (79 percent) and lowest in Sylhet and Chittagong divisions (63 percent). Mother's educational status and household wealth correlate positively with the consumption of vitamin A-rich foods. Seventy-six percent of children of mothers with secondary or higher education consumed vitamin A-rich foods compared with 59 percent of children whose mothers are not educated. Similarly, 70 percent of children in the highest wealth quintile consumed vitamin A-rich foods compared with 63 percent of children in the lowest wealth quintile.

Overall, 55 percent of children age 6-23 months consumed foods rich in iron (Table 11.7). Differences in the intake of iron-rich foods by background characteristics are largely similar to the differences in consumption of vitamin A-rich foods. Breastfed children consume less food rich in iron (54 percent) compared with non-breastfed children (71 percent). Intake of iron-rich foods among children has slightly increased, from 54 percent in 2011 to 55 percent in the 2014 BDHS.

Table 11.7 Micronutrient intake among children

Among youngest children age 6-23 months who are living with their mother, the percentages who consumed vitamin A-rich and iron-rich foods in the day or night preceding the survey, and among all children age 6-59 months, the percentages who were given vitamin A supplements in the six months preceding the survey, who were given iron supplements in the past seven days, and who were given deworming medication in the six months preceding the survey, by background characteristics, Bangladesh 2014

	Among youngest children age 6-23 months living with the mother:			Among all children age 6-59 months:			
Background characteristic	Percentage who consumed foods rich in vitamin A in last 24 hours[1]	Percentage who consumed foods rich in iron in last 24 hours[2]	Number of children	Percentage given vitamin A supplements in last 6 months	Percentage given iron supplements in last 7 days	Percentage given deworming medication in last 6 months[3]	Number of children
Age in months							
6-8	31.1	21.4	401	42.6	3.2	2.4	403
9-11	54.0	42.3	452	56.9	4.9	7.0	454
12-17	74.9	60.7	834	61.9	5.2	18.2	849
18-23	84.9	75.2	755	62.5	5.0	34.5	784
24-35	na	na	0	65.4	5.1	47.0	1,563
36-47	na	na	0	65.2	3.2	53.8	1,535
48-59	na	na	0	62.1	4.0	52.8	1,515
Sex							
Male	66.0	54.2	1,280	61.7	4.5	39.3	3,682
Female	67.9	56.6	1,161	62.5	4.2	40.3	3,421
Breastfeeding status							
Breastfeeding	65.8	54.3	2,283	59.8	4.7	25.0	3,200
Not breastfeeding	82.8	70.6	156	63.9	4.1	51.9	3,889
Mother's age at birth							
15-19	65.2	53.9	536	55.7	4.8	28.3	913
20-29	67.8	55.6	1,475	62.2	4.2	40.6	4,443
30-39	66.0	55.7	406	65.6	4.6	44.7	1,615
40-49	*	*	24	57.6	4.2	32.1	133
Residence							
Urban	68.3	59.8	632	65.3	6.1	44.5	1,813
Rural	66.4	53.7	1,809	61.0	3.8	38.2	5,291
Division							
Barisal	70.6	57.9	136	64.1	4.6	38.5	399
Chittagong	63.1	54.0	522	65.0	4.2	47.1	1,524
Dhaka	64.6	52.6	919	62.0	4.6	40.9	2,509
Khulna	78.9	63.9	191	64.5	4.6	34.0	532
Rajshahi	68.9	55.4	250	56.6	2.8	32.0	737
Rangpur	74.8	66.1	214	65.5	4.6	38.3	697
Sylhet	63.0	49.7	210	55.5	4.9	34.7	706
Education							
No education	58.8	44.3	331	57.5	3.4	36.2	1,189
Primary incomplete	60.5	44.5	365	55.7	3.7	37.9	1,146
Primary complete[4]	65.2	54.3	303	55.1	3.5	40.9	820
Secondary incomplete	68.6	58.3	1,035	64.8	4.2	40.1	2,859
Secondary complete or higher[5]	76.2	67.1	408	71.9	7.1	43.9	1,090
Wealth quintile							
Lowest	62.5	46.4	532	56.0	3.0	36.5	1,612
Second	63.6	48.8	466	60.9	3.0	39.5	1,338
Middle	68.5	59.3	486	62.8	4.1	36.0	1,358
Fourth	70.0	59.8	492	62.0	4.9	40.8	1,436
Highest	70.3	63.0	466	69.8	6.8	46.6	1,359
Total	66.9	55.3	2,442	62.1	4.3	39.8	7,103

Note: Information on vitamin A is based on both mother's recall and the immunization card (where available). Information on iron supplements and deworming medication is based on the mother's recall. An asterisk indicates that an estimate is based on fewer than 25 unweighted cases.
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, and red palm oil [if data are collected]
[2] Includes meat (including organ meat), fish, poultry and eggs
[3] Deworming for intestinal parasites is commonly done for helminthes and for schistosomiasis.
[4] Primary complete is defined as completing grade 5.
[5] Secondary complete is defined as completing grade 10.

11.7.2 Micronutrient Supplementation

Vitamin A is an essential micronutrient for the immune system. Severe vitamin A deficiency (VAD) can result in childhood blindness. VAD can also increase the severity of infections such as measles and diarrheal diseases in children and can slow recovery from illness. An important strategy in overcoming vitamin A deficiency in Bangladesh has been the distribution of vitamin A capsules to children age 6-59 months. Children under age 6 months are not covered, primarily because most children in this age group are expected to be exclusively breastfed and should receive adequate vitamin A through breast milk. Children age 6-59 months receive supplementation once in every six months during the National Immunization Days and vitamin A campaigns. Since February 2011, children age 9-11 months are no longer provided vitamin A supplementation at the time they receive the measles vaccination.

In the 2014 BDHS, mothers were asked if their children under age 5 had taken a vitamin A capsule in the six months preceding the survey. Table 11.7 shows that 62 percent of children age 6-59 months had received vitamin A supplementation in the six months before the survey. The level of vitamin A supplementation varies across subgroups of children. Children age 24-35 months are most likely to have received vitamin A supplements (65 percent). Across divisions, the proportion of children who received vitamin A supplements ranges from 56 percent in Sylhet to 66 percent in Rangpur. The likelihood of children receiving vitamin A increases with mother's education level and wealth status.

The coverage of vitamin A supplementation among children age 6-59 months has increased from 60 percent in 2011 to 62 percent in 2014, which seems insufficient to attain HPNSDP target of 90 percent by 2016.

In the 2014 BDHS, mothers were asked if their children under age 5 had taken an iron tablet in the seven days preceding the survey. Table 11.7 shows that only 4 percent of children age 6-59 months received iron supplements in this period. Iron supplementation varies little by children's background characteristics.

11.7.3 Deworming

Certain types of intestinal parasites can cause anemia. Periodic deworming for organisms such as helminthes can improve children's micronutrient status. The 2014 BDHS asked mothers if their children under age 5 had taken deworming medication in the six months preceding the survey. Overall, 40 percent of children age 6-59 months received deworming medication in this period (Table 11.7). Recently, the Ministry of Health and Family Welfare decided not to distribute deworming tablets during the National Vitamin A Plus campaign, which might explain why deworming has become less common since the 2011 BDHS, which found a level of 50 percent. However, decisions have been made to run vitamin A supplementation and deworming programs separately.

The percentage of children who received deworming medication increases with age, from 2 percent of children age 6-8 months to 54 percent of children age 36-47 months. Breastfed children are less likely than non-breastfed children to receive deworming medication (25 percent versus 52 percent). Children in urban areas are more likely to receive deworming medication compared with rural children (45 percent versus 38 percent). Coverage also varies across divisions, from 32 percent in Rajshahi to 47 percent in Chittagong. Mother's levels of education and household wealth have positive associations with children's likelihood of receiving deworming medication.

11.8 Nutritional Status of Women

Malnutrition in women, encompassing both undernutrition and overweight, is a major problem with important consequences for survival and healthy development. Body mass index (BMI) is used to measure thinness or obesity. It is defined as weight in kilograms divided by height in meters squared (kg/m^2). A BMI of less than 18.5 is used to define thinness or acute under nutrition. A BMI of 25 or above usually indicates overweight, and a BMI of 30 or above indicates obesity.

In many countries chronic energy deficiency, characterized by a BMI of less than 18.5 among women, remains the predominant problem, leading to low work productivity and less resistance to illness. Low pre-pregnancy BMI and short stature of women are known risk factors for poor maternal and birth outcomes. Overweight and obese women are also predisposed to a wide range of health problems. Maternal obesity can lead to several adverse maternal and fetal complications during pregnancy, delivery, and postpartum (Van Lieshout et al. 2011). It increases the risk for childhood obesity that continues into adolescence and adulthood, potentiating transgenerational transmission of obesity (Black et al. 2013).

The 2014 BDHS measured the height and weight of ever-married women age 15-49. The data are used to derive two measures of nutritional status: height and body mass index (BMI). Given the relationship between maternal stature and pelvic size, women's height can be useful in predicting the risk of difficulties in delivery. The risk of giving birth to low-weight babies is also higher among women of small stature. The cut-off point at which mothers are considered at risk because of short stature normally falls between 140 and 150 centimeters.

Table 11.8 presents nutritional indicators for women by various background characteristics. The analysis excludes women for whom there was no information on height and/or weight and women for whom a BMI could not be estimated because they were pregnant or had given birth in the preceding two months. The height analysis is based on 17,710 ever-married women age 15-49, while the analysis of BMI is based on 16,478 women.

Table 11.8 Nutritional status of ever-married women

Among ever-married women age 15-49, the percentage with height under 145 cm, mean body mass index (BMI), and the percentage with specific BMI levels, by background characteristics, Bangladesh 2014

	Height		Body mass index[1]									
								Total overweight or obese				
Background characteristic	Percentage 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 (Moderately and severely thin)	≥23.0	≥25.0	25.0-29.9 (Overweight)	≥30.0 (Obese)	Number of women
Age												
15-19	13.4	2,012	20.2	62.0	31.0	19.8	11.1	16.8	7.1	5.8	1.3	1,618
20-29	12.1	6,560	21.9	60.3	19.5	12.7	6.8	35.1	20.2	17.5	2.7	5,886
30-39	12.2	5,324	23.1	56.1	13.5	8.0	5.4	47.6	30.4	24.3	6.2	5,165
40-49	13.9	3,814	22.7	53.8	18.7	10.4	8.3	43.6	27.5	21.6	5.9	3,808
Residence												
Urban	11.8	4,992	23.7	51.4	12.2	7.4	4.8	53.2	36.4	27.6	8.8	4,685
Rural	13.0	12,717	21.7	60.1	21.1	13.0	8.1	33.6	18.8	16.2	2.6	11,793
Division												
Barisal	12.7	1,099	22.0	57.9	20.5	11.4	9.0	35.5	21.7	17.1	4.5	1,016
Chittagong	11.7	3,264	22.7	56.7	15.7	10.6	5.1	42.5	27.6	22.0	5.6	3,007
Dhaka	13.3	6,170	22.4	56.6	18.2	11.3	6.9	41.4	25.1	20.6	4.5	5,778
Khulna	10.0	1,830	22.8	58.4	13.7	8.4	5.3	44.9	27.9	23.0	4.9	1,734
Rajshahi	12.7	2,087	22.1	57.5	19.6	11.9	7.7	38.6	22.9	18.8	4.1	1,966
Rangpur	12.8	2,042	21.6	62.7	20.3	12.5	7.9	31.4	16.9	14.2	2.7	1,913
Sylhet	15.7	1,217	21.0	55.0	29.8	16.6	13.2	27.4	15.2	12.4	2.8	1,063
Education												
No education	17.5	4,414	21.4	60.1	24.1	13.5	10.6	30.0	15.8	13.2	2.6	4,255
Primary incomplete	14.8	3,201	21.7	58.9	21.7	13.8	7.8	34.2	19.4	16.2	3.2	2,989
Primary complete[2]	13.7	1,969	22.1	58.1	19.0	11.3	7.7	37.0	22.9	18.6	4.4	1,821
Secondary incomplete	9.7	5,594	22.6	58.0	16.0	10.6	5.4	42.4	26.0	21.2	4.8	5,093
Secondary complete or higher[3]	7.2	2,531	24.0	50.2	9.8	6.4	3.3	57.2	40.0	31.6	8.4	2,319
Wealth quintile												
Lowest	15.9	3,339	20.3	59.5	32.2	18.9	13.3	17.8	8.4	7.4	1.0	3,057
Second	15.2	3,380	21.1	61.8	24.9	15.5	9.4	27.3	13.3	12.1	1.2	3,116
Middle	11.8	3,530	21.9	60.8	19.0	11.7	7.3	34.7	20.2	17.4	2.7	3,300
Fourth	11.6	3,733	22.9	60.6	12.3	7.6	4.7	47.2	27.1	22.4	4.6	3,496
Highest	9.2	3,728	24.8	46.4	7.0	4.9	2.1	64.7	46.7	35.1	11.5	3,509
Total	12.6	17,710	22.3	57.6	18.6	11.4	7.2	39.2	23.8	19.4	4.4	16,478

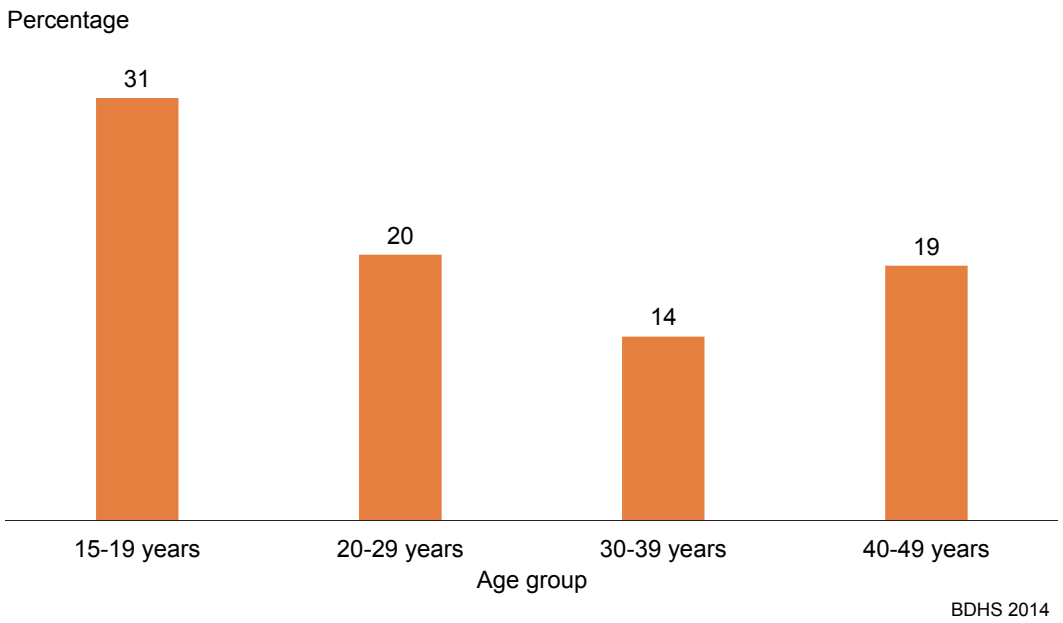
Note: The body mass index (BMI) is expressed as the ratio of weight in kilograms to the square of height in meters (kg/m^2).
[1] Excludes pregnant women and women with a birth in the preceding 2 months
[2] Primary complete is defined as completing grade 5.
[3] Secondary complete is defined as completing grade 10.

Overall, 13 percent of ever-married women are below the cut-off of 145 centimeters in height. The proportion below the cut-off for women's height does not vary much by age group. Urban women and women in Khulna division tend to be taller than other women. Woman's educational status and household wealth are positively associated with height. For example, 18 percent of uneducated women and 16 percent of women in the lowest wealth quintile are below 145 centimeters in height compared with 7 percent of women who have completed secondary or higher education and 9 percent of women in the highest wealth quintile.

The mean BMI for ever-married women age 15-49 is 22.3 (Table 11.8), which falls in the normal BMI classification. About 6 in 10 ever-married women (58 percent) have a normal BMI, and 19 percent are undernourished or thin (BMI less than 18.5). Despite much discussion, the global nutrition community has retained the international classification of BMI ≥25 kg/m^2 cut-off for overweight and obesity for adults. Based on this classification, 24 percent of women are overweight or obese (BMI 25 or higher). Variations are apparent by background characteristics. Ever-married women age 15-19 are more likely to be thin or undernourished compared with women in other age cohorts (Figure 11.8). The proportion of overweight women increases with age. Rural women are more likely than urban women to be undernourished (21 percent and 12 percent, respectively), whereas urban women are twice as likely to be overweight or obese compared with rural women (36 percent and 19 percent, respectively). Among the divisions, the proportion of undernourished women ranges from 14 percent in Khulna to 30 percent in Sylhet. As educational attainment and household wealth increase, the proportion of women who are undernourished declines sharply, while the proportion of overweight or obese women increases. Bangladeshi women in the highest wealth quintile are six times more likely to be overweight or obese compared with women in the lowest wealth quintile.

However, the World Health Organization (WHO Expert Consultation 2004) also noted that the cut-off points of 23, 27.5, 32.5 and 37.5 kg/m^2 are to be added as points for public health action. Based on this, Table 11.8 includes a column showing BMI ≥23 kg/m^2 as a measure of overweight and obesity by background characteristics. Based on this classification, 39 percent of women are overweight or obese, 15 percentage points higher than the measure based on BMI ≥25 kg/m^2. Variations across subgroups of population are similar to that measured by BMI ≥25 kg/m^2. Using this classification, women in urban areas are 19 percentage points more likely than rural women to be overweight or obese (53 percent and 34 percent, respectively).

Figure 11.8 **Percentage of undernourishment (BMI <18.5) among ever-married women age 15-49 years**



Comparison of anthropometric measurements of ever-married women age 15-49 collected in the 2004, 2007, 2011, and 2014 BDHS indicate a slight improvement in the proportion of women whose height is less than 145 cm, from 16 percent in 2004 to 13 percent in 2014. At the same time, the mean BMI has increased from 20.2 in 2004 to 22.3 in 2014. Consequently, the proportion of women with a BMI below 18.5 has decreased, from 34 percent in 2004 to 19 percent in 2014 (Figure 11.9).

Figure 11.9 **Trends in nutritional status of ever-married women, 2004-2014**

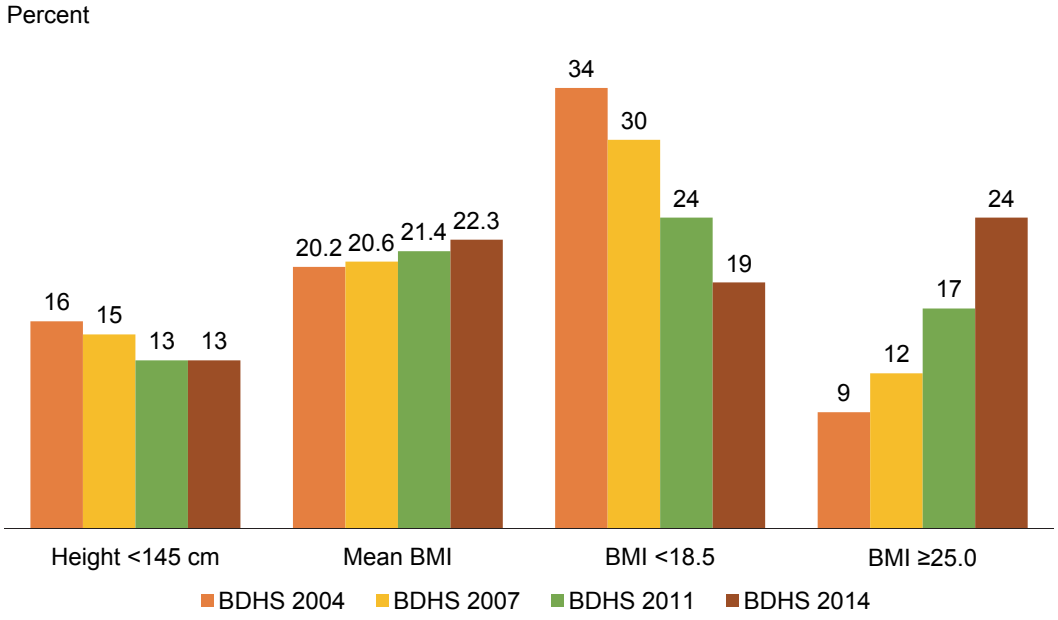
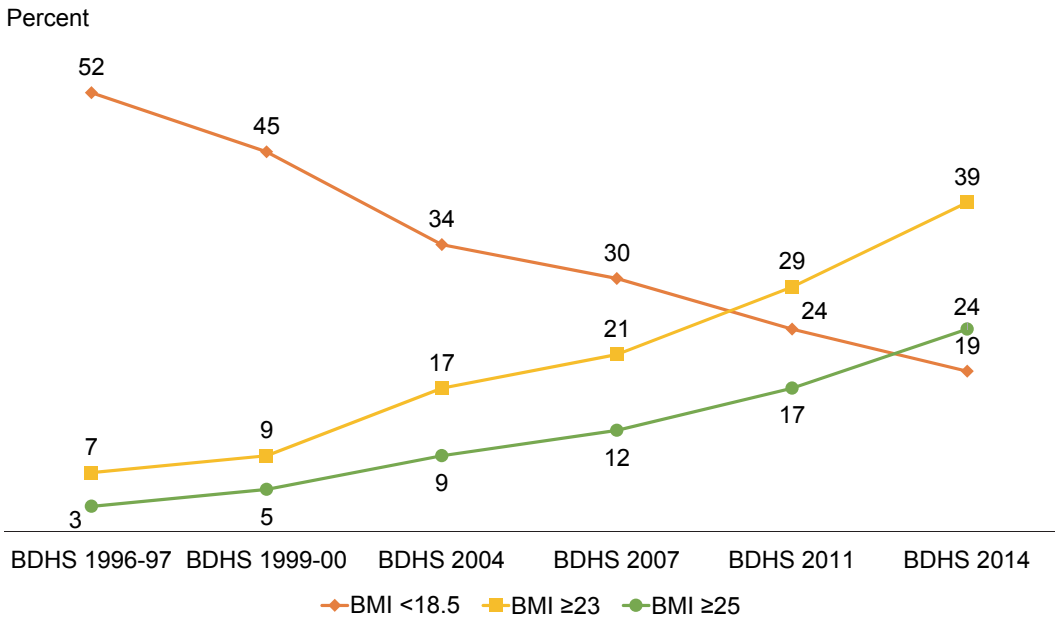


Figure 11.10 shows that the proportion of underweight among ever-married women 15-49 (BMI <18.5) has decreased markedly from 52 percent in 1996 to 19 percent in 2014. At the same time, the proportion of overweight women (BMI ≥25) has increased from 3 percent to 24 percent. If BMI ≥23 is considered, the increase in the proportion of overweight women is from 7 percent in 1996 to 39 percent in 2014.

Figure 11.10 **Trend in BMI among ever-married women age 15-49, 1996/97-2014 BDHS**



11.9 MICRONUTRIENT INTAKE AMONG MOTHERS

Adequate micronutrient intake by women has important benefits for both the women and their children. Breastfeeding children benefit from the micronutrient supplementation that mothers receive, especially vitamin A. In Bangladesh, micronutrient deficiency among women is a common public health problem.

Maternal vitamin A deficiency can cause visual impairment and possibly other health consequences. Maternal night blindness due to vitamin A deficiency (VAD) has been associated with increased low birth weight (Tielsch et al. 2008) and infant mortality (Christian et al. 2001). VAD can be prevented through provision of a high dose (200,000 IU) vitamin A capsule in the first six to eight weeks after delivery (when women are considered not at risk of being pregnant). Due to possible adverse effects (birth defects) resulting from high doses of vitamin A, pregnant women should not be given a high dose vitamin A supplement. The 2014 BDHS collected data on use of vitamin A supplements among women age 15-49 with a child born in the past three years.

Table 11.9 Micronutrient intake among mothers

Among women age 15-49 with a child born in the past three years, the percentage who received a vitamin A dose in the first two months after the birth of the last child, by background characteristics, Bangladesh 2014

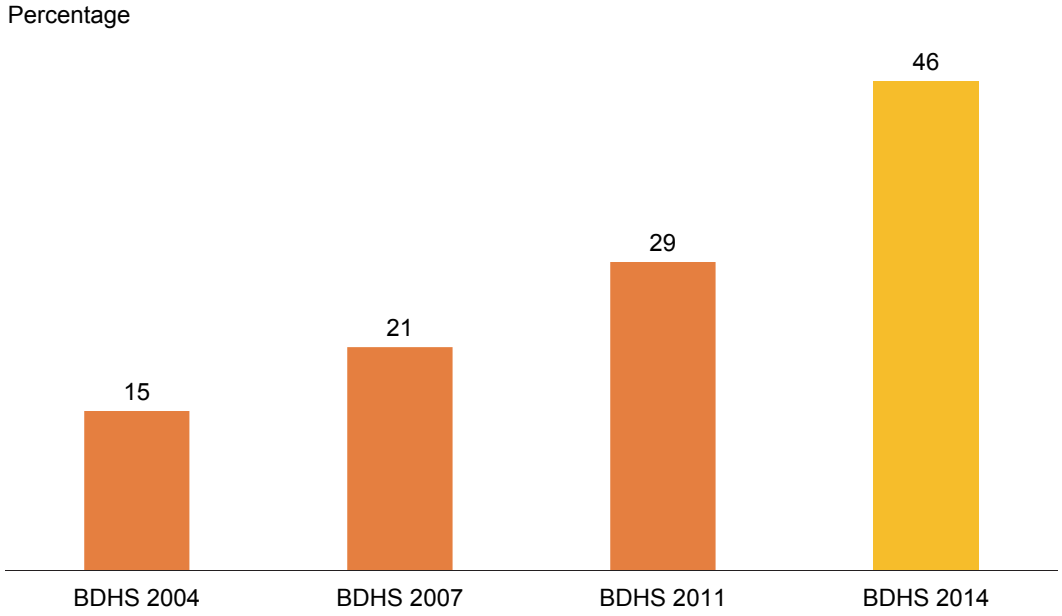
Background characteristic	Percentage who received vitamin A dose postpartum[1]	Number of women
Age		
15-19	44.7	971
20-29	46.4	2,743
30-39	45.3	851
40-49	(51.5)	62
Residence		
Urban	52.9	1,209
Rural	43.4	3,418
Division		
Barisal	49.0	268
Chittagong	46.0	1,011
Dhaka	48.4	1,634
Khulna	47.9	371
Rajshahi	44.8	464
Rangpur	50.1	450
Sylhet	29.6	428
Education		
No education	39.8	655
Primary incomplete	40.3	749
Primary complete[2]	36.7	544
Secondary incomplete	49.0	1,892
Secondary complete or higher[3]	55.4	787
Wealth quintile		
Lowest	40.6	1,003
Second	39.6	876
Middle	44.4	882
Fourth	48.1	955
Highest	57.0	912
Total	45.9	4,627

[1] In the first two months after delivery of last birth
[2] Primary complete is defined as completing grade 5.
[3] Secondary complete is defined as completing grade 10.

Table 11.9 presents information on the percentage of women who received a dose of vitamin A during the first two months after the birth of their most recent child. Overall, 46 percent of women age 15-49 with a child born in the past three years received a postpartum vitamin A dose. This proportion varies by urban-rural residence, division, educational attainment, and household wealth. There is no discernible pattern with respect to women's age. Women in urban areas are more likely to receive vitamin A supplements compared with women in rural areas (53 percent versus 43 percent). Among divisions, the percentage of women who received a postpartum vitamin A dose is highest in Rangpur (50 percent) and lowest in Sylhet (30 percent).

Postpartum vitamin A supplementation does not show a linear relationship with mother's education or wealth. Postpartum vitamin A supplementation is highest among women who have completed secondary or higher education (55 percent) and lowest among women who have completed primary education (37 percent). It is lowest among mothers in the second wealth quintile (40 percent) and highest among mothers in the highest quintile (57 percent). Figure 11.11 shows that postpartum vitamin A supplementation has increased remarkably in the past decade, from 15 percent in 2004, 21 percent in 2007, and 29 percent in 2011 to its current level of 46 percent.

Figure 11.11 **Trends in postpartum vitamin A supplementation among mothers, 2004-2014**



HIV/AIDS-RELATED KNOWLEDGE, ATTITUDES, AND BEHAVIOR

12

Key Findings

- Seventy percent of ever-married women age 15-49 have heard of HIV/AIDS, similar to that documented in the 2011 BDHS.
- Between 2011 and 2014 the proportion of ever-married women who know two HIV prevention methods decreased from 37 to 34 percent.
- Only 11 percent of ever-married women age 15-49 have comprehensive knowledge about AIDS.
- More than half of ever-married women (56 percent) know that HIV can be transmitted during pregnancy and through breastfeeding, while less than half (44 percent) know that HIV can be transmitted during delivery.
- Fifty-nine percent of ever-married women know that HIV can be transmitted both by using an unsterilized needle or syringe and by blood transfusion.
- The great majority of ever-married women (91 percent) think that if a woman knows her husband has a sexually transmitted infection (STI), she is justified in refusing to have sexual intercourse with him.
- Fourteen percent of ever-married women report having had an STI and/or symptoms of an STI in the 12 months preceding the survey. The proportion of women who sought advice or treatment for an STI from a clinic, hospital, or health professional increased from 31 percent in 2011 to 46 percent in 2014.

Acquired immune deficiency syndrome (AIDS) is an illness caused by the human immunodeficiency virus (HIV). AIDS was first recognized internationally in 1981. Epidemiological studies have since identified the main routes of transmission of HIV to be unsafe sexual intercourse, intravenous injections with contaminated needles, unscreened or contaminated blood transfusions, and transmission from an infected mother to her child during pregnancy, delivery, or breastfeeding. HIV cannot be transmitted through food, water, insect vectors, or casual contact. HIV infection weakens the immune system and makes the body susceptible to and unable to recover from other opportunistic diseases. Secondary infections, if not adequately treated, can lead to death.

In Bangladesh, the first case of HIV was detected in 1989. In 2014, a total of 433 new cases of HIV infection, 251 new AIDS cases, and 91 deaths due to AIDS were reported. The reported number of HIV-positive people in Bangladesh increased from 1,207 in 2007 to 3,674 in 2014, a more than three-fold increase in seven years (Bdnews24.com 2014). The estimated number of HIV/AIDS cases remains at 8,900, however, indicating both the likelihood of incomplete reporting and the potential for growth of the AIDS epidemic in Bangladesh (UNAIDS 2014). Although, Bangladesh is still considered a low-prevalence country for HIV/AIDS, it remains vulnerable to an HIV epidemic because of the high prevalence in neighboring countries and the high mobility of people within and beyond the country (DGHS 2015).

The HIV/AIDS prevention program in Bangladesh started in 1985. In response to HIV/AIDS prevention efforts, the government of Bangladesh formed the National AIDS Committee (NAC) under the patronage of the president of Bangladesh. In 2010 the membership of NAC was expanded to include other stakeholders. The MOHFW plays the leading role in the prevention of HIV and control of the AIDS epidemic. In 1995, the Directorate General of Health Services (DGHS) of the Ministry of Health and Family Welfare (MOHFW) formed a task force. The task force was convened by the Technical Committee of the National AIDS Council (TC-NAC). The TC-NAC was composed of national experts from various

disciplines relevant to the prevention and control of HIV and sexually transmitted diseases (STDs). With political support from the National AIDS Committee and technical support from the TC-NAC, the task force led the process of developing a national policy on HIV and AIDS, which was endorsed by the Cabinet in 1997 (NASP and MOHFW 2008). In 1997, the protocol for safe blood transfusion was formulated. Today there are 211 blood screening centers established for screening HIV, syphilis, malaria, hepatitis B virus (HBV), and hepatitis C virus (HCV). With support from the government of Bangladesh, non-governmental organizations (NGOs) have set up an STD/AIDS network with more than 250 members working in the field of HIV/AIDS. As the nodal body for HIV/AIDS activities, the National AIDS/STD Program (NASP) was formed under the DGHS, and has functioned since 1998. The major role of the NASP is to formulate policies, coordinate information, and regulate the implementation of the HIV/AIDS prevention efforts in the country. The NASP is implementing HIV/AIDS prevention activities through a coalition of three functionaries, the NAC, MOHFW, and DGHS. The NASP is also responsible for coordinating activities of all stakeholders and development partners involved in HIV and AIDS program. Bangladesh has adopted its third National Strategic Plan (2011-2015), with the following objectives: to implement services to prevent new HIV infections; to provide universal access to treatment, care, and support services for people infected and affected by HIV; to strengthen coordination mechanisms and management capacity at different levels to ensure an effective multi-sector HIV/AIDS response; and to strengthen the strategic information systems and research for an evidence-based response (MOHFW 2012). Most HIV-related activities are based on prevention among most-at-risk populations, because Bangladesh is a country with low prevalence of HIV.

HIV intervention programs targeting the vulnerable population in Bangladesh evolved over a period of more than 10 years, from 1997-2008. Initially, programs were started and led by NGOs, and a strong partnership developed with the government, civil society, and donors, who worked to facilitate comprehensive interventions for the most vulnerable groups. These groups included female sex workers and their male clients, injecting drug users (IDUs), men who have sex with men, transgendered persons (*hijras*), and transport workers. In general, intervention packages included condom promotion, STI management, needle/syringe exchange, detoxification, peer education, health education and counseling, resting/recreation facilities, community awareness, and local level advocacy. In addition, the Government of Bangladesh, under the direct supervision of NASP, has taken the initiative to provide optimum care and management to people living with HIV through care, support, and treatment services at government and NGO facilities. An AIDS Epidemic Model analysis conducted to examine the impact of interventions concluded that early response to HIV/AIDS helped to maintain a low prevalence in Bangladesh. The analysis demonstrated that up to 2014 the ongoing interventions have averted a total of 141,225 HIV infections and saved 3,841,000 Disability Adjusted Life Years (DALYs) and 19,545 lives (MIS 2015).

Bangladesh has been conducting serological surveillance and behavioral surveys since 1999. These surveys provide data to better understand and address the HIV situation at both the national and sub-national levels. They thereby aid in the design of prevention, treatment, care, and support programs. Since 1998, serological surveillance surveys of most-at-risk groups have been conducted approximately every two years. According to the latest Serological Surveillance (NASP 2012) in Bangladesh, HIV prevalence among persons who use drugs, female sex workers, male sex workers, men who have sex with men, and *hijras* is 0.7 percent with IDUs in Dhaka city have the highest prevalence (5.3 percent). A recent study also observed that the number of HIV cases among IDUs in Dhaka city is increasing rapidly (NASP et al. 2014).

Bangladesh has been implementing HIV prevention programs through awareness-raising activities since 1987, a time when there were no identified cases of HIV in the country. Over the years, the HIV program has grown in size and quality and has involved a wider network of stakeholders. The program has increased its coverage of most-at-risk populations, which now include young people. There have been various efforts to prevent HIV transmission, such as public health education through the media and program activities by both government and NGOs, particularly with groups considered to be at high risk for transmission of HIV/AIDS. In addition, adolescent and young people age 11-24 have been targeted through providing life-skills training to peer leaders. Integrating life-skills based education in secondary school curriculums is a major accomplishment to reach adolescents with messages on HIV/AIDS prevention.

Because Bangladesh is a low-prevalence country, with HIV not posing an immediate threat, no special focus has been placed on the general population. Instead, the focus continues to be mainly on high-risk groups. This chapter presents current levels of knowledge and attitudes regarding HIV/AIDS prevention and transmission in the general population of women of reproductive age. This chapter also discusses self-reported prevalence of sexually transmitted infections (STIs) and symptoms including care-seeking behaviors.

12.1 KNOWLEDGE OF HIV/AIDS AND TRANSMISSION AND PREVENTION METHODS

12.1.1 Knowledge of HIV/AIDS

The 2014 BDHS included a series of questions to gauge respondent's knowledge and attitudes concerning HIV/AIDS. All ever-married women age 15-49 were first asked if they had ever heard of AIDS. Those who had heard of AIDS were then questioned on their knowledge of HIV transmission and prevention.

Table 12.1 shows that 70 percent of ever-married women age 15-49 have heard of HIV/AIDS, the same level as documented in the 2011 BDHS. Awareness of HIV/AIDS varies by age, with women under age 30 being more aware of the disease than older women. Knowledge of HIV/AIDS is higher among urban than rural women (85 compared with 64 percent). Awareness of HIV/AIDS ranges from a high of 77 percent among women in Khulna to 60 percent in Sylhet. Nearly all women who have completed secondary education (99 percent) have heard of HIV/AIDS compared with 40 percent of women with no education. The proportion of ever-married women who have ever heard of AIDS increases steadily as women's wealth status increases.

Table 12.1 Knowledge of AIDS

Percentage of ever-married women age 15-49 who have heard of AIDS, by background characteristics, Bangladesh 2014

Background characteristic	Has heard of AIDS	Number of women
Age		
15-24	75.4	5,253
15-19	72.0	2,029
20-24	77.5	3,224
25-29	76.8	3,390
30-39	67.9	5,362
40-49	57.4	3,859
Marital status		
Married/living together	70.4	16,858
Divorced/separated/ widowed	54.8	1,005
Residence		
Urban	84.8	5,047
Rural	63.5	12,816
Division		
Barisal	71.4	1,111
Chittagong	68.9	3,301
Dhaka	74.0	6,223
Khulna	76.9	1,838
Rajshahi	63.1	2,103
Rangpur	62.0	2,056
Sylhet	59.5	1,232
Education		
No education	40.3	4,455
Primary incomplete	58.7	3,223
Primary complete[1]	70.9	1,986
Secondary incomplete	85.2	5,628
Secondary complete or higher[2]	98.5	2,571
Wealth quintile		
Lowest	42.9	3,359
Second	55.4	3,408
Middle	71.4	3,560
Fourth	80.9	3,758
Highest	92.8	3,778
Total	69.5	17,863

[1] Primary complete is defined as completing grade 5.
[2] Secondary complete is defined as completing grade 10.

12.1.2 Knowledge of HIV Prevention Methods

HIV/AIDS prevention programs focus their messages and efforts on two important aspects of sexual behavior: limiting the number of partners and staying faithful to one uninfected partner; and using condoms. To ascertain whether programs have effectively communicated these messages, the 2014 BDHS asked respondents specific questions about whether it is possible to reduce the chances of getting the AIDS virus by using a condom at every sexual encounter and by limiting sexual intercourse to one uninfected partner.

Table 12.2 shows that 51 percent of ever-married women say that HIV infection can be reduced by limiting sex to one uninfected partner who has no other partners, while 42 percent cite using condoms at every sexual encounter, and 34 percent are aware of both means of reducing the risk of HIV infection. However, there has been a slight decline in knowledge of HIV prevention methods; the proportion of ever-married women who know about both methods of HIV prevention decreased from 37 percent in 2011 to 34 percent in 2014.

Knowledge of the various methods of HIV/AIDS prevention varies by respondent's age; women age 20-24 and women age 25-29 are more knowledgeable than older women. Knowledge of HIV/AIDS prevention methods is higher among urban women than rural women, and higher among women in Dhaka compared with other districts. Knowledge of HIV/AIDS prevention methods increases with women's education and wealth status.

Table 12.2 Knowledge of HIV prevention methods

Percentage of ever-married women age 15-49 who, in response to prompted questions, say that people can reduce the risk of getting the AIDS virus by using condoms every time they have sexual intercourse, and by having one sex partner who is not infected and has no other partners, by background characteristics, Bangladesh 2014

Background characteristic	Percentage who say HIV can be prevented by			Number of women
	Using condoms[1]	Limiting sexual intercourse to one uninfected partner[2]	Using condoms and limiting sexual intercourse to one uninfected partner[2]	
Age				
15-24	45.0	55.4	37.3	5,253
15-19	42.1	51.8	34.4	2,029
20-24	46.9	57.7	39.1	3,224
25-29	46.3	57.5	38.6	3,390
30-39	41.2	49.2	33.5	5,362
40-49	32.9	41.2	27.3	3,859
Marital status				
Married/living together	42.3	51.6	34.9	16,858
Divorced/separated/ widowed	28.8	38.1	23.7	1,005
Residence				
Urban	54.4	64.0	45.7	5,047
Rural	36.5	45.7	29.8	12,816
Division				
Barisal	40.7	52.5	33.4	1,111
Chittagong	37.0	44.9	28.2	3,301
Dhaka	47.4	57.2	40.6	6,223
Khulna	46.5	54.8	36.5	1,838
Rajshahi	37.7	47.7	32.1	2,103
Rangpur	39.1	47.2	32.8	2,056
Sylhet	27.7	38.7	22.3	1,232
Education				
No education	21.9	27.2	17.7	4,455
Primary incomplete	30.5	40.1	24.5	3,223
Primary complete[3]	38.4	49.4	30.4	1,986
Secondary incomplete	51.1	63.3	41.9	5,628
Secondary complete or higher[4]	70.7	79.5	61.4	2,571
Wealth quintile				
Lowest	22.7	29.3	18.8	3,359
Second	30.2	39.7	24.8	3,408
Middle	41.1	51.1	32.7	3,560
Fourth	48.4	58.9	39.5	3,758
Highest	62.1	72.1	52.8	3,778
Total	41.5	50.9	34.3	17,863

[1] Using condoms every time they have sexual intercourse
[2] Partner who has no other partners
[3] Primary complete is defined as completing grade 5.
[4] Secondary complete is defined as completing grade 10.

12.1.3 Comprehensive Knowledge about AIDS

Comprehensive knowledge about HIV/AIDS is a useful composite measure, combining understanding on HIV prevention methods and local misconceptions. The 2014 BDHS collected information on common misconceptions about HIV transmission. Respondents were asked whether they think it is possible for a healthy-looking person to have HIV, and also whether they believe HIV can be transmitted through mosquito bites, or by sharing food with a person who has HIV or AIDS. Comprehensive knowledge about AIDS is defined as knowing that consistent condom use and having just one faithful partner can reduce the chance of getting the AIDS virus, knowing that a healthy-looking person can have the AIDS virus, and rejecting the two most common local misconceptions about HIV transmission in Bangladesh: that HIV can be transmitted by mosquito bites and that HIV can be transmitted by sharing food with a person who has AIDS.

The data presented in Table 12.3 indicate that many ever-married women age 15-49 in Bangladesh lack accurate knowledge about the ways in which the AIDS virus can and cannot be transmitted. Less than half of ever-married women (47 percent) know that a healthy-looking person can have HIV, and 38 percent

know that HIV cannot be transmitted by mosquito bites. Thirty-six percent of women correctly believe that a person cannot become infected by sharing food with a person who has AIDS. Overall, only 11 percent of ever-married women have comprehensive knowledge about AIDS. Comprehensive knowledge about AIDS is higher among married women and urban residents than among other women. Among administrative divisions, comprehensive AIDS knowledge is the highest in Dhaka (14 percent) and the lowest in Sylhet (6 percent). Comprehensive knowledge about AIDS increases with education, from 4 percent among women with no education to 27 percent among women who have completed secondary or higher education. Comprehensive knowledge about AIDS also increases with household wealth. The proportion of ever-married women who have comprehensive knowledge about AIDS remained unchanged between surveys in 2011 and 2014. The proportion of women who correctly reject local misconceptions also remained unchanged between the two surveys, except for the proportion of ever-married women who correctly believe that HIV cannot be transmitted by mosquito bites, which increased from 32 to 38 percent.

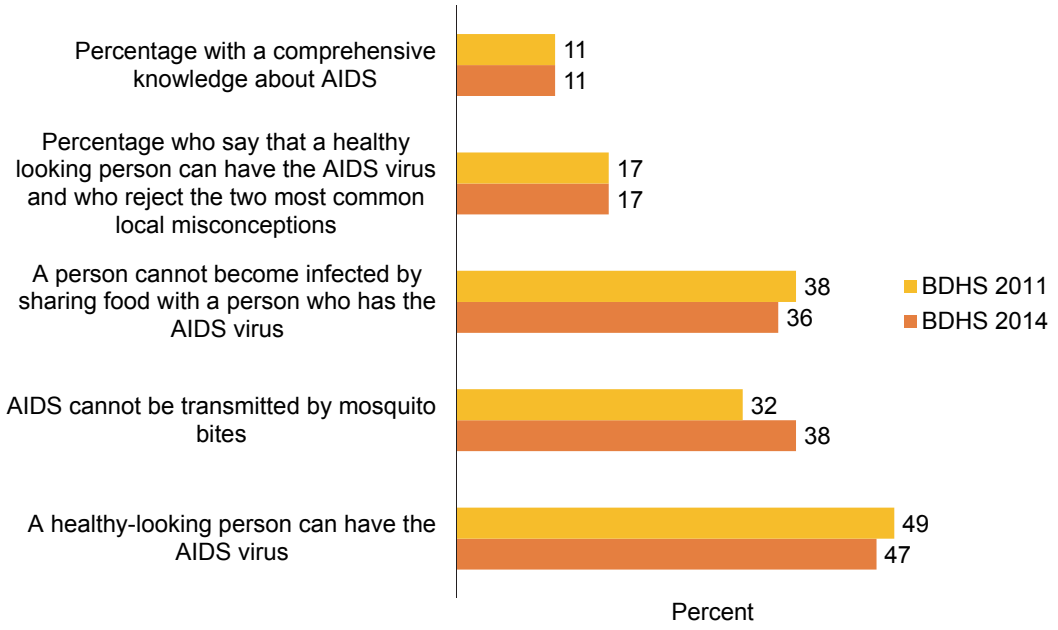
Table 12.3 Comprehensive knowledge about AIDS

Percentage of ever-married 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 transmission or prevention and the percentage with a comprehensive knowledge about AIDS, by background characteristics, Bangladesh 2014

Background characteristic	Percentage of respondents who say that: A healthy-looking person can have the AIDS virus	The AIDS virus cannot be transmitted by mosquito bites	A person cannot become infected by sharing food with a person who has the AIDS virus	Percentage who say that a healthy looking person can have the AIDS virus and who reject the two most common local misconceptions[1]	Percentage with a comprehensive knowledge about AIDS[2]	Number of women
Age						
15-24	49.9	41.9	40.4	19.6	12.7	5,253
15-19	47.0	38.0	37.8	17.7	12.0	2,029
20-24	51.7	44.3	42.0	20.9	13.2	3,224
25-29	51.3	42.2	41.3	19.2	12.1	3,390
30-39	47.1	37.4	34.4	16.9	10.8	5,362
40-49	39.2	28.3	27.0	11.5	7.5	3,859
Marital status						
Married/living together	47.6	38.2	36.5	17.3	11.2	16,858
Divorced/separated/ widowed	36.9	28.5	25.2	11.0	6.2	1,005
Residence						
Urban	58.4	52.6	50.8	26.2	17.5	5,047
Rural	42.5	31.7	30.0	13.4	8.3	12,816
Division						
Barisal	52.9	35.7	30.7	14.1	7.8	1,111
Chittagong	43.4	42.0	36.4	16.5	8.7	3,301
Dhaka	50.5	40.2	40.0	19.5	13.8	6,223
Khulna	58.1	42.6	39.9	20.0	12.7	1,838
Rajshahi	43.0	31.9	31.3	16.0	10.1	2,103
Rangpur	38.5	31.3	31.5	13.7	9.5	2,056
Sylhet	38.6	28.0	27.6	11.0	6.0	1,232
Education						
No education	25.5	17.9	15.7	5.9	3.5	4,455
Primary incomplete	38.9	25.5	23.4	9.1	4.8	3,223
Primary complete[3]	45.0	36.1	32.9	13.3	8.1	1,986
Secondary incomplete	58.2	46.6	43.6	20.9	13.8	5,628
Secondary complete or higher[4]	71.6	68.7	71.9	40.4	27.2	2,571
Wealth quintile						
Lowest	28.1	19.8	18.0	7.5	4.6	3,359
Second	35.1	24.7	21.8	8.1	4.7	3,408
Middle	48.7	35.2	32.1	15.0	9.1	3,560
Fourth	55.5	43.9	42.9	20.0	13.0	3,758
Highest	64.6	61.2	61.0	32.4	21.8	3,778
Total	47.0	37.6	35.9	17.0	10.9	17,863

[1] Two most common local misconceptions: AIDS can be transmitted by mosquito bites and by sharing food with a person who has AIDS
[2] Comprehensive knowledge means knowing that consistent use of condoms during sexual intercourse and having just one uninfected faithful partner can reduce the chance of getting the AIDS virus, knowing that a healthy-looking person can have the AIDS virus, and rejecting the two most common local misconceptions about AIDS transmission or prevention.
[3] Primary complete is defined as completing grade 5.
[4] Secondary complete is defined as completing grade 10.

Figure 12.1 **Comprehensive knowledge about AIDS among ever-married women age 15-49**



12.2 KNOWLEDGE ABOUT MOTHER-TO-CHILD TRANSMISSION OF HIV

To assess the level of knowledge about mother-to-child transmission (MTCT) of HIV, the 2014 BDHS asked ever-married women age 15-49 whether HIV can be transmitted from a mother to a child during pregnancy, during delivery, or through breastfeeding. Table 12.4 shows that 56 percent of ever-married women know that HIV can be transmitted during pregnancy, while 44 percent of women know that HIV can be transmitted during delivery, and 55 percent of women know that HIV can be transmitted through breastfeeding. Knowledge about MTCT of HIV during pregnancy and delivery has decreased slightly since 2011, when 59 percent of women knew that HIV can be transmitted during pregnancy and 48 percent knew about MTCT during delivery. However, the proportion of ever-married women who know that HIV can be transmitted through breastfeeding has remained almost unchanged between BDHS 2011 and BDHS 2014.

Knowledge of MTCT of HIV is highest among women age 20-24, women living in Khulna, currently married women, pregnant women, and women living in urban areas. Like other aspects of HIV/AIDS knowledge, women's knowledge about MTCT increases with their educational level and wealth status.

Table 12.4 Knowledge of prevention of mother to child transmission of HIV

Percentage of ever-married women 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) can be reduced by mother taking special drugs during pregnancy, by background characteristics, Bangladesh 2014

Background characteristic	Percentage who know that HIV can be transmitted: During pregnancy	During delivery	By breastfeeding	Number of women
Age				
15-24	59.8	47.6	59.7	5,253
15-19	57.0	45.0	56.9	2,029
20-24	61.6	49.2	61.5	3,224
25-29	61.4	47.2	60.4	3,390
30-39	54.8	43.1	54.3	5,362
40-49	45.2	36.0	45.2	3,859
Marital status				
Married/living together	56.2	44.3	55.7	16,858
Divorced/separated/ widowed	43.5	33.4	44.6	1,005
Currently pregnant				
Pregnant	58.6	47.0	56.4	1,070
Not pregnant or not sure	55.3	43.5	55.0	16,793
Residence				
Urban	68.5	53.6	68.0	5,047
Rural	50.4	39.8	50.0	12,816
Division				
Barisal	58.6	45.3	55.6	1,111
Chittagong	57.2	47.2	56.2	3,301
Dhaka	58.8	47.1	59.2	6,223
Khulna	62.9	46.3	61.4	1,838
Rajshahi	50.2	36.1	51.0	2,103
Rangpur	46.0	36.4	45.4	2,056
Sylhet	44.9	36.5	44.0	1,232
Education				
No education	30.8	24.4	30.9	4,455
Primary incomplete	46.3	37.5	46.7	3,223
Primary complete[1]	55.5	44.8	57.0	1,986
Secondary incomplete	68.9	54.2	68.0	5,628
Secondary complete or higher[2]	80.3	60.9	77.5	2,571
Wealth quintile				
Lowest	34.1	27.1	32.5	3,359
Second	42.7	35.1	44.0	3,408
Middle	57.5	45.6	57.1	3,560
Fourth	65.6	51.0	65.7	3,758
Highest	74.1	57.0	72.5	3,778
Total	55.5	43.7	55.1	17,863

[1] Primary complete is defined as completing grade 5.
[2] Secondary complete is defined as completing grade 10.

12.3 KNOWLEDGE OF MEANS OF TRANSMISSION OF HIV

To ascertain women's knowledge about nonsexual means of transmission of HIV, the survey asked respondents whether it is possible to get the AIDS virus by using an unsterilized needle or syringe or by receiving an unsafe blood transfusion. Table 12.5 shows that 63 percent of ever-married women age 15-49 know that the AIDS virus can be transmitted by using an unsterilized needle or syringe, while 61 percent of women know that the AIDS virus can be transmitted through blood transfusion. Fifty-nine percent of ever-married women know both of these means of HIV transmission. The proportion of women who know both means of HIV transmission decreased slightly between 2011 and 2014, from 61 to 59 percent.

There are considerable variations in knowledge of HIV transmission by women's background characteristics. Knowledge is higher among younger women, married women, urban women, women living in Khulna, women who have completed secondary or higher education, and women in the highest wealth quintile.

Table 12.5 Knowledge of transmission of HIV through unclean needles and unsafe blood transfusions

Percentage of ever-married women age 15-49 who, in response to prompted questions, say that people can get the AIDS virus by using an unsterilized needle or syringe and through blood transfusion, by background characteristics, Bangladesh 2014

Background characteristic	Using an unsterilized needle or syringe	Via blood transfusion	Both	Number of women
Age				
15-24	68.3	66.5	63.5	5,253
15-19	64.5	64.1	60.8	2,029
20-24	70.6	68.1	65.1	3,224
25-29	69.3	67.7	64.9	3,390
30-39	61.7	61.0	58.2	5,362
40-49	50.3	49.8	46.7	3,859
Marital status				
Married/living together	63.5	62.3	59.4	16,858
Divorced/separated/ widowed	47.7	48.0	44.9	1,005
Residence				
Urban	77.1	76.8	73.4	5,047
Rural	56.9	55.4	52.7	12,816
Division				
Barisal	63.1	62.9	58.8	1,111
Chittagong	61.1	60.8	57.6	3,301
Dhaka	67.0	66.0	63.3	6,223
Khulna	72.1	69.8	67.4	1,838
Rajshahi	57.4	56.7	53.8	2,103
Rangpur	55.6	52.9	49.8	2,056
Sylhet	50.4	48.8	46.5	1,232
Education				
No education	34.5	33.5	31.3	4,455
Primary incomplete	50.9	49.6	46.7	3,223
Primary complete[1]	62.5	61.0	58.0	1,986
Secondary incomplete	77.2	76.0	72.5	5,628
Secondary complete or higher[2]	94.0	93.1	90.6	2,571
Wealth quintile				
Lowest	37.2	35.4	33.3	3,359
Second	49.1	46.9	44.4	3,408
Middle	62.8	62.6	58.8	3,560
Fourth	73.6	73.3	69.7	3,758
Highest	86.2	84.9	82.4	3,778
Total	62.6	61.4	58.5	17,863

[1] Primary complete is defined as completing grade 5.
[2] Secondary complete is defined as completing grade 10.

12.4 ATTITUDE TOWARD NEGOTIATING SAFE SEXUAL RELATIONS WITH HUSBANDS

An important determinant of practicing safer sexual relations is control over one's sexual rights and preferences. Knowledge about HIV transmission and ways to prevent it are of little use if women feel powerless to negotiate safer sex practices with their husbands. To assess a woman's ability to negotiate safer sex, the 2014 BDHS asked respondents if they think that a wife is justified in refusing to have sex with her husband when she knows he has a disease that can be transmitted through sexual contact.

Table 12.6 shows that the great majority of ever-married women (91 percent) think that if a woman knows her husband has a sexually transmitted infection (STI), she is justified in refusing to have sex with him. This percentage remains the same as in the 2011 BDHS. There are small variations in women's attitudes toward negotiating safer sex with their husbands by background characteristics. Among administrative divisions, the proportion of women who support a woman's right to refuse sex ranges from 87 percent in Sylhet and Rangpur to 95 percent in Rajshahi. It is important to note that among ever-married women with no education 87 percent say that a woman is justified in refusing to have sex with her husband if she knows he has an STI, nearly as high as the 93 percent of women with a secondary or higher level of education. Similarly, 90 percent of women in the lowest wealth quintile support women's right to refuse sex, only 5 percentage points lower than for women in the highest wealth quintile (95 percent).

Table 12.6 Attitudes toward negotiating safer sexual relations with husband

Percentage of ever-married women age 15-49 who believe that a woman is justified in refusing to have sexual intercourse with her husband if she knows that he has a sexually transmitted infection (STI), by background characteristics, Bangladesh 2014

Background characteristic	Woman is justified in refusing to have sexual intercourse with her husband if she knows that her husband has an STI	Number of women
Age		
15-24	90.8	5,253
15-19	91.7	2,029
20-24	90.2	3,224
25-29	91.8	3,390
30-39	90.5	5,362
40-49	89.7	3,859
Marital status		
Married/living together	90.7	16,858
Divorced/separated/ widowed	89.1	1,005
Residence		
Urban	94.2	5,047
Rural	89.3	12,816
Division		
Barisal	88.7	1,111
Chittagong	89.7	3,301
Dhaka	91.4	6,223
Khulna	92.7	1,838
Rajshahi	95.0	2,103
Rangpur	87.1	2,056
Sylhet	86.7	1,232
Education		
No education	87.3	4,455
Primary incomplete	91.2	3,223
Primary complete[1]	91.5	1,986
Secondary incomplete	91.5	5,628
Secondary complete or higher[2]	93.1	2,571
Wealth quintile		
Lowest	89.5	3,359
Second	87.3	3,408
Middle	90.5	3,560
Fourth	90.9	3,758
Highest	94.6	3,778
Total	90.7	17,863

[1] Primary complete is defined as completing grade 5.
[2] Secondary complete is defined as completing grade 10.

12.5 SELF-REPORTED PREVALENCE OF SEXUALLY TRANSMITTED INFECTIONS (STIS) AND STI SYMPTOMS

In the 2014 BDHS, respondents who ever had sex were asked if they had gotten a disease through sexual contact in the previous 12 months or if they had experienced either of two symptoms associated with sexually transmitted infections (STIs), that is, a bad-smelling or abnormal genital discharge, or a genital sore or ulcer. Table 12.7 shows the self-reported prevalence of STIs and STI symptoms among ever-married women age 15-49.

Overall, only 0.5 percent of ever-married women age 15-49 responded that they had an STI in the 12 months preceding the survey. It is likely that this figure underestimates the actual prevalence of STIs among sexually active women in Bangladesh, as many STI symptoms are not easily recognized and many STIs do not have visible symptoms.

Table 12.7 Self-reported prevalence of sexually-transmitted infections (STIs) and STI symptoms

Among ever-married women 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, Bangladesh 2014

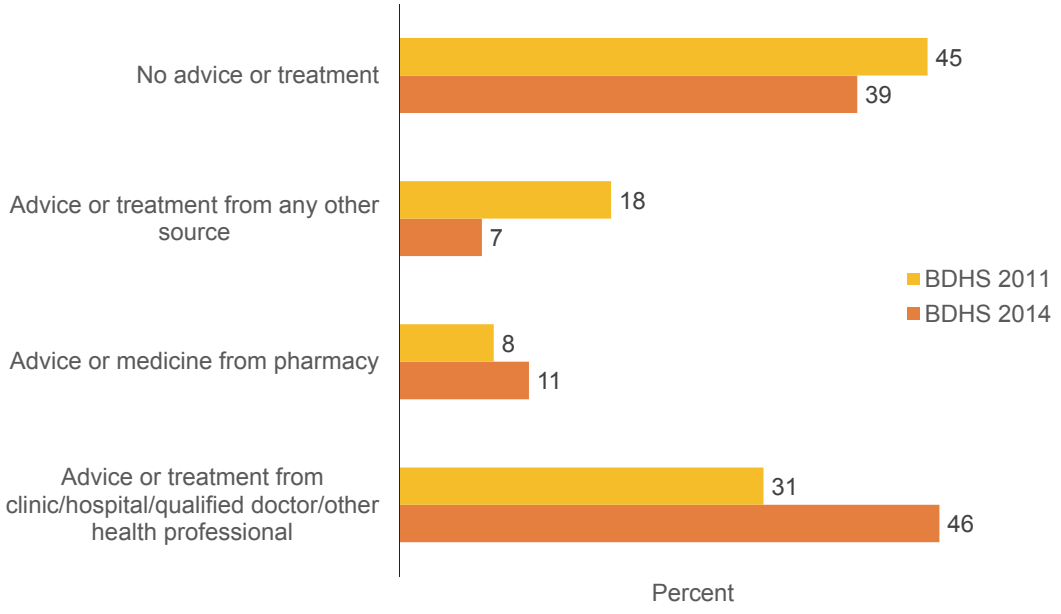
Background characteristic	STI	Bad smelling/ abnormal genital discharge	Genital sore/ulcer	STI/genital discharge/sore or ulcer	Number of women who ever had sexual intercourse
Age					
15-24	0.4	10.7	5.1	13.5	5,242
15-19	0.2	8.8	2.9	10.4	2,020
20-24	0.5	11.9	6.5	15.5	3,222
25-29	0.5	11.6	6.1	14.4	3,386
30-39	0.5	11.5	5.8	14.6	5,362
40-49	0.7	8.8	4.8	11.6	3,857
Marital status					
Married/living together	0.5	10.8	5.6	13.8	16,848
Divorced/separated/ widowed	0.3	8.1	2.6	9.7	998
Residence					
Urban	0.5	9.5	4.9	12.5	5,040
Rural	0.5	11.1	5.6	14.0	12,806
Division					
Barisal	1.1	12.2	8.4	17.0	1,109
Chittagong	0.4	9.9	7.2	13.9	3,298
Dhaka	0.6	10.1	3.9	12.2	6,219
Khulna	0.8	13.5	6.1	16.5	1,837
Rajshahi	0.2	12.2	6.1	15.4	2,100
Rangpur	0.3	9.5	4.2	11.9	2,053
Sylhet	0.4	9.6	5.3	12.5	1,231
Education					
No education	0.5	9.9	4.7	12.2	4,454
Primary incomplete	0.4	12.3	6.2	15.3	3,219
Primary complete[1]	0.6	12.7	6.1	15.8	1,986
Secondary incomplete	0.5	10.9	5.7	13.9	5,620
Secondary complete or higher[2]	0.7	8.0	4.7	11.5	2,568
Wealth quintile					
Lowest	0.7	10.9	4.9	13.6	3,358
Second	0.5	12.2	6.6	15.3	3,405
Middle	0.5	12.1	5.9	15.3	3,554
Fourth	0.4	10.1	4.9	12.7	3,753
Highest	0.5	8.4	4.9	11.4	3,777
Total	0.5	10.7	5.4	13.6	17,846

[1] Primary complete is defined as completing grade 5.
[2] Secondary complete is defined as completing grade 10.

Self-reported prevalence of STIs and/or STI symptoms among women has decreased by 1 percentage point since 2011. In the 2014 BDHS, 14 percent of ever-married women report having had an STI and/or symptoms of an STI in the 12 months before the survey. Women who report STI symptoms are somewhat more likely to say they have had a bad-smelling or abnormal genital discharge (11 percent) than a genital ulcer or sore (5 percent). The proportion of women having a genital sore or ulcer in the 12 months before the survey decreased by 2 percentage points during the last three years. There is a small variation in the prevalence of STIs and/or STI symptoms by women's background characteristics. Among divisions, the percentage of women reporting an STI and/or STI symptoms is highest in Barisal and Khulna (17 percent) and lowest in Rangpur and Dhaka (12 percent).

When women reported having an STI, STI symptoms, or both in the past 12 months, the 2014 BDHS interviewer asked whether they sought any advice or treatment for it. Figure 12.2 shows that care seeking for treatment of STIs improved between 2011 and 2014. The proportion of women who sought advice or treatment from a clinic, hospital, private doctor, or other health professional increased from 31 percent in 2011 to 46 percent in 2014. The proportion of women who sought advice or medicine from a pharmacy increased from 8 to 11 percent between two surveys. In contrast, care seeking from other sources for treatment of STIs decreased substantially, from 18 to 7 percent. The proportion of women who sought no advice or treatment for STIs also decreased between surveys, from 45 to 39 percent.

Figure 12.2 **Care seeking for STIs of women, 2011 and 2014**



WOMEN'S EMPOWERMENT AND HEALTH SEEKING BEHAVIOR

13

Key Findings

- Thirty-two percent of currently married employed women who earn cash make decisions mainly by themselves on how to use their own earnings.
- Seventy percent of currently married women go alone or with children to the health center or hospital, an increase from 56 percent in 2011.
- Forty-four percent of currently married women participate in all four types of decisions regarding their own health care, their child's health care, major household purchases, and visits to their family or relatives.
- Twenty-eight percent of women agree with one or more reasons justifying wife beating. One in five women thinks wife beating is justified if she argues with her husband.
- Active involvement in household decision-making has a positive bearing on a woman's use of contraceptives.
- Access to antenatal care, postnatal care, and delivery assistance from a medically trained provider increases with a higher score on the women's empowerment indices.

The issue of women's empowerment has a long history, but many say that gender equity is not yet established throughout the world (Bhasin 1993; Begum et al. 1990). Achieving gender equity is not a straightforward goal that can be attained readily. Against this backdrop, the 1994 International Conference on Population and Development declared, "advancing gender equality and equity and the empowerment of women and the elimination of all kinds of violence against women, and ensuring women's ability to control their own fertility are cornerstones of population and development-related programs" (UNFPA 1994). Women's empowerment has been defined to encompass women having a sense of self-worth, access to opportunities and resources, choices and the ability to exercise them, control over their own lives, and influence over the direction of social change (United Nations Population Information Network 1995).

According to the United Nations Development Program's (UNDP) Human Development Report for 2013, Bangladesh ranks 115 out of 187 countries on the Gender Inequality Index, which is defined in the report as "a composite measure reflecting inequality in achievements between women and men in three dimensions: reproductive health, empowerment, and the labor market" (UNDP 2013). The 2014 Global Gender Gap Index, developed by the World Economic Forum, ranks Bangladesh 68 out of 142 countries in terms of gender equality (World Economic Forum 2014). Thus, Bangladesh ranks among the bottom half of countries included in each gender-related index. Women make up half of the total population and women's labor force participation is increasing more than ever compared with men's (BBS 2013). Women need much attention from all concerned if they are to achieve the desired levels of empowerment, even though women's right to equality is considered as one of the fundamental themes of the Constitution of Bangladesh (Ministry of Women and Children Affairs 2010).

Empowerment and autonomy of women are essential for the achievement of sustainable development. The full participation and partnership of both women and men is required in productive and reproductive life, including sharing responsibilities for the care and nurture of children as well as for the maintenance of households. In Bangladesh, women's empowerment is high on the list of priority improvements sought in the social and economic conditions of its people. As of today, the government of Bangladesh has formulated four statements of the National Women's Policy (1997, 2004, 2008, and 2011)

to empower women at all stages (Ministry of Women and Children Affairs 2011). These policies have successfully identified the crux of the problems related to socioeconomic, administrative, political, and legal empowerment of women. In addition, Bangladesh ratified the Convention on the Elimination of all Forms of Discrimination Against Women (CEDAW) in 1984, for all four sections, and has committed to all optional protocols of this charter to ensure women's empowerment, after the United Nations adopted this charter in 1979. The main idea is to eliminate all discrimination against women that exists at institutional levels (Ministry of Women and Children Affairs 2010).

A number of studies show that women lag behind men in educational attainment, literacy, employment, and exposure to mass media (Ahmed and Khatun 2008; Khatun and Cornwell 2009; Khatun 2009). Achievements in these areas are crucial contributors to women's empowerment. At the individual level, education, employment, and exposure to mass media all exert considerable influence on the development of a woman's opportunities and sense of self-worth can help strengthen her position in the household and in the society.

This chapter discusses indicators of women's empowerment including employed women's control over their own earnings, women's freedom of movement, women's participation in household decisions, and women's acceptance of wife beating. In addition, two summary indicators of women's empowerment are defined: an index of the number of household decisions (0-4) in which the respondent participates and an index of the number of reasons (0-5) the respondent accepts as justifying wife beating. The ranking of women on these two indices is then related to selected demographic and health outcomes including contraceptive use, ideal family size, unmet need for family planning, and receipt of health care services during pregnancy, at delivery, and in the postnatal period.

13.1 Employment and Form of Earnings

Employment, particularly employment for cash, and control over how earnings are used are important indicators of women's empowerment. In the 2014 BDHS, currently married women were asked whether they were employed at the time of the survey and, if not, whether they were employed at any time during the 12 months preceding the survey. Table 13.1 shows the percentage of currently married women age 15-49 who were employed at any time in the 12 months preceding the survey, and the percent distribution of employed women by the type of earnings they received (cash, in-kind, cash and in-kind, or neither).

Thirty-four percent of currently married women age 15-49 reported some forms of employment in the past 12 months. By age, employment increases from 17 percent among women age 15-19 to 42 percent among women age 40-44, before declining to 39 percent in the oldest group (age 45-49). As age increases, the difference in employment between age group decreases, from 10 percentage points between women age 15-19 and women age 20-24, to 8 percentage points between women age 20-24 and women age 25-29. Then this difference decreases to 1 or 2 percentage points among the older age groups.

The popular assumption is that employment and payment for work come together, but not all women receive earnings for the work they do. Even among women who receive earnings, not all are paid in cash. Eighty-five percent of employed women are paid in cash, 6 percent receive both cash and in-kind earnings, 1 percent have in-kind earnings only, and 8 percent are not paid at all for their work. Older women are more likely to report cash and in-kind earnings compared with younger employed women, while younger women are more likely to report earning cash only. For instance, 9 percent of women age 45-49 reported that they receive cash and in-kind earnings compared with 2 percent of women age 15-19. On the other hand, 89 percent of women age 15-19 reported receiving cash only compared with 79 percent of women age 45-49.

Table 13.1 Employment and cash earnings of currently married women

Percentage of currently married women age 15-49 who were employed at any time in the past 12 months and the percent distribution of currently married women employed in the past 12 months by type of earnings, according to age, Bangladesh 2014

	Among currently married women:		Percent distribution of currently married women employed in the past 12 months, by type of earnings						
Age	Percentage employed	Number of women	Cash only	Cash and in-kind	In-kind only	Not paid	Missing/ don't know	Total	Number of employed women
15-19	17.1	1,984	89.1	2.4	0.3	8.0	0.3	100.0	338
20-24	27.7	3,166	84.3	6.4	0.3	9.0	0.0	100.0	877
25-29	35.3	3,249	86.4	4.6	1.2	7.7	0.1	100.0	1,149
30-34	40.6	2,919	84.8	6.2	1.5	7.4	0.1	100.0	1,185
35-39	40.2	2,153	85.0	5.1	1.9	7.8	0.3	100.0	867
40-44	41.6	1,874	84.0	7.8	1.9	6.1	0.3	100.0	779
45-49	38.9	1,512	78.7	9.1	1.3	10.9	0.0	100.0	589
Total	34.3	16,858	84.6	6.0	1.3	8.0	0.1	100.0	5,784

13.2 WOMEN'S CONTROL OVER THEIR OWN EARNINGS

One main component of measuring women's empowerment is whether women have control over their earnings. To assess control over earnings, the survey asked currently married women with cash earnings in the past 12 months about who makes the main decision about the use of their earnings. If women are able to control how their own cash earnings are used, they are more likely to have a greater say in using other household resources.

Table 13.2 shows the percent distribution of currently married women who received cash earnings in the past 12 months, according to the person who mainly decides about the use of their earnings. Thirty-two percent of currently married women who earn cash reported that they themselves mainly decide how their cash earnings are used; 54 percent reported that they decide jointly with their husbands, and 13 percent reported that their husbands alone decide how their earnings are used. A very low percentage of women reported that other people participate in the decision on how their earnings are used. Women age 45-49 are less likely to make their own decisions about how to use their earnings than their younger counterparts (28 percent compared with 34 percent of women age 15-19). However, as age increases, women are more likely to make decisions jointly with their husbands. Women with lower parity are more likely to make decisions about their earnings alone compared with women with higher parity, while women with higher parity are more likely to make decisions jointly with their husbands. Urban women are more likely than rural women to make decisions themselves about spending their earnings (39 percent versus 29 percent). As expected, rural women are more likely than urban women to report that their husbands alone make decisions about the use of their earnings (14 percent versus 10 percent).

A substantial variation in who makes decisions on how women's earnings is observed across administrative divisions in the 2014 BDHS. The proportion of employed women who mainly decide by themselves about the use of their earnings ranges from 45 percent in Barisal to 20 percent in Rangpur, and joint decision-making ranges from 41 percent in Barisal to 61 percent in Rangpur. The 2014 BDHS data provide consistent findings about women of Barisal and Rangpur. If a woman decides alone about her earnings, she is less likely to report joint decision-making, and vice versa. The proportion of women who reported that decisions about their earnings are made mainly by their husbands ranges from 10 percent in Dhaka to 17 percent in Rajshahi.

Women's decision-making power about their earnings increases with their level of education and household wealth. Forty-three percent of women who have completed secondary or higher education mainly make the decision by themselves on how to use the money they earn compared with 28 percent of women with no education. Women with no education and those who completed primary school are more likely than other women to decide jointly with their husbands (56 percent and 58 percent, respectively) about the use of their earnings. Forty-one percent of women in the highest wealth quintile mainly decide by themselves about the use of their earnings compared with 23 percent of women in the lowest wealth quintile.

Table 13.2 Control over women's cash earnings

Percent distribution of currently married women age 15-49 who received cash earnings for employment in the 12 months preceding the survey by person who decides how wife's cash earnings are used, according to background characteristics, Bangladesh 2014

Background characteristic	Person who decides how the wife's cash earnings are used: Mainly wife	Wife and husband jointly	Mainly husband	Other	Missing	Total	Number of employed women with cash earnings
Age							
15-19	34.1	44.0	18.9	2.9	0.2	100.0	310
20-24	29.9	53.2	14.8	1.6	0.6	100.0	796
25-29	33.6	52.3	12.2	1.4	0.5	100.0	1,045
30-34	33.2	54.1	12.1	0.0	0.7	100.0	1,079
35-39	31.9	54.9	12.5	0.0	0.6	100.0	781
40-44	31.4	55.7	12.0	0.1	0.9	100.0	715
45-49	27.5	58.7	12.9	0.0	0.8	100.0	517
Number of living children							
0	33.8	51.0	12.0	3.1	0.0	100.0	360
1-2	32.4	52.6	13.5	0.9	0.6	100.0	2,753
3-4	31.8	54.6	12.6	0.0	0.9	100.0	1,702
5+	26.8	60.4	12.9	0.0	0.0	100.0	427
Residence							
Urban	39.1	50.1	10.1	0.3	0.4	100.0	1,426
Rural	29.1	55.2	14.1	0.9	0.7	100.0	3,815
Division							
Barisal	44.9	40.8	13.3	0.5	0.4	100.0	282
Chittagong	34.8	50.5	12.7	1.0	0.9	100.0	749
Dhaka	32.7	56.4	9.8	0.9	0.2	100.0	2,014
Khulna	36.5	46.3	16.0	0.6	0.5	100.0	532
Rajshahi	27.8	54.4	16.8	0.5	0.4	100.0	796
Rangpur	20.3	61.3	15.8	0.4	2.1	100.0	689
Sylhet	37.2	48.5	14.1	0.0	0.2	100.0	179
Education							
No education	27.8	56.3	15.3	0.2	0.4	100.0	1,514
Primary incomplete	30.4	53.3	14.1	0.8	1.4	100.0	1,101
Primary complete[1]	29.7	58.4	10.9	0.6	0.5	100.0	632
Secondary incomplete	33.4	50.5	14.7	1.1	0.3	100.0	1,384
Secondary complete or higher[2]	43.3	51.1	4.0	1.1	0.5	100.0	610
Wealth quintile							
Lowest	23.1	58.7	16.7	0.8	0.7	100.0	1,127
Second	25.8	57.8	15.7	0.1	0.6	100.0	1,146
Middle	33.2	53.5	12.1	0.7	0.4	100.0	1,050
Fourth	39.1	47.9	11.0	1.0	0.9	100.0	1,078
Highest	40.6	49.7	8.3	0.9	0.5	100.0	841
Total	31.8	53.8	13.1	0.7	0.6	100.0	5,242

[1] Primary complete is defined as completing grade 5.
[2] Secondary complete is defined as completing grade 10.

13.3 FREEDOM OF MOVEMENT

Freedom of movement outside the home is an important indicator of women's autonomy and empowerment. Bangladesh embraces a traditional culture with patriarchal values secluding women from the outside world and from men, popularly known as "purdah." This is particularly true in rural areas. The 2014 BDHS asked currently married women whether they go to a health center or hospital or, if they do not go, whether they can go alone or with their young children to a health center or hospital. Table 13.3 shows that 70 percent of women said that they go alone or with their young children to a health center or hospital, and 10 percent of women who do not go to a health center or hospital said that they can go to these health facilities alone or with their children. Comparison of data from the 2007 BDHS, 2011 BDHS, and 2014 BDHS shows that in 2014 a higher proportion of women reported going alone or with children to a health center or a hospital. Consequently, fewer women now report constraints in going to a health center or hospital, either alone or with their children (NIPORT et al. 2009, 2013).

The proportion of women who go to a health center or a hospital alone or with children increases with age, from 43 percent of women age 15-19 to 80 percent of women age 35-39, while the proportion of women who cannot go alone or accompanied by their children decreases with age, from 41 percent among women age 15-19 to 16 percent among women age 45-49. Urban women, women with three or four children,

women who have completed a secondary or higher level of education, and women in the highest wealth quintile are more likely than their counterparts to go to a health facility, either alone or with their children. Rural women and women in Sylhet are more likely to be among those who cannot go to a health facility alone or accompanied by their young children.

Table 13.3 Freedom of movement

Percent distribution of currently married women age 15-49 by freedom of movement to go to a hospital or health center, according to background characteristics, Bangladesh 2014

Background characteristic	Go alone or with children to health center or hospital	Do not go to health center or hospital		Other	Total	Number of women
		Can go alone or with children	Cannot go alone or with children			
Age						
15-19	43.1	14.5	40.6	1.6	100.0	1,984
20-24	64.4	11.7	23.0	0.8	100.0	3,166
25-29	73.8	8.8	16.9	0.5	100.0	3,249
30-34	77.5	9.4	12.7	0.4	100.0	2,919
35-39	79.6	7.6	12.5	0.2	100.0	2,153
40-44	78.2	9.4	12.3	0.1	100.0	1,874
45-49	75.1	8.1	16.4	0.4	100.0	1,512
Number of living children						
0	38.2	15.1	44.0	2.5	100.0	1,707
1-2	72.6	10.4	16.7	0.4	100.0	8,948
3-4	76.5	8.4	14.7	0.3	100.0	4,901
5+	74.5	6.6	18.6	0.3	100.0	1,302
Residence						
Urban	74.7	9.0	15.7	0.6	100.0	4,709
Rural	68.7	10.4	20.3	0.6	100.0	12,149
Division						
Barisal	76.4	7.8	14.8	0.9	100.0	1,051
Chittagong	68.0	9.9	21.3	0.7	100.0	3,121
Dhaka	70.9	9.1	19.7	0.3	100.0	5,857
Khulna	72.1	9.6	17.9	0.3	100.0	1,729
Rajshahi	69.5	12.8	17.0	0.8	100.0	2,007
Rangpur	72.6	11.3	15.7	0.5	100.0	1,946
Sylhet	64.3	10.3	23.9	1.6	100.0	1,147
Education						
No education	73.3	8.0	18.3	0.3	100.0	3,949
Primary incomplete	70.2	8.5	21.0	0.3	100.0	3,032
Primary complete[1]	70.4	10.2	18.6	0.8	100.0	1,884
Secondary incomplete	68.2	10.8	20.2	0.7	100.0	5,477
Secondary complete or higher[2]	70.7	13.0	15.5	0.7	100.0	2,516
Wealth quintile						
Lowest	68.8	8.3	22.4	0.5	100.0	3,097
Second	68.7	10.7	20.1	0.5	100.0	3,223
Middle	70.1	10.7	18.4	0.8	100.0	3,394
Fourth	70.9	10.4	18.1	0.6	100.0	3,556
Highest	73.1	9.8	16.7	0.5	100.0	3,587
Total	70.4	10.0	19.0	0.6	100.0	16,858

[1] Primary complete is defined as completing grade 5.
[2] Secondary complete is defined as completing grade 10.

13.4 WOMEN'S EMPOWERMENT

The 2014 BDHS collected information from women on other measures of women's autonomy and status. In particular, the survey asked women about their participation in household decisions and their attitudes toward gender roles. Such information provides insight into women's control over household resources and environment, factors that are relevant to understanding women's demographic and health behavior.

The ability of women to make decisions that affect the personal circumstances of their own lives is an essential aspect of empowerment and serves as an important contributor to women's overall welfare. To assess currently married women's decision-making autonomy, the 2014 BDHS collected information on women's participation in four types of decisions: their own health care, major household purchases, their child's health care, and visits to their family or relatives. Table 13.4 shows the percent distribution of

currently married women age 15-49 by the person in the household who usually makes decisions concerning these matters.

Table 13.4 shows that just over half of women make each of the four types of decisions jointly with their husbands. About three in ten currently married women reported that their husbands are the main decision-makers about their health care, major household purchases, and visits to family or relatives. Women have more say in decisions related to their children's health care; 16 percent reported that they mainly make these decisions, and 17 percent reported that their husbands mainly make these decisions. Few women (8 percent) make decisions about major household purchases alone compared with 28 percent whose husbands mainly make purchasing decisions. Ten percent of women reported that someone else makes such decisions—a higher percentage than for women's own decision-making about household purchases. Overall, women's decision-making power for all four specified issues has increased since 2007 (NIPORT et al. 2009; NIPORT et al. 2013).

Table 13.4 Participation in decision-making

Percent distribution of currently married women age 15-49 by person who usually makes decisions about various issues, Bangladesh 2014

Decision	Mainly wife	Wife and husband jointly	Mainly husband	Someone else	Other	Missing	Total	Number of women
Own health care	14.1	50.7	29.2	5.7	0.2	0.0	100.0	16,858
Major household purchases	8.3	53.0	28.3	10.2	0.2	0.0	100.0	16,858
Child health care	16.2	53.7	17.4	4.3	7.6	0.9	100.0	16,858
Visits to her family or relatives	9.8	52.9	29.0	8.1	0.2	0.0	100.0	16,858

Table 13.5 shows how currently married women's participation (alone or jointly) in decision-making varies by background characteristics. The table presents results for the four specific types of decisions, namely women's own health care, making major household purchases, child's health care, and visits to the woman's family or relatives. In addition, the table includes two summary indicators: the proportion of women involved in making all four decisions and the proportion not involved in making any of the four decisions.

About three in five currently married women participate in each of the four types of decision, either alone or jointly with their husbands. Forty-four percent participate in all four decisions, and 16 percent do not participate in any of the decisions.

Women's participation in all four decisions varies by background characteristics. Participation in decision-making in general increases with age. Women age 15-19 reported the least involvement in making all four decisions compared with women in all other age groups. As expected, employed women who have cash earnings are more likely to participate in all four decisions than women who are not employed (48 percent versus 42 percent). Compared with women who have children, women with no children are less likely to participate in all four household decisions (10 percent compared with 46 percent or higher). Urban women are more likely to participate in all four decisions than rural women (47 percent versus 42 percent).

Among administrative divisions, Sylhet has the lowest proportion of women who participate in all four decisions (33 percent) and the highest percentage of women who do not participate in any of the four types of decisions (24 percent). Women's participation in decision-making does not vary greatly by education or wealth, although women who have completed secondary or higher education (46 percent) and women in the highest wealth quintile (47 percent) are most likely to participate in all four decisions.

Table 13.5 Women's participation in decision-making by background characteristics

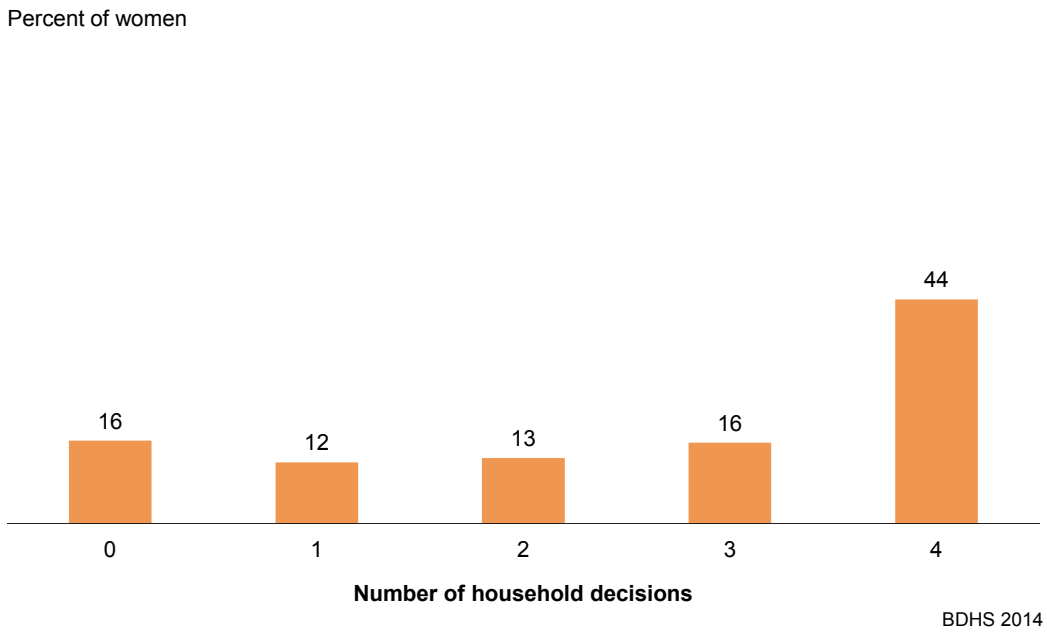
Percentage of currently married women age 15-49 who usually make specific decisions either by themselves or jointly with their husband, by background characteristics, Bangladesh 2014

Background characteristic	Specific decisions: Woman's own health care	Making major household purchases	Child health care	Visits to her family or relatives	All four decisions	None of the four decisions	Number of women
Age							
15-19	48.9	40.9	39.9	43.6	21.4	33.3	1,984
20-24	60.7	53.5	62.3	55.9	36.7	20.5	3,166
25-29	66.9	63.5	73.7	64.1	45.8	14.3	3,249
30-34	69.9	68.4	78.0	69.4	50.6	10.8	2,919
35-39	72.0	70.5	81.4	70.4	53.6	9.7	2,153
40-44	69.2	67.3	77.2	68.6	50.0	11.8	1,874
45-49	64.7	65.2	76.2	67.7	46.5	12.9	1,512
Employment (last 12 months)							
Not employed	62.6	57.9	67.6	60.7	41.5	18.2	11,072
Employed for cash	70.1	68.6	74.9	67.2	48.2	11.4	5,242
Employed not for cash	60.7	59.3	68.9	59.0	39.9	17.3	535
Number of living children							
0	49.8	41.0	13.7	44.2	9.8	35.6	1,707
1-2	66.0	61.9	74.9	63.0	46.0	15.0	8,948
3-4	67.9	67.7	78.7	68.8	50.1	11.3	4,901
5+	64.8	59.6	76.2	61.9	46.7	16.1	1,302
Residence							
Urban	68.6	67.3	72.7	68.9	46.8	12.5	4,709
Rural	63.4	58.9	68.8	60.3	42.3	17.5	12,149
Division							
Barisal	56.3	53.1	66.4	58.4	36.3	20.4	1,051
Chittagong	68.4	61.8	70.8	62.9	48.2	17.8	3,121
Dhaka	69.1	66.4	74.5	68.8	49.3	12.4	5,857
Khulna	59.5	57.0	64.0	58.1	37.1	19.1	1,729
Rajshahi	64.0	60.1	68.8	61.6	39.8	15.1	2,007
Rangpur	62.7	62.3	68.4	58.7	39.1	15.6	1,946
Sylhet	54.5	47.8	60.6	50.7	32.7	24.2	1,147
Education							
No education	65.5	63.9	73.9	66.0	47.1	14.5	3,949
Primary incomplete	63.4	62.6	72.0	61.5	43.2	15.3	3,032
Primary complete[1]	65.9	62.2	69.6	62.9	44.1	15.0	1,884
Secondary incomplete	62.8	57.3	66.8	59.4	40.2	18.6	5,477
Secondary complete or higher[2]	69.1	63.5	68.2	66.0	45.6	15.0	2,516
Wealth quintile							
Lowest	60.8	58.2	69.7	60.2	41.5	18.1	3,097
Second	63.3	60.8	68.7	61.1	43.5	16.8	3,223
Middle	64.4	61.5	70.0	61.9	43.4	16.7	3,394
Fourth	65.8	60.3	68.2	61.7	41.9	16.1	3,556
Highest	69.2	65.1	72.8	68.1	47.3	13.2	3,587
Total	64.8	61.3	69.9	62.7	43.6	16.1	16,858

Note: Total includes 15 women with missing information on employment in the past 12 months.
[1] Primary complete is defined as completing grade 5.
[2] Secondary complete is defined as completing grade 10.

Women may have a say in some, but not all decisions. The number of decisions that a woman makes by herself or jointly with her husband is positively related to women's empowerment and reflects the degree of control women are able to exercise in areas that affect their lives and environments. Figure 13.1 shows the percent distribution of currently married women according to the number of decisions in which they participate. Forty-four percent of currently married women participate in all four household decisions, and 16 percent participate in none.

Figure 13.1 **Number of decisions in which currently married women participate, Bangladesh 2014**



13.5 ATTITUDES TOWARD WIFE BEATING

The critical problems that women face are many and diverse. One of the most serious is violence, and Bangladesh is no exception in this regard. The nature and extent of violence makes it as an internationally recognized issue for women's disempowerment (Akand and Shamim 1995; Ameen 2005). In Bangladesh, an estimated three in every five women experience violence including physical or sexual violence (Naved and Amin, ed. 2013). One of the most common forms of violence against women worldwide is abuse by the husband or partner (Heise et al. 1999). The 2014 BDHS obtained information on women's attitudes toward wife beating by asking women about their opinion on whether a husband is justified in hitting or beating his wife under a series of circumstances: if she burns the food, if she argues with him, if she goes out without telling him, if she neglects the children, and if she refuses to have sexual intercourse with him.

A woman's attitude toward wife beating is considered a proxy for her perception of women's status. A lower score on the "number of reasons wife beating is justified" indicates a woman's greater sense of entitlement, self-esteem, and status and reflects positively on her sense of empowerment. Agreement with wife beating as justified indicates that a woman generally accepts the right of a man to control her behavior even by means of violence. Such a perception could act as a barrier to accessing health care for her children and herself, affect her attitude toward contraceptive use, and have an impact on her general well-being.

Table 13.6 shows the percentage of ever-married women age 15-49 who agree that a husband is justified in hitting or beating his wife for specific reasons, by background characteristics. Twenty-eight percent of women agree that a husband is justified in beating his wife for at least one of the reasons listed.

The most widely accepted reason for wife beating among women in Bangladesh is arguing with her husband (20 percent), followed by neglecting the children (15 percent). Fourteen percent of women agree that going out without telling her husband is a justifiable reason for a husband to beat his wife. Seven percent of women agree that refusing to have sexual intercourse is an acceptable reason for a husband to beat his wife, and 4 percent of women agree that a husband is justified in beating his wife if she burns the food.

Agreement with at least one reason for wife beating varies little by age or marital status. Women who are employed and are paid in cash (29 percent), reside in urban areas (25 percent), reside in Dhaka (24 percent), have completed secondary or higher education (16 percent), and are in households in the highest wealth quintile (19 percent) are less likely than most other women to agree with at least one reason for wife

beating. This result is supported by the 2007 BDHS results, which found that having little education, living in rural areas, having multiple marriages, and having limited access to wealth are strongly and positively associated with experiencing all kinds of domestic violence on the part of women (NIPORT et al. 2009; Naved and Amin, ed. 2013).

Table 13.6 Women's attitude toward wife beating

Percentage of ever-married women age 15-49 who agree that a husband is justified in hitting or beating his wife for specific reasons, by background characteristics, Bangladesh 2014

Background characteristic	Husband is justified in hitting or beating his wife if she: Burns the food	Argues with him	Goes out without telling him	Neglects the children	Refuses to have sexual intercourse with him	Percentage who agree with at least one specified reason	Number
Age							
15-19	4.0	20.3	15.2	14.1	5.6	28.8	2,029
20-24	3.4	19.4	13.0	14.9	6.1	27.3	3,224
25-29	4.1	19.9	12.7	14.5	6.9	28.1	3,390
30-34	4.1	18.7	14.8	15.0	7.8	27.4	3,047
35-39	5.0	21.0	15.6	15.1	8.2	29.0	2,315
40-44	4.6	20.5	15.5	14.7	8.0	29.1	2,092
45-49	5.9	20.7	15.8	16.6	8.3	29.6	1,766
Employment (last 12 months)							
Not employed	4.1	19.5	14.2	14.5	6.7	28.0	11,506
Employed for cash	4.7	20.6	14.9	15.6	8.0	28.8	5,781
Employed not for cash	5.3	21.4	15.3	16.5	8.2	29.2	565
Number of living children							
0	3.0	18.0	13.2	12.4	5.8	26.3	1,814
1-2	3.8	19.0	13.5	14.5	6.6	27.1	9,478
3-4	5.3	20.9	15.4	15.5	8.1	29.6	5,180
5+	6.2	25.3	18.5	18.9	9.8	33.9	1,391
Marital status							
Married or living together	4.2	19.8	14.1	14.7	7.0	28.1	16,858
Divorced/separated/widowed	6.7	21.8	20.3	18.8	10.9	32.2	1,005
Residence							
Urban	2.8	17.1	12.2	13.1	5.8	24.8	5,047
Rural	4.9	21.1	15.3	15.6	7.8	29.6	12,816
Division							
Barisal	7.7	22.8	21.1	21.7	10.4	35.9	1,111
Chittagong	4.7	21.6	13.8	16.4	8.2	29.6	3,301
Dhaka	3.7	16.0	12.8	12.1	5.3	23.8	6,223
Khulna	4.0	21.2	14.5	15.7	8.0	29.5	1,838
Rajshahi	3.5	25.5	17.5	15.4	8.7	33.6	2,103
Rangpur	4.3	17.8	12.5	15.8	6.7	25.9	2,056
Sylhet	5.6	24.7	16.3	15.3	8.2	33.8	1,232
Education							
No education	6.8	24.4	17.5	16.9	10.2	33.0	4,455
Primary incomplete	6.0	22.8	17.6	17.8	9.5	32.5	3,223
Primary complete[1]	4.4	21.5	16.7	16.3	8.0	30.5	1,986
Secondary incomplete	2.9	19.0	12.7	14.2	5.5	26.9	5,628
Secondary complete or higher[2]	1.0	9.4	7.1	8.4	2.2	16.1	2,571
Wealth quintile							
Lowest	7.4	24.2	18.9	18.0	11.3	34.3	3,359
Second	5.4	24.3	17.6	17.1	9.4	33.1	3,408
Middle	4.4	20.0	14.2	14.7	6.5	28.0	3,560
Fourth	3.4	20.1	13.9	15.4	6.2	28.2	3,758
Highest	1.5	12.0	8.3	9.9	3.2	18.9	3,778
Total	4.3	19.9	14.4	14.9	7.2	28.3	17,863

[1] Primary complete is defined as completing grade 5.
[2] Secondary complete is defined as completing grade 10.

13.6 INDICATORS OF WOMEN'S EMPOWERMENT

Women's empowerment has important implications for demographic and health outcomes, including women's use of family planning and maternal health care services. To examine how selected demographic and health outcomes vary by women's empowerment, information on women's participation in household decision-making and their attitudes toward wife beating are summarized in two separate indices.

The first index is the number of decisions (0-4) women participate in, alone or jointly with their husbands (see Table 13.4 for the list of decisions). This index is positively related to women's empowerment and reflects the degree of control that women are able to exercise through making decisions in areas that affect their own lives and environments.

The second index is the number of reasons (0-5) for which women justify a husband beating his wife (see Table 13.6 for the list of reasons). A lower score on this index is interpreted as reflecting a greater sense of entitlement, higher self-esteem, and a higher status of women.

In general, it is expected that women who participate in making household decisions are also more likely to have gender-egalitarian beliefs and to reject wife beating. Accordingly, Table 13.7 provides an overview on how these two basic empowerment indices—number of decisions in which women participate and number of reasons for which wife beating is justified—relate to one another.

Women's rejection of all the reasons for wife beating varies only somewhat by the number of decisions they participate in. Specifically, 67-70 percent of women who participate in 0-3 decisions reject all the reasons for wife beating compared with 76 percent of women who participate in all four decisions. However, the proportion of women who participate in all four decisions does not vary uniformly with the number of reasons for which wife beating is justified. The percentage of women who participate in all four decisions is highest (46 percent) for women who do not agree with any reason for wife beating and falls to 36 percent for women who agree with 3-4 reasons for wife beating, and to 32 percent for women who agree with all five reasons for wife beating.

Table 13.7 Indicators of women's empowerment

Percentage of currently married women age 15-49 who participate in all four decisions and the percentage who disagree with all of the reasons justifying wife beating, by value on each of the indicators of women's empowerment, Bangladesh 2014

Empowerment indicator	Percentage who participate in all decision-making	Percentage who disagree with all the reasons justifying wife beating	Number of currently married women
Number of decisions in which women participate[1]			
0	na	67.0	2,715
1-2	na	69.2	4,150
3	na	70.4	2,647
4	na	75.9	7,346
Number of reasons for which wife beating is justified[2]			
0	46.0	na	12,129
1-2	38.6	na	3,202
3-4	35.7	na	1,226
5	32.2	na	301

na = not applicable
[1] See Table 13.4 for the list of decisions.
[2] See Table 13.6 for the list of reasons.

13.7 CURRENT USE OF CONTRACEPTION BY WOMEN'S EMPOWERMENT

The 2014 BDHS asked whether women were using contraception or not at the time of the survey. Three in every five currently married women use contraceptive methods (See Chapter 7, Fertility Regulation, Table 7.1). A woman's desire and ability to control her fertility and the contraceptive method she chooses are likely to be affected by her status in the household, her self-image, and her own sense of empowerment. A woman who feels that she is unable to control other aspects of her life may be less likely to feel that she can make and carry out decisions about her fertility. She may also feel the need to choose methods that can be hidden from others or that do not depend on her husband's cooperation. Table 13.8 shows the distribution of married women age 15-49 by the type of contraceptive method used, by the two indicators of women's empowerment.

Women's participation in household decision-making has a positive bearing on contraceptive use. The more decisions a woman participates in, the more likely she is to use a contraceptive method. Both use of any method and use of any modern method are higher among women who participate in all four decisions (67 percent and 57 percent, respectively) compared with women who participate in no decisions (53 percent and 47 percent, respectively). Nonetheless, one-third of women who participate in all four types of decision-making do not use any contraceptive method, implying that participation in making household decisions does not necessarily translate into taking action on a major choice like contraceptive use.

The relationship between attitudes about wife beating and use of contraception is not clear. These two issues seem to be related to each other, but the variations in contraceptive use by number of reasons women agree with for justifying wife beating are small.

Table 13.8 Current use of contraception by women's empowerment

Percent distribution of currently married women age 15-49 by current contraceptive method, according to selected indicators of women's empowerment, Bangladesh 2014

			Modern methods							
Empowerment indicator	Any method	Any modern method	Female sterili-zation	Male sterili-zation	Temporary modern female methods[1]	Male condom	Any traditional method	Not currently using	Total	Number of currently married women
Number of decisions in which women participate[2]										
0	52.5	46.5	3.2	0.7	37.9	4.7	5.9	47.5	100.0	2,715
1-2	61.7	53.3	4.3	1.3	42.1	5.6	8.5	38.3	100.0	4,150
3	61.8	53.7	4.5	1.3	40.0	7.9	8.1	38.2	100.0	2,647
4	66.8	57.4	5.3	1.4	43.6	7.0	9.4	33.2	100.0	7,346
Number of reasons for which wife beating is justified[3]										
0	62.7	54.0	4.2	1.3	41.2	7.4	8.7	37.3	100.0	12,129
1-2	62.3	54.5	5.8	1.2	43.0	4.5	7.8	37.7	100.0	3,202
3-4	60.7	53.0	5.4	0.9	43.5	3.1	7.7	39.3	100.0	1,226
5	62.9	56.1	5.2	2.2	46.4	2.3	6.8	37.1	100.0	301
Total	62.4	54.1	4.6	1.2	41.8	6.4	8.4	37.6	100.0	16,858

Note: If more than one method is used, only the most effective method is considered in this tabulation.
[1] Pill, IUD, injectables, implants, and lactational amenorrhea method
[2] See Table 13.4 for the list of decisions.
[3] See Table 13.6 for the list of reasons.

13.8 IDEAL FAMILY SIZE AND UNMET NEED BY WOMEN'S EMPOWERMENT

The inclusion of women in the development process is important in Bangladesh. However, this is not universally recognized in the country. The ability of women to make decisions effectively has important implications for their fertility preferences and for meeting their family-size goals. The general expectation is that more empowered women will desire smaller families and be better able to negotiate decisions about fertility and family planning. Hence, unmet for family planning, which reflects women's unsatisfied need for contraception, should be lower among more empowered women.

Table 13.9 shows how women's ideal family size and their unmet need for family planning vary by the two indicators of women's empowerment. The mean ideal family size shows no variation by the number of decisions in which women participate, but increases somewhat with the number of reasons women give that justify wife beating. The pattern remains the same as in the 2011 BDHS (NIPORT et al. 2013). Women who agree that wife beating is not justified for any reason desire 2.2 children compared with 2.4 children for women who agree that wife beating is justified for all five reasons.

The 2014 BDHS shows that women's participation in decision-making is associated with their level of unmet need for family planning. Women who participate in no household decisions have a slightly higher level of unmet need for family planning (15 percent) compared with women who participate in one or more decisions (11-12 percent). The total unmet need for family planning is similar, at 11-12 percent, among women who do not justify wife beating for any reason, 1-2 reasons, or 3-4 reasons. The percentage is higher for women who agree with five reasons justifying wife beating (14 percent).

Table 13.9 Women's empowerment and ideal number of children and unmet need for family planning

Mean ideal number of children for ever-married women age 15-49 and the percentage of currently married women age 15-49 with an unmet need for family planning, by indicators of women's empowerment, Bangladesh 2014

Empowerment indicator	Mean ideal number of children[1]	Number of women	Percentage of currently married women with an unmet need for family planning[2]			Number of currently married women
			For spacing	For limiting	Total	
Number of decisions in which women participate[3]						
0	2.2	2,663	9.8	5.3	15.1	2,715
1-2	2.2	4,080	5.8	5.3	11.1	4,150
3	2.2	2,613	4.5	6.1	10.6	2,647
4	2.2	7,242	3.7	8.1	11.8	7,346
Number of reasons for which wife beating is justified[4]						
0	2.2	12,616	5.3	6.7	12.0	12,129
1-2	2.2	3,323	5.2	6.8	12.0	3,202
3-4	2.3	1,296	5.2	5.7	11.0	1,226
5	2.4	320	7.8	6.2	13.9	301
Total	2.2	17,556	5.3	6.6	12.0	16,858

[1] Mean excludes respondents who gave non-numeric responses.
[2] See Table 7.14 for the definition of unmet need for family planning.
[3] Restricted to currently married women. See Table 13.4 for the list of decisions.
[4] See Table 13.6 for the list of reasons.

13.9 REPRODUCTIVE HEALTH CARE BY WOMEN'S EMPOWERMENT

Table 13.10 examines whether empowered women are more likely to access antenatal, delivery, and postnatal care services from medically trained health personnel. 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 from qualified health providers in meeting their own reproductive health goals, including safe motherhood. The table includes only women who had a birth in the three years preceding the survey and examines their access to antenatal care, delivery care, and postnatal care from trained health personnel for their most recent birth.

Both indicators of women's empowerment are related to women's access to reproductive health care for their most recent birth. For example, the proportion of women receiving antenatal care from a medically trained provider increases from 61 percent among women who participate in no decisions to 65 percent among women who participate in all four types of decisions. The corresponding proportion of women receiving delivery assistance from a medically trained provider increases from 40 percent among women who participate in no decisions to 44 percent among women who participate in all four decisions. Similarly, the proportion of women receiving postnatal care within two days of delivery from a medically trained provider increases from 34 percent among women who participate in no decisions to 37 percent among women who participate in all four types of decisions.

Women's attitude toward wife beating is also related to their use of reproductive health services. Women who accept all five reasons for wife beating are much less likely than women who agree with no reason for wife beating to receive any of the three types of maternal care from a medically trained provider. Forty-two percent of women who agree with all five reasons justifying wife beating received antenatal care from a medically trained provider compared with 68 percent of women who do not agree with any of the reasons. Sixteen percent of women who agree with all five reasons received delivery care from a medically trained provider compared with 47 percent of women who do not agree with any of the reasons. Fifteen percent of women who agree with all five reasons received postnatal care from a medically trained provider within the first two days after delivery compared with 40 percent of women who do not agree with any of the reasons justifying wife-beating.

Table 13.10 Reproductive health care by women's empowerment

Percentage of women age 15-49 with a live birth in the three years preceding the survey who received antenatal care, delivery assistance, and postnatal care from a medically trained provider for the most recent birth, by indicators of women's empowerment, Bangladesh 2014

Empowerment indicator	Percentage receiving antenatal care from a medically trained provider	Percentage receiving delivery care from a medically trained provider	Received postnatal care from a medically trained provider within the first two days of delivery[1]	Number of women with a child born in the last three years
Number of decisions in which women participate[2]				
0	60.7	39.8	33.5	855
1-2	64.2	43.0	37.3	1,159
3	65.1	44.0	38.6	575
4	65.4	44.4	36.9	1,981
Number of reasons for which wife beating is justified[3]				
0	67.6	47.3	39.9	3,348
1-2	56.6	32.8	28.2	876
3-4	50.4	32.5	27.6	327
5	41.5	15.5	15.2	76
Total	63.9	43.0	36.4	4,627

Note: If more than one source of antenatal care was mentioned, only the provider with the highest qualifications is considered in this tabulation. For antenatal and postnatal care, medically trained providers include: qualified doctor, nurse/midwife/paramedic, FWV, CSBA, and SACMO. For delivery assistance, medically trained providers include= qualified doctor, nurse/midwife/paramedic, FWV, and CSBA.
[1] Includes both women who gave birth in a health facility or those who did not give birth in a health facility
[2] Restricted to currently married women. See Table 13.4 for the list of decisions.
[3] See Table 13.6 for the list of reasons.

13.10 INFANT AND CHILD MORTALITY AND WOMEN'S EMPOWERMENT

The ability of women to access information, make decisions, and act effectively in their own interests or in the interests of those who depend on them is an essential aspect of empowerment. It follows that if women, who are the primary caretakers of children, are empowered, they will be better able to take actions that enhance the health and survival of their children. In fact, mother's empowerment fits into the Mosley-Chen framework on child survival as an intervening individual-level variable that affects child survival through proximate determinants (Mosley and Chen 1984).

Table 13.11 shows infant mortality, child mortality, and under five-mortality rates by women's participation in decision-making and women's attitude about wife-beating. There is no clear pattern in the relationship between participation in decision-making and childhood mortality rates. Children of women who participate in 1-2 decisions have a higher mortality rate than children of women who do not participate in any decisions or who participate in 3-4 decisions.

Childhood mortality increases sharply with women's agreement with reasons for wife beating from none to 1-2. For example, under-five mortality for children of women who do not agree with any reason for wife beating is 42 deaths per 1,000 live births, but increases to 63 deaths per 1,000 live births for children of women who agree with 1-2 reasons justifying wife beating. The three childhood mortality rates are lowest for children of women who agree with 3-4 reasons for wife beating and highest for children of women who agree with all five reasons for wife beating.

Table 13.11 Early childhood mortality rates by women's empowerment

Infant, child, and under-five mortality rates for the five-year period preceding the survey, by indicators of women's status, Bangladesh 2014

Empowerment indicator	Infant mortality ($_1q_0$)	Child mortality ($_4q_1$)	Under-five mortality ($_5q_0$)
Number of decisions in which women participate[1]			
0	37	8	45
1-2	45	12	56
3	31	9	40
4	37	6	42
Number of reasons for which wife beating is justified[2]			
0	35	7	42
1-2	52	11	63
3-4	27	9	36
5	69	18	85

[1] Restricted to currently married women. See Table 13.4 for the list of decisions.
[2] See Table 13.6 for the list of reasons.

COMMUNITY CHARACTERISTICS 14

Key Findings

- Eighty percent of women live in a village/mohalla where there is a primary school, and the remaining 20 percent have access to a primary school within a distance of 1-4 km. Coeducational high schools are much more widespread than either a boys' or a girls' high school.
- Eighty-seven percent of ever-married women age 15-49 live in villages/mohallas that have a Grameen Bank. Women in rural areas are more likely than women in urban areas to have access to a Grameen Bank (89 percent versus 83 percent).
- Eighty-seven percent of sample clusters have a health facility within 1 km. This percentage is almost same in rural and in urban areas (87 and 88 percent, respectively).
- Satellite clinics are also widely available; 76 percent of clusters have a satellite clinic available within 1 km; 78 percent in rural areas and 69 percent in urban areas.
- Thirty-five percent of the clusters have a government health facility within 1 km; 40 percent in rural areas and 24 percent in urban areas. NGO and private facilities are more likely to be found in urban clusters.
- Family planning and health providers are available in 94 percent of sample clusters. In both rural and urban areas, these workers are predominantly affiliated with the government.
- More than 4 in 10 clusters have an allopathic/MBBS doctor; 74 percent in urban areas and 30 percent in rural areas. Close to 6 in 10 clusters have a homeopathic doctor and 4 in 10 clusters have a Unani or Ayurvedic doctor.
- Thirty-six percent of the people in the rural clusters go to their upazila headquarters by car, bus, or tempo, which is the most common means of transport in all divisions except Chittagong, Rangpur, and Sylhet.
- Seventy-two percent of the people in the rural clusters go to their district headquarters by car, bus, or tempo.

In the 2014 BDHS, the Community Questionnaire was administered in each of the selected clusters during the household listing operation. The community survey collected data on characteristics of the selected sample clusters, such as distance to upazila headquarters, school, and post office, as well as on the accessibility of health and family planning services that are located within or near the cluster. Another objective for conducting the community survey was to generate a list of health facilities in the sample clusters and a list of health and family planning fieldworkers who cover the cluster, including the identification of their affiliation (government or non-government). These lists were later provided to the main survey interviewing teams to help identify the specific sources of services used by the respondents.

The Community Questionnaire was administered to a group of four to six key informants who were knowledgeable about the socioeconomic conditions and the availability of health and family planning services or facilities in the cluster. The key informants included community leaders, teachers, government officials, social workers, religious leaders, traditional healers, and health care providers, etc. Distance to facilities was measured in kilometers (km) from the center of each sample cluster. All interviewed women in the sample area were assumed to have the same distance from the facility.

Table 14.1 presents the percent distribution of ever-married women age 15-49 by distance to various general services. Overall, 25 percent of ever-married women live less than 1 km from a post office and 67 percent live 1-4 km from the nearest post office, with a median distance of 2.1 km. Cinema halls are less widespread; 8 percent of women have access to a cinema hall within 1 km and 27 percent live 1-4 km from the nearest cinema hall, with a median distance of 7.9 km.

Access to weekly markets was not asked in urban sample clusters because they are not the norm. In rural areas 35 percent of women have access to a weekly market less than 1 km away, and 57 percent have access within 1-4 km. The median distance to a weekly market in rural areas is 2.0 km. Access to a post office is similar in urban and rural areas. However, urban women are much more likely than rural women to live close to a cinema hall.

Table 14.1 Distance to the nearest service location

Percent distribution of ever-married women age 15-49 by distance to the nearest service location, according to distance, Bangladesh 2014

	Urban		Rural			Total		
Distance	Post office	Cinema hall	Weekly market	Post office	Cinema hall	Weekly market	Post office	Cinema hall
<1 km	35.2	15.2	34.7	21.1	4.8	34.7	25.1	7.7
1-4 km	60.7	58.9	56.9	69.9	14.9	56.9	67.3	27.3
5-9 km	4.1	14.6	6.2	8.0	24.2	6.2	6.9	21.5
≥10 km	0.0	11.3	1.3	1.1	55.6	1.3	0.8	43.0
Don't know	0.0	0.0	0.9	0.0	0.5	0.9	0.0	0.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	5,047	5,047	12,816	12,816	12,816	12,816	17,863	17,863
Median distance	1.5	2.7	2.0	2.3	10.8	2.0	2.1	7.9

Table 14.2 shows the percent distribution of ever-married women age 15-49 by distance to the nearest education facility, according to the type of facility. Religious schools are widespread in Bangladesh; 58 percent of women live in a village that has a madrasha and 39 percent of women have a madrasha within 1-4 km. Eighty percent of women live in a village/mohalla where there is a primary school and the remaining 20 percent have access to a primary school within 1-4 km. Coeducational high schools are much more widespread than either a boys' or a girls' high school. Overall, 40 percent of women live in a village/mohalla where there is a coeducational high school compared with only 17 percent with a boys' high school and 20 percent with a girls' high school. All of the specified educational facilities are more available in urban than in rural areas.

Table 14.2 Distance to the nearest education facility

Percent distribution of ever-married women age 15-49 by distance to the nearest education facility, according to distance, Bangladesh 2014

	Urban					Rural					Total				
Distance	Madrasha[1]	Primary school	Boys' high school	Girls' high school	Co-educational high school	Madrasha[1]	Primary school	Boys' high school	Girls' high school	Co-educational high school	Madrasha[1]	Primary school	Boys' high school	Girls' high school	Co-educational high school
Within village/ mohalla	75.3	86.5	28.5	35.8	56.2	50.7	78.0	12.6	13.9	34.1	57.7	80.4	17.1	20.1	40.3
1-4 km	23.8	13.4	53.4	56.4	41.6	45.5	22.0	23.2	42.1	62.0	39.4	19.6	31.7	46.1	56.2
5-9 km	0.9	0.1	7.3	4.8	1.2	2.9	0.0	14.1	16.9	3.6	2.3	0.0	12.9	13.5	3.0
≥10 km	0.0	0.0	10.4	3.0	0.3	0.9	0.0	48.1	26.3	0.3	0.6	0.0	37.4	19.7	0.3
Don't know	0.0	0.0	0.4	0.0	0.7	0.0	0.0	1.0	0.8	0.0	0.0	0.0	0.9	0.6	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	5,047	5,047	5,047	5,047	5,047	12,816	12,816	12,816	12,816	12,816	17,863	17,863	17,863	17,863	17,863
Median distance	a	a	2.0	1.5	a	a	a	9.3	4.3	1.9	a	a	5.3	3.2	1.5

Note: Totals may not add to 100.0 due to missing values.
[1] Religious school
a = Unknown; median distance cannot be calculated because more than 50 percent of the cases are in the categories "within village" and "within mohalla."

Informants to the Community Questionnaire were asked whether specific income-generating organizations such as the Grameen Bank, Bangladesh Rural Advancement Committee (BRAC), PROSHIKA, and the Association of Social Advancement (ASA) are available in the village/mohalla, because the availability of these organizations may influence women's reproductive behavior. Table 14.3 shows that 87 percent of ever-married women age 15-49 live in a village/mohalla that has a Grameen Bank. Women in rural areas are more likely than women in urban areas to have access to a Grameen Bank (89 percent versus 83 percent). However, the other income-generating organizations are more accessible to urban women than rural women. For example, 80 percent of women live in a village/mohalla with a BRAC (81 percent in urban and 79 percent in rural areas). As another example, ASA is available in the village/mohalla to 74 percent of women (78 percent in urban areas and 73 percent in rural areas).

Table 14.3 Availability of income-generating organizations

Percentage of ever-married women age 15-49 who have access to specific income generating organizations, by residence, Bangladesh 2014

	Residence		
Income-generating organization	Urban	Rural	Total
Mothers' club or ladies' association	28.5	19.4	21.9
Grameen Bank membership	83.3	88.9	87.3
Voluntary organization	37.7	27.5	30.4
BRAC income-generating activities	80.9	79.4	79.8
PROSHIKA	32.9	21.0	24.4
ASA	78.2	72.9	74.4
Cottage industries of BSIC	15.5	10.8	12.1
Cooperative society	65.0	53.9	57.1
Other NGO income-generating activities	41.5	39.9	40.4
Number of women	5,047	12,815	17,862

BRAC = Bangladesh Rural Advancement Committee
PROSHIKA = name of an NGO
ASA = Association of Social Advancement
BSIC = Bangladesh Small Industries Corporation

Table 14.4 shows the availability of health facilities within a specified distance from the sample cluster according to the type of health facility and by urban-rural residence. As Table 14.4 shows, 87 percent of clusters have a health facility within 1 km. This percentage is almost same in rural and urban areas (87 and 88 percent, respectively). Satellite clinics are also widely available; 76 percent of clusters have a satellite clinic available within 1 km. Satellite clinics are more common in rural areas (78 percent) than in urban areas (69 percent).

Overall, 35 percent of the 2014 BDHS sample clusters have a government health facility within 1 km (40 percent in rural areas and 24 percent in urban areas). A private facility is available within 1 km for 13 percent of clusters (38 percent in urban areas and 3 percent in rural areas). An NGO facility is less common. Overall, it is available within 1 km to 9 percent of cluster residents, but much more available in urban than in rural areas (26 percent versus 2 percent). In conclusion, the data indicate that government facilities are more likely to be available within 1 km in a rural cluster, while NGOs and private facilities are more likely to be found in an urban cluster.

Table 14.4 Availability of health facility

Percentage of sample clusters by availability of health facility according to type of facility and residence, Bangladesh 2014

Distance in kilometers (km)	Type of facility					
	Any facility	Government facility[1]	NGO facility	Private facility	Rural dispensaries	Satellite Clinics
			URBAN			
<1 km	88.2	24.0	25.6	37.5	0.6	69.0
1 to <2 km	9.5	30.5	20.8	23.2	0.6	6.5
2 to <5 km	2.4	32.9	24.4	22.6	0.6	3.0
5 km or more	0.0	12.6	13.1	16.7	0.0	0.0
No facility	0.0	0.0	16.1	0.0	98.2	21.4
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of clusters	169	169	169	169	169	169
			RURAL			
<1 km	86.5	39.8	2.3	3.2	0.0	78.0
1 to <2 km	6.3	21.8	4.4	4.6	0.2	4.2
2 to <5 km	7.2	32.6	16.2	17.8	0.2	8.1
5 km or more	0.0	5.8	37.6	73.1	0.2	1.2
No facility	0.0	0.0	39.4	1.2	99.3	8.6
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of clusters	431	431	431	431	431	431
			TOTAL			
<1 km	87.0	35.4	8.8	12.8	0.2	75.5
1 to <2 km	7.2	24.2	9.0	9.8	0.3	4.8
2 to <5 km	5.8	32.7	18.5	19.2	0.3	6.7
5 km or more	0.0	7.7	30.7	57.3	0.2	0.8
No facility	0.0	0.0	32.9	0.8	99.0	12.2
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of clusters	600	600	600	600	600	600

[1] Government facility includes government hospital, upazila health complex, family welfare center, maternal and child welfare center, and community clinic.

Informants to the Community Questionnaire were asked to list the names of health and family planning workers who work in the village/mohalla. Table 14.5 shows that family planning and health providers are available in almost all sample clusters (94 percent). In both rural and urban areas, health and family planning workers are predominantly affiliated with the government. Government health and family planning workers are more available in rural areas than in urban areas (96 percent and 61 percent, respectively).

Informants to the Community Questionnaire were also asked about the medical practitioners that provide health services in the village/mohalla. More than four in ten clusters have an allopathic/MBBS doctor[1]. MBBS doctors are more common in urban areas than in rural areas (74 percent versus 30 percent). Close to six in ten clusters have a homeopathic doctor and four in ten clusters have a Unani or Ayurvedic doctor. Both of these alternative practitioners are more common in urban than in rural areas.

[1] Informal allopathic providers (IAPs) comprised of village doctors and drug sellers. MBBS is Bachelor of Medicine, Bachelor of Surgery.

Table 14.5 Availability of health and family planning workers

Percentage of sample clusters by availability of health and family planning field workers, by type and residence, Bangladesh 2014

	Urban	Rural	Total
Health and family planning field worker			
Government	61.3	95.6	86.0
NGO	44.6	31.0	34.8
Private	3.0	0.7	1.3
Others	5.4	2.5	3.3
Any worker	86.3	97.0	94.0
Medical practitioners			
Allopathic/MBBS	74.4	30.1	42.5
Homeopath	76.8	50.2	57.7
Unani/Ayurvedic	48.8	35.2	39.0
Number of clusters	169	431	600

Informants to the Community Questionnaire were asked to list the names of "depot holders," who work in the village/mohalla, as well as pharmacies or shops and skilled birth attendants (SBA) that provide services to individuals in the village/mohalla. Table 14.6 shows that seven in ten women live in a village covered by SBA; 52 percent in urban areas and 76 percent in rural areas. Sixty-five percent of women live in a village where there are pharmacies or shops that sell family planning methods. Urban women are much more likely than rural women to have a pharmacy or shop in their village (89 percent versus 56 percent). Depot holders are available in the cluster to 12 percent of women (10 percent in urban areas and 13 percent in rural areas).

Table 14.6 Availability of family planning and other health services

Percentage of ever-married women age 15-49 by availability of family planning and other health services in the cluster, by type and residence, Bangladesh 2014

Service providers	Urban	Rural	Total
Depot holder who sells family planning methods	9.7	13.4	12.3
Pharmacy/shop that sells family planning contraceptives	88.6	56.2	65.3
Skilled birth attendant (SBA)	51.6	76.3	69.3
Number of women	5,047	12,816	17,863

Table 14.7 shows the percent distribution of rural sample clusters by the most common means of transport used by the village residents to go to the upazila headquarters in each division. Overall, 36 percent of the people in the rural clusters go to their upazila headquarters by car, bus, or tempo, which is the most common means of transport in all divisions except Chittagong, Rangpur, and Sylhet. Car, bus, or tempo use is highest in Khulna (66 percent), followed by Barisal (58 percent) and Rajshahi (47 percent). In Dhaka, the most common means of transport is car, bus, or tempo (32 percent), followed by rickshaw or rickshaw van (23 percent), and baby taxi (18 percent). Baby taxi use is the most common means of travel to upazila headquarters in Chittagong (79 percent) and Sylhet (54 percent). In Rangpur, two types of transport prevail; rickshaw or rickshaw van (36 percent) and car, bus, or tempo (34 percent). Overall, motorcycle use is limited (4 percent), with the highest use in Barisal (13 percent).

Table 14.7 Means of transport to upazila headquarters

Percent distribution of rural sample clusters by the most common means of transport to upazila headquarters, according to division, Bangladesh 2014

	Most common transport												
Division	Car/bus/ tempo	Motorcycle	Motor launch	Bicycle	Boat	Path	Rickshaw/ rickshaw van	Train	Baby taxi	Other	Missing	Total	Number of clusters
Barisal	57.6	13.0	1.7	1.7	3.8	0.0	7.4	0.0	7.3	7.6	0.0	100.0	28
Chittagong	14.9	1.8	0.9	0.0	2.6	0.0	1.2	0.0	78.5	0.0	0.0	100.0	73
Dhaka	32.0	4.1	4.4	0.0	4.5	2.9	22.5	0.0	17.8	8.3	3.6	100.0	132
Khulna	65.5	8.2	0.0	1.6	2.0	1.7	14.5	0.0	3.1	3.4	0.0	100.0	47
Rajshahi	46.8	1.3	0.0	3.2	2.0	4.0	9.6	1.7	30.1	1.3	0.0	100.0	59
Rangpur	33.8	0.0	0.0	13.1	0.0	0.0	35.8	0.0	14.0	1.9	1.4	100.0	62
Sylhet	27.2	6.8	0.0	0.0	1.6	3.0	7.3	0.0	54.2	0.0	0.0	100.0	32
Total	36.3	4.0	1.6	2.6	2.7	1.8	16.1	0.2	29.6	3.9	1.3	100.0	432

Table 14.8 shows that 72 percent of the people in the rural clusters go to their district headquarters by car, bus, or tempo. This mode of transport is the most common in all divisions. The use of car, bus, or tempo is highest in Khulna division (91 percent) and lowest in Chittagong (55 percent). In other divisions the proportion ranges between 62 percent in Sylhet and 78 percent in Rajshahi.

Overall, 17 percent of sample cluster residents travel to the district headquarters by baby taxi, which is the second most common means of travel to the district headquarters in all the divisions, except Barisal division, where motorcycle is the second most common means of travel (6 percent).

Table 14.8 Means of transport to district headquarters

Percent distribution of rural sample clusters by the most common transport means to the district headquarters, according to division, Bangladesh 2014

	Most common transport											
Division	Car/bus/ tempo	Motorcycle	Motor launch	Boat	Path	Rickshaw/ rickshaw van	Train	Baby taxi	Other	Missing	Total	Number of clusters
Barisal	75.8	6.3	3.3	3.8	0.0	3.3	0.0	3.3	4.2	0.0	100.0	28
Chittagong	55.2	1.8	1.8	0.9	0.0	2.1	0.0	38.2	0.0	0.0	100.0	73
Dhaka	73.8	1.9	3.1	0.0	0.0	2.7	1.1	13.8	0.0	3.6	100.0	132
Khulna	90.5	1.4	0.0	0.0	0.0	2.0	0.0	4.5	1.7	0.0	100.0	47
Rajshahi	77.5	0.0	0.0	2.0	2.3	1.4	0.0	16.8	0.0	0.0	100.0	59
Rangpur	73.2	1.2	0.0	1.4	0.0	7.2	2.6	13.1	0.0	1.4	100.0	62
Sylhet	61.9	10.2	3.2	0.0	0.0	0.0	0.0	24.8	0.0	0.0	100.0	32
Total	72.1	2.4	1.7	0.9	0.3	2.8	0.7	17.4	0.5	1.3	100.0	432

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SAMPLE DESIGN AND IMPLEMENTATION *Appendix* A

A.1 INTRODUCTION

The 2014 Bangladesh Demographic and Health Survey (2014 BDHS) is the seventh DHS survey conducted in Bangladesh, following those implemented in 1993-94, 1996-97, 1999-2000, 2003-04, 2007-08, and 2010-2011. As with the prior surveys, the main objective of the 2014 BDHS is to provide up-to-date information on fertility and childhood mortality levels; fertility preferences; awareness, approval, and use of family planning methods; maternal and child health; knowledge and attitudes toward HIV/AIDS and other sexually transmitted infections (STI); and community-level data on accessibility and availability of health and family planning services. All ever-married women age 15-49 who were usual members of the selected households and those who spent the night before the survey in the selected households are eligible to be interviewed in the survey. The survey was designed to produce representative results for the country as a whole, for the urban and the rural areas separately, and for each of the seven administrative divisions.

A.2 SAMPLING FRAME

The sampling frame used for the 2014 BDHS is the complete list of enumeration areas (EAs) covering the whole country prepared by the Bangladesh Bureau of Statistics for the 2011 population census of the People's Republic of Bangladesh. An EA is a geographic area covering on average 113 households. The sampling frame contains information about the EA location, type of residence (urban or rural), and the estimated number of residential households. A sketch map that delineates the EA geographic boundaries is available for each EA.

Administratively, Bangladesh is divided into seven divisions. Each division is further sub-divided into progressively smaller zilas, thanas, unions, wards, and villages. An EA is either a village, or a group of small villages, or a part of a large village. These divisions allow the country as a whole to be easily separated into small geographical area units with an urban-rural designation. The urban areas were further classified into two groups: city corporations and other than city corporations. Table A.1 gives the percentage distribution of households by division and by type of residence. The division size varies from 5.6 percent (Sylhet, the smallest) to 33.7 percent (Dhaka, the largest). In Bangladesh, 23.3 percent of the households are in urban areas; 8.2 percent are in city corporations, and 15.1 percent are in other than city corporations.

Table A.1 Percent distribution of households by division and type of residence

	Type of residence					
	Urban					
Division	City corporation	Other than city corporation	Total	Rural	Total	Urban + Rural Percent
Barisal	3.9	12.3	16.2	83.8	100.0	5.8
Chittagong	9.9	15.2	25.1	74.9	100.0	17.5
Dhaka	14.6	18.4	33.0	67.0	100.0	33.7
Khulna	4.2	13.6	17.8	82.2	100.0	11.6
Rajshahi	2.2	15.0	17.2	82.8	100.0	13.9
Rangpur	1.7*	11.0	12.7	87.3	100.0	11.9
Sylhet	5.5	10.1	15.6	84.4	100.0	5.6
Bangladesh	8.2	15.1	23.3	76.7	100.0	100.0

Source: Sampling frame of the 2011 Population Census.
* This is estimated percentage. The census frame does not identify the City Corporation areas in Rangpur, because Rangpur municipality was upgraded as city corporation in 28 June 2012 and area demarcation was done after releasing 2011 census report on July 16, 2012.

A.3 SAMPLE DESIGN

The 2014 BDHS sample was stratified and selected in two stages. Each division was stratified into urban and rural areas. Except for Rangpur, the urban areas of each division are further stratified into two strata: city corporations and other than city corporations, yielding a total of 20 sampling strata. Urban areas in Rangpur are considered in a separate stratum, since the City Corporation areas are not identifiable in the census frame. Samples of EAs were selected independently in each stratum in two stages. Implicit stratification and proportional allocation were achieved at each of the lower administrative levels by sorting the sampling frame within each sampling stratum before sample selection, according to administrative units in different levels, and by using a probability proportional to size selection at the first stage of sampling.

In the first stage, 600 EAs were selected with probability proportional to the EA size and with independent selection in each sampling stratum with the sample allocation given in Table A.2. A household listing operation will be carried out in all the selected EAs, and the resulting lists of households will be served as sampling frame for the selection of households in the second stage. Some of the selected EAs may be of large size. In order to minimize the task of household listing, for the selected EAs which have more than 200 households, each large EA will be segmented. Only one segment will be selected for the survey with probability proportional to the segment size. Household listing will be conducted only in the selected segment (see detailed instructions for segmentation in the *Manual for Household Listing*). So a 2014 BDHS cluster is either an EA or a segment of an EA.

In the second stage of selection, a fixed number of 30 households per cluster will be selected with an equal probability systematic selection from the newly created household listing. The survey interviewer must interview only the pre-selected households. No replacements and no changes of the pre-selected households will be allowed in the implementing stages in order to prevent bias. All ever-married women aged 15-49 who are usual members of the selected households or who spent the night before the survey in the selected households are eligible for the female survey.

Table A.3 shows the allocation of households according to division and urban-rural areas, and Table A.4 shows the expected number of completed women interviews according to division and urban-rural areas. To ensure that the survey precision is comparable across divisions, the sample allocation figures a power allocation between divisions and between different types of residence within each division. Based on a fixed sample take of 30 households per cluster, the survey selected 600 EAs, 207 in urban areas and 393 in rural areas. The survey will be conducted in 18,000 residential households, 6,210 in urban areas and 11,790 in rural areas. The sample is expected to result in about 17,886 completed interviews with ever-married women age 15-49, 6,150 in urban areas and 11,736 in rural areas.

Table A.2 Sample allocation of clusters by division and type of residence

	Number of clusters allocated				
	Urban				
Division	City corporation	Other than city corporation	Total urban	Rural	Urban + Rural
Barisal	7	15	22	50	72
Chittagong	16	17	33	59	92
Dhaka	23	26	49	60	109
Khulna	9	20	29	56	85
Rajshahi	5	23	28	59	87
Rangpur	4	20	24	61	85
Sylhet	10	12	22	48	70
Bangladesh	74	133	207	393	600

Table A.3 Sample allocation of households by division and type of residence

	Number of households allocated				
	Urban				
Division	City corporation	Other than city corporation	Total urban	Rural	Urban + Rural
Barisal	210	450	660	1,500	2,160
Chittagong	480	510	990	1,770	2,760
Dhaka	690	780	1,470	1,800	3,270
Khulna	270	600	870	1,680	2,550
Rajshahi	150	690	840	1,770	2,610
Rangpur	720		720	1,830	2,550
Sylhet	300	360	660	1,440	2,100
Bangladesh	2,220	3,990	6,210	11,790	18,000

Table A.4 Sample allocation of completed women interviews by division and type of residence

	Number of interviews with ever-married women age 15-49				
	Urban				
Division	City corporation	Other than city corporation	Total urban	Rural	Urban + Rural
Barisal	210	447	657	1,494	2,151
Chittagong	477	506	983	1,764	2,747
Dhaka	684	774	1,458	1,793	3,251
Khulna	269	596	865	1,673	2,538
Rajshahi	150	684	834	1,764	2,598
Rangpur	716		716	1,823	2,539
Sylhet	298	357	655	1,435	2,090
Bangladesh	2,199	3,951	6,150	11,736	17,886

The sample allocations were derived using information obtained from the 2011 BDHS. Based on the 2011 data, the average number of ever-married women age 15-49 per household is 1.05 in urban areas and 1.03 in rural areas. The household response rate is 97.2 percent in urban areas and 98.2 percent in rural areas, and women individual response rate is 97 percent in urban areas and 98.4 percent in rural areas.

Results of the household sample implementation by urban-rural residence and by division is shown in Tables A.5. Table A.5 shows that 17,989 household were selected for the 2014 BDHS. Of these, 96 percent were successfully interviewed; 2 percent were not interviewed because the households were vacant, and 1 percent because there was no competent respondent in the household during the survey fieldworkers' visit, The household response rate is higher in rural than in urban area. The rate varies by division, ranging from 99 percent in Rangpur to 97 percent in Dhaka.

Of 18,245 women eligible for individual interview, 98 percent were successfully interviewed and 2 percent were not interviewed because they were not at home. Urban women were as likely as rural women to be interviewed in the survey. The response rates varies little by division.

Table A.5 Sample implementation

Percent distribution of households and eligible women by results of the household and individual interviews, and household, eligible women and overall women response rates, according to urban-rural residence and region (unweighted), Bangladesh 2014

	Residence		Division							
Result	Urban	Rural	Barisal	Chittagong	Dhaka	Khulna	Rajshahi	Rangpur	Sylhet	Total
Selected households										
Completed (C)	95.5	96.5	95.5	96.2	94.1	97.2	96.7	97.2	96.8	96.2
Household present but no competent respondent at home (HP)	1.1	0.9	1.3	1.1	1.2	0.6	1.2	0.6	0.9	1.0
Postponed (P)	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Refused (R)	0.7	0.1	0.1	0.3	1.1	0.0	0.1	0.0	0.2	0.3
Dwelling not found (DNF)	0.2	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.2
Household absent (HA)	1.5	1.6	2.4	1.2	2.0	1.4	1.3	1.3	1.4	1.6
Dwelling vacant/address not a dwelling (DV)	0.6	0.5	0.4	0.8	0.7	0.4	0.3	0.6	0.4	0.5
Dwelling destroyed (DD)	0.1	0.2	0.3	0.0	0.4	0.0	0.1	0.0	0.0	0.1
Other (O)	0.1	0.1	0.0	0.2	0.2	0.2	0.2	0.0	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
Number of sampled households	6,210	11,779	2,160	2,760	3,270	2,550	2,610	2,540	2,099	17,989
Household response rate (HRR)[1]	97.8	98.8	98.5	98.4	97.3	99.2	98.6	99.2	98.7	98.5
Eligible women										
Completed (EWC)	97.5	98.1	98.2	97.7	96.8	98.8	97.9	99.2	97.0	97.9
Not at home (EWNH)	2.0	1.4	1.2	2.0	2.7	1.0	1.6	0.5	2.2	1.6
Postponed (EWP)	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Refused (EWR)	0.3	0.1	0.0	0.2	0.2	0.0	0.3	0.1	0.3	0.2
Partly completed (EWPC)	0.0	0.1	0.0	0.0	0.1	0.0	0.1	0.0	0.2	0.1
Incapacitated (EWI)	0.1	0.2	0.4	0.1	0.2	0.1	0.1	0.2	0.3	0.2
Other (EWO)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	6,324	11,921	2,181	2,932	3,195	2,612	2,567	2,552	2,206	18,245
Eligible women response rate (EWRR)[2]	97.5	98.1	98.2	97.7	96.8	98.8	97.9	99.2	97.0	97.9
Overall women response rate (ORR)[3]	95.4	97.0	96.7	96.1	94.2	98.0	96.4	98.4	95.7	96.4

[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)
[3] The overall women response rate (OWRR) is calculated as: OWRR = HRR * EWRR/100

A.4 SAMPLING WEIGHT

Due to the non-proportional allocation of sample to different divisions and to their urban and rural areas and the possible differences in response rates, sampling weight will be required for any analysis using the 2014 BDHS data to ensure the actual representative of the survey results at national level and as well as at domain level. Since the 2014 BDHS sample is a two-stage stratified cluster sample, sampling weight will be calculated based on sampling probabilities separately for each sampling stage and for each cluster. We use the following notations:

P_{1hi}: first-stage sampling probability of the ith cluster in stratum h
P_{2hi}: second -stage sampling probability within the ith cluster (households)

Let a_h be the number of EAs selected in stratum h, M_{hi} the number of households according to the sampling frame in the ith EA, and $\sum M_{hi}$ the total number of households in the stratum. The probability of selecting the ith EA in the 2014 BDHS sample is calculated as follows:

$$\frac{a_h M_{hi}}{\sum M_{hi}}$$

Let b_{hi} be the proportion of households in the selected cluster compared to the total number of households in EA *i* in stratum *h* if the EA is segmented, otherwise $b_{hi} = 1$. Then the probability of selecting cluster *i* in the sample is:

$$P_{1hi} = \frac{a_h M_{hi}}{\sum M_{hi}} \times b_{hi}$$

Let L_{hi} be the number of households listed in the household listing operation in cluster *i* in stratum *h*, let g_{hi} be the number of households selected in the cluster. The second stage's selection probability for each household in the cluster is calculated as follows:

$$P_{2hi} = \frac{g_{hi}}{L_{hi}}$$

The overall selection probability of each household in cluster *i* of stratum *h* is therefore the production of the two stages selection probabilities:

$$P_{hi} = P_{1hi} \times P_{2hi}$$

The sampling weight for each household in cluster *i* of stratum *h* is the inverse of its overall selection probability:

$$W_{hi} = 1 / P_{hi}$$

A spreadsheet containing all sampling parameters and selection probabilities will be prepared to facilitate the calculation of the design weight. Design weight will be adjusted for household non-response and as well as for individual non-response to get the sampling weights for households, for women and men surveys respectively. The differences of the household sampling weight and the individual sampling weights are introduced by individual non-response. The final sampling weights will be normalized in order to give the total number of un-weighted cases equal to the total number of weighted cases at national level, for both household weight and individual weight, respectively. The normalized weights are relative weights which are valid for estimating means, proportions and ratios, but not valid for estimating population totals and for pooled data.

ESTIMATES OF SAMPLING ERRORS *Appendix* B

The estimates from a sample survey are affected by two types of errors: non-sampling errors and 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 2014 Bangladesh DHS (BDHS) 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 2014 BDHS is only one of many samples that could have been selected from the same population, using the same design and expected size. Each of these samples would yield results that differ somewhat from the results of the actual sample selected. Sampling errors are a measure of the variability between all possible samples. Although the degree of variability is not known exactly, it can be estimated from the survey results.

Sampling error is usually measured in terms of the standard error for a particular statistic (mean, percentage, etc.), which is the square root of the variance. The standard error can be used to calculate confidence intervals within which the true value for the population can reasonably be assumed to fall. For example, for any given statistic calculated from a sample survey, the value of that statistic will fall within a range of plus or minus two times the standard error of that statistic in 95 percent of all possible samples of identical size and design.

If the sample of respondents had been selected as a simple random sample, it would have been possible to use straightforward formulas for calculating sampling errors. However, the 2014 BDHS sample is the result of a multi-stage stratified design, and, consequently, it was necessary to use more complex formulae. Sampling errors are computed in either ISSA or SAS, using programs developed by ICF International. These programs use the Taylor linearization method of variance estimation for survey estimates that are means, proportions or ratios. 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:

$$SE^2(r) = \mathrm{var}(r) = \frac{1-f}{x^2}\sum_{h=1}^{H}\left[\frac{m_h}{m_h-1}\left(\sum_{i=1}^{m_h} z_{hi}^2 - \frac{z_h^2}{m_h}\right)\right]$$

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 formula. Each replication considers all but one cluster in the calculation of the estimates. Pseudo-independent replications are thus created. In the 2014 BDHS, there were 600 non-empty clusters. Hence, 600 replications were created. The variance of a rate r is calculated as follows:

$$SE^2(r) = \text{var}(r) = \frac{1}{k(k-1)} \sum_{i=1}^{k} (r_i - r)^2$$

in which

$$r_i = kr - (k-1) r_{(i)}$$

where r is the estimate computed from the full sample of 600 clusters,

$r_{(i)}$ is the estimate computed from the reduced sample of 599 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 standard errors and confidence limits for the estimates are also calculated.

Sampling errors for the 2014 BDHS are calculated for selected variables considered to be of primary interest. The results are presented in this appendix for the country as a whole, for urban and rural areas, and for each of the seven divisions. For each variable, the type of statistic (mean, proportion, or rate) and the base population are given in Table B.1. Tables B.2 through B.11 present the value of the statistic (R), its standard error (SE), the number of un-weighted (N) and weighted (WN) cases, the design effect (DEFT), the relative standard error (SE/R), and the 95 percent confidence limits (R±2SE), for each selected variable. The DEFT is considered undefined when the standard error considering a simple random sample is zero (when the estimate is close to 0 or 1).

The confidence interval (e.g., as calculated for *the number of children ever born for women 40-49 years*) can be interpreted as follows: the overall average from the national sample is 3.886 and its standard error is 0.048. Therefore, to obtain the 95 percent confidence limits, one adds and subtracts twice the standard error to the sample estimate, that is 3.886 ± 2×0.048. There is a high probability (95 percent) that the true proportion of women 40-49 with children ever born is between 3.790 and 3.982.

For the total sample, the value of the DEFT, averaged over all variables, is 1.776. This means that, due to multi-stage clustering of the sample, the average standard error is increased by a factor of 1.776 over that in an equivalent simple random sample.

Table B.1 List of selected variables for sampling errors, Bangladesh 2014

Variable	Estimate	Base population
Urban residence	Proportion	All women 15-49
No education	Proportion	All women 15-49
Secondary education or higher	Proportion	All women 15-49
Never married (never in union)	Proportion	All women 15-49
Currently married (in union)	Proportion	All women 15-49
Married before age 20	Proportion	All women 20-49
Had sexual intercourse before age 18	Proportion	All women 20-49
Currently pregnant	Proportion	All women 15-49
Children ever born	Mean	All women 15-49
Children surviving	Mean	All women 15-49
Children ever born to women age 40-49	Mean	All women 40-49
Currently using any method	Proportion	Currently married women 15-49
Currently using a modern method	Proportion	Currently married women 15-49
Currently using a traditional method	Proportion	Currently married women 15-49
Currently using pill	Proportion	Currently married women 15-49
Currently using condoms	Proportion	Currently married women 15-49
Currently using injectables	Proportion	Currently married women 15-49
Currently using female sterilization	Proportion	Currently married women 15-49
Currently using rhythm	Proportion	Currently married women 15-49
Currently using withdrawal	Proportion	Currently married women 15-49
Used public sector source	Proportion	Current users of modern method
Want no more children	Proportion	Currently married women 15-49
Want to delay next birth at least 2 years	Proportion	Currently married women 15-49
Ideal number of children	Mean	All women 15-49
Births with skilled attendant at delivery	Proportion	Births occurring 1-59 months before survey
Had diarrhea in the past 2 weeks	Proportion	Children under 5
Treated with ORS	Proportion	Children under 5 with diarrhea in past 2 weeks
Sought medical treatment for diarrhea	Proportion	Children under 5 with diarrhea in past 2 weeks
Vaccination card seen	Proportion	Children 12-23 months
Received BCG vaccination	Proportion	Children 12-23 months
Received DPT vaccination (3 doses)	Proportion	Children 12-23 months
Received polio vaccination (3 doses)	Proportion	Children 12-23 months
Received measles vaccination	Proportion	Children 12-23 months
Received all vaccinations	Proportion	Children 12-23 months
Height-for-age (-2SD)	Proportion	Children under 5 who are measured
Weight-for-height (-2SD)	Proportion	Children under 5 who are measured
Weight-for-age (-2SD)	Proportion	Children under 5 who are measured
Body mass index (BMI) <18.5	Proportion	All women 15-49 who were measured
Total fertility rate (3 years)	Rate	Women-years of exposure to childbearing
Neonatal mortality rate[1]	Rate	Children exposed to the risk of mortality
Post-neonatal mortality rate[1]	Rate	Children exposed to the risk of mortality
Infant mortality rate[1]	Rate	Children exposed to the risk of mortality
Child mortality rate[1]	Rate	Children exposed to the risk of mortality
Under-5 mortality rate[1]	Rate	Children exposed to the risk of mortality

[1] The mortality rates are calculated for 3years before the survey for the national and regional samples.

Table B.2 Sampling errors: Total sample, Bangladesh DHS 2014

Variable	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
Urban residence	0.283	0.011	17,863	17,863	3.402	0.041	0.260	0.305
No education	0.249	0.010	17,863	17,863	2.952	0.038	0.230	0.269
Secondary or higher education	0.459	0.010	17,863	17,863	2.618	0.021	0.439	0.479
Never married (never in union)	0.154	0.004	21,140	21,127	1.365	0.024	0.147	0.162
Currently married (in union)	0.798	0.004	21,140	21,127	1.406	0.005	0.790	0.806
Married before age 20	0.853	0.004	16,630	16,642	1.762	0.005	0.845	0.862
Had first sexual intercourse before age 18	0.688	0.007	16,630	16,642	1.987	0.010	0.675	0.702
Currently pregnant	0.051	0.002	21,140	21,127	1.320	0.039	0.047	0.055
Children ever born	2.075	0.023	21,140	21,127	1.553	0.011	2.030	2.121
Children surviving	1.886	0.020	21,140	21,127	1.534	0.011	1.846	1.926
Children ever born to women age 40-49	3.886	0.048	3,998	3,874	1.629	0.012	3.789	3.982
Currently using any method	0.624	0.007	16,830	16,858	1.786	0.011	0.611	0.638
Currently using a modern method	0.541	0.006	16,830	16,858	1.666	0.012	0.528	0.553
Currently using a traditional method	0.084	0.004	16,830	16,858	1.772	0.045	0.076	0.091
Currently using pill	0.270	0.006	16,830	16,858	1.872	0.024	0.257	0.283
Currently using condoms	0.064	0.003	16,830	16,858	1.635	0.048	0.058	0.071
Currently using injectables	0.124	0.005	16,830	16,858	2.131	0.044	0.113	0.135
Currently using female sterilization	0.046	0.002	16,830	16,858	1.415	0.050	0.041	0.051
Currently using rhythm	0.062	0.003	16,830	16,858	1.787	0.053	0.056	0.069
Currently using withdrawal	0.019	0.002	16,830	16,858	1.525	0.084	0.016	0.022
Used public sector source	0.487	0.011	9,130	9,110	2.027	0.022	0.466	0.509
Want no more children	0.567	0.006	16,830	16,858	1.595	0.011	0.555	0.579
Want to delay birth at least 2 years	0.197	0.004	16,830	16,858	1.464	0.023	0.188	0.206
Ideal number of children	2.207	0.012	17,527	17,556	2.298	0.005	2.183	2.231
Births with skilled attendant at delivery	0.422	0.015	4,734	4,904	2.112	0.037	0.391	0.453
Had diarrhea in the last 2 weeks	0.057	0.005	7,567	7,760	1.987	0.093	0.046	0.067
Treated with ORS	0.770	0.036	371	440	1.738	0.047	0.698	0.842
Sought medical treatment for diarrhea	0.363	0.042	371	440	1.830	0.117	0.278	0.447
Vaccination card seen	0.739	0.019	1,557	1,633	1.744	0.026	0.701	0.777
Received BCG vaccination	0.979	0.004	1,557	1,633	1.090	0.004	0.971	0.987
Received DPT vaccination (3 doses)	0.913	0.012	1,557	1,633	1.650	0.013	0.890	0.936
Received polio vaccination (3 doses)	0.914	0.011	1,557	1,633	1.599	0.012	0.892	0.936
Received measles vaccination	0.861	0.012	1,557	1,633	1.433	0.014	0.837	0.886
Received all vaccinations	0.838	0.014	1,557	1,633	1.489	0.016	0.811	0.865
Height-for-age (-2SD)	0.361	0.009	7,167	7,318	1.536	0.025	0.343	0.379
Weight-for-height (-2SD)	0.143	0.006	7,167	7,318	1.377	0.040	0.132	0.155
Weight-for-age (-2SD)	0.326	0.009	7,167	7,318	1.643	0.029	0.308	0.345
Body mass index (BMI) <18.5	0.186	0.006	16,444	16,478	1.975	0.032	0.174	0.198
Total fertility rate (3 years)	2.282	0.051	59,143	59,166	1.539	0.022	2.181	2.384
Neonatal mortality rate (last 0-4 years)	28.218	2.310	7,965	8,174	1.212	0.082	23.597	32.838
Post-neonatal mortality rate (last 0-4 years)	9.908	1.364	7,973	8,204	1.248	0.138	7.180	12.635
Infant mortality rate (last 0-4 years)	38.125	2.473	7,968	8,177	1.122	0.065	33.179	43.071
Child mortality rate (last 0-4 years)	8.265	1.362	7,929	8,151	1.400	0.165	5.541	10.989
Under-5 mortality rate (last 0-4 years)	46.075	2.775	7,996	8,204	1.177	0.060	40.525	51.626

Table B.3 Sampling errors: Urban sample, Bangladesh DHS 2014

Variable	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
Urban residence	1.000	0.000	6,167	5,047	na	na	1.000	1.000
No education	0.193	0.012	6,167	5,047	2.303	0.060	0.169	0.216
Secondary or higher education	0.555	0.017	6,167	5,047	2.726	0.031	0.520	0.589
Never married (never in union)	0.142	0.008	7,161	5,882	1.730	0.053	0.127	0.157
Currently married (in union)	0.801	0.008	7,161	5,882	1.721	0.010	0.784	0.817
Married before age 20	0.796	0.009	5,809	4,736	1.915	0.012	0.777	0.814
Had first sexual intercourse before age 18	0.606	0.014	5,809	4,736	2.210	0.023	0.579	0.634
Currently pregnant	0.046	0.003	7,161	5,882	1.388	0.074	0.039	0.053
Children ever born	1.847	0.030	7,161	5,882	1.387	0.016	1.787	1.908
Children surviving	1.699	0.027	7,161	5,882	1.388	0.016	1.645	1.753
Children ever born to women age 40-49	3.377	0.068	1,447	1,133	1.540	0.020	3.242	3.512
Currently using any method	0.659	0.011	5,739	4,709	1.792	0.017	0.636	0.681
Currently using a modern method	0.562	0.011	5,739	4,709	1.615	0.019	0.541	0.583
Currently using a traditional method	0.097	0.007	5,739	4,709	1.788	0.072	0.083	0.111
Currently using pill	0.267	0.011	5,739	4,709	1.822	0.040	0.246	0.288
Currently using condoms	0.117	0.007	5,739	4,709	1.696	0.062	0.102	0.131
Currently using injectables	0.098	0.008	5,739	4,709	1.952	0.078	0.082	0.113
Currently using female sterilization	0.047	0.004	5,739	4,709	1.370	0.082	0.039	0.054
Currently using rhythm	0.070	0.007	5,739	4,709	1.979	0.096	0.056	0.083
Currently using withdrawal	0.024	0.004	5,739	4,709	1.794	0.152	0.017	0.031
Used public sector source	0.339	0.020	3,237	2,646	2.449	0.060	0.298	0.380
Want no more children	0.545	0.011	5,739	4,709	1.640	0.020	0.523	0.566
Want to delay birth at least 2 years	0.200	0.007	5,739	4,709	1.388	0.037	0.186	0.215
Ideal number of children	2.117	0.015	6,078	4,986	1.899	0.007	2.087	2.147
Births with skilled attendant at delivery	0.605	0.022	1,508	1,267	1.739	0.037	0.561	0.650
Had diarrhea in the last 2 weeks	0.057	0.006	2,399	1,984	1.320	0.109	0.044	0.069
Treated with ORS	0.834	0.039	120	112	1.209	0.047	0.755	0.913
Sought medical treatment for diarrhea	0.534	0.059	120	112	1.374	0.110	0.417	0.652
Vaccination card seen	0.743	0.021	494	423	1.072	0.028	0.702	0.785
Received BCG vaccination	0.989	0.004	494	423	0.913	0.004	0.981	0.998
Received DPT vaccination (3 doses)	0.936	0.013	494	423	1.194	0.014	0.910	0.962
Received polio vaccination (3 doses)	0.930	0.015	494	423	1.307	0.016	0.901	0.960
Received measles vaccination	0.900	0.015	494	423	1.169	0.017	0.869	0.931
Received all vaccinations	0.876	0.017	494	423	1.205	0.020	0.841	0.911
Height-for-age (-2SD)	0.308	0.017	2,246	1,828	1.716	0.056	0.273	0.342
Weight-for-height (-2SD)	0.122	0.009	2,246	1,828	1.294	0.073	0.104	0.140
Weight-for-age (-2SD)	0.261	0.016	2,246	1,828	1.643	0.060	0.229	0.292
Body mass index (BMI) <18.5	0.122	0.010	5,710	4,685	2.396	0.085	0.101	0.143
Total fertility rate (3 years)	2.021	0.065	21,062	17,272	1.291	0.032	1.892	2.150
Neonatal mortality rate (last 0-4 years)	28.922	3.355	5,263	4,329	1.289	0.116	22.211	35.633
Post-neonatal mortality rate (last 0-4 years)	11.643	2.064	5,277	4,350	1.389	0.177	7.514	15.772
Infant mortality rate (last 0-4 years)	40.564	4.042	5,267	4,331	1.363	0.100	32.481	48.648
Child mortality rate (last 0-4 years)	6.103	1.767	5,364	4,386	1.701	0.289	2.569	9.637
Under-5 mortality rate (last 0-4 years)	46.420	4.047	5,275	4,339	1.307	0.087	38.327	54.513

Table B.4 Sampling errors: Rural sample, Bangladesh DHS 2014

Variable	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
Urban residence	0.000	0.000	11,696	12,816	na	na	0.000	0.000
No education	0.272	0.012	11,696	12,816	2.916	0.044	0.248	0.296
Secondary or higher education	0.421	0.011	11,696	12,816	2.420	0.026	0.399	0.443
Never married (never in union)	0.159	0.004	13,979	15,245	1.247	0.027	0.151	0.168
Currently married (in union)	0.797	0.005	13,979	15,245	1.288	0.006	0.788	0.806
Married before age 20	0.876	0.004	10,821	11,906	1.573	0.005	0.868	0.885
Had first sexual intercourse before age 18	0.721	0.007	10,821	11,906	1.821	0.010	0.706	0.736
Currently pregnant	0.052	0.002	13,979	15,245	1.269	0.045	0.048	0.057
Children ever born	2.163	0.029	13,979	15,245	1.530	0.013	2.105	2.221
Children surviving	1.958	0.025	13,979	15,245	1.482	0.013	1.908	2.008
Children ever born to women age 40-49	4.096	0.064	2,551	2,741	1.693	0.016	3.967	4.224
Currently using any method	0.611	0.008	11,091	12,149	1.765	0.013	0.595	0.628
Currently using a modern method	0.532	0.008	11,091	12,149	1.652	0.015	0.517	0.548
Currently using a traditional method	0.079	0.005	11,091	12,149	1.780	0.058	0.070	0.088
Currently using pill	0.271	0.008	11,091	12,149	1.872	0.029	0.255	0.287
Currently using condoms	0.044	0.004	11,091	12,149	1.806	0.080	0.037	0.051
Currently using injectables	0.135	0.007	11,091	12,149	2.061	0.050	0.121	0.148
Currently using female sterilization	0.046	0.003	11,091	12,149	1.413	0.061	0.040	0.051
Currently using rhythm	0.059	0.004	11,091	12,149	1.719	0.065	0.052	0.067
Currently using withdrawal	0.017	0.002	11,091	12,149	1.394	0.100	0.014	0.021
Used public sector source	0.548	0.014	5,893	6,464	2.113	0.025	0.521	0.576
Want no more children	0.575	0.007	11,091	12,149	1.550	0.013	0.561	0.590
Want to delay birth at least 2 years	0.196	0.006	11,091	12,149	1.476	0.028	0.185	0.207
Ideal number of children	2.243	0.016	11,449	12,570	2.370	0.007	2.211	2.275
Births with skilled attendant at delivery	0.358	0.017	3,226	3,637	2.020	0.049	0.323	0.393
Had diarrhea in the last 2 weeks	0.057	0.007	5,168	5,777	2.088	0.120	0.043	0.070
Treated with ORS	0.748	0.048	251	328	1.846	0.064	0.653	0.844
Sought medical treatment for diarrhea	0.304	0.057	251	328	2.114	0.188	0.189	0.418
Vaccination card seen	0.738	0.025	1,063	1,210	1.849	0.033	0.688	0.787
Received BCG vaccination	0.976	0.005	1,063	1,210	1.083	0.005	0.965	0.986
Received DPT vaccination (3 doses)	0.904	0.015	1,063	1,210	1.689	0.017	0.875	0.934
Received polio vaccination (3 doses)	0.908	0.014	1,063	1,210	1.626	0.016	0.880	0.937
Received measles vaccination	0.848	0.015	1,063	1,210	1.422	0.018	0.817	0.878
Received all vaccinations	0.825	0.017	1,063	1,210	1.493	0.021	0.791	0.859
Height-for-age (-2SD)	0.379	0.010	4,921	5,490	1.457	0.027	0.358	0.399
Weight-for-height (-2SD)	0.151	0.007	4,921	5,490	1.383	0.047	0.137	0.165
Weight-for-age (-2SD)	0.348	0.011	4,921	5,490	1.598	0.032	0.326	0.370
Body mass index (BMI) <18.5	0.211	0.007	10,734	11,793	1.739	0.032	0.197	0.225
Total fertility rate (3 years)	2.391	0.066	38,224	41,855	1.555	0.028	2.259	2.523
Neonatal mortality rate (last 0-4 years)	33.153	1.932	11,491	12,784	1.081	0.058	29.288	37.017
Post-neonatal mortality rate (last 0-4 years)	11.889	1.241	11,546	12,864	1.208	0.104	9.407	14.371
Infant mortality rate (last 0-4 years)	45.042	2.424	11,501	12,792	1.180	0.054	40.193	49.891
Child mortality rate (last 0-4 years)	11.990	1.399	11,853	13,162	1.417	0.117	9.192	14.789
Under-5 mortality rate (last 0-4 years)	56.492	2.675	11,526	12,818	1.193	0.047	51.142	61.843

Table B.5 Sampling errors: Barisal sample, Bangladesh DHS 2014

Variable	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
Urban residence	0.284	0.075	2,142	1,111	7.547	0.262	0.135	0.433
No education	0.151	0.023	2,142	1,111	2.989	0.153	0.105	0.198
Secondary or higher education	0.481	0.036	2,142	1,111	3.316	0.075	0.410	0.553
Never married (never in union)	0.175	0.014	2,606	1,346	1.656	0.081	0.146	0.203
Currently married (in union)	0.781	0.011	2,606	1,346	1.288	0.015	0.758	0.803
Married before age 20	0.875	0.010	1,954	1,018	1.533	0.011	0.856	0.894
Had first sexual intercourse before age 18	0.722	0.014	1,954	1,018	1.398	0.019	0.695	0.749
Currently pregnant	0.051	0.005	2,606	1,346	1.162	0.097	0.041	0.061
Children ever born	2.097	0.067	2,606	1,346	1.450	0.032	1.963	2.231
Children surviving	1.896	0.059	2,606	1,346	1.453	0.031	1.778	2.014
Children ever born to women age 40-49	4.214	0.189	511	262	2.170	0.045	3.836	4.592
Currently using any method	0.633	0.023	2,030	1,051	2.191	0.037	0.586	0.680
Currently using a modern method	0.546	0.015	2,030	1,051	1.394	0.028	0.515	0.576
Currently using a traditional method	0.087	0.019	2,030	1,051	3.099	0.223	0.048	0.126
Currently using pill	0.272	0.013	2,030	1,051	1.313	0.048	0.246	0.297
Currently using condoms	0.044	0.009	2,030	1,051	2.022	0.209	0.026	0.063
Currently using injectables	0.172	0.021	2,030	1,051	2.452	0.120	0.131	0.213
Currently using female sterilization	0.031	0.005	2,030	1,051	1.308	0.163	0.021	0.041
Currently using rhythm	0.068	0.018	2,030	1,051	3.155	0.259	0.033	0.104
Currently using withdrawal	0.017	0.003	2,030	1,051	1.082	0.181	0.011	0.024
Used public sector source	0.494	0.021	1,108	573	1.368	0.042	0.453	0.535
Want no more children	0.606	0.011	2,030	1,051	1.002	0.018	0.584	0.627
Want to delay birth at least 2 years	0.230	0.010	2,030	1,051	1.091	0.044	0.209	0.250
Ideal number of children	2.224	0.049	2,108	1,094	3.189	0.022	2.127	2.322
Births with skilled attendant at delivery	0.369	0.055	551	279	2.553	0.148	0.260	0.478
Had diarrhea in the last 2 weeks	0.065	0.014	882	444	1.567	0.207	0.038	0.092
Treated with ORS	0.858	0.058	50	29	1.241	0.068	0.742	0.975
Sought medical treatment for diarrhea	0.325	0.074	50	29	1.121	0.228	0.177	0.474
Vaccination card seen	0.787	0.032	180	92	1.052	0.041	0.723	0.852
Received BCG vaccination	0.978	0.010	180	92	0.929	0.010	0.958	0.999
Received DPT vaccination (3 doses)	0.916	0.023	180	92	1.096	0.025	0.870	0.962
Received polio vaccination (3 doses)	0.882	0.036	180	92	1.497	0.041	0.810	0.955
Received measles vaccination	0.875	0.027	180	92	1.079	0.031	0.822	0.929
Received all vaccinations	0.815	0.034	180	92	1.167	0.042	0.748	0.883
Height-for-age (-2SD)	0.399	0.023	837	424	1.295	0.057	0.353	0.444
Weight-for-height (-2SD)	0.177	0.016	837	424	1.178	0.089	0.146	0.209
Weight-for-age (-2SD)	0.369	0.021	837	424	1.184	0.056	0.327	0.410
Body mass index (BMI) <18.5	0.205	0.023	1,955	1,016	2.564	0.114	0.158	0.251
Total fertility rate (3 years)	2.167	0.135	6,984	3,610	1.474	0.062	1.898	2.437
Neonatal mortality rate (last 0-4 years)	33.139	5.127	1,941	994	1.154	0.155	22.885	43.393
Post-neonatal mortality rate (last 0-4 years)	8.645	2.341	1,944	998	1.041	0.271	3.963	13.327
Infant mortality rate (last 0-4 years)	41.784	4.981	1,941	994	1.021	0.119	31.822	51.747
Child mortality rate (last 0-4 years)	10.510	2.261	1,981	1,018	0.989	0.215	5.988	15.033
Under-5 mortality rate (last 0-4 years)	51.855	5.112	1,944	996	0.991	0.099	41.632	62.079

Table B.6 Sampling errors: Chittagong sample, Bangladesh DHS 2014

Variable	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
Urban residence	0.312	0.027	2,865	3,301	3.094	0.086	0.258	0.365
No education	0.216	0.020	2,865	3,301	2.649	0.095	0.175	0.256
Secondary or higher education	0.523	0.023	2,865	3,301	2.474	0.044	0.477	0.569
Never married (never in union)	0.154	0.009	3,392	3,903	1.408	0.057	0.137	0.172
Currently married (in union)	0.800	0.010	3,392	3,903	1.539	0.013	0.779	0.821
Married before age 20	0.826	0.011	2,647	3,059	1.707	0.013	0.804	0.848
Had first sexual intercourse before age 18	0.621	0.019	2,647	3,059	2.078	0.031	0.583	0.659
Currently pregnant	0.056	0.005	3,392	3,903	1.247	0.086	0.047	0.066
Children ever born	2.252	0.049	3,392	3,903	1.265	0.022	2.153	2.351
Children surviving	2.048	0.045	3,392	3,903	1.295	0.022	1.958	2.138
Children ever born to women age 40-49	4.373	0.118	573	652	1.436	0.027	4.137	4.610
Currently using any method	0.550	0.016	2,707	3,121	1.624	0.028	0.519	0.581
Currently using a modern method	0.472	0.013	2,707	3,121	1.321	0.027	0.447	0.497
Currently using a traditional method	0.078	0.008	2,707	3,121	1.537	0.102	0.062	0.094
Currently using pill	0.241	0.013	2,707	3,121	1.585	0.054	0.215	0.267
Currently using condoms	0.048	0.005	2,707	3,121	1.233	0.105	0.038	0.059
Currently using injectables	0.120	0.012	2,707	3,121	1.911	0.100	0.096	0.144
Currently using female sterilization	0.036	0.005	2,707	3,121	1.372	0.136	0.027	0.046
Currently using rhythm	0.056	0.008	2,707	3,121	1.767	0.139	0.040	0.072
Currently using withdrawal	0.020	0.004	2,707	3,121	1.391	0.185	0.013	0.028
Used public sector source	0.412	0.018	1,272	1,473	1.333	0.045	0.375	0.449
Want no more children	0.559	0.015	2,707	3,121	1.549	0.026	0.529	0.588
Want to delay birth at least 2 years	0.206	0.009	2,707	3,121	1.188	0.045	0.188	0.225
Ideal number of children	2.386	0.033	2,777	3,211	2.177	0.014	2.319	2.452
Births with skilled attendant at delivery	0.440	0.033	915	1,074	1.955	0.075	0.374	0.507
Had diarrhea in the last 2 weeks	0.067	0.008	1,453	1,668	1.197	0.119	0.051	0.083
Treated with ORS	0.795	0.055	93	111	1.293	0.069	0.686	0.904
Sought medical treatment for diarrhea	0.405	0.058	93	111	1.176	0.144	0.288	0.522
Vaccination card seen	0.691	0.030	294	349	1.119	0.043	0.631	0.751
Received BCG vaccination	0.969	0.010	294	349	1.022	0.011	0.948	0.989
Received DPT vaccination (3 doses)	0.883	0.030	294	349	1.596	0.034	0.823	0.942
Received polio vaccination (3 doses)	0.889	0.030	294	349	1.637	0.033	0.829	0.948
Received measles vaccination	0.876	0.026	294	349	1.342	0.029	0.824	0.927
Received all vaccinations	0.833	0.034	294	349	1.588	0.041	0.765	0.902
Height-for-age (-2SD)	0.380	0.019	1,350	1,541	1.323	0.049	0.343	0.417
Weight-for-height (-2SD)	0.156	0.011	1,350	1,541	1.108	0.072	0.133	0.178
Weight-for-age (-2SD)	0.360	0.019	1,350	1,541	1.407	0.054	0.321	0.398
Body mass index (BMI) <18.5	0.157	0.010	2,604	3,007	1.361	0.062	0.137	0.176
Total fertility rate (3 years)	2.542	0.084	9,895	11,381	1.076	0.033	2.375	2.710
Neonatal mortality rate (last 0-4 years)	33.576	4.235	3,142	3,686	1.112	0.126	25.107	42.045
Post-neonatal mortality rate (last 0-4 years)	14.366	2.572	3,158	3,702	1.199	0.179	9.222	19.511
Infant mortality rate (last 0-4 years)	47.942	5.330	3,146	3,690	1.234	0.111	37.281	58.603
Child mortality rate (last 0-4 years)	14.469	2.882	3,202	3,758	1.402	0.199	8.706	20.232
Under-5 mortality rate (last 0-4 years)	61.717	5.732	3,154	3,700	1.227	0.093	50.254	73.181

Table B.7 Sampling errors: Dhaka sample, Bangladesh DHS 2014

Variable	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
Urban residence	0.366	0.028	3,093	6,223	3.196	0.076	0.310	0.421
No education	0.272	0.021	3,093	6,223	2.667	0.079	0.229	0.314
Secondary or higher education	0.447	0.020	3,093	6,223	2.281	0.046	0.406	0.488
Never married (never in union)	0.150	0.007	3,631	7,324	1.146	0.049	0.136	0.165
Currently married (in union)	0.800	0.008	3,631	7,324	1.200	0.010	0.783	0.816
Married before age 20	0.844	0.009	2,898	5,824	1.560	0.011	0.826	0.862
Had first sexual intercourse before age 18	0.668	0.014	2,898	5,824	1.732	0.022	0.639	0.697
Currently pregnant	0.048	0.004	3,631	7,324	1.033	0.075	0.041	0.056
Children ever born	1.999	0.049	3,631	7,324	1.476	0.025	1.900	2.098
Children surviving	1.831	0.044	3,631	7,324	1.464	0.024	1.743	1.919
Children ever born to women age 40-49	3.733	0.103	641	1,316	1.440	0.027	3.528	3.938
Currently using any method	0.630	0.015	2,916	5,857	1.642	0.023	0.600	0.659
Currently using a modern method	0.542	0.015	2,916	5,857	1.613	0.027	0.513	0.572
Currently using a traditional method	0.087	0.008	2,916	5,857	1.591	0.095	0.071	0.104
Currently using pill	0.275	0.015	2,916	5,857	1.822	0.055	0.244	0.305
Currently using condoms	0.085	0.007	2,916	5,857	1.323	0.080	0.072	0.099
Currently using injectables	0.108	0.012	2,916	5,857	2.085	0.111	0.084	0.131
Currently using female sterilization	0.040	0.004	2,916	5,857	1.104	0.101	0.032	0.048
Currently using rhythm	0.064	0.007	2,916	5,857	1.569	0.111	0.049	0.078
Currently using withdrawal	0.018	0.004	2,916	5,857	1.475	0.203	0.011	0.025
Used public sector source	0.433	0.024	1,596	3,177	1.905	0.055	0.385	0.480
Want no more children	0.551	0.013	2,916	5,857	1.399	0.023	0.526	0.577
Want to delay birth at least 2 years	0.201	0.010	2,916	5,857	1.292	0.048	0.182	0.220
Ideal number of children	2.164	0.021	3,045	6,129	1.854	0.010	2.121	2.207
Births with skilled attendant at delivery	0.437	0.032	839	1,740	1.847	0.074	0.372	0.501
Had diarrhea in the last 2 weeks	0.065	0.013	1,335	2,733	1.883	0.195	0.040	0.090
Treated with ORS	0.818	0.065	68	177	1.496	0.080	0.687	0.948
Sought medical treatment for diarrhea	0.372	0.091	68	177	1.745	0.244	0.190	0.554
Vaccination card seen	0.726	0.043	297	624	1.702	0.060	0.639	0.813
Received BCG vaccination	0.991	0.005	297	624	1.007	0.005	0.980	1.002
Received DPT vaccination (3 doses)	0.939	0.017	297	624	1.253	0.018	0.905	0.973
Received polio vaccination (3 doses)	0.939	0.017	297	624	1.253	0.018	0.905	0.973
Received measles vaccination	0.884	0.024	297	624	1.328	0.027	0.835	0.932
Received all vaccinations	0.874	0.024	297	624	1.277	0.028	0.825	0.922
Height-for-age (-2SD)	0.339	0.019	1,249	2,546	1.447	0.057	0.301	0.378
Weight-for-height (-2SD)	0.119	0.010	1,249	2,546	1.103	0.084	0.099	0.139
Weight-for-age (-2SD)	0.285	0.017	1,249	2,546	1.335	0.060	0.251	0.319
Body mass index (BMI) <18.5	0.182	0.014	2,873	5,778	1.946	0.077	0.154	0.210
Total fertility rate (3 years)	2.343	0.091	10,135	20,404	1.154	0.039	2.162	2.525
Neonatal mortality rate (last 0-4 years)	26.779	2.913	2,874	5,931	0.948	0.109	20.953	32.605
Post-neonatal mortality rate (last 0-4 years)	10.880	2.146	2,901	5,996	1.128	0.197	6.589	15.172
Infant mortality rate (last 0-4 years)	37.659	3.629	2,875	5,933	1.001	0.096	30.401	44.918
Child mortality rate (last 0-4 years)	10.236	2.608	2,925	6,040	1.383	0.255	5.020	15.451
Under-5 mortality rate (last 0-4 years)	47.510	4.209	2,881	5,944	1.069	0.089	39.091	55.928

Table B.8 Sampling errors: Khulna sample, Bangladesh DHS 2014

Variable	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
Urban residence	0.243	0.013	2,581	1,838	1.577	0.055	0.217	0.270
No education	0.216	0.014	2,581	1,838	1.784	0.067	0.187	0.245
Secondary or higher education	0.495	0.018	2,581	1,838	1.869	0.037	0.458	0.532
Never married (never in union)	0.150	0.009	3,048	2,162	1.232	0.062	0.132	0.169
Currently married (in union)	0.800	0.011	3,048	2,162	1.405	0.014	0.777	0.822
Married before age 20	0.885	0.006	2,407	1,714	1.066	0.007	0.874	0.897
Had first sexual intercourse before age 18	0.758	0.010	2,407	1,714	1.260	0.014	0.737	0.779
Currently pregnant	0.038	0.003	3,048	2,162	0.996	0.090	0.031	0.045
Children ever born	1.896	0.041	3,048	2,162	1.180	0.021	1.815	1.977
Children surviving	1.736	0.034	3,048	2,162	1.119	0.020	1.667	1.804
Children ever born to women age 40-49	3.401	0.087	658	467	1.418	0.026	3.228	3.575
Currently using any method	0.671	0.011	2,416	1,729	1.146	0.016	0.649	0.693
Currently using a modern method	0.564	0.012	2,416	1,729	1.143	0.020	0.541	0.587
Currently using a traditional method	0.107	0.008	2,416	1,729	1.290	0.076	0.091	0.123
Currently using pill	0.262	0.013	2,416	1,729	1.416	0.048	0.237	0.287
Currently using condoms	0.069	0.007	2,416	1,729	1.371	0.103	0.055	0.083
Currently using injectables	0.138	0.012	2,416	1,729	1.674	0.085	0.115	0.162
Currently using female sterilization	0.062	0.007	2,416	1,729	1.457	0.116	0.047	0.076
Currently using rhythm	0.077	0.007	2,416	1,729	1.355	0.096	0.062	0.092
Currently using withdrawal	0.030	0.004	2,416	1,729	1.092	0.127	0.022	0.037
Used public sector source	0.548	0.022	1,373	975	1.607	0.039	0.504	0.591
Want no more children	0.594	0.015	2,416	1,729	1.474	0.025	0.565	0.624
Want to delay birth at least 2 years	0.163	0.010	2,416	1,729	1.390	0.064	0.142	0.184
Ideal number of children	2.052	0.024	2,552	1,816	1.966	0.011	2.005	2.100
Births with skilled attendant at delivery	0.582	0.032	552	387	1.489	0.055	0.518	0.646
Had diarrhea in the last 2 weeks	0.036	0.007	822	580	1.113	0.202	0.021	0.050
Treated with ORS	0.700	0.098	29	21	1.155	0.140	0.504	0.896
Sought medical treatment for diarrhea	0.349	0.101	29	21	1.144	0.290	0.147	0.551
Vaccination card seen	0.782	0.030	181	129	0.962	0.038	0.723	0.841
Received BCG vaccination	0.989	0.008	181	129	0.988	0.008	0.974	1.004
Received DPT vaccination (3 doses)	0.920	0.020	181	129	0.966	0.021	0.881	0.959
Received polio vaccination (3 doses)	0.926	0.019	181	129	0.987	0.021	0.887	0.964
Received measles vaccination	0.862	0.025	181	129	0.979	0.029	0.811	0.912
Received all vaccinations	0.855	0.026	181	129	0.991	0.030	0.803	0.907
Height-for-age (-2SD)	0.281	0.019	793	565	1.137	0.066	0.243	0.318
Weight-for-height (-2SD)	0.135	0.014	793	565	1.129	0.101	0.108	0.163
Weight-for-age (-2SD)	0.255	0.020	793	565	1.266	0.079	0.215	0.296
Body mass index (BMI) <18.5	0.137	0.009	2,439	1,734	1.232	0.063	0.120	0.154
Total fertility rate (3 years)	1.935	0.073	8,281	5,879	1.093	0.038	1.788	2.081
Neonatal mortality rate (last 0-4 years)	37.462	5.012	1,894	1,350	1.045	0.134	27.438	47.486
Post-neonatal mortality rate (last 0-4 years)	5.082	1.517	1,902	1,357	0.955	0.298	2.049	8.115
Infant mortality rate (last 0-4 years)	42.544	5.012	1,894	1,350	0.994	0.118	32.520	52.568
Child mortality rate (last 0-4 years)	8.233	1.882	1,979	1,423	0.946	0.229	4.469	11.997
Under-5 mortality rate (last 0-4 years)	50.427	5.112	1,901	1,355	0.962	0.101	40.203	60.651

Table B.9 Sampling errors: Rajshahi sample, Bangladesh DHS 2014

Variable	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
Urban residence	0.211	0.009	2,512	2,103	1.113	0.043	0.193	0.229
No education	0.255	0.018	2,512	2,103	2.013	0.069	0.220	0.290
Secondary or higher education	0.444	0.019	2,512	2,103	1.921	0.043	0.406	0.482
Never married (never in union)	0.154	0.010	2,960	2,487	1.315	0.065	0.135	0.174
Currently married (in union)	0.807	0.009	2,960	2,487	1.186	0.012	0.788	0.826
Married before age 20	0.889	0.007	2,349	1,966	1.256	0.007	0.876	0.902
Had first sexual intercourse before age 18	0.764	0.010	2,349	1,966	1.275	0.014	0.743	0.785
Currently pregnant	0.041	0.004	2,960	2,487	1.168	0.102	0.032	0.049
Children ever born	1.929	0.045	2,960	2,487	1.259	0.023	1.839	2.019
Children surviving	1.731	0.039	2,960	2,487	1.261	0.023	1.652	1.809
Children ever born to women age 40-49	3.558	0.111	575	465	1.564	0.031	3.337	3.780
Currently using any method	0.694	0.012	2,389	2,007	1.279	0.017	0.669	0.718
Currently using a modern method	0.607	0.012	2,389	2,007	1.248	0.021	0.582	0.632
Currently using a traditional method	0.087	0.007	2,389	2,007	1.149	0.076	0.073	0.100
Currently using pill	0.279	0.013	2,389	2,007	1.405	0.046	0.253	0.305
Currently using condoms	0.074	0.007	2,389	2,007	1.336	0.097	0.060	0.088
Currently using injectables	0.159	0.016	2,389	2,007	2.149	0.101	0.127	0.191
Currently using female sterilization	0.056	0.007	2,389	2,007	1.444	0.121	0.043	0.070
Currently using rhythm	0.066	0.006	2,389	2,007	1.192	0.091	0.054	0.078
Currently using withdrawal	0.020	0.003	2,389	2,007	1.077	0.156	0.014	0.026
Used public sector source	0.539	0.018	1,447	1,218	1.403	0.034	0.502	0.576
Want no more children	0.600	0.011	2,389	2,007	1.144	0.019	0.577	0.622
Want to delay birth at least 2 years	0.174	0.010	2,389	2,007	1.325	0.059	0.154	0.195
Ideal number of children	2.089	0.020	2,481	2,077	1.766	0.010	2.048	2.129
Births with skilled attendant at delivery	0.416	0.030	575	488	1.420	0.072	0.356	0.476
Had diarrhea in the last 2 weeks	0.043	0.010	923	797	1.500	0.238	0.022	0.063
Treated with ORS	0.723	0.064	37	34	0.891	0.088	0.596	0.850
Sought medical treatment for diarrhea	0.343	0.065	37	34	0.851	0.189	0.214	0.473
Vaccination card seen	0.775	0.034	192	163	1.121	0.043	0.708	0.842
Received BCG vaccination	0.983	0.012	192	163	1.272	0.012	0.959	1.007
Received DPT vaccination (3 doses)	0.930	0.024	192	163	1.310	0.026	0.881	0.978
Received polio vaccination (3 doses)	0.929	0.024	192	163	1.305	0.026	0.881	0.977
Received measles vaccination	0.860	0.032	192	163	1.299	0.038	0.795	0.925
Received all vaccinations	0.836	0.033	192	163	1.228	0.039	0.771	0.902
Height-for-age (-2SD)	0.311	0.017	905	780	1.074	0.054	0.277	0.344
Weight-for-height (-2SD)	0.173	0.012	905	780	0.986	0.070	0.149	0.197
Weight-for-age (-2SD)	0.321	0.020	905	780	1.280	0.063	0.280	0.361
Body mass index (BMI) <18.5	0.196	0.012	2,354	1,966	1.493	0.062	0.171	0.220
Total fertility rate (3 years)	2.111	0.088	8,002	6,698	1.198	0.042	1.935	2.286
Neonatal mortality rate (last 0-4 years)	33.242	3.715	2,000	1,729	0.956	0.112	25.812	40.672
Post-neonatal mortality rate (last 0-4 years)	9.391	2.545	1,997	1,726	1.134	0.271	4.300	14.481
Infant mortality rate (last 0-4 years)	42.633	4.627	2,002	1,730	1.001	0.109	33.379	51.887
Child mortality rate (last 0-4 years)	7.851	2.159	2,022	1,748	1.175	0.275	3.533	12.169
Under-5 mortality rate (last 0-4 years)	50.149	5.063	2,004	1,732	1.030	0.101	40.022	60.275

Table B.10 Sampling errors: Rangpur sample, Bangladesh DHS 2014

Variable	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
Urban residence	0.151	0.014	2,531	2,056	2.029	0.096	0.122	0.180
No education	0.272	0.017	2,531	2,056	1.873	0.061	0.239	0.305
Secondary or higher education	0.441	0.018	2,531	2,056	1.872	0.042	0.404	0.478
Never married (never in union)	0.171	0.011	3,051	2,481	1.349	0.062	0.150	0.193
Currently married (in union)	0.784	0.010	3,051	2,481	1.226	0.013	0.764	0.804
Married before age 20	0.889	0.007	2,345	1,900	1.317	0.008	0.875	0.902
Had first sexual intercourse before age 18	0.789	0.009	2,345	1,900	1.118	0.011	0.771	0.806
Currently pregnant	0.043	0.007	3,051	2,481	1.887	0.158	0.029	0.057
Children ever born	1.971	0.037	3,051	2,481	0.990	0.019	1.898	2.045
Children surviving	1.791	0.033	3,051	2,481	1.002	0.018	1.726	1.857
Children ever born to women age 40-49	3.693	0.086	592	465	1.231	0.023	3.521	3.866
Currently using any method	0.698	0.013	2,397	1,946	1.394	0.019	0.672	0.724
Currently using a modern method	0.630	0.014	2,397	1,946	1.398	0.022	0.603	0.658
Currently using a traditional method	0.067	0.007	2,397	1,946	1.446	0.110	0.053	0.082
Currently using pill	0.332	0.014	2,397	1,946	1.461	0.042	0.304	0.360
Currently using condoms	0.039	0.006	2,397	1,946	1.452	0.148	0.027	0.050
Currently using injectables	0.142	0.014	2,397	1,946	1.976	0.099	0.114	0.170
Currently using female sterilization	0.052	0.008	2,397	1,946	1.695	0.148	0.036	0.067
Currently using rhythm	0.051	0.005	2,397	1,946	1.185	0.105	0.040	0.061
Currently using withdrawal	0.015	0.003	2,397	1,946	1.295	0.215	0.008	0.021
Used public sector source	0.583	0.022	1,516	1,226	1.771	0.039	0.538	0.628
Want no more children	0.574	0.018	2,397	1,946	1.750	0.031	0.539	0.609
Want to delay birth at least 2 years	0.198	0.011	2,397	1,946	1.390	0.057	0.175	0.221
Ideal number of children	2.125	0.018	2,512	2,041	1.578	0.009	2.089	2.162
Births with skilled attendant at delivery	0.382	0.026	565	461	1.251	0.068	0.330	0.434
Had diarrhea in the last 2 weeks	0.027	0.006	920	768	1.165	0.228	0.015	0.040
Treated with ORS	0.494	0.147	24	21	1.479	0.297	0.201	0.787
Sought medical treatment for diarrhea	0.234	0.094	24	21	1.121	0.402	0.046	0.422
Vaccination card seen	0.856	0.023	192	146	0.890	0.027	0.809	0.903
Received BCG vaccination	1.000	0.000	192	146	na	na	1.000	1.000
Received DPT vaccination (3 doses)	0.979	0.011	192	146	0.992	0.011	0.958	1.001
Received polio vaccination (3 doses)	0.979	0.011	192	146	0.992	0.011	0.958	1.001
Received measles vaccination	0.903	0.021	192	146	0.945	0.023	0.861	0.945
Received all vaccinations	0.900	0.021	192	146	0.942	0.024	0.857	0.942
Height-for-age (-2SD)	0.360	0.021	899	762	1.270	0.057	0.319	0.401
Weight-for-height (-2SD)	0.177	0.022	899	762	1.765	0.124	0.133	0.221
Weight-for-age (-2SD)	0.368	0.039	899	762	2.323	0.105	0.291	0.445
Body mass index (BMI) <18.5	0.203	0.015	2,365	1,913	1.844	0.075	0.173	0.234
Total fertility rate (3 years)	1.860	0.092	8,144	6,616	1.094	0.050	1.676	2.045
Neonatal mortality rate (last 0-4 years)	28.296	4.782	2,084	1,704	1.128	0.169	18.733	37.859
Post-neonatal mortality rate (last 0-4 years)	12.076	2.785	2,089	1,712	1.098	0.231	6.506	17.646
Infant mortality rate (last 0-4 years)	40.372	6.089	2,087	1,706	1.249	0.151	28.195	52.550
Child mortality rate (last 0-4 years)	4.907	1.533	2,183	1,791	1.041	0.312	1.841	7.973
Under-5 mortality rate (last 0-4 years)	45.081	6.465	2,090	1,709	1.272	0.143	32.151	58.011

Table B.11 Sampling errors: Sylhet sample, Bangladesh DHS 2014

Variable	R	SE	N	WN	DEFT	SE/R	R-2SE	R+2SE
Urban residence	0.185	0.022	2,139	1,232	2.609	0.119	0.141	0.229
No education	0.318	0.023	2,139	1,232	2.233	0.071	0.273	0.363
Secondary or higher education	0.330	0.032	2,139	1,232	3.126	0.096	0.266	0.394
Never married (never in union)	0.135	0.008	2,452	1,424	1.268	0.063	0.118	0.152
Currently married (in union)	0.806	0.010	2,452	1,424	1.295	0.012	0.786	0.825
Married before age 20	0.789	0.014	2,031	1,162	1.694	0.017	0.762	0.817
Had first sexual intercourse before age 18	0.542	0.021	2,031	1,162	1.945	0.039	0.500	0.584
Currently pregnant	0.097	0.008	2,452	1,424	1.292	0.078	0.082	0.112
Children ever born	2.671	0.098	2,452	1,424	1.825	0.037	2.475	2.867
Children surviving	2.377	0.087	2,452	1,424	1.826	0.036	2.204	2.551
Children ever born to women age 40-49	4.956	0.140	448	248	1.246	0.028	4.675	5.236
Currently using any method	0.478	0.023	1,975	1,147	2.038	0.048	0.432	0.524
Currently using a modern method	0.409	0.022	1,975	1,147	1.992	0.054	0.365	0.453
Currently using a traditional method	0.069	0.006	1,975	1,147	1.022	0.084	0.058	0.081
Currently using pill	0.214	0.015	1,975	1,147	1.610	0.070	0.184	0.244
Currently using condoms	0.040	0.007	1,975	1,147	1.612	0.179	0.025	0.054
Currently using injectables	0.065	0.009	1,975	1,147	1.673	0.143	0.046	0.083
Currently using female sterilization	0.067	0.008	1,975	1,147	1.482	0.125	0.050	0.083
Currently using rhythm	0.057	0.005	1,975	1,147	1.006	0.092	0.046	0.067
Currently using withdrawal	0.013	0.003	1,975	1,147	1.124	0.224	0.007	0.018
Used public sector source	0.577	0.026	818	468	1.488	0.045	0.526	0.629
Want no more children	0.521	0.018	1,975	1,147	1.565	0.034	0.486	0.556
Want to delay birth at least 2 years	0.212	0.014	1,975	1,147	1.486	0.065	0.184	0.239
Ideal number of children	2.513	0.051	2,052	1,187	2.503	0.020	2.412	2.614
Births with skilled attendant at delivery	0.271	0.040	737	474	2.404	0.146	0.192	0.350
Had diarrhea in the last 2 weeks	0.061	0.011	1,232	771	1.674	0.186	0.038	0.084
Treated with ORS	0.667	0.063	70	47	1.158	0.094	0.541	0.793
Sought medical treatment for diarrhea	0.327	0.086	70	47	1.573	0.263	0.155	0.499
Vaccination card seen	0.677	0.037	221	129	1.181	0.055	0.603	0.751
Received BCG vaccination	0.913	0.023	221	129	1.203	0.025	0.867	0.958
Received DPT vaccination (3 doses)	0.760	0.060	221	129	2.103	0.079	0.639	0.881
Received polio vaccination (3 doses)	0.779	0.046	221	129	1.666	0.060	0.686	0.872
Received measles vaccination	0.656	0.047	221	129	1.485	0.072	0.561	0.751
Received all vaccinations	0.611	0.056	221	129	1.719	0.092	0.498	0.723
Height-for-age (-2SD)	0.496	0.020	1,134	700	1.395	0.041	0.456	0.537
Weight-for-height (-2SD)	0.121	0.013	1,134	700	1.329	0.105	0.096	0.147
Weight-for-age (-2SD)	0.398	0.028	1,134	700	1.905	0.070	0.342	0.454
Body mass index (BMI) <18.5	0.298	0.018	1,854	1,063	1.654	0.059	0.262	0.333
Total fertility rate (3 years)	2.935	0.334	7,829	4,546	3.017	0.114	2.266	3.604
Neonatal mortality rate (last 0-4 years)	45.010	4.551	2,819	1,718	1.093	0.101	35.907	54.113
Post-neonatal mortality rate (last 0-4 years)	19.011	2.827	2,832	1,724	1.052	0.149	13.358	24.664
Infant mortality rate (last 0-4 years)	64.021	4.816	2,823	1,720	0.980	0.075	54.389	73.654
Child mortality rate (last 0-4 years)	13.622	3.177	2,925	1,770	1.389	0.233	7.268	19.977
Under-5 mortality rate (last 0-4 years)	76.771	5.288	2,827	1,723	0.972	0.069	66.195	87.348

DATA QUALITY TABLES

Appendix C

Table C.1 Household age distribution

Single-year age distribution of the de facto household population by sex (weighted), Bangladesh 2014

	Women		Men			Women		Men	
Age	Number	Percent	Number	Percent	Age	Number	Percent	Number	Percent
0	742	1.9	863	2.3	37	473	1.2	217	0.6
1	768	1.9	848	2.2	38	438	1.1	424	1.1
2	773	1.9	810	2.2	39	423	1.1	148	0.4
3	779	2.0	814	2.2	40	469	1.2	1,087	2.9
4	755	1.9	824	2.2	41	399	1.0	149	0.4
5	761	1.9	749	2.0	42	412	1.0	321	0.9
6	856	2.2	866	2.3	43	463	1.2	382	1.0
7	964	2.4	1,048	2.8	44	415	1.0	204	0.5
8	930	2.3	936	2.5	45	425	1.1	895	2.4
9	735	1.9	852	2.3	46	356	0.9	198	0.5
10	1,052	2.7	1,080	2.9	47	343	0.9	168	0.4
11	837	2.1	853	2.3	48	342	0.9	338	0.9
12	931	2.3	1,000	2.7	49	350	0.9	136	0.4
13	898	2.3	843	2.2	50	102	0.3	920	2.4
14	861	2.2	872	2.3	51	218	0.6	184	0.5
15	906	2.3	795	2.1	52	297	0.7	238	0.6
16	949	2.4	781	2.1	53	387	1.0	247	0.7
17	862	2.2	626	1.7	54	238	0.6	90	0.2
18	1,030	2.6	869	2.3	55	482	1.2	663	1.8
19	794	2.0	472	1.3	56	272	0.7	138	0.4
20	881	2.2	689	1.8	57	204	0.5	106	0.3
21	716	1.8	338	0.9	58	284	0.7	245	0.7
22	793	2.0	625	1.7	59	184	0.5	122	0.3
23	755	1.9	415	1.1	60	534	1.3	835	2.2
24	742	1.9	469	1.2	61	142	0.4	124	0.3
25	776	2.0	854	2.3	62	137	0.3	125	0.3
26	737	1.9	605	1.6	63	167	0.4	147	0.4
27	714	1.8	465	1.2	64	57	0.1	33	0.1
28	688	1.7	691	1.8	65	368	0.9	569	1.5
29	673	1.7	245	0.6	66	71	0.2	54	0.1
30	748	1.9	1,257	3.3	67	35	0.1	61	0.2
31	588	1.5	179	0.5	68	96	0.2	181	0.5
32	638	1.6	610	1.6	69	55	0.1	40	0.1
33	545	1.4	236	0.6	70+	1,173	3.0	1,575	4.2
34	596	1.5	226	0.6	Don't know/ missing	1	0.0	8	0.0
35	580	1.5	1,320	3.5	Total	39,641	100.0	37,672	100.0
36	478	1.2	274	0.7					

Note: The de facto population includes all residents and nonresidents who stayed in the household the night before the interview.

Table C.2 Age distribution of eligible and interviewed women

De facto household population of women age 10-54, interviewed women age 15-49; and percent distribution and percentage of eligible women who were interviewed (weighted), by five-year age groups, Bangladesh 2014

Age group	Household population of women age 10-54	Ever-married women age 10-54	Interviewed women age 15-49		Percentage of eligible women interviewed
			Number	Percentage	
10-14	4,578	0	-	-	-
15-19	4,541	2,054	2,020	11.4	44.5
20-24	3,888	3,283	3,211	18.1	82.6
25-29	3,588	3,440	3,365	18.9	93.8
30-34	3,115	3,084	3,033	17.1	97.4
35-39	2,390	2,375	2,304	13.0	96.4
40-44	2,158	2,141	2,082	11.7	96.5
45-49	1,815	1,812	1,752	9.9	96.5
50-54	1,242	1,228	-	-	-
15-49	21,495	18,189	17,768	100.0	82.7

Note: The de facto population includes all residents and nonresidents who stayed in the household the night before the interview. Weights for both household population of women and interviewed women are household weights. Age is based on the household questionnaire.
na = Not applicable

Table C.3 Completeness of reporting

Percentage of observations missing information for selected demographic and health questions (weighted), Bangladesh 2014

Subject	Percentage with information missing	Number of cases
Month only (Births in the 15 years preceding the survey)	0.35	26,229
Month and Year (Births in the 15 years preceding the survey)	0.01	26,229
Age at Death (Deceased children born in the 15 years preceding the survey)	0.00	1,564
Age/date at first union[1] (Ever married women age 15-49)	0.02	17,863
Respondent's education (All women age 15-49)	0.00	17,863
Diarrhea in last 2 weeks (Living children 0-59 months)	0.35	7,760
Height (Living children age 0-59 months from the Household Questionnaire)	5.49	7,928
Weight (Living children age 0-59 months from the Household Questionnaire)	3.29	7,928
Height or weight (Living children age 0-59 months from the Household Questionnaire)	5.52	7,928
Height (Women age 15-49 from the household questionnaire)	2.98	18,189
Weight (Women age 15-49 from the household questionnaire)	2.94	18,189
Height or weight (Women age 15-49 from the household questionnaire)	3.01	18,189

[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 (L), dead (D), and total (T) children (weighted), Bangladesh 2014

	Number of births			Percentage with complete birth date[1]			Sex ratio at birth[2]			Calendar year ratio[3]		
Calendar year	L	D	T	L	D	T	L	D	T	L	D	T
0	1,548	93	1,641	100.0	100.0	100.0	102.1	83.5	101.0	-	-	-
1	1,566	64	1,630	100.0	100.0	100.0	110.1	118.2	110.4	-	-	-
2	1,431	72	1,502	100.0	100.0	100.0	104.4	147.4	106.1	89.0	76.6	88.3
3	1,651	123	1,774	99.8	100.0	99.8	95.0	109.4	96.0	101.2	141.9	103.3
4	1,831	102	1,933	99.3	99.5	99.3	106.2	83.4	104.9	106.5	84.1	105.0
5	1,789	119	1,909	99.9	98.9	99.9	108.1	106.0	108.0	107.4	104.9	107.2
6	1,500	126	1,626	99.9	98.5	99.8	108.4	77.5	105.6	80.3	100.4	81.6
7	1,947	131	2,078	99.2	97.7	99.1	103.4	137.0	105.2	122.0	105.8	120.8
8	1,692	122	1,814	99.7	95.9	99.4	105.9	113.1	106.4	91.7	96.9	92.0
9	1,744	121	1,865	99.9	95.1	99.6	114.7	121.0	115.1	104.2	97.2	103.7
0-4	8,028	453	8,481	99.8	99.9	99.8	103.4	103.1	103.4	-	-	-
5-9	8,673	619	9,292	99.7	97.2	99.6	107.9	109.1	108.0	-	-	-
10-14	7,507	773	8,279	99.3	95.8	99.0	98.2	111.2	99.3	-	-	-
15-19	5,677	782	6,459	99.0	96.9	98.8	96.9	131.6	100.5	-	-	-
20+	5,732	1,213	6,944	99.1	97.1	98.7	110.9	131.8	114.3	-	-	-
All	35,615	3,839	39,455	99.4	97.1	99.2	103.4	119.9	104.9	-	-	-

na = Not applicable
[1] Both year and month of birth given
[2] (Bm/Bf)x100, where Bm and Bf are the numbers of male and female births, respectively
[3] [2Bx/(Bx-1+Bx+1)]x100, where Bx is the number of births in calendar year x

Table C.5 Reporting of age at death in days

Distribution of reported deaths under one month of age by age at death in days and the percentage of neonatal deaths reported to occur at ages 0-6 days, for five-year periods of birth preceding the survey (weighted), Bangladesh 2014

	Number of years preceding the survey				Total
Age at death (days)	0-4	5-9	10-14	15-19	0-19
<1	78	87	81	107	354
1	29	66	43	65	203
2	11	27	21	23	82
3	20	39	45	52	157
4	30	6	7	13	55
5	10	12	20	26	69
6	5	6	12	10	33
7	2	16	18	12	48
8	5	10	5	9	28
9	1	4	5	5	14
10	6	3	7	2	18
11	3	2	5	3	12
12	1	6	2	4	12
13	0	3	5	6	15
14	2	2	5	2	11
15	5	3	5	8	22
16	3	0	1	4	8
17	0	2	1	2	5
18	1	4	4	5	14
19	0	1	2	4	7
20	0	0	4	4	8
21	4	5	6	11	26
22	1	4	7	3	15
23	3	0	2	1	6
24	0	1	0	1	2
25	2	0	2	3	7
26	0	1	2	1	5
27	0	2	2	2	6
28	1	1	4	1	7
29	1	4	2	3	9
Total 0-30	225	317	325	392	1,259
Percentage early neonatal[1]	81.4	76.9	70.6	75.6	75.7

[1] 0-6 days / 0-30 days

Table C.6 Reporting of age at death in months

Distribution of reported deaths under two years of age by age at death in months and the percentage of infant deaths reported to occur at age under one month, for five-year periods of birth preceding the survey, Bangladesh 2014

	Number of years preceding the survey				Total
Age at death (months)	0-4	5-9	10-14	15-19	0-19
<1	225	317	325	392	1,259
1	19	31	46	60	156
2	18	14	17	13	63
3	10	19	27	33	89
4	6	5	16	10	37
5	7	10	12	20	49
6	6	4	15	17	41
7	5	11	8	6	29
8	1	4	17	16	37
9	1	6	9	6	23
10	1	5	7	1	15
11	2	4	3	3	12
12	4	19	15	19	57
13	1	1	8	4	14
14	0	5	1	3	9
15	3	5	4	3	15
16	4	0	2	3	10
17	0	3	1	5	8
18	4	16	9	19	48
19	3	0	0	1	3
20	0	0	0	0	0
21	0	1	1	0	1
22	0	0	1	1	2
23	1	2	2	0	5
24+	0	0	1	0	1
1 Year	0	0	1	0	1
Total 0-11	300	430	503	577	1,811
Percentage neonatal[1]	75.0	73.7	64.5	68.0	69.5

[a] Includes deaths under one month reported in days
[1] Under one month / under one year

PERSONS INVOLVED IN THE SURVEY *Appendix* D

Members of the Technical Review Committee and the Technical Working Group

Technical Review Committee (TRC)

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Mr. Md. Ashadul Islam, Director General, HEU, Ministry of Health and Family Welfare	Member
Dr. Mohammad Khairul Hasan, Deputy Chief (Health), Ministry of Health and Family Welfare	Member
Mr. Younus Mian, Deputy Chief (Family Welfare), Ministry of Health and Family Welfare	Member
Mr. Karar Zunaid Ahsan, Sr. M&E Advisor, PMMU, MOHFW	Member
Mr. Prodip Kumar Mahottam, Deputy Chief, Population Planning Wing, Planning Commission	Member
Director (PHC), Directorate General of Health Services	Member
Director (MIS), Directorate General of Health Services	Member
Director, IPHN, Directorate General of Health Services	Member
Director (Planning and Research) and Line Director (PMR), DGHS	Member
Director (MCH Services) and Line Director (MCRAH), DGFP	Member
Director (MIS), Directorate General of Family Planning	Member
Director (Planning), Directorate General of Family Planning	Member
Director, Census Wing, Bangladesh Bureau of Statistics	Member
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Director, ISRT, University of Dhaka	Member
Chairperson, Dept. of Population Sciences, University of Dhaka	Member
Prof. Nitai Chakraborty, Department of Statistics, University of Dhaka	Member
WHO Representative, Bangladesh	Member
Country Representative, UNFPA, Bangladesh	Member
Chief Health and Nutrition, UNICEF, Bangladesh	Member
Task Team Leader for HPNSDP, World Bank, Dhaka	Member
Sr. Health & Population Advisor, DFID-Bangladesh	Member
Head, Project Support Unit, CIDA, Bangladesh	Member
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Country Representative, GiZ, Bangladesh	Member
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QUESTIONNAIRES

Appendix **E**

June 11, 2014

BANGLADESH DEMOGRAPHIC AND HEALTH SURVEY 2014
HOUSEHOLD QUESTIONNAIRE

NIPORT, MOHFW
Mitra and Associates

IDENTIFICATION

DIVISION _____

DISTRICT _____

UPAZILA _____

UNION/WARD _____

VILLAGE/MOHALLA/BLOCK _____

CLUSTER NUMBER . . . . . .

HOUSEHOLD NUMBER . . . . . .

RURAL=1, CITY CORPORATION=2, OTHER URBAN=3 . . . . . .

NAME OF THE HOUSEHOLD HEAD _____

INTERVIEWER VISITS

	1	2	3	FINAL VISIT
DATE				DAY
				MONTH
				YEAR 2 0 1 4
INTERVIEWER'S NAME				INT. CODE
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 (EVER MARRIED WOMEN 15-49 YR

TOTAL NUMBER OF CHILDREN (0-5 YR)

LINE NO.OF RESP. TO HOUSEHOLD QUESTIONNAIRE

SUPERVISOR	FIELD EDITOR	OFFICE EDITOR	KEYED BY
NAME _____	NAME _____		

INTRODUCTION AND CONSENT

Hello. My name is _____. I am working with NIPORT, the Ministry of Health and Family Welfare, and Mitra and Associates, a private research organization located in Dhaka. We are conducting a survey about health all over Bangladesh. The information we collect will help the government to plan health services. Your household was selected for the survey. I would like to ask you some questions about your household. The questions usually take about 15 to 20 minutes. All of the answers you give will be confidential and will not be shared with anyone other than members of our survey team. You don't have to be in the survey, but we hope you will agree to answer the questions since your views are important. If I ask you any question you don't want to answer, just let me know and I will go on to the next question or you can stop the interview at any time.
In case you need more information about the survey, you may contact with Mr. S. N Mitra, Executive Director, Mitra and Associates, 2/17 Iqbal Road, Block A, Mohammadpur, Dhaka 1207, Bangladesh. Telephone number are: 8118065,9115503, 01711278663.

GIVE CARD WITH CONTACT INFORMATION

Do you have any questions?
May I begin the interview now?

NAME 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 5 YEARS OR OLDER		IF AGE 5-24 YEARS		IF AGE 8 OR OLDER	IF AGE 0-4 YEARS	IF AGE 13 OR OLDER	ELIGIBILITY		
															INTERVIEW	ANTHROPOMETRY	
LINE NO.	USUAL RESIDENTS AND VISITORS	RELATIONSHIP TO HEAD OF HOUSEHOLD	SEX	RESIDENCE		AGE	MARITAL STATUS	EVER ATTENDED SCHOOL		CURRENT/RECENT SCHOOL ATTENDANCE		CURRENT WORK STATUS	BIRTH REGIS-TRATION	MOBILE PHONE	WOMEN	CHILDREN	WOMEN
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
	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 5-22 FOR EACH PERSON.	What is the relationship of (NAME) to the head of the household? SEE CODES BELOW.	Is (NAME) male or female?	Does (NAME) usually live here?	Did (NAME) stay here last night?	How old is (NAME)? IF 95 OR MORE, RECORD '95'.	What is (NAME)'s current marital status? 1 = CURRENTLY MARRIED 2 = DIVORCED/ SEPARATED/ DESERTED/ WIDOWED 3 = NEVER-MARRIED	Has (NAME) ever attended school?	What is the highest level of school (NAME) has attended? SEE CODES BELOW. What is the highest class (NAME) completed at that level? SEE CODES BELOW.	Did (NAME) attend school at any time during the 2014 school year?	During this/that school year (2014), what level and class [is/was] (NAME) attending? SEE CODES BELOW.	Is (NAME) currently working?	Does (NAME) have a birth certificate? IF NO, PROBE: Has (NAME)'s birth ever been registered with the civil authority? 1 = HAS CERTIFICATE 2 = REGISTERED 3 = NEITHER 8 = DON'T KNOW	Does (NAME) have a mobile phone?	CIRCLE LINE NUMBER OF ALL EVER-MARRIED WOMEN AGE 15-49 IF COLUMN 4 IS 2 AND IF COLUMN 7 IS 15-49, AND IF COLUMN 8 IS 1 OR 2	CIRCLE LINE NUMBER OF ALL CHILDREN AGE 0-5 IF COLUMN 7 IS 0 TO 5	CIRCLE LINE NUMBER OF ALL EVER-MARRIED WOMEN AGE 15-49 IF COLUMN 4 IS 2 AND IF COLUMN 7 IS 15-49, AND IF COLUMN 8 IS 1 OR 2
01			M F 1 2	Y N 1 2	Y N 1 2	IN YEARS		Y N 1 2 → GO TO 13	LEVEL CLASS	Y N 1 2 → GO TO 13	LEVEL CLASS	Y N 1 2		Y N 1 2	01	01	01
02			1 2	1 2	1 2			1 2 → GO TO 13		1 2 → GO TO 13		1 2		1 2	02	02	02
03			1 2	1 2	1 2			1 2 → GO TO 13		1 2 → GO TO 13		1 2		1 2	03	03	03
04			1 2	1 2	1 2			1 2 → GO TO 13		1 2 → GO TO 13		1 2		1 2	04	04	04
05			1 2	1 2	1 2			1 2 → GO TO 13		1 2 → GO TO 13		1 2		1 2	05	05	05
06			1 2	1 2	1 2			1 2 → GO TO 13		1 2 → GO TO 13		1 2		1 2	06	06	06

							IF AGE 15 OR OLDER	IF AGE 5 YEARS OR OLDER		IF AGE 5-24 YEARS		IF AGE 8 OR OLDER	IF AGE 0-4 YEARS	IF AGE 13 OR OLDER	ELIGIBILITY		
															INTERVIEW	ANTHROPOMETRY	
LINE NO.	USUAL RESIDENTS AND VISITORS	RELATIONSHIP TO HEAD OF HOUSEHOLD	SEX	RESIDENCE		AGE	MARITAL STATUS	EVER ATTENDED SCHOOL		CURRENT/RECENT SCHOOL ATTENDANCE		CURRENT WORK STATUS	BIRTH REGIS-TRATION	MOBILE PHONE	WOMEN	CHILDREN	WOMEN
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
	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 5-18 FOR EACH PERSON.	What is the relationship of (NAME) to the head of the household? SEE CODES BELOW.	Is (NAME) male or female?	Does (NAME) usually live here?	Did (NAME) stay here last night?	How old is (NAME)? IF 95 OR MORE, RECORD '95'. IF LESS THAN 1 YEAR THEN WRITE "0"	What is (NAME)'s current marital status? 1 = CURRENTLY MARRIED 2 = DIVORCED/ SEPARATED/ DESERTED/ WIDOWED 3 = NEVER-MARRIED	Has (NAME) ever attended school?	What is the highest level of school (NAME) has attended? SEE CODES BELOW. What is the highest class (NAME) completed at that level? SEE CODES BELOW.	Did (NAME) attend school at any time during the 2014 school year?	During this/that school year (2014), what level and class [is/was] (NAME) attending? SEE CODES BELOW.	Is (NAME) currently working?	Does (NAME) have a birth certificate? IF NO, PROBE: Has (NAME)'s birth ever been registered with the civil authority? 1 = HAS CERTIFICATE 2 = REGISTERED 3 = NEITHER 8 = DON'T KNOW	Does (NAME) have a mobile phone?	CIRCLE LINE NUMBER OF ALL EVER-MARRIED WOMEN AGE 15-49 IF COLUMN 4 IS 2 AND IF COLUMN 7 IS 15-49, AND IF COLUMN 8 IS 1 OR 2	CIRCLE LINE NUMBER OF ALL CHILDREN AGE 0-5 IF COLUMN 7 IS 0 TO 5	CIRCLE LINE NUMBER OF ALL EVER-MARRIED WOMEN AGE 15-49 IF COLUMN 4 IS 2 AND IF COLUMN 7 IS 15-49, AND IF COLUMN 8 IS 1 OR 2
07			1 2	1 2	1 2			1 2 GO TO 13		1 2 GO TO 13		1 2		1 2	07	07	07
08			1 2	1 2	1 2			1 2 GO TO 13		1 2 GO TO 13		1 2		1 2	08	08	08
09			1 2	1 2	1 2			1 2 GO TO 13		1 2 GO TO 13		1 2		1 2	09	09	09
10			1 2	1 2	1 2			1 2 GO TO 13		1 2 GO TO 13		1 2		1 2	10	10	10

CODES FOR Q. 3: RELATIONSHIP TO HEAD OF HOUSEHOLD

01 = HEAD
02 = WIFE OR HUSBAND
03 = SON OR DAUGHTER
04 = SON-IN-LAW OR DAUGHTER-IN-LAW
05 = GRANDCHILD
06 = PARENT
07 = PARENT-IN-LAW
08 = BROTHER OR SISTER
09 = OTHER RELATIVE
10 = ADOPTED/FOSTER/ STEPCHILD
11 = NOT RELATED
98 = DON'T KNOW

CODES FOR Qs. 10 AND 12: EDUCATION

LEVEL	CLASS
1 = PRIMARY	00 = LESS THAN 1 YEAR COMPLETED
2 = SECONDARY	(USE '00' FOR Q. 10 ONLY. THIS CODE IS NOT ALLOWED FOR Q. 12)
3 = HIGHER	
6 = PRE-PRIMARY	
8 = DON'T KNOW	98 = DON'T KNOW

							IF AGE 15 OR OLDER	IF AGE 5 YEARS OR OLDER		IF AGE 5-24 YEARS		IF AGE 8 OR OLDER	IF AGE 0-4 YEARS	IF AGE 13 OR OLDER	ELIGIBILITY		
															INTERVIEW	ANTHROPOMETRY	
LINE NO.	USUAL RESIDENTS AND VISITORS	RELATIONSHIP TO HEAD OF HOUSEHOLD	SEX	RESIDENCE		AGE	MARITAL STATUS	EVER ATTENDED SCHOOL		CURRENT/RECENT SCHOOL ATTENDANCE		CURRENT WORK STATUS	BIRTH REGIS-TRATION	MOBILE PHONE	WOMEN	CHILDREN	WOMEN
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
	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 5-18 FOR EACH PERSON.	What is the relationship of (NAME) to the head of the household? SEE CODES BELOW.	Is (NAME) male or female?	Does (NAME) usually live here?	Did (NAME) stay here last night?	How old is (NAME)? IF 95 OR MORE, RECORD '95'.	What is (NAME)'s current marital status? 1 = CURRENTLY MARRIED 2 = DIVORCED/ SEPARATED/ DESERTED/ WIDOWED 3 = NEVER-MARRIED	Has (NAME) ever attended school?	What is the highest level of school (NAME) has attended? SEE CODES BELOW. What is the highest class (NAME) completed at that level? SEE CODES BELOW.	Did (NAME) attend school at any time during the 2014 school year?	During this/that school year (2014), what level and class [is/was] (NAME) attending? SEE CODES BELOW.	Is (NAME) currently working?	Does (NAME) have a birth certificate? IF NO, PROBE: Has (NAME)'s birth ever been registered with the civil authority? 1 = HAS CERTIFICATE 2 = REGISTERED 3 = NEITHER 8 = DON'T KNOW	Does (NAME) have a mobile phone?	CIRCLE LINE NUMBER OF ALL EVER-MARRIED WOMEN AGE 15-49 IF COLUMN 4 IS 2 AND IF COLUMN 7 IS 15-49, AND IF COLUMN 8 IS 1 OR 2	CIRCLE LINE NUMBER OF ALL CHILDREN AGE 0-5 IF COLUMN 7 IS 0 TO 5	CIRCLE LINE NUMBER OF ALL EVER-MARRIED WOMEN AGE 15-49 IF COLUMN 4 IS 2 AND IF COLUMN 7 IS 15-49, AND IF COLUMN 8 IS 1 OR 2
11			M F 1 2	Y N 1 2	Y N 1 2	IN YEARS		Y N 1 2 ↓ GO TO 13	LEVEL CLASS	Y N 1 2 ↓ GO TO 13	LEVEL CLASS	1 2		Y N 1 2	11	11	11
12			1 2	1 2	1 2			1 2 ↓ GO TO 13		1 2 ↓ GO TO 13		1 2		1 2	12	12	12
13			1 2	1 2	1 2			1 2 ↓ GO TO 13		1 2 ↓ GO TO 13		1 2		1 2	13	13	13
14			1 2	1 2	1 2			1 2 ↓ GO TO 13		1 2 ↓ GO TO 13		1 2		1 2	14	14	14
15			1 2	1 2	1 2			1 2 ↓ GO TO 13		1 2 ↓ GO TO 13		1 2		1 2	15	15	15
16			1 2	1 2	1 2			1 2 ↓ GO TO 13		1 2 ↓ GO TO 13		1 2		1 2	16	16	16

							IF AGE 15 OR OLDER	IF AGE 5 YEARS OR OLDER		IF AGE 5-24 YEARS		IF AGE 8 OR OLDER	IF AGE 0-4 YEARS	IF AGE 13 OR OLDER	ELIGIBILITY		
															INTERVIEW	ANTHROPOMETRY	
LINE NO.	USUAL RESIDENTS AND VISITORS	RELATIONSHIP TO HEAD OF HOUSEHOLD	SEX	RESIDENCE		AGE	MARITAL STATUS	EVER ATTENDED SCHOOL		CURRENT/RECENT SCHOOL ATTENDANCE		CURRENT WORK STATUS	BIRTH REGIS-TRATION	MOBILE PHONE	WOMEN	CHILDREN	WOMEN
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
	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 5-18 FOR EACH PERSON.	What is the relationship of (NAME) to the head of the household? SEE CODES BELOW.	Is (NAME) male or female?	Does (NAME) usually live here?	Did (NAME) stay here last night?	How old is (NAME)? IF 95 OR MORE, RECORD '95'.	What is (NAME)'s current marital status? 1 = CURRENTLY MARRIED 2 = DIVORCED/ SEPARATED/ DESERTED/ WIDOWED 3 = NEVER-MARRIED	Has (NAME) ever attended school?	What is the highest level of school (NAME) has attended? SEE CODES BELOW. What is the highest class (NAME) completed at that level? SEE CODES BELOW.	Did (NAME) attend school at any time during the 2014 school year?	During this/that school year (2014), what level and class [is/was] (NAME) attending? SEE CODES BELOW.	Is (NAME) currently working?	Does (NAME) have a birth certificate? IF NO, PROBE: Has (NAME)'s birth ever been registered with the civil authority? 1 = HAS CERTIFICATE 2 = REGISTERED 3 = NEITHER 8 = DON'T KNOW	Does (NAME) have a mobile phone?	CIRCLE LINE NUMBER OF ALL EVER-MARRIED WOMEN AGE 15-49 IF COLUMN 4 IS 2 AND IF COLUMN 7 IS 15-49, AND IF COLUMN 8 IS 1 OR 2	CIRCLE LINE NUMBER OF ALL CHILDREN AGE 0-5 IF COLUMN 7 IS 0 TO 5	CIRCLE LINE NUMBER OF ALL EVER-MARRIED WOMEN AGE 15-49 IF COLUMN 4 IS 2 AND IF COLUMN 7 IS 15-49, AND IF COLUMN 8 IS 1 OR 2
17			1 2	1 2	1 2			1 2 → GO TO 13		1 2 → GO TO 13		1 2		1 2	17	17	17
18			1 2	1 2	1 2			1 2 → GO TO 13		1 2 → GO TO 13		1 2		1 2	18	18	18
19			1 2	1 2	1 2			1 2 → GO TO 13		1 2 → GO TO 13		1 2		1 2	19	19	19
20			1 2	1 2	1 2			1 2 → GO TO 13		1 2 → GO TO 13		1 2		1 2	20	20	20

TICK HERE IF CONTINUATION SHEET USED ☐

2A) Just to make sure that I have a complete listing: are there any other persons such as small children or infants that we have not listed? YES ☐ → ADD TO TABLE NO ☐

2B) Are there any other people who may not be members of your family, such as domestic servants, lodgers, or friends who usually live here? YES ☐ → ADD TO TABLE NO ☐

2C) Are there any guests or temporary visitors staying here, or anyone else who stayed here last night, who have not been listed? YES ☐ → ADD TO TABLE NO ☐

CODES FOR Q. 3: RELATIONSHIP TO HEAD OF HOUSEHOLD

01 = HEAD
02 = WIFE OR HUSBAND
03 = SON OR DAUGHTER
04 = SON-IN-LAW OR DAUGHTER-IN-LAW
05 = GRANDCHILD
06 = PARENT
07 = PARENT-IN-LAW
08 = BROTHER OR SISTER
09 = OTHER RELATIVE
10 = ADOPTED/FOSTER/ STEPCHILD
11 = NOT RELATED
98 = DON'T KNOW

CODES FOR Qs. 10 AND 12: EDUCATION

LEVEL	CLASS
1 = PRIMARY	00 = LESS THAN 1 YEAR COMPLETED
2 = SECONDARY	(USE '00' FOR Q. 10 ONLY. THIS CODE IS NOT ALLOWED FOR Q. 12)
3 = HIGHER	
6 = PRE-PRIMARY	
8 = DON'T KNOW	98 = DON'T KNOW

HOUSEHOLD CHARACTERISTICS

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
102	What is the main source of drinking water for members of your 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)	→ 105 → 105
103	Where is that water source located?	IN OWN DWELLING . . . . . 1 IN OWN YARD/PLOT . . . . . 2 ELSEWHERE 3	→ 105
104	How long does it take to go there, get water, and come back?	MINUTES . . . . . [ ][ ][ ] DON'T KNOW 998	
104A	Do you share this source with other households?	YES . . . . . 1 NO 2	→ 105
104B	How many households use this source of water?	NO. OF HOUSEHOLDS IF LESS THAN 10 . . . . . [0][ ] 10 OR MORE HOUSEHOLDS . . . . . 95 DON'T KNOW 98	
105	Do you do anything to the water to make it safer to drink?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 107
106	What do you usually do to make the water safer to drink? Anything else? RECORD ALL MENTIONED.	BOIL . . . . . A ADD BLEACH/CHLORINE . . . . . B STRAIN THROUGH A CLOTH . . . . . C USE WATER FILTER (CERAMIC/ SAND/COMPOSITE/ETC.) . . . . . D SOLAR DISINFECTION . . . . . E LET IT STAND AND SETTLE . . . . . F OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
107	What kind of toilet facility do members of your household usually use?	FLUSH OR POUR FLUSH TOILET FLUSH TO PIPED SEWER SYSTEM . . . . . 11 FLUSH TO SEPTIC TANK . . . . . 12 FLUSH TO PIT LATRINE . . . . . 13 FLUSH TO SOMEWHERE ELSE . . . . . 14 FLUSH, DON'T KNOW WHERE . . . . . 15 PIT LATRINE VENTILATED IMPROVED PIT LATRINE . . . . . 21 PIT LATRINE WITH SLAB . . . . . 22 PIT LATRINE WITHOUT SLAB/ OPEN PIT . . . . . 23 COMPOSTING TOILET . . . . . 31 BUCKET TOILET . . . . . 41 HANGING TOILET/HANGING LATRINE . . . . . 51 NO FACILITY/BUSH/FIELD . . . . . 61 OTHER _____ 96 (SPECIFY)	→ 110
108	Do you share this toilet facility with other households?	YES . . . . . 1 NO 2	→ 110
109	How many households use this toilet facility?	NO. OF HOUSEHOLDS IF LESS THAN 10 . . . . . [0][ ] 10 OR MORE HOUSEHOLDS . . . . . 95 DON'T KNOW 98	
110	Does your household have:	YES / NO	
	Electricity?	ELECTRICITY 1 2	
	Solar Elecricity	Solar Electricity 1 2	
	A radio?	RADIO 1 2	
	A television?	TELEVISION 1 2	
	A mobile telephone?	MOBILE TELEPHONE 1 2	
	A non-mobile telephone?	NON-MOBILE TELEPHONE 1 2	
	A refrigerator?	REFRIGERATOR 1 2	
	An almirah/wardrobe?	ALMIRAH/WARDROB 1 2	
	An electric fan?	ELETRIC FAN 1 2	
	A DVD/VCD player?	DVD/VCD PLAYER 1 2	
	A water pump?	WATER PUMP 1 2	
	An IPS/generator?	IPS/GENERATOR 1 2	
	An air conditioner?	AIR CONDITIONER 1 2	
	A computer/laptop?	COMPUTER/LAPTOP 1 2	
111	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)	→ 114

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
112	Is the cooking usually done in the house, in a separate building, or outdoors?	IN THE HOUSE . . . . . 1 IN A SEPARATE BUILDING . . . . . 2 OUTDOORS . . . . . 3 OTHER _____ 6 (SPECIFY)	→ 114
113	Do you have a separate room which is used as a kitchen?	YES . . . . . 1 NO 2	
114	MAIN MATERIAL OF THE FLOOR. RECORD OBSERVATION.	NATURAL FLOOR EARTH/SAND . . . . . 11 RUDIMENTARY FLOOR WOOD PLANKS . . . . . 21 PALM/BAMBOO . . . . . 22 FINISHED FLOOR PARQUET OR POLISHED WOOD . . . . . 31 CERAMIC TILES . . . . . 33 CEMENT . . . . . 34 CARPET . . . . . 35 OTHER _____ 96 (SPECIFY)	
115	MAIN MATERIAL OF THE ROOF. RECORD OBSERVATION.	NATURAL ROOFING NO ROOF . . . . . 11 THATCH/PALM LEAF . . . . . 12 RUDIMENTARY ROOFING PALM/BAMBOO . . . . . 22 WOOD PLANKS . . . . . 23 CARDBOARD . . . . . 24 FINISHED ROOFING TIN . . . . . 31 WOOD . . . . . 32 CERAMIC TILES . . . . . 34 CEMENT . . . . . 35 ROOFING SHINGLES . . . . . 36 OTHER _____ 96 (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
116	MAIN MATERIAL OF THE EXTERIOR WALLS. RECORD OBSERVATION.	NATURAL WALLS NO WALLS . . . . . 11 CANE/PALM/TRUNKS . . . . . 12 DIRT . . . . . 13 RUDIMENTARY WALLS BAMBOO WITH MUD . . . . . 21 STONE WITH MUD . . . . . 22 PLYWOOD . . . . . 24 CARDBOARD . . . . . 25 FINISHED WALLS TIN . . . . . 31 CEMENT . . . . . 32 STONE WITH LIME/CEMENT . . . . . 33 BRICKS . . . . . 34 WOOD PLANKS/SHINGLES . . . . . 36 OTHER _____ 96 (SPECIFY)	
117	How many rooms in this household are used for sleeping?	ROOMS . . . . . [ ][ ]	
118	Does any member of this household own: A car/truck/microbus? An autobike/tempo/CNG? A rickshaw/van? A bicycle? A motorcycle or motor scooter?	YES NO CAR/TRUCK/MICROBUS 1 2 AUTOBIKE/TEMPO/CNG . . . . . 1 2 RICKSHAW/V . . . . . 1 2 BICYCLE . . . . . 1 2 MOTORCYCLE/SCOOTER 1 2	
121	Does this household own any livestock, herds, other farm animals, or poultry?	YES . . . . . 1 NO 2	→ 122A
122	How many of the following animals does this household own? IF NONE, ENTER '00'. IF 95 OR MORE, ENTER '95'. IF UNKNOWN, ENTER '98'. Buffaloes? Cows? Goats or sheep? Chickens or ducks? Other farm animals?	BUFFALOES . . . . . [ ][ ] MILK COWS/BULLS . . . . . [ ][ ] GOAT/SHEEP . . . . . [ ][ ] CHICKENS/DUCKS . . . . . [ ][ ] OTHER FARM ANIMALS . . . . . [ ][ ]	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
122A	Does your household own any homestead? IF 'NO' PROBE: Does your household own homestead in any other places?	YES . . . . . 1 NO 2	
122B	Does your household own any land (other than the homestead land)?	YES . . . . . 1 NO 2	→ 123
122C	How much land does your household own (other than the homestead land)? AMOUNT _____ SPECIFY UNIT _____ IF 95 OR MORE CIRCLE '9995'	ACRES DECIMALS AREA . . . . . [ ][ ] . [ ][ ] 95 OR MORE ACRES . . . . . 9995 DON'T KNOW 9998	
123	Does any member of this household have a bank account?	YES . . . . . 1 NO 2	
137	Please show me where members of your household most often wash their hands.	OBSERVED . . . . . 1 NOT OBSERVED, NOT IN DWELLING/YARD/PLOT . . . . . 2 NOT OBSERVED, NO PERMISSION TO SEE . . . . . 3 NOT OBSERVED, OTHER REASON . . . . . 4 (SKIP TO 201)	
138	OBSERVATION ONLY: OBSERVE PRESENCE OF WATER AT THE PLACE FOR HANDWASHING.	WATER IS AVAILABLE . . . . . 1 WATER IS NOT AVAILABLE 2	
139	OBSERVATION ONLY: OBSERVE PRESENCE OF SOAP, DETERGENT, OR OTHER CLEANSING AGENT.	SOAP (BAR, LIQUID, PASTE) . . . . . A DETERGENT (BAR, LIQUID, POWDER) . . . . B ASH, MUD, SAND . . . . . C NONE . . . . . D	
140	OBSERVATION ONLY: OBSERVE TYPE OF PLACE FOR HAND WASHING	COVERED SPACE (INSIDE DWELLING) . . . . 1 OPEN SPACE, NOT SHARED . . . . . 2 OPEN SPACE, SHARED 3	

WEIGHT AND HEIGHT MEASUREMENT FOR CHILDREN AGE 0-5

CLUSTER NUMBER		HOUSEHOLD NUMBER		MEASURER CODE	

		CHILD 1	CHILD 2	CHILD 3
201	CHECK **COLUMN 17** IN HOUSEHOLD SCHEDULE. RECORD THE LINE NUMBER AND NAME FOR ALL ELIGIBLE CHILDREN 0-5 YEARS IN QUESTION 202. IF MORE THAN SIX CHILDREN, USE ADDITIONAL QUESTIONNAIRE(S).			
202	LINE NUMBER FROM COLUMN 17 NAME FROM COLUMN 2	LINE NUMBER . . . . . . NAME _____	LINE NUMBER . . . . . . NAME _____	LINE NUMBER . . . . . . NAME _____
203	IF MOTHER INTERVIEWED, COPY MONTH AND YEAR OF BIRTH FROM BIRTH HISTORY AND ASK DAY; IF MOTHER NOT INTERVIEWED, ASK: What is (NAME)'s birth date?	DAY . . . . . . MONTH . . . . . . YEAR	DAY . . . . . . MONTH . . . . . . YEAR	DAY . . . . . . MONTH . . . . . . YEAR
204	CHECK 203: CHILD BORN IN JANUARY 2009 OR LATER?	YES . . . . . 1 NO . . . . . 2 (GO TO 203 FOR NEXT CHILD OR, IF NO MORE CHILDREN, GO TO 214)	YES . . . . . 1 NO . . . . . 2 (GO TO 203 FOR NEXT CHILD OR, IF NO MORE CHILDREN, GO TO 214)	YES . . . . . 1 NO . . . . . 2 (GO TO 203 FOR NEXT CHILD OR, IF NO MORE CHILDREN, GO TO 214)
205	WEIGHT IN KILOGRAMS	KG. . . NOT PRESENT . . . . 9994 REFUSED . . . . . 9995 OTHER 9996	KG. . . NOT PRESENT . . . . 9994 REFUSED . . . . . 9995 OTHER 9996	KG. . . NOT PRESENT . . . . 9994 REFUSED . . . . . 9995 OTHER 9996
206	HEIGHT IN CENTIMETERS	CM. . . NOT PRESENT . . . . 9994 REFUSED . . . . . 9995 OTHER 9996	CM. . . NOT PRESENT . . . . 9994 REFUSED . . . . . 9995 OTHER 9996	CM. . . NOT PRESENT . . . . 9994 REFUSED . . . . . 9995 OTHER 9996
207	MEASURED LYING DOWN OR STANDING UP?	LYING DOWN . . . . . 1 STANDING UP . . . . . 2 NOT MEASURED 3	LYING DOWN . . . . . 1 STANDING UP . . . . . 2 NOT MEASURED 3	LYING DOWN . . . . . 1 STANDING UP . . . . . 2 NOT MEASURED 3
213	GO BACK TO 203 IN NEXT COLUMN OF THIS QUESTIONNAIRE OR IN THE FIRST COLUMN OF THE NEXT PAGE; IF NO MORE CHILDREN, GO TO 214.			

WEIGHT AND HEIGHT MEASUREMENT FOR CHILDREN AGE 0-5

CLUSTER NUMBER		HOUSEHOLD NUMBER		MEASURER CODE	

201	CHECK **COLUMN 17** IN HOUSEHOLD SCHEDULE. RECORD THE LINE NUMBER AND NAME FOR ALL ELIGIBLE CHILDREN 0-5 YEARS IN QUESTION 202. IF MORE THAN SIX CHILDREN, USE ADDITIONAL QUESTIONNAIRE(S).			
		CHILD 4	CHILD 5	CHILD 6
202	LINE NUMBER FROM COLUMN 17 NAME FROM COLUMN 2	LINE NUMBER . . . . . [ ][ ] NAME _____	LINE NUMBER . . . . . [ ][ ] NAME _____	LINE NUMBER . . . . . [ ][ ] NAME _____
203	IF MOTHER INTERVIEWED, COPY MONTH AND YEAR OF BIRTH FROM BIRTH HISTORY AND ASK DAY; IF MOTHER NOT INTERVIEWED, ASK: What is (NAME)'s birth date?	DAY . . . . . [ ][ ] MONTH . . . . . [ ][ ] YEAR [ ][ ][ ][ ]	DAY . . . . . [ ][ ] MONTH . . . . . [ ][ ] YEAR [ ][ ][ ][ ]	DAY . . . . . [ ][ ] MONTH . . . . . [ ][ ] YEAR [ ][ ][ ][ ]
204	CHECK 203: CHILD BORN IN JANUARY 2009 OR LATER?	YES . . . . . 1 NO . . . . . 2 (GO TO 203 FOR NEXT CHILD OR, IF NO MORE CHILDREN, GO TO 214)	YES . . . . . 1 NO . . . . . 2 (GO TO 203 FOR NEXT CHILD OR, IF NO MORE CHILDREN, GO TO 214)	YES . . . . . 1 NO . . . . . 2 (GO TO 203 FOR NEXT CHILD OR, IF NO MORE CHILDREN, GO TO 214)
205	WEIGHT IN KILOGRAMS	KG. [ ][ ] . [ ][ ] NOT PRESENT . . . . 9994 REFUSED . . . . . 9995 OTHER 9996	KG. [ ][ ] . [ ][ ] NOT PRESENT . . . . 9994 REFUSED . . . . . 9995 OTHER 9996	KG. [ ][ ] . [ ][ ] NOT PRESENT . . . . 9994 REFUSED . . . . . 9995 OTHER 9996
206	HEIGHT IN CENTIMETERS	CM. [ ][ ][ ] . [ ] NOT PRESENT . . . . 9994 REFUSED . . . . . 9995 OTHER 9996	CM. [ ][ ][ ] . [ ] NOT PRESENT . . . . 9994 REFUSED . . . . . 9995 OTHER 9996	CM. [ ][ ][ ] . [ ] NOT PRESENT . . . . 9994 REFUSED . . . . . 9995 OTHER 9996
207	MEASURED LYING DOWN OR STANDING UP?	LYING DOWN . . . . . 1 STANDING UP . . . . . 2 NOT MEASURED 3	LYING DOWN . . . . . 1 STANDING UP . . . . . 2 NOT MEASURED 3	LYING DOWN . . . . . 1 STANDING UP . . . . . 2 NOT MEASURED 3
213	GO BACK TO 203 IN NEXT COLUMN OF THIS QUESTIONNAIRE OR IN THE FIRST COLUMN OF THE NEXT PAGE; IF NO MORE CHILDREN, GO TO 214.			

WEIGHT AND HEIGHT MEASUREMENT FOR EVER-MARRIED WOMEN AGE **15- 49**

CLUSTER NUMBER		HOUSEHOLD NUMBER		MEASURER CODE	

214	CHECK COLUMN 18 IN HOUSEHOLD SCHEDULE. RECORD THE LINE NUMBER AND NAME OF ALL ELIGIBLE EVER-MARRIED WOMEN IN 215. IF THERE ARE MORE THAN THREE EVER MARRIED WOMEN, USE ADDITIONAL QUESTIONNAIRE(S).			
		WOMAN 1	WOMAN 2	WOMAN 3
215	LINE NUMBER FROM COLUMN 18 NAME FROM COLUMN 2	LINE NUMBER . . . . . . NAME _____	LINE NUMBER . . . . . . NAME _____	LINE NUMBER . . . . . . NAME _____
216	WEIGHT IN KILOGRAMS	KG. . . NOT PRESENT . . . . . 99994 REFUSED . . . . . 99995 OTHER 99996	KG. . . NOT PRESENT . . . . . 99994 REFUSED . . . . . 99995 OTHER 99996	KG. . . NOT PRESENT . . . . . 99994 REFUSED . . . . . 99995 OTHER 99996
217	HEIGHT IN CENTIMETERS	CM. . NOT PRESENT . . . . . 9994 REFUSED . . . . . 9995 OTHER 9996	CM. . NOT PRESENT . . . . . 9994 REFUSED . . . . . 9995 OTHER 9996	CM. . NOT PRESENT . . . . . 9994 REFUSED . . . . . 9995 OTHER 9996
223	GO BACK TO 216 IN NEXT COLUMN OF THIS QUESTIONNAIRE OR IN THE FIRST COLUMN OF AN ADDITIONAL QUESTIONNAIRE: IF NO MORE EVER-MARRIED WOMEN AGE 15-49, END MEASUREMENT.			

IDENTIFICATION

CLUSTER NUMBER . . . . . [ ][ ][ ]

HOUSEHOLD NUMBER . . . . . [ ][ ][ ]

NAME OF THE HOUSEHOLD HEAD _____

NAME AND LINE NUMBER OF ELIGIBLE WOMAN _____ [ ][ ]

INTERVIEWER VISITS

	1	2	3	FINAL VISIT
DATE	_____	_____	_____	DAY [ ][ ]
				MONTH [ ][ ]
				YEAR 2 0 1 4
INTERVIEWER'S NAME	_____	_____	_____	INT. CODE [ ][ ][ ]
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)

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 _____. I am working with NIPORT, the Ministry of Health and Family Welfare, and Mitra and Associates, a private research organization located in Dhaka. We are conducting a survey about health all Bangladesh. The information we collect will help the government to plan health services. Your household was selected for the The questions usually take about 30 to 60 minutes. All of the answers you give will be confidential and will not be shared with other than members of our survey team. You don't have to be in the survey, but we hope you will agree to answer the questions your views are important. If I ask you any question you don't want to answer, just let me know and I will go on to the next question or you can stop he interview at any time.
In case you need more information about the survey, you may contact with Mr. S. N Mitra, Executive Director, Mitra and Associates, 2/17 Iqbal Road, Block A, Mohammadpur, Dhaka 1207, Bangladesh. Telephone number are: 8118065,9115503, 01711278663.

Do you have any questions? May I begin the interview now?

NAME OF INTERVIEWER: _____ DATE: _____

RESPONDENT AGREES TO BE INTERVIEWED . . . 1 ↓ RESPONDENT DOES NOT AGREE TO BE INTERVIEWED . . . 2 → END

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
101	RECORD THE TIME.	HOUR . . . . . [ ][ ] MINUTES . . . . . [ ][ ]	
102	In what month and year were you born?	MONTH . . . . . [ ][ ] DON'T KNOW MONTH . . . . . 98 YEAR . . . . . [ ][ ][ ][ ] DON'T KNOW YEAR 9998	
103	How old were you at your last birthday? COMPARE AND CORRECT 102 AND/OR 103 IF INCONSISTENT.	AGE IN COMPLETED YEARS [ ][ ]	
103A	Are you now married, separated, deserted, divorced, widowed, or have you never been married?	CURRENTLY MARRIED . . . . . 1 SEPARATED . . . . . 2 DESERTED . . . . . 3 DIVORCED . . . . . 4 WIDOWED . . . . . 5 NEVER MARRIED 6	→ END
104	Have you ever attended school/madrasha?	YES . . . . . 1 NO 2	→ 108
104A	What type of school have you last attended?	SCHOOL . . . . . 1 MADRASHA 2	
105	What is the highest level of school you attended: primary, secondary, or higher?	PRIMARY . . . . . 1 SECONDARY . . . . . 2 HIGHER 3	
106	What is the highest class you completed at that level? IF COMPLETED LESS THAN ONE YEAR AT THAT LEVEL, RECORD '00'.	CLASS . . . . . [ ][ ]	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
107	CHECK 105: PRIMARY ☐ ↓ SECONDARY OR HIGHER ☐ →		110
108	Now I would like you to read this sentence to me. SHOW CARD TO RESPONDENT. IF RESPONDENT CANNOT READ WHOLE SENTENCE, PROBE: Can you read any part of the sentence to me?	CANNOT READ AT ALL . . . . . 1 ABLE TO READ ONLY PARTS OF SENTENCE . . . . . 2 ABLE TO READ WHOLE SENTENCE 3 NO CARD WITH REQUIRED LANGUAGE _____ 4 (SPECIFY LANGUAGE) BLIND/VISUALLY IMPAIRED 5	
109	CHECK 108: CODE '2', '3' OR '4' CIRCLED ☐ ↓ CODE '1' OR '5' CIRCLED ☐ →		111
110	Do you read a newspaper or magazine at least once a week, less than once a week or not at all?	AT LEAST ONCE A WEEK . . . . . 1 LESS THAN ONCE A WEEK . . . . . 2 NOT AT ALL 3	
111	Do you listen to the radio at least once a week, less than once a week or not at all?	AT LEAST ONCE A WEEK . . . . . 1 LESS THAN ONCE A WEEK . . . . . 2 NOT AT ALL 3	
112	Do you watch television at least once a week, less than once a week or not at all?	AT LEAST ONCE A WEEK . . . . . 1 LESS THAN ONCE A WEEK . . . . . 2 NOT AT ALL 3	
113	What is your religion?	ISLAM . . . . . 1 HINDUISM . . . . . 2 BUDDHISM . . . . . 3 CHRISTIANITY . . . . . 4 OTHER _____ 6 (SPECIFY)	
114	Do you belong to any of the following organizations: Grameen Bank? BRAC? BRDB? ASHA? PROSHIKA? Mother's Club? Any other organization (such as micro credit)?	YES NO GRAMEEN BANK . . . . . 1 2 BRAC . . . . . 1 2 BRDB . . . . . 1 2 ASHA . . . . . 1 2 PROSHIKA . . . . . 1 2 MOTHER'S CLUB . . . . . 1 2 OTHER _____ 1 2 (SPECIFY)	

SECTION 2. REPRODUCTION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
201	Now I would like to ask about all the births you have had during your life. Have you ever given birth?	YES . . . . . 1 NO 2	→ 206
202	Do you have any sons or daughters to whom you have given birth who are now living with you?	YES . . . . . 1 NO 2	→ 204
203	How many sons live with you? And how many daughters live with you? IF NONE, RECORD '00'.	SONS AT HOME . . . . . [ ][ ] 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 BIRTHS . . . . . [ ][ ]	
209	CHECK 208: Just to make sure that I have this right: you have had in TOTAL _____ births during your life. Is that correct? YES [ ] ↓ NO [ ] → PROBE AND CORRECT 201-208 AS NECESSARY.		
210	CHECK 208: ONE OR MORE BIRTHS [ ] ↓ NO BIRTHS [ ] →		226

211 Now I would like to record the names of all your births, whether still alive or not, starting with the first one you had.
RECORD NAMES OF ALL THE BIRTHS IN 212. RECORD TWINS AND TRIPLETS ON SEPARATE ROWS.
(IF THERE ARE MORE THAN 12 BIRTHS, USE AN ADDITIONAL QUESTIONNAIRE, STARTING WITH THE SECOND ROW).

212 What name was given to your (first/next) baby? RECORD NAME. BIRTH HISTORY NUMBER	213 Is (NAME) a boy or a girl?	214 Were any of these births twins?	215 In what month and year was (NAME) born? PROBE: When is his/her birthday?	216 Is (NAME) still alive?	217 IF ALIVE: How old was (NAME) at his/her last birthday? RECORD AGE IN COMPLETED YEARS.	218 IF ALIVE: Is (NAME) living with you?	219 IF ALIVE: RECORD HOUSEHOLD LINE NUMBER OF CHILD (RECORD '00' IF CHILD NOT LISTED IN HOUSEHOLD).	220 IF DEAD: How old was (NAME) when he/she died? IF '1 YR', PROBE: How many months old was (NAME)? RECORD DAYS IF LESS THAN 1 MONTH; MONTHS IF LESS THAN TWO YEARS; OR YEARS.	221 Were there any other live births between (NAME OF PREVIOUS BIRTH) and (NAME), including any children who died after birth?
01	BOY 1 GIRL 2	SING 1 MULT 2	MONTH [ ][ ] YEAR [ ][ ][ ][ ]	YES . . 1 NO . . . 2 → 220	AGE IN YEARS [ ][ ]	YES . . . 1 NO 2	HOUSEHOLD LINE NUMBER [ ][ ] → (NEXT BIRTH)	DAYS . . . 1 MONTHS 2 YEARS . . 3 [ ][ ]	
02	BOY 1 GIRL 2	SING 1 MULT 2	MONTH [ ][ ] YEAR [ ][ ][ ][ ]	YES . . 1 NO . . . 2 → 220	AGE IN YEARS [ ][ ]	YES . . . 1 NO 2	HOUSEHOLD LINE NUMBER [ ][ ] → (GO TO 221)	DAYS . . . 1 MONTHS 2 YEARS . . 3 [ ][ ]	YES . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH
03	BOY 1 GIRL 2	SING 1 MULT 2	MONTH [ ][ ] YEAR [ ][ ][ ][ ]	YES . . 1 NO . . . 2 → 220	AGE IN YEARS [ ][ ]	YES . . . 1 NO 2	HOUSEHOLD LINE NUMBER [ ][ ] → (GO TO 221)	DAYS . . . 1 MONTHS 2 YEARS . . 3 [ ][ ]	YES . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH
04	BOY 1 GIRL 2	SING 1 MULT 2	MONTH [ ][ ] YEAR [ ][ ][ ][ ]	YES . . 1 NO . . . 2 → 220	AGE IN YEARS [ ][ ]	YES . . . 1 NO 2	HOUSEHOLD LINE NUMBER [ ][ ] → (GO TO 221)	DAYS . . . 1 MONTHS 2 YEARS . . 3 [ ][ ]	YES . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH
05	BOY 1 GIRL 2	SING 1 MULT 2	MONTH [ ][ ] YEAR [ ][ ][ ][ ]	YES . . 1 NO . . . 2 → 220	AGE IN YEARS [ ][ ]	YES . . . 1 NO 2	HOUSEHOLD LINE NUMBER [ ][ ] → (GO TO 221)	DAYS . . . 1 MONTHS 2 YEARS . . 3 [ ][ ]	YES . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH
06	BOY 1 GIRL 2	SING 1 MULT 2	MONTH [ ][ ] YEAR [ ][ ][ ][ ]	YES . . 1 NO . . . 2 → 220	AGE IN YEARS [ ][ ]	YES . . . 1 NO 2	HOUSEHOLD LINE NUMBER [ ][ ] → (GO TO 221)	DAYS . . . 1 MONTHS 2 YEARS . . 3 [ ][ ]	YES . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH
07	BOY 1 GIRL 2	SING 1 MULT 2	MONTH [ ][ ] YEAR [ ][ ][ ][ ]	YES . . 1 NO . . . 2 → 220	AGE IN YEARS [ ][ ]	YES . . . 1 NO 2	HOUSEHOLD 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 next baby? RECORD NAME. BIRTH HISTORY NUMBER	213 Is (NAME) a boy or a girl?	214 Were any of these births twins?	215 In what month and year was (NAME) born? PROBE: When is his/her birthday?	216 Is (NAME) still alive?	217 IF ALIVE: How old was (NAME) at his/her last birthday? RECORD AGE IN COMPLETED YEARS.	218 IF ALIVE: Is (NAME) living with you?	219 IF ALIVE: RECORD HOUSEHOLD LINE NUMBER OF CHILD (RECORD '00' IF CHILD NOT LISTED IN HOUSEHOLD).	220 IF DEAD: How old was (NAME) when he/she died? IF '1 YR', PROBE: How many months old was (NAME)? RECORD DAYS IF LESS THAN 1 MONTH; MONTHS IF LESS THAN TWO YEARS; OR YEARS.	221 Were there any other live births between (NAME OF PREVIOUS BIRTH) and (NAME), including any children who died after birth?
08	BOY 1 GIRL 2	SING 1 MULT 2	MONTH [ ][ ] YEAR [ ][ ][ ][ ]	YES . . 1 NO . . . 2 → 220	AGE IN YEARS [ ][ ]	YES . . . 1 NO 2	HOUSEHOLD LINE NUMBER [ ][ ] → (GO TO 221)	DAYS . . . 1 MONTHS 2 YEARS . . 3 [ ][ ]	YES . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH
09	BOY 1 GIRL 2	SING 1 MULT 2	MONTH [ ][ ] YEAR [ ][ ][ ][ ]	YES . . 1 NO . . . 2 → 220	AGE IN YEARS [ ][ ]	YES . . . 1 NO 2	HOUSEHOLD LINE NUMBER [ ][ ] → (GO TO 221)	DAYS . . . 1 MONTHS 2 YEARS . . 3 [ ][ ]	YES . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH
10	BOY 1 GIRL 2	SING 1 MULT 2	MONTH [ ][ ] YEAR [ ][ ][ ][ ]	YES . . 1 NO . . . 2 → 220	AGE IN YEARS [ ][ ]	YES . . . 1 NO 2	HOUSEHOLD LINE NUMBER [ ][ ] → (GO TO 221)	DAYS . . . 1 MONTHS 2 YEARS . . 3 [ ][ ]	YES . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH
11	BOY 1 GIRL 2	SING 1 MULT 2	MONTH [ ][ ] YEAR [ ][ ][ ][ ]	YES . . 1 NO . . . 2 → 220	AGE IN YEARS [ ][ ]	YES . . . 1 NO 2	HOUSEHOLD LINE NUMBER [ ][ ] → (GO TO 221)	DAYS . . . 1 MONTHS 2 YEARS . . 3 [ ][ ]	YES . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH
12	BOY 1 GIRL 2	SING 1 MULT 2	MONTH [ ][ ] YEAR [ ][ ][ ][ ]	YES . . 1 NO . . . 2 → 220	AGE IN YEARS [ ][ ]	YES . . . 1 NO 2	HOUSEHOLD LINE NUMBER [ ][ ] → (GO TO 221)	DAYS . . . 1 MONTHS 2 YEARS . . 3 [ ][ ]	YES . . . . 1 ADD BIRTH NO . . . . . 2 NEXT BIRTH

222	Have you had any live births since the birth of (NAME OF LAST BIRTH)? IF YES, RECORD BIRTH(S) IN TABLE.	YES . . . . . 1 NO 2
223	COMPARE 208 WITH NUMBER OF BIRTHS IN HISTORY ABOVE AND MARK: NUMBERS ARE SAME [ ] ↓ NUMBERS ARE DIFFERENT [ ] → (PROBE AND RECONCILE)	
224	CHECK 215: ENTER THE NUMBER OF BIRTHS IN 2009 OR LATER.	NUMBER OF BIRTHS . . . . . [ ] NONE . . . . . 0 → 226

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
225	**C** FOR EACH BIRTH SINCE JANUARY 2009, 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	→ 229A
227	How many months pregnant are you? RECORD NUMBER OF COMPLETED MONTHS. **C** ENTER 'P's IN THE CALENDAR, BEGINNING WITH THE MONTH OF INTERVIEW AND FOR THE TOTAL NUMBER OF COMPLETED MONTHS.	MONTHS . . . . . [ ][ ]	
228	When you got pregnant, did you want to get pregnant at that time?	YES . . . . . 1 NO 2	→ 229A
229	Did you want to have a baby later on or did you not want any (more) children?	LATER . . . . . 1 NO MORE 2	
229A	Have you ever heard of menstrual regulation (MR)?	YES . . . . . 1 NO 2	→ 230
229B	Have you ever used MR?	YES . . . . . 1 NO 2	→ 230
229C	In the last three years did you use MR?	YES . . . . . 1 NO 2	→ 230
229D	Where did you use it the last time?	PUBLIC SECTOR HOSP./MEDICAL COLLEGE/SPE. MED. COL . . . . . 11 DISTRICT HOSPITAL . . . . . 12 MCWC . . . . . 13 UPAZILLA HEALTH COMPLEX . . . 14 UH & FWC . . . . . 15 FAMILY WELFARE VISITOR (FWV) . . . . . 17 OTHER PUBLIC SECTOR _____ (SPECIFY) 16 NGO SECTOR NGO STATIC CLINIC . . . . . 21 OTHER NGO SECTOR _____ (SPECIFY) 26 PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC . . . . . 31 QUALIFIED DOCTOR'S CHAMBER . 32 NON-QUALIFIED DOCTOR'S CHAMBER . . . . . 33 OTHER PRIVATE MEDICAL SECTOR _____ (SPECIFY) 36 OTHER _____ (SPECIFY) 96 DON'T KNOW 98	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
230	Have you ever had a pregnancy that miscarried, ended using menstrual regulation, was aborted, or ended in a stillbirth?	YES . . . . . 1 NO 2	→ 238
231	When did the last such pregnancy end?	MONTH . . . . . [ ][ ] YEAR . . . . . [ ][ ][ ][ ]	
232	CHECK 231: LAST PREGNANCY ENDED IN JAN. 2009 OR LATER [ ] ↓ LAST PREGNANCY ENDED BEFORE JAN. 2009 [ ]		→ 238
233	How many months pregnant were you when the last such pregnancy ended? **C** RECORD NUMBER OF COMPLETED MONTHS. ENTER 'T' IN THE CALENDAR IN THE MONTH THAT THE PREGNANCY TERMINATED AND 'P' FOR THE REMAINING NUMBER OF COMPLETED MONTHS.	MONTHS . . . . . [ ][ ]	
234	Since January 2009, have you had any other pregnancies that did not result in a live birth?	YES . . . . . 1 NO 2	→ 236
235	ASK THE DATE AND THE DURATION OF PREGNANCY FOR EACH EARLIER NON-LIVE BIRTH PREGNANCY BACK TO JANUARY 2009 **C** ENTER 'T' IN THE CALENDAR IN THE MONTH THAT EACH PREGNANCY TERMINATED AND 'P' FOR THE REMAINING NUMBER OF COMPLETED MONTHS.		
236	Did you have any miscarriages, abortions or stillbirths that ended before 2009?	YES . . . . . 1 NO 2	→ 238
237	When did the last such pregnancy that terminated before 2009 end?	MONTH . . . . . [ ][ ] YEAR . . . . . [ ][ ][ ][ ]	
238	When did your last menstrual period start? _____ (DATE, IF GIVEN)	DAYS AGO . . . . . 1 [ ][ ] WEEKS AGO . . . . . 2 [ ][ ] MONTHS AGO . . . . . 3 [ ][ ] YEARS AGO . . . . . 4 [ ][ ] IN MENOPAUSE/ HAS HAD HYSTERECTOMY . . . 994 BEFORE LAST BIRTH . . . . . 995 NEVER MENSTRUATED 996	
239	From one menstrual period to the next, are there certain days when a woman is more likely to become pregnant?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→ 301A
240	Is this time just before her period begins, during her period, right after her period has ended, or halfway between two periods?	JUST BEFORE HER PERIOD BEGINS . 1 DURING HER PERIOD . . . . . 2 RIGHT AFTER HER PERIOD HAS ENDED . . . . . 3 HALFWAY BETWEEN TWO PERIOI . . . 4 OTHER _____ (SPECIFY) 6 DON'T KNOW 8	

SECTION 3. CONTRACEPTION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
	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.		
301A	Have you heard about EMERGENCY CONTRACEPTION PILLS (ECP) As an emergency measure after unprotected sexual intercourse, women can take special pills at any time within three days to prevent pregnancy.	YES . . . . . 1 NO 2	 →301D
301B	Have you ever used EC?	YES . . . . . 1 NO 2	 →301D
301C	Did you use EC in last 12 months?	YES . . . . . 1 NO 2	
301D	Have you heard about LACTATIONAL AMENORRHEA METHOD (LAM)? Up to 6 months after child birth, a woman can use a method that requires she breastfeeds frequently, day and night, and that her menstrual period has not returned.	YES . . . . . 1 NO 2	 → 302
301E	Have you ever used LAM?	YES . . . . . 1 NO 2	
302	CHECK 103A: CURRENTLY MARRIED ☐ ↓ SEPARATED/DESERTED DIVORCED/WIDOWED ☐		→311
302A	CHECK 226: NOT PREGNANT OR UNSURE ☐ ↓ PREGNANT ☐		→ 311
303	Are you currently doing something or using any method to delay or avoid getting pregnant?	YES . . . . . 1 NO 2	 → 311
304	Which method are you using? CIRCLE ALL MENTIONED. IF MORE THAN ONE METHOD MENTIONED, FOLLOW SKIP INSTRUCTION FOR HIGHEST METHOD IN LIST.	FEMALE STERILIZATION . . . . . A MALE STERILIZATION . . . . . B IUD . . . . . C INJECTABLES . . . . . D IMPLANTS . . . . . E PILL . . . . . F CONDOM . . . . . G LACTATIONAL AMEN. METHOD H SAFE PERIOD/PERIODIC ABST. . . . I WITHDRAWAL . . . . . J OTHER _____ X SPECIFY	→307 →308A →306 308A
305	May I see the brand name of the pills you are using? RECORD NAME OF BRAND IF PACKAGE SEEN. IF PACKAGE NOT SEEN SHOW THE BRAND CHART. Please tell me among these which brand of pills are you using? SHOW AND WRITE THE BRAND NAME OF THE PILLS.	PACKAGE/CHART SEEN . . . . . 1 BRAND NAME _____ ☐☐ (SPECIFY) DON'T KNOW 8	→306A

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
306	May I see the brand name of the condom you are using? RECORD NAME OF BRAND IF PACKAGE SEEN. IF PACKAGE NOT SEEN SHOW THE BRAND CHART. Please tell me among these which brand of condom are you using? SHOW AND WRITE THE BRAND NAME OF CONDOMS.	PACKAGE/CHART SEEN . . . . . 1 BRAND NAME _____ [ ][ ] (SPECIFY) DON'T KNOW 8	
306A	Who obtained the (pills/condoms) the last time you got them?	RESPONDENT . . . . . 1 HUSBAND . . . . . 2 SON/DAUGHTER . . . . . 3 OTHER RELATIVE . . . . . 4 OTHER _____ 6 (SPECIFY)	308A
307	In what facility did the sterilization take place? PROBE TO IDENTIFY THE TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	PUBLIC SECTOR HOSP./MEDICAL COLLEGE/SPE. MED. COL . . . . . 11 DISTRICT HOSPITAL . . . . . 12 MCWC . . . . . 13 UPAZILLA HEALTH COMPLEX . . . 14 UH & FWC . . . . . 15 OTHER PUBLIC SECTOR _____ 16 (SPECIFY) NGO SECTOR NGO STATIC CLINIC . . . . . 21 OTHER NGO SECTOR _____ 26 (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC . . . . . 31 QUALIFIED DOCTOR'S CHAMBER 32 OTHER PRIVATE MEDICAL SECTOR _____ 36 (SPECIFY) OTHER _____ 96 (SPECIFY) DON'T KNOW 98	
308	In what month and year was the sterilization performed?		
308A	Since what month and year have you been using (CURRENT METHOD) without stopping? PROBE: For how long have you been using (CURRENT METHOD) now without stopping?	MONTH . . . . . [ ][ ] YEAR . . . . . [ ][ ][ ][ ]	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
309	CHECK 308/308A, 215 AND 231: ANY BIRTH OR PREGNANCY TERMINATION AFTER MONTH AND YEAR OF START OF USE OF CONTRACEPTION IN 308/308A GO BACK TO 308/308A, PROBE AND RECORD MONTH AND YEAR AT START OF CONTINUOUS USE OF CURRENT METHOD (MUST BE AFTER LAST BIRTH OR PREGNANCY TERMINATION).	YES ☐ NO ☐	
310	CHECK 308/308A: YEAR IS 2009 OR LATER ☐ **C** ENTER CODE FOR METHOD USED IN MONTH OF INTERVIEW IN THE CALENDAR AND IN EACH MONTH BACK TO THE DATE STARTED USING. YEAR IS 2008 OR EARLIER ☐ **C** ENTER CODE FOR METHOD USED IN MONTH OF INTERVIEW IN THE CALENDAR AND EACH MONTH BACK TO JANUARY 2009. THEN SKIP TO → 314		
311	I would like to ask you some questions about the times you or your partner may have used a method to avoid getting pregnant during the last few years. USE CALENDAR TO PROBE FOR EARLIER PERIODS OF USE AND NONUSE, STARTING WITH MOST RECENT USE, BACK TO JANUARY 2009. USE NAMES OF CHILDREN, DATES OF BIRTH, AND PERIODS OF PREGNANCY AS REFERENCE POINTS. **C** **IN COLUMN 1**, ENTER METHOD USE CODE OR '0' FOR NONUSE IN EACH BLANK MONTH. ILLUSTRATIVE QUESTIONS: * When was the last time you used a method? Which method was that? * When did you start using that method? How long after the birth of (NAME)? * How long did you use the method then? **IN COLUMN 2**, ENTER CODES FOR DISCONTINUATION NEXT TO THE LAST MONTH OF USE. NUMBER OF CODES IN COLUMN 2 MUST BE SAME AS NUMBER OF INTERRUPTIONS OF METHOD USE IN COLUMN 1. ASK WHY SHE STOPPED USING THE METHOD. IF A PREGNANCY FOLLOWED, ASK WHETHER SHE BECAME PREGNANT UNINTENTIONALLY WHILE USING THE METHOD OR DELIBERATELY STOPPED TO GET PREGNANT. ILLUSTRATIVE QUESTIONS: Why did you stop using the (METHOD)? Did you become pregnant while using (METHOD), or did you stop to get pregnant, or did you stop for some other reason? * IF DELIBERATELY STOPPED TO BECOME PREGNANT, ASK: How many months did it take you to get pregnant after you stopped using (METHOD)? AND ENTER '0' IN EACH SUCH MONTH IN COLUMN 1.		
312	CHECK THE CALENDAR FOR USE OF ANY CONTRACEPTIVE METHOD IN ANY MONTH NO METHOD USED ☐ ANY METHOD USED ☐ → 314		
313	Have you ever used anything or tried in any way to delay or avoid getting pregnant?	YES . . . . . 1 NO 2	1 → 324 2

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
314	CHECK 304: CIRCLE METHOD CODE: IF MORE THAN ONE METHOD CODE CIRCLED IN 304, CIRCLE CODE FOR HIGHEST METHOD IN LIST.	NO CODE CIRCLED . . . . . 00 FEMALE STERILIZATION . . . . . 01 MALE STERILIZATION . . . . . 02 IUD . . . . . 03 INJECTABLES . . . . . 04 IMPLANTS . . . . . 05 PILL . . . . . 06 CONDOM . . . . . 07 LACTATIONAL AMEN. METHOD 11 SAFE PERIOD . . . . . 12 WITHDRAWAL . . . . . 13 OTHER MODERN METHOD 96	324 325A 324
323	Where did you obtain (CURRENT METHOD) the last time? PROBE TO IDENTIFY THE TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	PUBLIC SECTOR HOSP./MEDICAL COLLEGE/SPE. MED. COL . . . . . 11 DISTRICT HOSPITAL . . . . . 12 MCWC . . . . . 13 UPAZILLA HEALTH COMPLEX . . . 14 UH & FWC . . . . . 15 SAT. CLINIC/EPI OUTREACH . . . . . 17 COMMUNITY CLINIC . . . . . 18 GOVT. FIELD WORKER (FWA) 19 OTHER PUBLIC SECTOR _____ (SPECIFY) 16 NGO SECTOR NGO STATIC CLINIC . . . . . 21 NGO SATELLITE CLINIC . . . . . 22 NGO DEPO HOLDER . . . . . 23 NGO FIELD WORKER . . . . . 24 OTHER NGO SECTOR _____ (SPECIFY) 26 PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC . . . . . 31 QUALIFIED DOCTOR'S CHAMBER . 32 NON-QUALIFIED DOCTOR'S CHAMBER . . . . . 33 PHARMACY/DRUG STOF . . . . . 34 OTHER PRIVATE MEDICAL SECTOR _____ (SPECIFY) 36 OTHER SOURCE SHOP . . . . . 41 FRIENDS/RELATIVES . . . . . 42 OTHER _____ (SPECIFY) 96	325A

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
324	Do you know of a place where you can obtain a method of family planning?	YES . . . . . 1 NO 2	 →325A
325	Where is that? Any other place? PROBE TO IDENTIFY EACH TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S))	PUBLIC SECTOR HOSP./MEDICAL COLLEGE/SPE. MED. COL . . . . . A DISTRICT HOSPITAL . . . . . B MCWC . . . . . C UPAZILLA HEALTH COMPLEX . . . D UH & FWC . . . . . E SAT. CLINIC/EPI OUTREACH . . . . . F COMMUNITY CLINIC . . . . . G GOVT. FIELD WORKER (FWA) . . . H OTHER PUBLIC SECTOR _____ (SPECIFY) I NGO SECTOR NGO STATIC CLINIC . . . . . J NGO SATELLITE CLINIC . . . . . K NGO DEPO HOLDER . . . . . L NGO FIELD WORKER . . . . . M OTHER NGO SECTOR _____ (SPECIFY) N PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC . . . . . O QUALIFIED DOCTOR'S CHAMBER . P NON-QUALIFIED DOCTOR'S CHAMBER . . . . . Q PHARMACY/DRUG STOF . . . . . R OTHER PRIVATE MEDICAL SECTOR _____ (SPECIFY) S OTHER SOURCE SHOP . . . . . V FRIENDS/RELATIVES . . . . . W OTHER _____ (SPECIFY) X	
325A	In some places, there is a clinic set up for a day or part of a day in someone's house or in a school. During the past three months, was there any such clinic in this village or mohalla?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	 →325D
325B	Did you visit such temporary health clinic in the past three months?	YES . . . . . 1 NO 2	 →325D

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
325C	What services did you receive?	FAMILY PLANNING METHODS . . . . . A IMMUNIZATIONS . . . . . B CHILD GROWTH MONITORING . . . . . C TETANUS INJECTION . . . . . D ANTENATAL CARE . . . . . E VITAMIN A FOR CHILDREN . . . . . F OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z	
325D	Are you aware of any community clinic in your area?	YES . . . . . 1 NO 2	→326
325E	Did you visit the community clinic in the past three months?	YES . . . . . 1 NO 2	→326
325F	What services did you receive?	FAMILY PLANNING METHC . . . . . A IMMUNIZATIONS . . . . . B CHILD GROWTH MONITOR . . . . . C TETANUS INJECTION . . . . . D ANTENATAL CARE . . . . . E VITAMIN A FOR CHILDRI . . . . . F MEDICINI . . . . . G OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z	
326	In the last 6 months, were you visited by a fieldworker who talked to you about family planning or gave you a family planning method?	TALKED . . . . . 1 GAVE FAMILY PLANNING METHOD . 2 TALKED AND GAVE METHOD . . . . . 3 NO 4	→401
326A	Who visited you to talk about family planning or to give you family planning methods? Name _____ Anyone else? Name _____	GOVT. FP WORKER . . . . . A GOVT. HEALTH WORKER . . . . . B NGO WORKER . . . . . C OTHER _____ X (SPECIFY)	
326B	During the last six months, how many times did a health worker or workers visit you to talk about family planning or to give you family planning methods?	NUMBER OF TIMES . . . . . [ ][ ] DON'T KNOW 98	
326C	When was the last time you were visited by a fieldworker who talked to you about family planning? IF MORE THAN ONE WORKER VISITED: When did the last worker visit you? IF LESS THAN ONE MONTH AGO WRITE '0'	MONTHS AGO . . . . . [ ] DON'T KNOW 8	

SECTION 4. PREGNANCY AND POSTNATAL CARE

401	CHECK 215: ONE OR MORE BIRTHS IN 2011 OR LATER ☐ ↓ NO BIRTHS IN 2011 OR LATER ☐ → 501			
402	CHECK 215: ENTER IN THE TABLE THE BIRTH HISTORY NUMBER, NAME, AND SURVIVAL STATUS OF EACH BIRTH IN 2011 OR LATER. ASK THE QUESTIONS ABOUT ALL OF THESE BIRTHS. BEGIN WITH THE LAST BIRTH. (IF THERE ARE MORE THAN 3 BIRTHS, USE LAST 2 COLUMNS OF ADDITIONAL QUESTIONNAIRES). Now I would like to ask some questions about your children born in the last three years. (We will talk about each separately.)			
403	BIRTH HISTORY NUMBER FROM 212 IN BIRTH HISTORY	LAST BIRTH BIRTH HISTORY NUMBER ☐☐	NEXT-TO-LAST BIRTH BIRTH HISTORY NUMBER ☐☐	SECOND-FROM-LAST BIRTH BIRTH HISTORY NUMBER ☐☐
404	FROM 212 AND 216	NAME _____ LIVING ☐ ↓ DEAD ☐ ↓	NAME _____ LIVING ☐ ↓ DEAD ☐ ↓	NAME _____ LIVING ☐ ↓ DEAD ☐ ↓
405	When you got pregnant with (NAME), did you want to get pregnant at that time?	YES . . . . . 1 (SKIP TO 408) ← NO 2	YES . . . . . 1 (SKIP TO 430) ← NO 2	YES . . . . . 1 (SKIP TO 430) ← NO 2
406	Did you want to have a baby later on, or did you not want any (more) children?	LATER . . . . . 1 NO MORE . . . . . 2 (SKIP TO 408) ←	LATER . . . . . 1 NO MORE . . . . . 2 (SKIP TO 430) ←	LATER . . . . . 1 NO MORE . . . . . 2 (SKIP TO 430) ←
407	How much longer did you want to wait?	MONTHS . . . . 1 ☐☐ YEARS . . . 2 ☐☐ DON'T KNOW 998	MONTHS . . 1 ☐☐ YEARS . . 2 ☐☐ DON'T KNOW 998	MONTHS . . 1 ☐☐ YEARS . . 2 ☐☐ DON'T KNOW 998
408	Did you see anyone for antenatal care for this pregnancy?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 415) ←		
409	Whom did you see? Anyone else? PROBE TO IDENTIFY EACH TYPE OF PERSON AND RECORD ALL MENTIONED. IF `D' MENTIONED WRITE THE NAME OF THE CSBA. NAME _____ NAME _____	HEALTH PERSONNEL QUAL. DOCTOR . . . . . A NURSE/MIDWIFE/ PARAMEDIC . . . . . B FAMILY WELFARE VISITOR . . . . . C COMMUNITY SKILLED BIRTH ATTENDANT . . . . . D MA/SACMO . . . . . E COMMUNITY HEALTH CARE PROVIDER F HEALTH ASST. . . . . G FAMILY WELFARE ASSISTANT . . . . . H NGO WORKER . . . . . I OTHER PERSON TRAINED TBA . . . . . J UNTRAINED TBA . . . . . K UNQUALIFIED DOCTOR . . . . . L OTHER _____ X (SPECIFY)		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
410	Where did you receive antenatal care for this pregnancy? Anywhere else? PROBE TO IDENTIFY EACH TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S))	HOME HOME . . . . . A PUBLIC SECTOR HOSP./MEDICAL COLLEGE/SPE. MED. COL . . . . . B DIST. HOSP. . . . . C MCWC . . . . . D UPAZILLA HEALTH COMPLEX . . . . . E UH & FAMILY WELFARE CENTRE . . . . . F SAT. CLINIC/EPI OUTREACH . . . . . G COMM. CLINIC . . . . . H OTHER PUBLIC SECTOR _____ (SPECIFY) I NGO SECTOR NGO STATIC CLINIC . . . . . J NGO SAT CLINIC . K OTHER _____ (SPECIFY) L PRIVATE MED. SECTOR PVT. HOSPITAL/ CLINIC . . . . . M QUAL.DOCTOR . . . . . N TRAD. DOCTOR . . . . . O PHARMACY . . . . . P OTHER _____ (SPECIFY) X		
412	How many times did you receive antenatal care during this pregnancy?	NUMBER OF TIMES . . . . . [ ][ ] DON'T KNOW 98		
413	As part of your antenatal care during this pregnancy, were any of the following done at least once? Was your weight measured? Was your blood pressure measured? Did you have a urine test? Did you have a blood test? Did you have an ultrasonography? Did you counsel about danger signs?	YES NO WEIGHT . . . . . 1 2 BP . . . . . 1 2 URINE . . . . . 1 2 BLOOD . . . . . 1 2 ULTRASON . . . . 1 2 DANGER SIGNS 1 2		
414	During (any of) your antenatal care visit(s), were you told about signs of pregnancy complications?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8		
415	When you got pregnant with (NAME), did any fieldworker/ community worker visited you at your home to counsel on healthy pregnancy or checkup?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 430) ←		
416	Who visited?	HEALTH ASST. . . . . A FAMILY WELFARE ASSISTANT . . . . . B NGO WORKER . . . . . C TRAINED TBA . . . . . D UNTRAINED TBA . . . . . E OTHER _____ (SPECIFY) X		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
417	What did they do: Did s/he measure your weight? Did s/he measure your blood pressure? Did s/he do a urine test? Did s/he do a blood test? Did s/he counsel about danger signs?	YES NO WEIGHT ..... 1 2 BP ..... 1 2 URINE ..... 1 2 BLOOD ..... 1 2 DANGER SIGNS 1 2		
418	How many home visits did you receive during the last pregnancy?	NUMBER OF TIMES ..... [ ][ ] DON'T KNOW 98		
430	When (NAME) was born, was he/she very large, larger than average, average, smaller than average, or very small?	VERY LARGE ..... 1 LARGER THAN AVERAGE ..... 2 AVERAGE ..... 3 SMALLER THAN AVERAGE ..... 4 VERY SMALL ..... 5 DON'T KNOW 8	VERY LARGE ..... 1 LARGER THAN AVERAGE ..... 2 AVERAGE ..... 3 SMALLER THAN AVERAGE ..... 4 VERY SMALL ..... 5 DON'T KNOW 8	VERY LARGE ..... 1 LARGER THAN AVERAGE ..... 2 AVERAGE ..... 3 SMALLER THAN AVERAGE ..... 4 VERY SMALL ..... 5 DON'T KNOW 8
433	Who assisted with the delivery of (NAME)? Anyone else? PROBE FOR THE TYPE(S) OF PERSON(S) AND RECORD ALL MENTIONED. IF RESPONDENT SAYS NO ONE ASSISTED, PROBE TO DETERMINE WHETHER ANY ADULTS WERE PRESENT AT THE DELIVERY. IF `D' MENTIONED WRITE THE NAME OF THE CSBA. NAME _____ NAME _____	HEALTH PERSONNEL QUAL. DOCTOR ..... A NURSE/MIDWIFE/ PARAMEDIC ..... B FAMILY WELFARE VISITOR ..... C COMMUNITY SKILLED BIRTH ATTENDANT ..... D MA/SACMO ..... E COMMUNITY HEALTH CARE PROVIDER F HEALTH ASST. ..... G FAMILY WELFARE ASSISTANT ..... H NGO WORKER ..... I OTHER PERSON TRAINED TBA ..... J UNTRAINED TBA ..... K UNQUALIFIED DOCTOR ..... L RELATIVES ..... M NEIGHBORS/ FRIENDS ..... N OTHER _____ X (SPECIFY) NO ONE ASSISTED ..... Y	HEALTH PERSONNEL QUAL. DOCTOR .. A NURSE/MIDWIFE/ PARAMEDIC .. B FAMILY WELFARE VISITOR ..... C COMMUNITY SKILLED BIRTH ATTENDANT .... D MA/SACMO ..... E COMMUNITY HEALTH CARE PROVIDER F HEALTH ASST. .... G FAMILY WELFARE ASSISTANT ..... H NGO WORKER ..... I OTHER PERSON TRAINED TBA ..... J UNTRAINED TBA .. K UNQUALIFIED DOCTOR ..... L RELATIVES ..... M NEIGHBORS/ FRIENDS ..... N OTHER _____ X (SPECIFY) NO ONE ASSISTED .. Y	HEALTH PERSONNEL QUAL. DOCTOR .. A NURSE/MIDWIFE/ PARAMEDIC .. B FAMILY WELFARE VISITOR ..... C COMMUNITY SKILLED BIRTH ATTENDANT .. D MA/SACMO ..... E COMMUNITY HEALTH CARE PROVIDER F HEALTH ASST. .. G FAMILY WELFARE ASSISTANT ..... G NGO WORKER ..... I OTHER PERSON TRAINED TBA ..... J UNTRAINED TBA .. K UNQUALIFIED DOCTOR ..... L RELATIVES ..... M NEIGHBORS/ FRIENDS ..... N OTHER _____ X (SPECIFY) NO ONE ASSISTED .. Y
434	Where did you give birth to (NAME)? PROBE TO IDENTIFY THE TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	HOME HOME ..... 11 (SKIP TO 435i) ← PUBLIC SECTOR HOSP./MEDICAL COLLEGE/SPE. MED. COL ..... 21 DIST. HOSP. ..... 22 MCWC ..... 23 UPAZILLA HEALTH COMPLEX ..... 24 UH & FAMILY WELFARE CENTRE ..... 25 COM. CLINIC ..... 27 OTHER PUBLIC SECTOR _____ 26 (SPECIFY) NGO SECTOR NGO STATIC CLINIC ..... 31 DELIVERY HUT ..... 36 PRIVATE MED. SECTOR PVT. HOSPITAL/ CLINIC ..... 41 OTHER _____ 96 (SPECIFY) (SKIP TO 435i) ←	HOME HOME ..... 11 (SKIP TO 448) ← PUBLIC SECTOR HOSP./MEDICAL COLLEGE/SPE. MED. COL 21 DIST. HOSP. ..... 22 MCWC ..... 23 UPAZILLA HEALTH COMPLEX ..... 24 UH & FAMILY WELFARE CENTRE ..... 25 COM. CLINIC ..... 27 OTHER PUBLIC SECTOR _____ 26 (SPECIFY) NGO SECTOR NGO STATIC CLINIC ..... 31 DELIVERY HUT ..... 36 PRIVATE MED. SECTOR PVT. HOSPITAL/ CLINIC ..... 41 OTHER _____ 96 (SPECIFY) (SKIP TO 448) ←	HOME HOME ..... 11 (SKIP TO 448) ← PUBLIC SECTOR HOSP./MEDICAL COLLEGE/SPE. MED. COL 21 DIST. HOSP. ..... 22 MCWC ..... 23 UPAZILLA HEALTH COMPLEX ..... 24 UH & FAMILY WELFARE CENTRE ..... 25 COM. CLINIC ..... 27 OTHER PUBLIC SECTOR _____ 26 (SPECIFY) NGO SECTOR NGO STATIC CLINIC ..... 31 DELIVERY HUT 36 PRIVATE MED. SECTOR PVT. HOSPITAL/ CLINIC ..... 41 OTHER _____ 96 (SPECIFY) (SKIP TO 448) ←

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
434A	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		
435	Was (NAME) delivered by caesarean section, that is, did they cut your belly open to take the baby out?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 435i)		
435A	What day of the week was the birth birth delivered by caesarean section?	SUNDAY . . . . . 01 MONDAY . . . . . 02 TUESDAY . . . . . 03 WEDNESDAY . . . . . 04 THURSDAY . . . . . 05 FRIDAY . . . . . 06 SATURDAY 07		
435B	At what time of day was the caesarean section or operation done?	06:01 AM TO 09:00 AM 01 09:01 AM TO 12:00 NOON 02 12:01 PM TO 02:00 PM 03 02:01 PM TO 04:00 PM 04 04:01 PM TO 06:00 PM 05 06:01 PM TO 09:00 PM 06 09:01 PM TO 12:00 AM 07 12:01 AM TO 03:00 AM 08 03:01 AM TO 06:00 AM 09		
435C	How many days before the delivery was the decision to have caesarean section made?	THE DAY OF DELIVERY 1 THE DAY BEFORE DELIVERY . . . . . 2 2 - 7 DAYS BEFORE DELIVERY . . . . . 3 8 - 30 DAYS BEFORE DELIVERY . . . . . 4 30+ DAYS BEFORE DELIVERY 5		
435D	Who proposed first to have the birth delivered by caesarean section, you, a family member or a doctor?	RESPONDENT . . . . . 1 (SKIP TO 435F) FAMILY MEMBER . . . . . 2 DOCTOR 3		
435E	Were you or your family told the reasons for having the operation?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 435G)		
435F	What were the reasons for making the decision to have the operation? Any other reason? CIRCLE ALL MENTIONED.	CONVENIENCE . . . . . A DO NOT WANT TO GO THROUGH LABOR PAIN B MAL PRESENTATION C PREMATURE BABY . . . . . D CORD PROLAPSED . . . . . E MULTIPLE BIRTHS . . . . . F FAILURE TO PROGRESS IN LABOR . . . . . G PRE-ECLAMPSIA . . . . . H DIABETES . . . . . I PREVIOUS C/S . . . . . J LESS PRESSURE ON BABY'S BRAIN . . . . . K OTHER COMPLICATIONS DURING DELIVERY . . . . . L OTHER X		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
435G	CHECK 212: CHILD NOT FIRST BIRTH ☐ ↓ CHILD FIRST BIRTH ☐ → 435i			
435H	Did you have caesarean section before this birth?	YES . . . . . 1 NO 2		
435i	Did you or any of your family member ever used a mobile phone to get health services or advice for you or (NAME) during pregnancy or delivery?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 435iv) ←		
435ii	What was the reason the mobile phone was used? Any other reason? CIRCLE ALL MENTIONED.	TO ASK WHAT TO DO A TO CONTACT SERVICE PROVIDER B TO ARRANGE TRANSPORT . . . . . C TO ARRANGE FOR MONEY D TO ARRANGE OF DELIVERY . . . . . E OTHER _____ X (SPECIFY)		
435iii	Who did you call? Any other person? CIRCLE ALL MENTIONED.	HEALTH PERSONNEL/ QUAL. DOCTOR . . . . . A NURSE/MIDWIFE/ PARAMEDIC . . . . . B FAMILY WELFARE VISITOR . . . . . C COMMUNITY SKILLED BIRTH ATTENDANT . . . . . D MA/SACMO . . . . . E COMMUNITY HEALTH CARE PROVIDER F HEALTH ASST. ..... G FAMILY WELFARE ASSISTANT . . . . . H NGO WORKER . . . . . I OTHER PERSON TRAINED TBA . . . . . J UNTRAINED TBA . . . . . K UNQUALIFIED DOCTOR . . . . . L RELATIVES . . . . . M NEIGHBORS/ FRIENDS . . . . . N OTHER _____ X (SPECIFY)		
435iv	How much did you pay in total for your last delivery? IF MORE THAN 999995, WRITE 999995	☐☐☐☐☐☐ Taka DON'T KNOW . . . . 999998 NOTHING . . . . . 000000 (SKIP TO 435AA) ←		
435v	Where did you get the money for (NAME'S) delivery? Any other source? CIRCLE ALL MENTIONED.	FAMILY FUND . . . . . A BORROWED . . . . . B SOLD ASSETS/ MORTGAGE . . . . . C GIFT FROM FAMILY D GIFT FROM NEIGHBOR/ FRIEND . . . . . E VOUCHER . . . . . F INSURANCE . . . . . G OTHER _____ X (SPECIFY)		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
435AA	CHECK 434: DELIVERED AT HOME?	YES (CODE 11 CIRCLED) → (SKIP TO 435AE) NO (ANY CODE 21 TO 96 CIRCLED) → (SKIP TO 435AE)		
435AB	Now I would like to ask you some specific questions about what was done with (NAME) during and immediately following delivery. Was a Clean Delivery Kit used during the delivery of (NAME)? SHOW THE DELIVERY KIT.	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8		
435AC	What was used to cut the cord?	BLADE FROM DELIVERY KIT . . . . . 1 BLADE FROM OTHER SOURCE . . . . . 2 BAMBOO STRIPS . . . . . 3 SCISSORS . . . . . 4 OTHER _____ (SPECIFY) 6 CORD WAS NOT CUT (SKIP TO 435AE) 7 DON'T KNOW 8		
435AD	Was the (INSTRUMENT IN 435AC) boiled before the cord was cut?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8		
435AE	Was anything applied to the cord immediately after cutting and tying it?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 435AG) DON'T KNOW 8		
435AF	What was applied to the cord after it was cut and tied? Anything else?	ANTIBIOTICS (POWDER/OINTMT.) . . . . . A ANTISEPTIC (DETOL/SAVLON HEXISOL) . . . . . B SPIRIT/ALCOHOL . . . . . C MUSTARD OIL WITH GARLIC . . . . . D CHEWED RICE . . . . . E TUMERIC JUICE/ POWDER . . . . . F GINGER JUICE . . . . . G SHIDUR . . . . . H BORIC POWDER . . . . . I GENTIAN VIOLET (BLUE INK) . . . . . J TALCUM POWDER . . . . . K CHLORHEXIDINE . . . . . L OTHER _____ (SPECIFY) X DON'T KNOW . . . . . Z		
435AG	How long after delivery was (NAME) bathed for the first time? IF LESS THAN ONE DAY, RECORD IN HOURS IF LESS THAN ONE WEEK, RECORD IN DAYS	HOURS . . . 1 [ ][ ] DAYS . . . 2 [ ][ ] WEEKS . . . 3 [ ][ ] NOT BATHED . . . . . 995 DON'T KNOW 998		
435AH	How long after birth was (NAME) dried ?	<5 MINUTES . . . . . 1 5-9 MINUTES . . . . . 2 10+ MINUTES . . . . . 3 NOT DRIED . . . . . 4 DON'T KNOW 8		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
435AI	After the birth, was (NAME) put directly on the bare skin of your chest? Show the woman a picture of skin-to-skin position.	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8		
435AJ	CHECK 434: DELIVERED AT HOME?	YES (CODE 11 CIRCLED) → (SKIP TO 438) NO (ANY CODE 21 TO 96 CIRCLED) →		
436	I would like to talk to you about checks on your health after delivery, for example, someone asking you questions about your health or examining you. Did anyone check on your health while you were still in the facility?	YES . . . . . 1 (SKIP TO 439) ← NO 2		
437	Did anyone check on your health after you left the facility?	YES . . . . . 1 (SKIP TO 439) ← NO . . . . . 2 (SKIP TO 442) ←		
438	I would like to talk to you about checks on your health after delivery, for example, someone asking you questions about your health or examining you. Did anyone check on your health after you gave birth do (NAME)?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 442) ←		
439	Who checked on your health at that time? PROBE FOR MOST QUALIFIED PERSON. IF `14' IS CIRCLED, WRITE THE NAME OF THE CSBA. NAME _____ _____	HEALTH PERSONNEL QUAL. DOCTOR . . . . . 11 NURSE/MIDWIFE/ PARAMEDIC . . . . . 12 FAMILY WELFARE VISITOR . . . . . 13 COMMUNITY SKILLED BIRTH ATTENDANT . . . . . 14 MA/SACMO . . . . . 15 COMMUNITY HEALTH CARE PROVIDER 16 HEALTH ASST. ..... 17 FAMILY WELFARE ASSISTANT . . . . . 18 NGO WORKER . . . . . 21 OTHER PERSON TRAINED TBA . . . . . 31 UNTRAINED TBA . . . . . 32 UNQUALIFIED DOCTOR . . . . . 33 OTHER _____ 96 (SPECIFY)		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
439A	Where did this first check take place?	HOME HOME . . . . . 11 PUBLIC SECTOR HOSP./MEDICAL COLLEGE/SPE. MED. COL . . . . . 21 DIST. HOSP. . . . . 22 MCWC . . . . . 23 UPAZILLA HEALTH COMPLEX . . . . . 24 UH & FAMILY WELFARE CENTRE . . . . . 25 SAT. CLINIC/EPI OUTREACH . . . . . 27 COMM. CLINIC . . . . . 28 OTHER _____ 26 (SPECIFY) NGO SECTOR NGO STATIC CLINIC . . . . . 31 NGO SAT CLINIC . 32 OTHER _____ 36 (SPECIFY) PRIVATE MED. SECTOR PVT. HOSPITAL/ CLINIC . . . . . 41 QUALIFIED DOC. CHAMBER . . . . . 42 UNQUALIFIED DOC. CHAMBER . . . . . 43 PHARMACY . . . . . 44 OTHER _____ 96 (SPECIFY)		
440	How long after delivery did the first check take place? IF LESS THAN ONE DAY, RECORD HOURS. IF LESS THAN ONE WEEK, RECORD DAYS.	HOURS . . . 1 [ ][ ] DAYS . . . . . 2 [ ][ ] WEEKS . . . 3 [ ][ ] DON'T KNOW 998		
440A	During the first two days after delivery, did any health care provider either do the following for you at home or at a health facility: Breast examination? Check vaginal discharge? Check temperature? Counsel on danger signs?	YES NO BREAST EXAM. 1 2 VAG. DISCHARGE 1 2 TEMPERATURE 1 2 COUNSEL ON DANGER SIGNS 1 2		
442	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 445B) ← DON'T KNOW 8		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
443	How many hours, days or weeks after the birth of (NAME) did the first check take place? IF LESS THAN ONE DAY, RECORD HOURS. IF LESS THAN ONE WEEK, RECORD DAYS.	HRS AFTER BIRTH . . . . . 1 DAYS AFTER BIRTH . . . . . 2 WKS AFTER BIRTH . . . . . 3 DON'T KNOW 998		
444	Who checked on (NAME)'s health at that time? PROBE FOR MOST QUALIFIED PERSON. IF `14' MENTIONED WRITE THE NAME OF THE CSBA. NAME _____	HEALTH PERSONNEL QUAL. DOCTOR . . . . . 11 NURSE/MIDWIFE/ PARAMEDIC . . . . . 12 FAMILY WELFARE VISITOR . . . . . 13 COMMUNITY SKILLED BIRTH ATTENDANT . . . . . 14 MA/SACMO . . . . . 15 COMMUNITY HEALTH CARE PROVIDER 16 HEALTH ASST. . . . . 17 FAMILY WELFARE ASSISTANT . . . . . 18 NGO WORKER . . . . . 21 OTHER PERSON TRAINED TBA . . . . . 31 UNTRAINED TBA . . . . . 32 UNQUALIFIED DOCTOR . . . . . 33 OTHER _____ 96 (SPECIFY)		
445	Where did this first check of (NAME) take place? PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE)	HOME YOUR HOME . . . . . 11 PUBLIC SECTOR HOSP./MEDICAL COLLEGE/SPE. MED. COL . . . . . 21 DIST. HOSP. . . . . 22 MCWC . . . . . 23 UPAZILLA HEALTH COMPLEX . . . . . 24 UH & FAMILY WELFARE CENTRE . . . . . 25 SAT. CLINIC/EPI OUTREACH . . . . . 27 COMM. CLINIC . . . . . 28 OTHER _____ 26 (SPECIFY) NGO SECTOR NGO STATIC CLINIC . . . . . 31 NGO SAT CLINIC . . . . . 32 OTHER _____ 36 (SPECIFY) PRIVATE MED. SECTOR PVT. HOSPITAL/ CLINIC . . . . . 41 QUALIFIED DOC. CHAMBER . . . . . 42 UNQUALIFIED DOC. CHAMBER . . . . . 43 PHARMACY . . . . . 44 OTHER _____ 96 (SPECIFY)		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
445A	During the first two days after delivery, did any health care provider do the following for (NAME) either at home or at a facility:	YES NO		
	Examine the cord?	EXAMINE CORD .. 1 2		
	Counsel on danger signs?	COUNSEL ON DANGER SIGNS .. 1 2		
	Assess temperature?	TEMPERATURE ... 1 2		
	Counsel you on breastfeeding	COUNSEL BF 1 2		
	Observe breastfeeding?	OBSERVE BF 1 2		
	Assess weight?	WEIGHT 1 2		
445B	During the first month of (NAME)'s birth, did s(he) experience any illness?	YES ..... 1 NO ..... 2 (SKIP TO 446) ←		
445C	Did you seek advice or treatment for the illness from any source?	YES ..... 1 NO ..... 2 (SKIP TO 446) ←		
445D	Where did you seek advice or treatment?	HOME ..... A PUBLIC SECTOR HOSP./MEDICAL COLLEGE/SPE. MED. COL ..... B		
	Any other place?	DISTRICT HOSP. ..... C MCWC ..... D UHC ..... E UH & FWC ..... F SATELITE CLINIC/ EPI OUTREACH SITE ..... G COMMUNITY CLINIC ..... H FAMILY WELFARE ASSIST. ..... I OTHER _____ (SPECIFY) J NGO SECTOR NGO STATIC CLINIC ..... L NGO SATELLITE CLINIC ..... M NGO DEPO HOLDER ..... N NGO FIELD WORKER ..... O OTHER _____ (SPECIFY) P PRIVATE MED. SECTOR PVT. HOSPITAL/ CLINIC ..... Q QUALIFIED DOCTOR ..... R UNQUALIFIED DOCTOR ..... S PHARMACY/ DRUG STORE ..... T OTHER PVT. _____ (SPECIFY) U OTHER _____ (SPECIFY) X		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
445E	Who provided the care?	HEALTH PROFESSIONAL/ WORKER QUALIFIED DOCTOR . . . . . A NURSE/MIDWIFE/ PARAMEDIC B FAMILY WELFARE VISITOR . . . . . C CSBA . . . . . D MA/SACMO . . . . . E COMMUNITY HEALTH CARE PROVIDER F HEALTH ASSISTANT . . . . . G FAMILY WELFARE ASSISTANT . . . . . H NGO WORKER . . . . . I OTHER PROVIDER TRAINED TBA . . . . . J UNTRAINED TBA . . . . . K UNQUALIFIED DOCTOR . . . . . L RELATIVES . . . . . M NEIGHBORS/ FRIENDS . . . . . N OTHER _____ X (SPECIFY)		
446	In the first two months after delivery, did you receive a vitamin A dose like (this/any of these)? SHOW COMMON TYPES OF AMPULES/CAPSULES/SYRUPS.	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8		
447	Has your menstrual period returned since the birth of (NAME)?	YES . . . . . 1 (SKIP TO 449) NO . . . . . 2 (SKIP TO 450)		
448	Did your period return between the birth of (NAME) and your next pregnancy?		YES . . . . . 1 NO . . . . . 2 (SKIP TO 452)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 452)
449	For how many months after the birth of (NAME) did you not have a period?	MONTHS . . . . . [ ][ ] DON'T KNOW 98	MONTHS . . . [ ][ ] DON'T KNOW 98	MONTHS . . . [ ][ ] DON'T KNOW 98
450	CHECK 226: IS RESPONDENT PREGNANT?	NOT PREG-NANT [ ] PREGNANT OR UNSURE [ ] (SKIP TO 452)		
451	Have you had sexual intercourse since the birth of (NAME)?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 453)		
452	For how many months after the birth of (NAME) did you not have sexual intercourse?	MONTHS . . . . . [ ][ ] DON'T KNOW 98	MONTHS . . . [ ][ ] DON'T KNOW 98	MONTHS . . . [ ][ ] DON'T KNOW 98
453	Did you ever breastfeed (NAME)?	YES . . . . . 1 (SKIP TO 455) NO 2	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
454	CHECK 404: IS CHILD LIVING?	LIVING [ ] (SKIP TO 460) DEAD [ ] (GO BACK TO 405 IN NEXT COLUMN; OR IF NO MORE BIRTHS, GO TO 501)		

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
455	How long after birth did you first put (NAME) to the breast? IF LESS THAN 1 HOUR, RECORD '00' HOURS. IF LESS THAN 24 HOURS, RECORD HOURS. OTHERWISE, RECORD DAYS.	IMMEDIATELY . . . . 000 HOURS 1 [ ][ ] DAYS 2 [ ][ ]		
456	In the first three days after delivery, was (NAME) given anything to drink other than breast milk?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 458)		
457	What was (NAME) given to drink? Anything else? RECORD ALL LIQUIDS MENTIONED.	MILK (OTHER THAN BREAST MILK) A PLAIN WATER . . . . . B SUGAR OR GLU-COSE WATER . . . . . C GRIPE WATER . . . . . D SUGAR-SALT-WATER SOLUTION . . . . . E FRUIT JUICE . . . . . F INFANT FORMULA G TEA/INFUSIONS . . . . . H COFFEE . . . . . I HONEY . . . . . J OTHER _____ X (SPECIFY)		
458	CHECK 404: IS CHILD LIVING?	LIVING DEAD (GO BACK TO 405 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 501)	LIVING DEAD (GO BACK TO 405 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 501)	LIVING DEAD (GO BACK TO 405 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE BIRTHS, GO TO 501)
459	Are you still breastfeeding (NAME)?	YES . . . . . 1 (SKIP TO 460) NO 2		
459A	For how many months did you breastfeed (NAME)?	MONTHS . . . . . [ ][ ] DON'T KNOW 98		
460	Did (NAME) drink anything from a bottle with a nipple yesterday or last night?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
461		GO BACK TO 405 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 501.	GO BACK TO 405 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 501.	GO BACK TO 405 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE BIRTHS, GO TO 501.

SECTION 5. CHILD IMMUNIZATION, HEALTH AND NUTRITION

501	ENTER IN THE TABLE THE BIRTH HISTORY NUMBER, NAME, AND SURVIVAL STATUS OF EACH BIRTH IN 2009 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	BIRTH HISTORY NUMBER FROM 212 IN BIRTH HISTORY	LAST BIRTH BIRTH HISTORY NUMBER . . . . . [ ][ ]	NEXT-TO-LAST BIRTH BIRTH HISTORY NUMBER . . . . . [ ][ ]	SECOND-FROM-LAST BIRTH BIRTH HISTORY NUMBER . . . . . [ ][ ]
503	FROM 212 AND 216	NAME _____ LIVING [ ] DEAD [ ] (GO TO 503 IN NEXT COLUMN OR, IF NO MORE BIRTHS, GO TO 557)	NAME _____ LIVING [ ] DEAD [ ] (GO TO 503 IN NEXT COLUMN OR, IF NO MORE BIRTHS, GO TO 557)	NAME _____ LIVING [ ] DEAD [ ] (GO TO 503 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE, OR IF NO MORE BIRTHS, GO TO 557)
504	Do you have a card where (NAME)'s vaccinations are written down? IF YES: May I see it please?	YES, SEEN . . . . . 1 (SKIP TO 506) YES, NOT SEEN . . . . 2 (SKIP TO 509) NO CARD 3	YES, SEEN . . . . . 1 (SKIP TO 506) YES, NOT SEEN . . . . 2 (SKIP TO 509) NO CARD 3	YES, SEEN . . . . . 1 (SKIP TO 506) YES, NOT SEEN . . . 2 (SKIP TO 509) NO CARD 3
505	Did you ever have a vaccination card for (NAME)?	YES . . . . . 1 (SKIP TO 509) NO 2	YES . . . . . 1 (SKIP TO 509) NO 2	YES . . . . . 1 (SKIP TO 509) NO 2
506	(1) COPY DATES FROM THE CARD. (2) WRITE '44' IN 'DAY' COLUMN IF CARD SHOWS THAT A DOSE WAS GIVEN, BUT NO DATE IS RECORDED.			
506A	DATE OF BIRTH	DAY MONTH YEAR [ ][ ] [ ][ ] [ ][ ][ ][ ]	DAY MONTH YEAR [ ][ ] [ ][ ] [ ][ ][ ][ ]	DAY MONTH YEAR [ ][ ] [ ][ ] [ ][ ][ ][ ]
		LAST BIRTH DAY MONTH YEAR	NEXT-TO-LAST BIRTH DAY MONTH YEAR	SECOND-FROM-LAST BIRTH DAY MONTH YEAR
	BCG	[ ][ ] [ ][ ] [ ][ ][ ][ ]	BCG [ ][ ] [ ][ ] [ ][ ][ ][ ]	BCG [ ][ ] [ ][ ] [ ][ ][ ][ ]
	POLIO 0 (POLIO GIVEN AT BIRTH)	[ ][ ] [ ][ ] [ ][ ][ ][ ]	P0 [ ][ ] [ ][ ] [ ][ ][ ][ ]	P0 [ ][ ] [ ][ ] [ ][ ][ ][ ]
	PENTA 1	[ ][ ] [ ][ ] [ ][ ][ ][ ]	PT1 [ ][ ] [ ][ ] [ ][ ][ ][ ]	PT1 [ ][ ] [ ][ ] [ ][ ][ ][ ]
	PENTA 2	[ ][ ] [ ][ ] [ ][ ][ ][ ]	PT2 [ ][ ] [ ][ ] [ ][ ][ ][ ]	PT2 [ ][ ] [ ][ ] [ ][ ][ ][ ]
	PENTA 3	[ ][ ] [ ][ ] [ ][ ][ ][ ]	PT3 [ ][ ] [ ][ ] [ ][ ][ ][ ]	PT3 [ ][ ] [ ][ ] [ ][ ][ ][ ]
	POLIO 1	[ ][ ] [ ][ ] [ ][ ][ ][ ]	P1 [ ][ ] [ ][ ] [ ][ ][ ][ ]	P1 [ ][ ] [ ][ ] [ ][ ][ ][ ]
	POLIO 2	[ ][ ] [ ][ ] [ ][ ][ ][ ]	P2 [ ][ ] [ ][ ] [ ][ ][ ][ ]	P2 [ ][ ] [ ][ ] [ ][ ][ ][ ]
	POLIO 3	[ ][ ] [ ][ ] [ ][ ][ ][ ]	P3 [ ][ ] [ ][ ] [ ][ ][ ][ ]	P3 [ ][ ] [ ][ ] [ ][ ][ ][ ]
	POLIO 4	[ ][ ] [ ][ ] [ ][ ][ ][ ]	P4 [ ][ ] [ ][ ] [ ][ ][ ][ ]	P4 [ ][ ] [ ][ ] [ ][ ][ ][ ]
	MR AT 9 MONTHS	[ ][ ] [ ][ ] [ ][ ][ ][ ]	MR9 [ ][ ] [ ][ ] [ ][ ][ ][ ]	MR9 [ ][ ] [ ][ ] [ ][ ][ ][ ]
	MEASLES AT 9 MONTHS	[ ][ ] [ ][ ] [ ][ ][ ][ ]	M9 [ ][ ] [ ][ ] [ ][ ][ ][ ]	M9 [ ][ ] [ ][ ] [ ][ ][ ][ ]
	MEASLES AT 15 MONTHS	[ ][ ] [ ][ ] [ ][ ][ ][ ]	M15 [ ][ ] [ ][ ] [ ][ ][ ][ ]	M15 [ ][ ] [ ][ ] [ ][ ][ ][ ]
507	CHECK 506A:	BCG TO MEASLES AT 15 MONTHS ALL RECORDED [ ] VIT. A [ ] (GO TO 510I)	BCG TO MEASLES AT 15 MONTHS ALL RECORDED [ ] VIT. A [ ] (GO TO 510I)	BCG TO MEASLES AT 15 MONTHS ALL RECORDED [ ] VIT. A [ ] (GO TO 510I)

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
508	Has (NAME) had any vaccinations that are not recorded on this card, including vaccinations given in a national immunization day campaign? RECORD 'YES' ONLY IF THE RESPONDENT MENTIONS AT LEAST ONE OF THE VACCINATIONS IN 506 THAT ARE NOT RECORDED AS HAVING BEEN GIVEN.	YES . . . . . 1 (PROBE FOR VACCINATIONS AND WRITE '66' IN THE CORRESPONDING DAY COLUMN IN 506A) (SKIP TO 510I) NO . . . . . 2 (SKIP TO 510I) DON'T KNOW 8	YES . . . . . 1 (PROBE FOR VACCINATIONS AND WRITE '66' IN THE CORRESPONDING DAY COLUMN IN 506A) (SKIP TO 510I) NO . . . . . 2 (SKIP TO 510I) DON'T KNOW 8	YES . . . . . 1 (PROBE FOR VACCINATIONS AND WRITE '66' IN THE CORRESPONDING DAY COLUMN IN 506A) (SKIP TO 510I) NO . . . . . 2 (SKIP TO 510I) DON'T KNOW 8
509	Did (NAME) ever have any vaccinations to prevent him/her from getting diseases, including vaccinations received in a national immunization day campaign?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 510I) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 510I) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 510I) DON'T KNOW 8
510	Please tell me if (NAME) had any of the following vaccinations:			
510A	A BCG vaccination against tuberculosis, that is, an injection in the arm or shoulder that usually causes a scar?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
510B	Polio vaccine, that is, drops in the mouth?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 510E) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 510E) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 510E) DON'T KNOW 8
510C	Was the first polio vaccine given 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
510D	How many times was the polio vaccine given?	NUMBER OF TIMES . . . . . [ ]	NUMBER OF TIMES . . . . . [ ]	NUMBER OF TIMES . . . . . [ ]
510E	A Pentavalent vaccination, that is, an injection given in the thigh or buttocks, sometimes at the same time as polio drops?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 510G) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 510G) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 510G) DON'T KNOW 8
510F	How many times was the Pentavalent vaccination given?	NUMBER OF TIMES . . . . . [ ]	NUMBER OF TIMES . . . . . [ ]	NUMBER OF TIMES . . . . . [ ]
510G	A measles injection or a measles and rubella (MR) injection - that is, a shot in the arm at the age of 9 months or older - to prevent him/her from getting measles and or 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
510H	A measles injection, that is, a shot in the arm at the age of 15 months or older - to prevent him/her from getting measles?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
510I	Did (NAME) receive any polio vaccine from the National Immunization Days (NID)?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 511) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 511) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 511) DON'T KNOW 8

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
510J	At which national immunization day campaigns did (NAME) receive vaccinations? RECORD ALL CAMPAIGNS MENTIONED.	CAMPAIGN 1 (POLIO/JAN 2011 . A CAMPAIGN 2 (POLIO/FEB 2011 . B CAMPAIGN 3 (POLIO/JAN 2012 . C CAMPAIGN 4 (POLIO/FEB 2012 . D CAMPAIGN 5 (POLIO/DEC 2013 . E CAMPAIGN 6 (MR/JAN 2014 . . . F CAMPAIGN 7 (MR/FEB 2014 . . . G	CAMPAIGN 1 (POLIO/JAN 2011 . A CAMPAIGN 2 (POLIO/FEB 2011 . B CAMPAIGN 3 (POLIO/JAN 2012 . C CAMPAIGN 4 (POLIO/FEB 2012 . D CAMPAIGN 5 (POLIO/DEC 2013 . E CAMPAIGN 6 (MR/JAN 2014) . . . F CAMPAIGN 7 (MR/FEB 2014) . . . G	CAMPAIGN 1 (POLIO/JAN 2011 . A CAMPAIGN 2 (POLIO/FEB 2011 . B CAMPAIGN 3 (POLIO/JAN 2012 . C CAMPAIGN 4 (POLIO/FEB 2012 . D CAMPAIGN 5 (POLIO/DEC 2013 . E CAMPAIGN 6 (MR/JAN 2014) . . . F CAMPAIGN 7 (MR/FEB 2014) . . . G
511	Within the last six months, was (NAME) given a vitamin A dose like SHOW COMMON TYPES OF AMPULES/CAPSULES/SYRUPS.	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
512	In the last seven days, was (NAME) given 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
513	Was (NAME) given any drug for intestinal worms in the last six months?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
514	Has (NAME) had diarrhea in the last 2 weeks? (PLEASE USE THE LOCAL NAME)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 525) ←┤ DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 525) ←┤ DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 525) ←┤ DON'T KNOW 8
515	Was there any blood in the stools?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8
516	Now I would like to know how much (NAME) was given to drink during the diarrhea (including breastmilk). Was he/she given less than usual t about the same amount, or more than usual to drink? IF LESS, PROBE: Was he/she given much less than usual to drink or	MUCH LESS . . . . . 1 SOMEWHAT LESS ... 2 ABOUT THE SAME ... 3 MORE . . . . . 4 NOTHING TO DRINK 5 DON'T KNOW 8	MUCH LESS . . . . . 1 SOMEWHAT LESS ... 2 ABOUT THE SAME ... 3 MORE . . . . . 4 NOTHING TO DRINK 5 DON'T KNOW 8	MUCH LESS . . . . . 1 SOMEWHAT LESS ... 2 ABOUT THE SAME ... 3 MORE . . . . . 4 NOTHING TO DRINK 5 DON'T KNOW 8
517	When (NAME) had diarrhea, was he/she given less than usual to eat, about the same amount, more than usual, or nothing to eat? IF LESS, PROBE: Was he/she given much less than usual to eat or somewhat less?	MUCH LESS . . . . . 1 SOMEWHAT LESS ... 2 ABOUT THE SAME ... 3 MORE . . . . . 4 STOPPED FOOD . . . 5 NEVER GAVE FOOD 6 DON'T KNOW 8	MUCH LESS . . . . . 1 SOMEWHAT LESS ... 2 ABOUT THE SAME ... 3 MORE . . . . . 4 STOPPED FOOD . . . 5 NEVER GAVE FOOD 6 DON'T KNOW 8	MUCH LESS . . . . . 1 SOMEWHAT LESS ... 2 ABOUT THE SAME ... 3 MORE . . . . . 4 STOPPED FOOD . . . 5 NEVER GAVE FOOD 6 DON'T KNOW 8
518	Did you seek advice or treatment for the diarrhea from any source?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 522) ←┘	YES . . . . . 1 NO . . . . . 2 (SKIP TO 522) ←┘	YES . . . . . 1 NO . . . . . 2 (SKIP TO 522) ←┘

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
519	Where did you seek advice or or treatment? Anywhere else? PROBE TO IDENTIFY EACH TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S))	PUBLIC SECTOR HOSP./MEDICAL COLLEGE/SPE. MED. COL A DISTRICT HOSP. B MCWC . . . . . C UHC . . . . . D UH & FWC . . . . E SATELITE CLINIC/ EPI OUTREACH SITE . . . . . F COMMUNITY CLINIC . . . . . G FAMILY WELFARE ASSISTANT H OTHER _____ I (SPECIFY) NGO SECTOR NGO STATIC CLINIC . . . . . J NGO SATELLITE CLINIC . . . . . K NGO FIELD WORKER L OTHER _____ M (SPECIFY) PRIVATE MED. SECTOR PVT. HOSPITAL/ CLINIC . . . . . N QUALIFIED DOCTOR . . . O UNQUALIFIED DOCTOR . . . . . P PHARMACY . . . . . Q OTHER PRIVATE SECTOR _____ R (SPECIFY) OTHER _____ X (SPECIFY)	PUBLIC SECTOR HOSP./MEDICAL COLLEGE/SPE. MED. COL A DISTRICT HOSP. B MCWC . . . . . C UHC . . . . . D UH & FWC . . . . . E SATELITE CLINIC/ EPI OUTREACH SITE . . . . . F COMMUNITY CLINIC . . . . . G FAMILY WELFARE ASSISTANT H OTHER _____ I (SPECIFY) NGO SECTOR NGO STATIC CLINIC . . . . . J NGO SATELLITE CLINIC . . . . . K NGO FIELD WORKER L OTHER _____ M (SPECIFY) PRIVATE MED. SECTOR PVT. HOSPITAL/ CLINIC . . . . . N QUALIFIED DOCTOR . . . O UNQUALIFIED DOCTOR . . . . . P PHARMACY . . . . . Q OTHER PRIVATE SECTOR _____ R (SPECIFY) OTHER _____ X (SPECIFY)	PUBLIC SECTOR HOSP./MEDICAL COLLEGE/SPE. MED. COL A DISTRICT HOSP. B MCWC . . . . . C UHC . . . . . D UH & FWC . . . . . E SATELITE CLINIC/ EPI OUTREACH SITE . . . . . F COMMUNITY CLINIC . . . . . G FAMILY WELFARE ASSISTANT H OTHER _____ I (SPECIFY) NGO SECTOR NGO STATIC CLINIC . . . . . J NGO SATELLITE CLINIC . . . . . K NGO FIELD WORKER L OTHER _____ M (SPECIFY) PRIVATE MED. SECTOR PVT. HOSPITAL/ CLINIC . . . . . N QUALIFIED DOCTOR . . . O UNQUALIFIED DOCTOR . . . . . P PHARMACY . . . . . Q OTHER PRIVATE SECTOR _____ R (SPECIFY) OTHER _____ X (SPECIFY)
522	Was he/she given any of the follow at any time since he/she started having the diarrhea:	YES NO DK	YES NO DK	YES NO DK
	a) A fluid made from a special saline packet called ORSaline PACKET?	ORS PKT 1 2 8	ORS PKT 1 2 8	ORS PKT 1 2 8
	b) A homemade sugar-salt-water solution (laban gur)?	LABAN GUR 1 2 8	LABAN GUR 1 2 8	LABAN GUR 1 2 8
	c) Zinc syrup?	ZINC SYRUP 1 2 8	ZINC SYRUP 1 2 8	ZINC SYRUP 1 2 8
	d) Zinc tablets?	ZINC TABLET 1 2 8	ZINC TABLET 1 2 8	ZINC TABLET 1 2 8

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
525	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
527	Has (NAME) had an illness with a cough at any time in the last 2 weeks?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 530) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 530) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 530) DON'T KNOW 8
528	When (NAME) had an illness with a cough, did he/she breathe faster than usual with short, rapid breaths or have difficulty breathing?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 531) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 531) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 531) DON'T KNOW 8
529	Was the fast or difficult breathing due to a problem in the chest or to a blocked or runny nose?	CHEST ONLY . . . 1 NOSE ONLY . . . . . 2 BOTH . . . . . 3 OTHER _____ 6 (SPECIFY) DON'T KNOW . . . . . 8 (SKIP TO 531)	CHEST ONLY . . . 1 NOSE ONLY . . . . . 2 BOTH . . . . . 3 OTHER _____ 6 (SPECIFY) DON'T KNOW . . . . . 8 (SKIP TO 531)	CHEST ONLY . . . 1 NOSE ONLY . . . . . 2 BOTH . . . . . 3 OTHER _____ 6 (SPECIFY) DON'T KNOW . . . . . 8 (SKIP TO 531)
530	CHECK 525: HAD FEVER?	YES NO OR DK (GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 557)	YES NO OR DK (GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 557)	YES NO OR DK (GO TO 503 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE BIRTHS, GO TO 557)
531	Now I would like to know how much (NAME) was given to drink (including breastmilk) during the illness with a (fever/cough). Was he/she given less than usual to drink, about the same amount, or more than usual to drink? IF LESS, PROBE: Was he/she given much less than usual to drink or	MUCH LESS . . . . . 1 SOMEWHAT LESS ... 2 ABOUT THE SAME ... 3 MORE . . . . . 4 NOTHING TO DRINK 5 DON'T KNOW 8	MUCH LESS . . . . . 1 SOMEWHAT LESS ... 2 ABOUT THE SAME ... 3 MORE . . . . . 4 NOTHING TO DRINK 5 DON'T KNOW 8	MUCH LESS . . . . . 1 SOMEWHAT LESS ... 2 ABOUT THE SAME ... 3 MORE . . . . . 4 NOTHING TO DRINK 5 DON'T KNOW 8
532	When (NAME) had a (fever/cough), was he/she given less than usual to eat, about the same amount, more than usual, or nothing to eat? IF LESS, PROBE: Was he/she given much less than usual to eat or	MUCH LESS . . . . . 1 SOMEWHAT LESS ... 2 ABOUT THE SAME ... 3 MORE . . . . . 4 STOPPED FOOD . . . 5 NEVER GAVE FOOD 6 DON'T KNOW 8	MUCH LESS . . . . . 1 SOMEWHAT LESS ... 2 ABOUT THE SAME ... 3 MORE . . . . . 4 STOPPED FOOD . . . 5 NEVER GAVE FOOD 6 DON'T KNOW 8	MUCH LESS . . . . . 1 SOMEWHAT LESS ... 2 ABOUT THE SAME ... 3 MORE . . . . . 4 STOPPED FOOD . . . 5 NEVER GAVE FOOD 6 DON'T KNOW 8
533	Did you seek advice or treatment for the illness from any source?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 537)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 537)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 537)

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
536	Where did you first seek advice or treatment? FILL UP THE BOXES ACCORDING TO THE SEQUENCE OF CARE RECEIVED.	SEQUENCE OF CARE 1 2 3 4 HOME . . . . . A PUBLIC SECTOR HOSP./MEDICAL COLLEGE/SPE. MED. COL B DISTRICT HOSP. . C MCWC . . . . . D UHC . . . . . E UH & FWC . . . . F SATELITE CLINIC/ EPI OUTREACH SITE . . . . . G COMMUNITY CLINIC . . . . . H FAMILY WELFARE ASSIST. . . . . I OTHER _____ J (SPECIFY) NGO SECTOR NGO STATIC CLINIC . . . . . K NGO SATELLITE CLINIC . . . . . L NGO DEPO HOLDER . . . . . M NGO FIELD WORKER . . . . . N OTHER _____ (SPECIFY) O PRIVATE MED. SECTOR PVT. HOSPITAL/ CLINIC . . . . . Q QUALIFIED DOCTOR . . . . . R UNQUALIFIED DOCTOR . . . . . S PHARMACY/ DRUG STORE . T OTHER PVT. _____ U (SPECIFY) OTHER _____ X (SPECIFY)	SEQUENCE OF CARE 1 2 3 4 HOME . . . . . A PUBLIC SECTOR HOSP./MEDICAL COLLEGE/SPE. MED. COL B DISTRICT HOSP. . C MCWC . . . . . D UHC . . . . . E UH & FWC . . . . F SATELITE CLINIC/ EPI OUTREACH SITE . . . . . G COMMUNITY CLINIC . . . . . H FAMILY WELFARE ASSIST. . . . . I OTHER _____ J (SPECIFY) NGO SECTOR NGO STATIC CLINIC . . . . . K NGO SATELLITE CLINIC . . . . . L NGO DEPO HOLDER . . . . . M NGO FIELD WORKER . . . . . N OTHER _____ (SPECIFY) O PRIVATE MED. SECTOR PVT. HOSPITAL/ CLINIC . . . . . Q QUALIFIED DOCTOR . . . . . R UNQUALIFIED DOCTOR . . . . . S PHARMACY/ DRUG STORE . T OTHER PVT. _____ U (SPECIFY) OTHER _____ X (SPECIFY)	SEQUENCE OF CARE 1 2 3 4 HOME . . . . . A PUBLIC SECTOR HOSP./MEDICAL COLLEGE/SPE. MED. COL B DISTRICT HOSP. . C MCWC . . . . . D UHC . . . . . E UH & FWC . . . . F SATELITE CLINIC/ EPI OUTREACH SITE . . . . . G COMMUNITY CLINIC . . . . . H FAMILY WELFARE ASSIST. . . . . I OTHER _____ J (SPECIFY) NGO SECTOR NGO STATIC CLINIC . . . . . K NGO SATELLITE CLINIC . . . . . L NGO DEPO HOLDER . . . . . M NGO FIELD WORKER . . . . . N OTHER _____ (SPECIFY) O PRIVATE MED. SECTOR PVT. HOSPITAL/ CLINIC . . . . . Q QUALIFIED DOCTOR . . . . . R UNQUALIFIED DOCTOR . . . . . S PHARMACY/ DRUG STORE . T OTHER PVT. _____ U (SPECIFY) OTHER _____ X (SPECIFY)
537	At any time during the illness, did (NAME) take any drugs for the illness?	YES . . . . . 1 NO . . . . . 2 (GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 557) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 557) 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 557) DON'T KNOW 8

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
538	What drugs did (NAME) take? Any other drugs? RECORD ALL MENTIONED.	ANTIMALARIAL DRUGS SP/FANSIDAR . . . A CHLOROQUIN . . . B PRIMAQUINE . . . C QUININE . . . . . D COMBINATION WITH ARTEMISININ E OTHER ANTI-MALARIAL _____ . . . F (SPECIFY) ANTIBIOTIC DRUGS BETA LACTUM . . . G MACROLIDES . . . H QUINOLONE . . . I CEPHALOS-PORIN . . . . . J COTRIMOXA-ZOLE . . . . . K GENTAMYCIN . . . L METRONI-DAZOLE . . . . M OTHER DRUGS _____ X (SPECIFY) DON'T KNOW . . . . . Z	ANTIMALARIAL DRUGS SP/FANSIDAR . . . A CHLOROQUINE . . . B PRIMAQUINE . . . C QUININE . . . . . D COMBINATION WITH ARTEMISININ E OTHER ANTI-MALARIAL _____ . . . F (SPECIFY) ANTIBIOTIC DRUGS BETA LACTUM . . . G MACROLIDES . . . H QUINOLONE . . . I CEPHALOS-PORIN . . . . . J COTRIMOXA-ZOLE . . . . . K GENTAMYCIN . . . L METRONI-DAZOLE . . . . M OTHER DRUGS _____ X (SPECIFY) DON'T KNOW . . . . . Z	ANTIMALARIAL DRUGS SP/FANSIDAR . . . A CHLOROQUINE . . . B PRIMAQUINE . . . C QUININE . . . . . D COMBINATION WITH ARTEMISININ E OTHER ANTI-MALARIAL _____ . . . F (SPECIFY) ANTIBIOTIC DRUGS BETA LACTUM . . . G MACROLIDES . . . H QUINOLONE . . . I CEPHALOS-PORIN . . . . . J COTRIMOXA-ZOLE . . . . . K GENTAMYCIN . . . L METRONI-DAZOLE . . . . M OTHER DRUGS _____ X (SPECIFY) DON'T KNOW . . . . . Z
539	Did anybody prescribe the drug?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 552)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 552)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 552)
540	Who prescribed the drug?	HEALTH PROFESSIONAL/WORKER QUALIFIED DOCTOR . . . . . A NURSE/MIDWIFE/PARAMEDIC B FAMILY WELFARE VISITOR . . . . . C CSBA . . . . . D MA/SACMO . . . . . E COMMUNITY HEALTH CARE PROVIDER . . . F HEALTH ASSISTANT . . . G FAMILY WELFARE ASSISTANT . . . H NGO WORKER . . . . . I OTHER PROVIDER TRAINED TBA . . . J UNTRAINED TBA . K UNQUALIFIED DOCTOR . . . . . L DRUG SELLER . M OTHER _____ X (SPECIFY)	HEALTH PROFESSIONAL/WORKER QUALIFIED DOCTOR . . . . . A NURSE/MIDWIFE/PARAMEDIC B FAMILY WELFARE VISITOR . . . . . C CSBA . . . . . D MA/SACMO . . . . . E COMMUNITY HEALTH CARE PROVIDER . . . F HEALTH ASSISTANT . . . G FAMILY WELFARE ASSISTANT . . . H NGO WORKER . . . . . I OTHER PROVIDER TRAINED TBA . . . J UNTRAINED TBA . K UNQUALIFIED DOCTOR . . . . . L DRUG SELLER . M OTHER _____ X (SPECIFY)	HEALTH PROFESSIONAL/WORKER QUALIFIED DOCTOR . . . . . A NURSE/MIDWIFE/PARAMEDIC B FAMILY WELFARE VISITOR . . . . . C CSBA . . . . . D MA/SACMO . . . . . E COMMUNITY HEALTH CARE PROVIDER . . . F HEALTH ASSISTANT . . . G FAMILY WELFARE ASSISTANT . . . H NGO WORKER . . . . . I OTHER PROVIDER TRAINED TBA . . . J UNTRAINED TBA . K UNQUALIFIED DOCTOR . . . . . L DRUG SELLER . M OTHER _____ X (SPECIFY)

NO.	QUESTIONS AND FILTERS	LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	SECOND-FROM-LAST BIRTH NAME _____
541	Where did you get the drug?	PUBLIC SECTOR HOSP./MEDICAL COLLEGE/SPE. MED. COL A DISTRICT HOSPT. B MCWC . . . . . C UHC . . . . . D UH & FWC . . . . E SATELITE CLINIC/ EPI OUTREACH SITE . . . . . F COMMUNITY CLINIC . . . . . G FAMILY WELFARE ASST. (FWA) H OTHER _____ I (SPECIFY) NGO SECTOR NGO STATIC CLINIC . . . . . J NGO SATELLITE CLINIC . . . . . K NGO DEPO HOLDER . . . . . L NGO FIELD WORKER . . . . . M OTHER _____ N (SPECIFY) PRIVATE MED. SECTOR PVT. HOSPITAL/ CLINIC . . . . . O QUALIFIED DOCTOR . . . P UNQUALIFIED DOCTOR . . . . . Q PHARMACY DRUG STORE . R OTHER PRIVATE _____ S (SPECIFY) OTHER SOURCE SHOP . . . . . V FRIEND/RELATIVE W OTHER _____ X (SPECIFY)	PUBLIC SECTOR HOSP./MEDICAL COLLEGE/SPE. MED. COL A DISTRICT HOSPT. B MCWC . . . . . C UHC . . . . . D UH & FWC . . . . E SATELITE CLINIC/ EPI OUTREACH SITE . . . . . F COMMUNITY CLINIC . . . . . G FAMILY WELFARE ASST. (FWA) H OTHER _____ I (SPECIFY) NGO SECTOR NGO STATIC CLINIC . . . . . J NGO SATELLITE CLINIC . . . . . K NGO DEPO HOLDER . . . . . L NGO FIELD WORKER . . . . . M OTHER _____ N (SPECIFY) PRIVATE MED. SECTOR PVT. HOSPITAL/ CLINIC . . . . . O QUALIFIED DOCTOR . . . P UNQUALIFIED DOCTOR . . . . . Q PHARMACY/ DRUG STORE . R OTHER PRIVATE _____ S (SPECIFY) OTHER SOURCE SHOP . . . . . V FRIEND/RELATIVE W OTHER _____ X (SPECIFY)	PUBLIC SECTOR . HOSP./MEDICAL COLLEGE/SPE. MED. COL A DISTRICT HOSPT. B MCWC . . . . . C UHC . . . . . D UH & FWC . . . . E SATELITE CLINIC/ EPI OUTREACH SITE . . . . . F COMMUNITY CLINIC . . . . . G FAMILY WELFARE ASST. (FWA) H OTHER _____ I (SPECIFY) NGO SECTOR NGO STATIC CLINIC . . . . . J NGO SATELLITE CLINIC . . . . . K NGO DEPO HOLDER . . . . . L NGO FIELD WORKER . . . . . M OTHER _____ N (SPECIFY) PRIVATE MED. SECTOR PVT. HOSPITAL/ CLINIC . . . . . O QUALIFIED DOCTOR . . . P UNQUALIFIED DOCTOR . . . . . Q PHARMACY/ DRUG STORE . R OTHER PRIVATE _____ S (SPECIFY) OTHER SOURCE SHOP . . . . . V FRIEND/RELATIVE W OTHER _____ X (SPECIFY)
552		GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 557.	GO BACK TO 503 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 557.	GO TO 503 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE BIRTHS, GO TO 557.

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
557	CHECK 215 AND 218, ALL ROWS: NUMBER OF CHILDREN BORN IN 2012 OR LATER LIVING WITH THE RESPONDENT ONE OR MORE ☐ ↓ RECORD NAME OF YOUNGEST CHILD LIVING WITH HER AND CONTINUE WITH 558 _____ (NAME)	NONE ☐ → 601	

558 Now I would like to ask you about liquids or foods that (NAME FROM 557) had yesterday during the day or at night. I am interested in whether your child had the item I mention even if it was combined with other foods.

Did (NAME FROM 557) (drink/eat):		YES	NO	DK
a) Plain water?	**a)**	1	2	8
b) Juice or juice drinks?	**b)**	1	2	8
c) Clear broth?	**c)**	1	2	8
d) Milk such as tinned, powdered, or fresh animal milk?	**d)**	1	2	8
IF YES: How many times did (NAME) drink milk? IF 7 OR MORE TIMES, RECORD '7'.	NUMBER OF TIMES DRANK MILK	☐		
e) Infant formula like Lactogen?	**e)**	1	2	8
IF YES: How many times did (NAME) drink infant formula? IF 7 OR MORE TIMES, RECORD '7'.	NUMBER OF TIMES DRANK FORMULA	☐		
f) Any other liquids?	**f)**	1	2	8
g) Yogurt?	**g)**	1	2	8
IF YES: How many times did (NAME) eat yogurt? IF 7 OR MORE TIMES, RECORD '7'.	NUMBER OF TIMES ATE YOGURT	☐		
h) Any commercially fortified baby food like Cerelac?	**h)**	1	2	8
i) Bread, rice, noodles, porridge, or other foods made from grains?	**i)**	1	2	8
j) Pumpkin, carrots, squash or sweet potatoes that are yellow or orange inside?	**j)**	1	2	8
k) White potatoes, white yams, manioc, cassava, or any other foods made from roots?	**k)**	1	2	8
l) Any dark green, leafy vegetables like spinach, poi sag, methi, kolmi, kochu,	**l)**	1	2	8
m) Ripe mangoes, papayas, ripe kathal, bangi or other Vitamin A rich fruits?	**m)**	1	2	8
n) Any other fruits like banana, grapes, apple, guava or other vegetables like cabbage, patal, kopi?	**n)**	1	2	8
o) Liver, kidney, heart or other organ meats?	**o)**	1	2	8
p) Any meat, such as beef, pork, lamb, goat, chicken, or duck?	**p)**	1	2	8
q) Eggs?	**q)**	1	2	8
r) Fish, shrimps or crab ?	**r)**	1	2	8
s) Any foods made from beans, peas, lentils, or nuts?	**s)**	1	2	8
t) Cheese or other food made from milk like paneer?	**t)**	1	2	8
u) Any other solid, semi-solid, or soft food (bengali sweets)?	**u)**	1	2	8

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
559	CHECK 558 (CATEGORIES "g" THROUGH "u"): NOT A SINGLE "YES" ☐ ↓ AT LEAST ONE "YES" ☐ →		561
560	Did (NAME) eat any solid, semi-solid, or soft foods yesterday during the day or at night? IF 'YES' PROBE: What kind of solid, semi-solid or soft foods did (NAME) eat?	YES . . . . . 1 (GO BACK TO 558 TO RECORD FOOD EATEN YESTERDAY) ← NO . . . . . 2 →	601
561	How many times did (NAME FROM 557) eat solid, semi-solid, 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

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
601	CHECK 103A: CURRENTLY MARRIED ☐ ↓ SEPARATED/DESERTED DIVORCED/WIDOWED ☐ → 609		
604	Is your husband living with you now or is he staying elsewhere?	LIVING WITH HER . . . . . 1 STAYING ELSEWHERE 2	→605
604A	How often did he come home in the past 12 months?	NUMBER OF TIMES . . . . . ☐☐ DID NOT COME IN THE LAST 12 MONTHS 96	
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. . . . . ☐☐	
609	Have you been married only once or more than once?	ONLY ONCE . . . . . 1 MORE THAN ONCE 2	
610	CHECK 609: MARRIED ONLY ONCE ☐ ↓ In what month and year did you start living with your (husband/partner)? MARRIED MORE THAN ONCE ☐ ↓ Now I would like to ask about your first (husband/partner). In what month and year did you start living with him?	MONTH . . . . . ☐☐ DON'T KNOW MONTH . . . . . 98 YEAR . . . . . ☐☐☐☐ DON'T KNOW YEAR 9998	→611A
611	How old were you when you first started living with him?	AGE . . . . . ☐☐	
611A	Do you think you got married at an age that was right for you, or would you have preferred to marry earlier or later?	EARLIER . . . . . 1 RIGHT TIME . . . . . 2 LATER 3	→611C
611B	At what age would you have preferred to get married?	AGE IN YEARS . . . . . ☐☐	
611C	Were you studying or attending school just before you got married?	YES . . . . . 1 NO 2	→611E
611D	Did you continue your studies after marriage? IF YES: For how long?	NO . . . . . 1 YES, LESS THAN A YEAR . . . . . 2 YES, FOR 1-2 YEARS . . . . . 3 YES, FOR 3-4 YEARS . . . . . 4 YES, FOR 5+ YEARS 5	
611E	Were you working outside home just before you got married?	YES . . . . . 1 NO 2	→612

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
611F	Did you continue working after marriage? IF YES: For how long?	NO . . . . . 1 YES, LESS THAN A YEAR . . . . . 2 YES, FOR 1-2 YEARS . . . . . 3 YES, FOR 3-4 YEARS . . . . . 4 YES, FOR 5+ YEARS 5	
612	CHECK FOR THE PRESENCE OF OTHERS. BEFORE CONTINUING, MAKE EVERY EFFORT TO ENSURE PRIVACY.		
613	Now I would like to ask some questions about sexual activity in order to gain a better understanding of some important life issues. How old were you when you had sexual intercourse for the very first time?	NEVER HAD SEXUAL INTERCOURSE . . . . . .00 AGE IN YEARS . . . . . [ ][ ] FIRST TIME WHEN STARTED LIVING WITH (FIRST) HUSBAND/PARTNER 95	→701
614	Now I would like to ask you some questions about your recent sexual activity. Let me assure you again that your answers are completely confidential and will not be told to anyone. If we should come to any question that you don't want to answer, just let me know and we will go to the next question.		
615	When was the <u>last</u> time you had sexual intercourse? IF LESS THAN 12 MONTHS, ANSWER MUST BE RECORDED IN DAYS, WEEKS OR MONTHS. IF 12 MONTHS (ONE YEAR) OR MORE, ANSWER MUST BE RECORDED IN YEARS.	DAYS AGO . . . . . 1 [ ][ ] WEEKS AGO . . . . . 2 [ ][ ] MONTHS AGO . . . . . 3 [ ][ ] YEARS AGO . . . . . 4 [ ][ ]	→701
616	How many times during the last month did you have sexual intercourse? IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE. IF NUMBER OF TIMES IS 95 OR MORE, WRITE '95'.	NUMBER OF TIMES . . . . . [ ][ ]	

SECTION 7. FERTILITY PREFERENCES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
701	CHECK 103A: CURRENTLY MARRIED ☐ SEPARATED/DESERTED DIVORCED/WIDOWED ☐		→ 712
701A	CHECK 304: NEITHER STERILIZED ☐ HE OR SHE STERILIZED ☐		→ 710
702	CHECK 226: PREGNANT ☐ NOT PREGNANT OR UNSURE ☐		→ 704
703	Now I have some questions about the future. After the child you are expecting now, would you like to have another child, or would you prefer not to have any more children?	HAVE ANOTHER CHILD . . . . . 1 NO MORE . . . . . 2 UNDECIDED/DON'T KNOW 8	→ 705 → 711
704	Now I have some questions about the future. Would you like to have (a/another) child, or would you prefer not to have any (more) children?	HAVE (A/ANOTHER) CHILD . . . . . 1 NO MORE/NONE . . . . . 2 SAYS SHE CAN'T GET PREGNANT 3 UNDECIDED/DON'T KNOW 8	 → 707 → 712 → 710
705	CHECK 226: NOT PREGNANT OR UNSURE ☐ How long would you like to wait from now before the birth of (a/another) child? PREGNANT ☐ After the birth of the child you are expecting now, how long would you like to wait before the birth of another child?	MONTHS . . . . . 1 [ ][ ] YEARS . . . . . 2 [ ][ ] SOON/NOW . . . . . 993 SAYS SHE CAN'T GET PREGNANT 994 OTHER _____ 996 (SPECIFY) DON'T KNOW 998	 → 710 → 712 → 710
706	CHECK 226: NOT PREGNANT OR UNSURE ☐ PREGNANT ☐		→ 711
707	CHECK 303: USING A CONTRACEPTIVE METHOD? NOT CURRENTLY USING ☐ CURRENTLY USING ☐		→ 712
708	CHECK 705: NOT ASKED ☐ 24 OR MORE MONTHS OR 02 OR MORE YEARS ☐ 00-23 MONTHS OR 00-01 YEAR ☐		→ 711

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
709	CHECK 703 AND 704: WANTS TO HAVE A/ANOTHER CHILD You have said that you do not want (a/another) child soon. Can you tell me why you are not using a method to prevent pregnancy? Any other reason? WANTS NO MORE/ NONE You have said that you do not want any (more) children. Can you tell me why you are not using a method to prevent pregnancy? Any other reason? RECORD ALL REASONS MENTIONED.	FERTILITY-RELATED REASONS NOT HAVING SEX . . . . . B INFREQUENT SEX . . . . . C MENOPAUSAL/HYSTERECTOMY D CAN'T GET PREGNANT . . . . . E NOT MENSTRUATED SINCE LAST BIRTH . . . . . F BREASTFEEDING . . . . . G UP TO GOD/FATALISTIC . . . . . H OPPOSITION TO USE RESPONDENT OPPOSED . . . . . I HUSBAND/PARTNER OPPOSED . . . J OTHERS OPPOSED . . . . . K RELIGIOUS PROHIBITION . . . . . L LACK OF KNOWLEDGE KNOWS NO METHOD . . . . . M KNOWS NO SOURCE . . . . . N METHOD-RELATED REASONS SIDE EFFECTS/HEALTH CONCERNS . . . . . O LACK OF ACCESS/TOO FAR . . . . . P COSTS TOO MUCH . . . . . Q PREFERRED METHOD NOT AVAILABLE . . . . . R NO METHOD AVAILABLE . . . . . S INCONVENIENT TO USE . . . . . T INTERFERES WITH BODY'S NORMAL PROCESSES . . . . . U OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z	
710	CHECK 303: USING A CONTRACEPTIVE METHOD? NOT ASKED NOT CURRENTLY USING CURRENTLY USING		712
711	Do you think you will use a contraceptive method to delay or avoid pregnancy at any time in the future?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	711B
711A	Which contraceptive method would you prefer to use?	FEMALE STERILIZATION . . . . . 01 MALE STERILIZATION . . . . . 02 IUD . . . . . 03 INJECTABLES . . . . . 04 IMPLANTS . . . . . 05 PILL . . . . . 06 CONDOM . . . . . 07 LACTATIONAL AMEN. METHOD 11 SAFE PERIOD . . . . . 12 WITHDRAWAL . . . . . 13 OTHER _____ 96 (SPECIFY) UNSURE 98	712

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
711B	What is the main reason that you think you will not use a contraceptive method at any time in the future?	FERTILITY-RELATED REASONS NO SEX . . . . . 21 INFREQUENT 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	
712	CHECK 216: HAS LIVING CHILDREN ☐ → If you could go back to the time you did not have any children and could choose exactly the number of children to have in your whole life, how many would that be? NO LIVING CHILDREN ☐ → If you could choose exactly the number of children to have in your whole life, how many would that be? PROBE FOR A NUMERIC RESPONSE.	NONE . . . . . 00 → 714 NUMBER . . . . . ☐☐ OTHER _____ 96 → 714 (SPECIFY)	
713	How many of these children would you like to be boys, how many would you like to be girls and for how many would it not matter if it's a boy or a girl?	BOYS GIRLS EITHER NUMBER ☐☐ ☐☐ ☐☐ OTHER _____ 96 (SPECIFY)	
714	In the last month have you: Heard about family planning on the radio? Seen anything about family planning on the television? Read about family planning in a newspaper or magazine? Read about family planning in a poster, billboard or leaflet? Heard about family planning from a community event?	YES NO RADIO . . . . . 1 2 TELEVISION . . . . . 1 2 NEWSPAPER OR MAGAZINE . . . 1 2 POSTER/BILLBOARD . . . . . 1 2 COMMUNITY EVENT 1 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
714A	In the last month have you heard about family planning from any community health worker?	YES . . . . . 1 NO 2	→ 716
714B	Were these government or non-government worker?	GOVERNMENT . . . . . A NON-GOVERNMENT . . . . . B DON'T KNOW C	
716	CHECK 103A: YES, CURRENTLY MARRIED ☐ ↓ SEPARATED/DESERTED DIVORCED/WIDOWED ☐		→ 801
717	CHECK 303: USING A CONTRACEPTIVE METHOD? CURRENTLY USING ☐ ↓ NOT CURRENTLY USING OR NOT ASKED ☐		→ 720
718	Would you say that using contraception is mainly your decision, mainly your (husband's/partner's) decision, or did you both decide together?	MAINLY RESPONDENT . . . . . 1 MAINLY HUSBAND/PARTNER . . . . . 2 JOINT DECISION . . . . . 3 OTHER _____ 6 (SPECIFY)	
719	CHECK 304: NEITHER STERILIZED ☐ ↓ HE OR SHE STERILIZED ☐		→ 801
720	Does your (husband/partner) want the same number of children that you want, or does he want more or fewer than you want?	SAME NUMBER . . . . . 1 MORE CHILDREN . . . . . 2 FEWER CHILDREN . . . . . 3 DON'T KNOW 8	

SECTION 8. HUSBAND'S BACKGROUND AND WOMAN'S WORK

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
801	CHECK 103A: CURRENTLY MARRIED ☐ ↓ SEPARATED/DESERTED DIVORCED/WIDOWED ☐ →		803
802	How old was your (husband) on his last birthday?	AGE IN COMPLETED YEARS ☐☐	
803	Did your (last) (husband) ever attend school or madrasha?	YES . . . . . 1 NO 2	→ 806
803A	What type of schooling did your husband last attend?	SCHOOL . . . . . 1 MADRASHA 2	
804	What level of schooling did he last attend?	PRIMARY . . . . . 1 SECONDARY . . . . . 2 COLLEGE AND HIGHER 3	
805	What is the highest class he completed at that level?	CLASS . . . . . ☐☐	
806	CHECK 801: CURRENTLY MARRIED/ LIVING WITH A MAN ☐ ↓ What is your (husband's/ partner's) occupation? That is, what kind of work does he mainly do? FORMERLY MARRIED/ LIVED WITH A MAN ☐ ↓ What was your (last) (husband's/ partner's) occupation? That is, what kind of work did he mainly do?	_____ ☐☐ _____ _____	
807	Aside from your own housework, have you done any work in the last seven days?	YES . . . . . 1 NO 2	→ 811
808	As you know, some women take up jobs for which they are paid in cash or kind. Others sell things, have a small business or work on the family farm or in the family business. In the last seven days, have you done any of these things or any other work?	YES . . . . . 1 NO 2	→ 811
809	Although you did not work in the last seven days, do you have any job or business from which you were absent for leave, illness, vacation, maternity leave, or any other such reason?	YES . . . . . 1 NO 2	→ 811
810	Have you done any work in the last 12 months?	YES . . . . . 1 NO 2	→ 815
811	What is your occupation, that is, what kind of work do you mainly do?	_____ ☐☐ _____ _____	
812	Do you do this work for a member of your family, for someone else, or are you self-employed?	FOR FAMILY MEMBER . . . . . 1 FOR SOMEONE ELSE . . . . . 2 SELF-EMPLOYED 3	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
813	Do you usually work throughout the year, or do you work seasonally, or only once in a while?	THROUGHOUT THE YEAR . . . . . 1 SEASONALLY/PART OF THE YEAR 2 ONCE IN A WHILE 3	
814	Are you paid in cash or kind for this work or are you not paid at all?	CASH ONLY . . . . . 1 CASH AND KIND . . . . . 2 IN KIND ONLY . . . . . 3 NOT PAID 4	
815	CHECK 103A: CURRENTLY MARRIED ☐ SEPARATED/DESERTED DIVORCED/WIDOWED ☐		→ 823A
816	CHECK 814: CODE 1 OR 2 CIRCLED ☐ OTHER ☐		→ 820
817	Who usually decides how the money you earn will be used: you, you, your husband, you and your husband jointly, or someone else?	RESPONDENT . . . . . 1 HUSBAND . . . . . 2 RESPONDENT AND HUSBAND JOINTLY . . . . . 3 OTHER _____ 6 (SPECIFY)	
820	Who usually makes decisions about health care for yourself: you, you, your husband, you and your husband jointly, or someone else?	RESPONDENT . . . . . 1 HUSBAND . . . . . 2 RESPONDENT AND HUSBAND JOINTLY . . . . . 3 SOMEONE ELSE . . . . . 4 OTHER 6	
821	Who usually makes decisions about making major household purchases?	RESPONDENT . . . . . 1 HUSBAND . . . . . 2 RESPONDENT AND HUSBAND JOINTLY . . . . . 3 SOMEONE ELSE . . . . . 4 OTHER 6	
822	Who usually makes decisions about visits to your family or relatives?	RESPONDENT . . . . . 1 HUSBAND . . . . . 2 RESPONDENT AND HUSBAND JOINTLY . . . . . 3 SOMEONE ELSE . . . . . 4 OTHER 6	
823	Who usually makes decisions about your child health care?	RESPONDENT . . . . . 1 HUSBAND . . . . . 2 RESPONDENT AND HUSBAND JOINTLY . . . . . 3 SOMEONE ELSE . . . . . 4 OTHER 6	
823A	Do you go to a health centre or hospital alone or with your young children?	YES, ALONE . . . . . 1 YES, WITH CHILDREN . . . . . 2 NO . . . . . 3 OTHER _____ 6 (SPECIFY)	→ 825

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
823B	Can you go to a health centre or hospital alone or with your young children?	YES, ALONE . . . . . 1 YES, WITH CHILDREN . . . . . 2 NO . . . . . 3 OTHER _____ 6 (SPECIFY)	
825	PRESENCE OF OTHERS AT THIS POINT (PRESENT AND LISTENING, PRESENT BUT NOT LISTENING, OR NOT PRESENT)	PRES./ LISTEN. / PRES./ NOT LISTEN. / NOT PRES. CHILDREN < 10 . . . . . 1 2 3 HUSBAND . . . . . 1 2 3 OTHER MALES . . . . . 1 2 3 OTHER FEMALES . . . 1 2 3	
826	In your opinion, is a husband justified in hitting or beating his wife in the following situations: If she goes out without telling him? If she neglects the children? If she argues with him? If she refuses to have sex with him? If she burns the food?	YES / NO / DK GOES OUT . . . . . 1 2 8 NEGL. CHILDREN . . . 1 2 8 ARGUES . . . . . 1 2 8 REFUSES SEX . . . . . 1 2 8 BURNS FOOD 1 2 8	

SECTION 9. HIV/AIDS

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
901	Now I would like to talk about something else. Have you ever heard of an illness called AIDS?	YES . . . . . 1 NO 2	→ 937
902	Can people reduce their chance of getting the AIDS virus by having just one uninfected sex partner who has no other sex partners?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
903	Can people get the AIDS virus from mosquito bites?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
904	Can people reduce their chance of getting the AIDS virus by using a condom every time they have sex?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
905	Can people get the AIDS virus by sharing food with a person who has AIDS?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
906	Can people get the AIDS virus because of witchcraft or other supernatural means?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
906A	Can people get the AIDS virus by using unsterilized needle or syringe?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
906B	Can people get the AIDS virus through unsafe blood transfusion?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
907	Is it possible for a healthy-looking person to have the AIDS virus? virus?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
908	Can the virus that causes AIDS be transmitted from a mother to her baby: During pregnancy? During delivery? By breastfeeding?	YES NO DK DURING PREG. . . . . 1 2 8 DURING DELIVERY . . . 1 2 8 BREASTFEEDING . . . 1 2 8	
937	CHECK 901: HEARD ABOUT AIDS → Apart from AIDS, have you heard about other infections that can be transmitted through sexual contact? NOT HEARD ABOUT AIDS → Have you heard about infections that can be transmitted through sexual contact?	YES . . . . . 1 NO 2	
937A	Have you ever heard about: a) Syphilis? b) Gonorrhea?	YES NO SYPHILIS . . . . . 1 2 GONORRHEA 1 2	
938	CHECK 613: HAS HAD SEXUAL INTERCOURSE NEVER HAD SEXUAL INTERCOURSE		→ 945A

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
939	CHECK 937 and 937A: HEARD ABOUT OTHER SEXUALLY TRANSMITTED INFECTIONS? YES ☐ ↓ NO ☐ →		941
940	Now I would like to ask you some questions about your health in the last 12 months. During the last 12 months, have you had a disease which you got through sexual contact?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
941	Sometimes women experience a bad-smelling abnormal genital discharge. During the last 12 months, have you had a bad-smelling abnormal genital discharge?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
942	Sometimes women have a genital sore or ulcer. During the last 12 months, have you had a genital sore or ulcer?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
943	CHECK 940, 941, AND 942: HAS HAD AN INFECTION (ANY 'YES') ☐ ↓ HAS NOT HAD AN INFECTION OR DOES NOT KNOW ☐ →		945A
944	The last time you had (PROBLEM FROM 940/941/942), did you seek any kind of advice or treatment?	YES . . . . . 1 NO 2	→ 945A
945	Where did you go? Any other place? PROBE TO IDENTIFY EACH TYPE OF SOURCE. IF UNABLE TO DETERMINE IF PUBLIC OR PRIVATE SECTOR, WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S))	PUBLIC SECTOR HOSP./MEDICAL COLLEGE/SPE. MED. COL . . . . . A DISTRICT HOSPITAL . . . . . B MCWC . . . . . C UHC . . . . . D H&FWC . . . . . E SATELITE CLINIC/EPI OUTREACH SITE . . . . . F COMMUNITY CLINIC . . . . . G FAMILY WELFARE ASST. . . . . H OTHER _____ I (SPECIFY) NGO SECTOR NGO STATIC CLINIC . . . . . J NGO SATELLITE CLINIC . . . . . K NGO DEPO HOLDER . . . . . L NGO FIELD WORKER . . . . . M OTHER _____ N (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC/ . . . . . O QUALIFIED DOCTOR . . . . . P UNQUALIFIED DOCTOR . . . . . Q PHARMACY/DRUG STORE . . . . . R PRIVATE MEDICAL COLLEGE HOSPITAL _____ S (SPECIFY) OTHER SOURCE OTHER _____ X (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
945A	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	
946	RECORD THE TIME.	HOUR . . . . . [ ][ ] MINUTES . . . . . [ ][ ]	
947	Thank you for taking the time to answer these questions. I would like to inform you that additional information on family planning and antenatal care for women who give birth in the past five years will be collected in the near future in order to find better ways to provide health services for women and families. Another member of our team may return in a few days or weeks to ask you a few additional questions about these topics. Do you agree to allow another member of our team to contact you about participating in a short interview? Your responses will remain confidential.	RESPONDENT AGREES TO BE REVISITED . . . . . 1 [ ] RESPONDENT DOES NOT AGREE TO BE INTERVIEWED . . . . . 2 [ ] SIGNATURE OF INTERVIEWER: _____ DATE: _____	

INTERVIEWER'S OBSERVATIONS

TO BE FILLED IN AFTER COMPLETING INTERVIEW

COMMENTS ABOUT RESPONDENT:

COMMENTS ON SPECIFIC QUESTIONS:

ANY OTHER COMMENTS:

SUPERVISOR'S OBSERVATIONS

NAME OF SUPERVISOR: _____ DATE: _____

EDITOR'S OBSERVATIONS

NAME OF EDITOR: _____ DATE: _____

INSTRUCTIONS:
ONLY ONE CODE SHOULD APPEAR IN ANY BOX.
COLUMN 1 REQUIRES A CODE IN EVERY MONTH.

INFORMATION TO BE CODED FOR EACH COLUMN

COLUMN 1: BIRTHS, PREGNANCIES, CONTRACEPTIVE USE**

B BIRTHS
P PREGNANCIES
T TERMINATIONS

0 NO METHOD
1 FEMALE STERILIZATION
2 MALE STERILIZATION
3 IUD
4 INJECTABLES
5 IMPLANTS
6 PILL
7 CONDOM
K LACTATIONAL AMENORRHEA METHOD
L RHYTHM METHOD
M WITHDRAWAL

X OTHER _____
(SPECIFY)

COLUMN 2: DISCONTINUATION OF CONTRACEPTIVE USE

0 INFREQUENT SEX/HUSBAND AWAY
1 BECAME PREGNANT WHILE USING
2 WANTED TO BECOME PREGNANT
3 HUSBAND/PARTNER DISAPPROVED
4 WANTED MORE EFFECTIVE METHOD
5 SIDE EFFECTS/HEALTH CONCERNS
6 LACK OF ACCESS/TOO FAR
7 COSTS TOO MUCH
8 INCONVENIENT TO USE
F UP TO GOD/FATALISTIC
A DIFFICULT TO GET PREGNANT/MENOPAUSAL
D MARITAL DISSOLUTION/SEPARATION
X OTHER _____
(SPECIFY)
Z DON'T KNOW

				1	2	
	12	DEC	01			
	11	NOV	02			
	10	OCT	03			
	09	SEP	04			
2	08	AUG	05			2
0	07	JUL	06			0
1	06	JUN	07			1
4	05	MAY	08			1
	04	APR	09			
	03	MAR	10			
	02	FEB	11			
	01	JAN	12			
	12	DEC	13			
	11	NOV	14			
	10	OCT	15			
	09	SEP	16			
2	08	AUG	17			2
0	07	JUL	18			0
1	06	JUN	19			1
3	05	MAY	20			3
	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
1	06	JUN	31			1
2	05	MAY	32			2
	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
1	06	JUN	43			1
1	05	MAY	44			1
	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
1	06	JUN	55			1
0	05	MAY	56			0
	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
9	05	MAY	68			9
	04	APR	69			
	03	MAR	70			
	02	FEB	71			
	01	JAN	72			

BANGLADESH DEMOGRAPHIC AND HEALTH SURVEY 2014

COMMUNITY QUESTIONNAIRE

National Institute of Population Research and Training (NIPORT)
Ministry of Health and Family Welfare
Mitra and Associates
ICF Macro

Bangladesh Demographic and Health Survey 2014
COMMUNITY QUESTIONNAIRE

IDENTIFICATION

DIVISION _____
(BARISAL=1; CHITTAGONG=2; DHAKA=3; KHULNA=4; RAJSHAHI=5; RANGPUR=6, SYLHET=76)

DISTRICT _____

THANA _____

UNION/WARD _____

VILLAGE/MOHALLA/BLOCK _____

CLUSTER NUMBER .....

TYPE OF AREA: 1 = RURAL AREA; 2 = CITY CORPORATION
3 = OTHER THAN CITY CORPORATION

GPS READING:

		Degrees	Minutes	Thousandths
LATITUDE.....	N			
LONGITUDE	E			

WAYPOINT .....

DATE OF VISIT _____

DAY .....

MONTH.....

YEAR .....

RESULTS OF THE INTERVIEW:
[COMPLETED =1, INCOMPLETE = 2,
OTHER (SPECIFY) = 6]

RESULT.....

NAME OF INTERVIEWER _____

INTERVIEWER CODE .....

NAME OF PERSONS INTERVIEWED

1 _____

2 _____

3 _____

4 _____

5 _____

6 _____

		POSITION		SEX	
ELECTED OFFICIAL.....	01			MALE	1
RELIGIOUS LEADER	02			FEMALE.....	2
TEACHER/EDUCATOR.....	03				
DOCTOR/HEALTH OFFICIAL	04				
SERVICE HOLDER.....	05				
BUSINESS PERSON	06				
OTHER_____ (SPECIFY)	96				

BEGINNING TIME:

HOUR.....

MINUTES .....

2

1. Community information

INFORMED CONSENT
AFTER ASSEMBLING THE INFORMANTS, READ THE FOLLOWING GREETING:
Hello. I am representing the NIPORT of Ministry of Health and Family Welfare. We are carrying out a survey of communities to get a picture of services available to the communities and to understand when and why people use health services. I would like to ask you some questions about your community and about sources of health care in it and around it as a way of better understanding how to serve the population. Please be assured that this discussion is strictly confidential and you may choose to stop the interview at any time. May I continue?

No.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
100	PERMISSION RECEIVED TO CONTINUE?	YES.....1 NO .....2 →	Stop
100A	CHECK RURAL AREA ☐ ↓	URBAN AREA ☐ →	107
102	Which is the most common type of transportation i.e, most of the people use to go to the Thana Headquarters?	CAR/BUS/TEMPO.....01 MOTORCYCLE .....02 MOTOR LAUNCH.....03 BICYCLE .....04 ANIMAL CART.....05 BOAT .....06 PATH .....07 RICKSHAW/RICKSHAW VAN.....08 TRAIN.....09 BABY TAXI .....10 OTHER_____ 96 (SPECIFY)	
103	How long does it take to go to the Thana Headquarters using the transportation (MENTIONED IN Q 102)?	MINUTES..... ☐☐☐ DON'T KNOW.....998	
103a	What was the transportation cost to go to the thana headquarters using the transportation (mention in Q102)? ONE WAY TRIP	TK. ..... ☐☐☐☐	
105	Which is the most common type of transportation i.e, most of the people use to go to the District Headquarters?	CAR/BUS/TEMPO..... 01 MOTORCYCLE ..... 02 MOTOR LAUNCH..... 03 BICYCLE ..... 04 ANIMAL CART..... 05 BOAT ..... 06 PATH ..... 07 RICKSHAW/RICKSHAW VAN..... 08 TRAIN..... 09 BABY TAXI ..... 10 OTHER _____ 96 (SPECIFY)	
106	How long does it take to go to the District Headquarters using the transportation (MENTIONED IN Q 105)?	MINUTES..... ☐☐☐ DON'T KNOW..... 998	
106a	What was the transportation cost to go to the District headquarters using the transportation (mention in Q105)? ONE WAY TRIP	TK. ..... ☐☐☐☐	
107	What is the main access route to this village/mohalla ?	ALL WEATHER ROAD/ PACCA ROAD/MOTORABLE.. ..... 1 SEASONAL ROAD/EARTHEN..... 2 WATERWAY..... 3 PATH ..... 4 OTHER_____ ..... 6 (SPECIFY)	

No.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
108	What are the main economic activities in this area/village? (CIRCLE ALL MENTIONED)	AGRICULTURE .....A LIVESTOCK .....B FISHING .....C COMMERCE .....D MANUFACTURING .....E DAY LABOR .....F SERVICE ..... G OTHER_____ .....X (SPECIFY)	
109A	CHECK RURAL AREA ☐ ▼	URBAN AREA ☐ →	111A
110	How far is the nearest weekly market from this village? IF LESS THAN ONE MILE/KILOMETER, RECORD “00”. RECORD “97” IF DISTANCE IS MORE THAN 97 MILES/KILOMETERS. RECORD “98” IF DON’T KNOW.	MILE ..... 1 KILOMETER….2 ☐☐	
111A	Is there always accessible telephone service in this village?	YES.....1 NO 2	
112	Is electricity available here?	YES.....1 NO 2	
113	What is the primary source of water for the majority of people in this village?	PIPED.....01 PUBLIC TAP.....02 WELL.....03 TUBE WELL .....04 RIVER/STREAM/LAKE.....05 RAINWATER .....06 OTHER_____96	
114	In this village/mohalla, are there any of the following :	YES NO	
	MOTHER'S CLUB OR LADIES ASSOCIATIONS?	MOTHERS CLUB 1 2	
	GRAMEEN BANK MEMBER ?	GRAMEEN BANK 1 2	
	VOLUNTARY ORGANIZATION MEMBER ?	V0 MEMBER.....1 2	
	BRAC INCOME GENERATING ACTVITIES	BRAC.....1 2	
	PROSHIKA	PROSHIKA 1 2	
	ASHA	ASHA.....1 2	
	COTTAGE INDUSTRIES OF BSIC	BSIC 1 2	
	COOPERATIVE SOCIETY	COOPERATIVE SOCIETY ..1 2	
	OTHER NGO INCOME GENERATING ACTIVITIES	NGOS 1 2	
115	Please tell me if the following things are in this village/mohalla. IF YES, WRITE '00'. IF NO, ASK: How far is it? IF DO NOT KNOW, PUT '98'.		
	A. How far is the madrasha from this village/mohalla?	MILE .....1 KILOMETER.....2 ☐☐	
	B. How far is the primary school?	MILE .....1 KILOMETER.....2 ☐☐	
	C. How far is the boy’s high school from this viilage/mohalla?	MILE .....1 KILOMETER.....2 ☐☐	
	D. How far is the girl’s high school from this village/mohalla?	MILE .....1 KILOMETER.....2 ☐☐	
	E. How far is the high school (co-education)?	MILE .....1 KILOMETER.....2 ☐☐	
	F. How far is the post office from this village/mohalla?	MILE .....1 KILOMETER.....2 ☐☐	
	G. How far is the cinema hall from this village/mohalla?	MILE .....1 KILOMETER.....2 ☐☐	
117	Is there any shop or any person in this village/mohalla, that sells family planning method ?	YES.....1 NO .....2 DON'T KNOW 8	

4

2. Identification of Health Facilities

Now we would like to ask you some questions about health facilities from which people in this village/mohalla can obtain services if they want. We would like for you to tell us about all of the facilities known by the general population of this village/mohalla that are of specific types. Please start with the ones that are closest to this village/mohalla.

201. HEALTH FACILITY	202. Where is the HEALTH FACILITY located?	203. What is the HEALTH FACILITY's operating authority?	204. How far in miles/kilometers is the HEALTH FACILITY located from the center of the village? IF LOCATED IN THE VILLAGE/MOHALLA, RECORD '00'.	205. How many minutes does it take to go to the FACILITY using the most common type of transportation?	206. When did FACILITY first open?	207. Is HEALTH FACILITY in this thana/union ?
01A. HOSPITAL (Nearest) NAME:_____ DON'T KNOW NONE	DISTRICT: _____ THANA: _____ LOCATION: _____	GOVERNMENT..... 01 NGO ..... 02 PRIVATE ..... 03 RELIGIOUS ..... 04 OTHER ..... 96 DK..... 98	MILES .....1 KILOMETERS....2 [ ][ ] DON'T KNOW..... 98	MINUTES [ ][ ][ ] DON'T KNOW 998	YEAR ..... [ ][ ][ ][ ] DON'T KNOW..... 9998	YES .... 1→ 02A NO ..... 2→ 01B
01B. HOSPITAL (in this thana) NAME:_____ DON'T KNOW NONE	DISTRICT: _____ THANA: _____ LOCATION: _____	GOVERNMENT..... 01 NGO ..... 02 PRIVATE ..... 03 RELIGIOUS ..... 04 OTHER ..... 96 DK..... 98	MILES .....1 KILOMETERS....2 [ ][ ] DON'T KNOW..... 98	MINUTES [ ][ ][ ] DON'T KNOW 998	YEAR ..... [ ][ ][ ][ ] DON'T KNOW..... 9998	
02A. THANA HEALTH CENTER (THC) (nearest) NAME:_____ DON'T KNOW NONE	DISTRICT: _____ THANA: _____ LOCATION: _____	GOVERNMENT..... 01	MILES .....1 KILOMETERS....2 [ ][ ] DON'T KNOW..... 98	MINUTES [ ][ ][ ] DON'T KNOW 998	YEAR ..... [ ][ ][ ][ ] DON'T KNOW..... 9998	YES .... 1→ 03A NO ..... 2→ 02B
02B. THANA HEALTH CENTER (THC) (in this thana) NAME:_____ DON'T KNOW NONE	DISTRICT: _____ THANA: _____ LOCATION: _____	GOVERNMENT..... 01	MILES .....1 KILOMETERS....2 [ ][ ] DON'T KNOW..... 98	MINUTES [ ][ ][ ] DON'T KNOW 998	YEAR ..... [ ][ ][ ][ ] DON'T KNOW..... 9998	

Community-Questionnaire # 5

201. HEALTH FACILITY	202. Where is the HEALTH FACILITY located?	203. What is the HEALTH FACILITY's operating authority?	204. How far in miles/kilometers is the HEALTH FACILITY located from the center of the village? IF LOCATED IN THE VILLAGE/MOHALLA, RECORD '00'.	205. How many minutes does it take to go to the FACILITY using the most common type of transportation?	206. When did FACILITY first open?	207. Is HEALTH FACILITY in this thana/union ?
03A. FAMILY WELFARE CENTER (nearest) NAME:_____ DON'T KNOW NONE	DISTRICT: _____ THANA: _____ LOCATION: _____	GOVERNMENT..... 01	MILES.....1 KILOMETERS....2 ☐☐ DON'T KNOW..... 98	MINUTES ☐☐☐ DON'T KNOW 998	YEAR ..... ☐☐☐☐ DON'T KNOW..... 9998	YES .... 1→ 04A NO ..... 2→ 03B
03B. FAMILY WELFARE CENTER (in this union) NAME:_____ DON'T KNOW NONE	DISTRICT: _____ THANA: _____ LOCATION: _____	GOVERNMENT..... 01	MILES.....1 KILOMETERS....2 ☐☐ DON'T KNOW..... 98	MINUTES ☐☐☐ DON'T KNOW 998	YEAR ..... ☐☐☐☐ DON'T KNOW..... 9998	
04A. MATERNAL AND CHILD WELFARE CENTER (MCWC) (nearest) NAME:_____ DON'T KNOW NONE	DISTRICT: _____ THANA: _____ LOCATION: _____	GOVERNMENT..... 01	MILES.....1 KILOMETERS....2 ☐☐ DON'T KNOW..... 98	MINUTES ☐☐☐ DON'T KNOW 998	YEAR ..... ☐☐☐☐ DON'T KNOW..... 9998	YES .... 1→ 06A NO ..... 2→ 04B
04B. MATERNAL AND CHILD WELFARE CENTER (MCWC) (DISTRICT) NAME:_____ DON'T KNOW NONE	DISTRICT: _____ THANA: _____ LOCATION: _____	GOVERNMENT..... 01	MILES.....1 KILOMETERS....2 ☐☐ DON'T KNOW..... 98	MINUTES ☐☐☐ DON'T KNOW 998	YEAR ..... ☐☐☐☐ DON'T KNOW..... 9998	

List all of the PRIVATE CLINICS that are available for people in this village/mohalla to use.

201. HEALTH FACILITY	202. Where is the HEALTH FACILITY located?	203. What is the HEALTH FACILITY's operating authority?	204. How far in miles/kilometers is the HEALTH FACILITY located from the center of the village? IF LOCATED IN THE VILLAGE/MOHALLA, RECORD '00'.	205. How many minutes does it take to go to the FACILITY using the most common type of transportation?	206. When did FACILITY first open?	207. Is HEALTH FACILITY in this thana ?
06A. PRIVATE CLINIC (nearest) NAME:_____ DON'T KNOW NONE	DISTRICT: _____ THANA: _____ LOCATION: _____	PRIVATE ..... 03 RELIGIOUS ..... 04 OTHER ..... 96 DK..... 98	MILES .....1 KILOMETERS....2 ☐☐ DON'T KNOW..... 98	MINUTES ☐☐☐ DON'T KNOW 998	YEAR..... ☐☐☐☐ DON'T KNOW 9998	YES.....1→ 06B NO .....2→ 07A
06B. PRIVATE CLINIC NAME:_____ DON'T KNOW NONE	DISTRICT: _____ THANA: _____ LOCATION: _____	PRIVATE ..... 03 RELIGIOUS ..... 04 OTHER ..... 96 DK..... 98	MILES .....1 KILOMETERS....2 ☐☐ DON'T KNOW..... 98	MINUTES ☐☐☐ DON'T KNOW 998	YEAR..... ☐☐☐☐ DON'T KNOW 9998	YES.... 1→ 06C NO .....2→ 07A
06C. PRIVATE CLINIC NAME:_____ DON'T KNOW NONE	DISTRICT: _____ THANA: _____ LOCATION: _____	PRIVATE ..... 03 RELIGIOUS ..... 04 OTHER ..... 96 DK..... 98	MILES .....1 KILOMETERS....2 ☐☐ DON'T KNOW..... 98	MINUTES ☐☐☐ DON'T KNOW 998	YEAR..... ☐☐☐☐ DON'T KNOW 9998	YES.... 1→ 06D NO .....2→ 07A
06D. PRIVATE CLINIC NAME:_____ DON'T KNOW NONE	DISTRICT: _____ THANA: _____ LOCATION: _____	PRIVATE ..... 03 RELIGIOUS ..... 04 OTHER ..... 96 DK..... 98	MILES .....1 KILOMETERS....2 ☐☐ DON'T KNOW..... 98	MINUTES ☐☐☐ DON'T KNOW 998	YEAR..... ☐☐☐☐ DON'T KNOW 9998	

Community-Questionnaire # 7

List all of the OTHER NGO CLINICS (NON-RSDHP OR NON-UFHP) that are available for people in this village/mohalla to use.

201. HEALTH FACILITY	202. Where is the HEALTH FACILITY located?	203. What is the HEALTH FACILITY's operating authority?	204. How far in miles/kilometers is the HEALTH FACILITY located from the center of the village? IF LOCATED IN THE VILLAGE/MOHALLA, RECORD '00'.	205. How many minutes does it take to go to the FACILITY using the most common type of transportation?	206. When did FACILITY first open?	207. Is HEALTH FACILITY in this thana ?
07A. NGO CLINIC (nearest) NAME:_____ DON'T KNOW NONE	DISTRICT: _____ THANA: _____ LOCATION: _____	NGO 02	MILES .....1 KILOMETERS....2 ☐☐ DON'T KNOW..... 98	MINUTES ... ☐☐☐ DON'T KNOW 998	YEAR..... ☐☐☐☐ DON'T KNOW 9998	YES.....1→ 07B NO .....2→ 08A
07B. NGO CLINIC NAME:_____ DON'T KNOW NONE	DISTRICT: _____ THANA: _____ LOCATION: _____	NGO 02	MILES .....1 KILOMETERS....2 ☐☐ DON'T KNOW..... 98	MINUTES ... ☐☐☐ DON'T KNOW 998	YEAR..... ☐☐☐☐ DON'T KNOW 9998	YES.... 1→ 07C NO .....2→ 08A
07C. NGO CLINIC NAME:_____ DON'T KNOW NONE	DISTRICT: _____ THANA: _____ LOCATION: _____	NGO 02	MILES .....1 KILOMETERS....2 ☐☐ DON'T KNOW..... 98	MINUTES ... ☐☐☐ DON'T KNOW 998	YEAR..... ☐☐☐☐ DON'T KNOW 9998	YES.... 1→ 07D NO .....2→ 08A
07D. NGO CLINIC NAME:_____ DON'T KNOW NONE	DISTRICT: _____ THANA: _____ LOCATION: _____	NGO 02	MILES .....1 KILOMETERS....2 ☐☐ DON'T KNOW..... 98	MINUTES ... ☐☐☐ DON'T KNOW 998	YEAR..... ☐☐☐☐ DON'T KNOW 9998	

List all of the COMMUNITY CLINICS that are available for people in this village/mohalla to use.

201. HEALTH FACILITY	202. Where is the HEALTH FACILITY located?	203. What is the HEALTH FACILITY's operating authority?	204. How far in miles/kilometers is the HEALTH FACILITY located from the center of the village? IF LOCATED IN THE VILLAGE/MOHALLA, RECORD '00'.	205. How many minutes does it take to go to the FACILITY using the most common type of transportation?	206. When did FACILITY first open?	207. Is HEALTH FACILITY in this thana ?
08A. COMMUNITY CLINIC (nearest) NAME:_____ DON'T KNOW NONE	DISTRICT: _____ THANA: _____ LOCATION: _____	GOVERNMENT 01	MILES .....1 KILOMETERS....2 ☐☐ DON'T KNOW..... 98	MINUTES ... ☐☐☐ DON'T KNOW 998	YEAR ..... ☐☐☐☐ DON'T KNOW..... 9998	YES .... 1→ 08B NO ..... 2→ 09A
08B. COMMUNITY CLINIC (nearest) NAME:_____ DON'T KNOW NONE	DISTRICT: _____ THANA: _____ LOCATION: _____	GOVERNMENT 01	MILES .....1 KILOMETERS....2 ☐☐ DON'T KNOW..... 98	MINUTES ... ☐☐☐ DON'T KNOW 998	YEAR ..... ☐☐☐☐ DON'T KNOW..... 9998	YES .... 1→ 08C NO ..... 2→ 09A
08C. COMMUNITY CLINIC (nearest) NAME:_____ DON'T KNOW NONE	DISTRICT: _____ THANA: _____ LOCATION: _____	GOVERNMENT 01	MILES .....1 KILOMETERS....2 ☐☐ DON'T KNOW..... 98	MINUTES ... ☐☐☐ DON'T KNOW 998	YEAR ..... ☐☐☐☐ DON'T KNOW..... 9998	YES .... 1→ 08C NO ..... 2→ 09A
08D. COMMUNITY CLINIC (nearest) NAME:_____ DON'T KNOW NONE	DISTRICT: _____ THANA: _____ LOCATION: _____	GOVERNMENT 01	MILES .....1 KILOMETERS....2 ☐☐ DON'T KNOW..... 98	MINUTES ... ☐☐☐ DON'T KNOW 998	YEAR ..... ☐☐☐☐ DON'T KNOW..... 9998	

Community-Questionnaire # 9

List all of the RURAL DISPENSARIES that are available for people in this village/mohalla to use.

201. HEALTH FACILITY	202. Where is the HEALTH FACILITY located?	203. What is the HEALTH FACILITY's operating authority?	204. How far in miles/kilometers is the HEALTH FACILITY located from the center of the village? IF LOCATED IN THE VILLAGE/MOHALLA, RECORD '00'.	205. How many minutes does it take to go to the FACILITY using the most common type of transportation?	206. When did FACILITY first open?	207. Is HEALTH FACILITY in this thana ?
09A. RURAL DISPENSARY (nearest) NAME:_____ DON'T KNOW NONE	DISTRICT: _____ THANA: _____ LOCATION: _____	GOVERNMENT..... 01	MILES.....1 KILOMETERS....2 ☐☐ DON'T KNOW..... 98	MINUTES ... ☐☐☐ DON'T KNOW 998	YEAR ..... ☐☐☐☐ DON'T KNOW..... 9998	YES.... 1→ 09B NO..... 2→ 10A
09B. RURAL DISPENSARY NAME:_____ DON'T KNOW NONE	DISTRICT: _____ THANA: _____ LOCATION: _____	GOVERNMENT..... 01	MILES.....1 KILOMETERS....2 ☐☐ DON'T KNOW..... 98	MINUTES ... ☐☐☐ DON'T KNOW 998	YEAR ..... ☐☐☐☐ DON'T KNOW..... 9998	YES.... 1→ 09C NO..... 2→ 10A
09C. RURAL DISPENSARY NAME:_____ DON'T KNOW NONE	DISTRICT: _____ THANA: _____ LOCATION: _____	GOVERNMENT..... 01	MILES.....1 KILOMETERS....2 ☐☐ DON'T KNOW..... 98	MINUTES ... ☐☐☐ DON'T KNOW 998	YEAR ..... ☐☐☐☐ DON'T KNOW..... 9998	YES.... 1→ 09D NO..... 2→ 10A
09D. RURAL DISPENSARY NAME:_____ DON'T KNOW NONE	DISTRICT: _____ THANA: _____ LOCATION: _____	GOVERNMENT..... 01	MILES.....1 KILOMETERS....2 ☐☐ DON'T KNOW..... 98	MINUTES ... ☐☐☐ DON'T KNOW 998	YEAR ..... ☐☐☐☐ DON'T KNOW..... 9998	

List all of the SATELLITE CLINICS that provide services to individuals in this village/mohalla.

201. HEALTH FACILITY	202. Where is the HEALTH FACILITY located?	203. What is the HEALTH FACILITY's operating authority?	204. How far in miles/kilometers is the HEALTH FACILITY located from the center of the village? IF LOCATED IN THE VILLAGE/MOHALLA, RECORD '00'.	205. How many minutes does it take to go to the FACILITY using the most common type of transportation?	206. When did FACILITY first open?	207. Is HEALTH FACILITY in this village ?
10A. SATELLITE CLINIC (Nearest) NAME:_____ DON'T KNOW NONE	DISTRICT: _____ THANA: _____ LOCATION: _____	GOVERNMENT ..... 01 NGO ..... 02 PRIVATE ..... 03 RELIGIOUS ..... 04 OTHER ..... 96 DK..... 98	MILES .....1 KILOMETERS....2 ☐☐ DON'T KNOW..... 98	MINUTES .. ☐☐☐ DON'T KNOW 998	YEAR..... ☐☐☐☐ DON'T KNOW 9998	YES.....1 NO 2
10B. SATELLITE CLINIC NAME:_____ DON'T KNOW NONE	DISTRICT: _____ THANA: _____ LOCATION: _____	GOVERNMENT ..... 01 NGO ..... 02 PRIVATE ..... 03 RELIGIOUS ..... 04 OTHER ..... 96 DK..... 98	MILES .....1 KILOMETERS....2 ☐☐ DON'T KNOW..... 98	MINUTES .. ☐☐☐ DON'T KNOW 998	YEAR..... ☐☐☐☐ DON'T KNOW 9998	YES.....1 NO 2
10C. SATELLITE CLINIC NAME:_____ DON'T KNOW NONE	DISTRICT: _____ THANA: _____ LOCATION: _____	GOVERNMENT ..... 01 NGO ..... 02 PRIVATE ..... 03 RELIGIOUS ..... 04 OTHER ..... 96 DK..... 98	MILES .....1 KILOMETERS....2 ☐☐ DON'T KNOW..... 98	MINUTES .. ☐☐☐ DON'T KNOW 998	YEAR..... ☐☐☐☐ DON'T KNOW 9998	YES.....1 NO 2
10D. SATELLITE CLINIC NAME:_____ NONE	DISTRICT: _____ THANA: _____ LOCATION: _____	GOVERNMENT ..... 01 NGO ..... 02 PRIVATE ..... 03 RELIGIOUS ..... 04 OTHER ..... 96 DK..... 98	MILES .....1 KILOMETERS....2 ☐☐ DON'T KNOW..... 98	MINUTES .. ☐☐☐ DON'T KNOW 998	YEAR..... ☐☐☐☐ DON'T KNOW 9998	

Community-Questionnaire # 11

3: List of the Health and Family Planning Workers. Please provide us the name of all health and family planning fieldworkers working in this cluster/village/mohalla

Name of the fieldworker	301. What is the title/position of this fieldworker?	302. Under what authority does this fieldworker work ?	303: Does he/she live in this locality?	304. Where does he/she live?	305. What services does he/she provide?
01. NAME: _____ NONE	FWV.....1 SACMO/MA.....2 FWA.....3 FWA with CSBA .....4 HEALTH ASSISTANT .....5 HA with CSBA .....6 COMMUNITY MOBILIZER.....7 OTHER_____8 DON'T KNOW 9	GOVERNMENT ..... .01 NGO..... 02 PRIVATE..... 03 RELIGIOUS ..... .04 OTHER _____ 96 DON'T KNOW..... 98	YES .....1 (GO TO 305) NO 2	DISTRICT: THANA: UNION: VILLAGE:	UNPROMPTED PROMPTED NO HEALTH ..... 1 2 3 FAMILY PLANNING .... 1 2 3 BOTH ..... 1 2 3 ORS..... 1 2 3 DON'T KNOW 1 2 3
02. NAME: _____ NONE	FWV.....1 SACMO/MA.....2 FWA.....3 FWA with CSBA .....4 HEALTH ASSISTANT .....5 HA with CSBA .....6 COMMUNITY MOBILIZER.....7 OTHER_____8 DON'T KNOW 9	GOVERNMENT ..... .01 NGO..... 02 PRIVATE..... 03 RELIGIOUS ..... .04 OTHER _____ 96 DON'T KNOW..... 98	YES .....1 (GO TO 305) NO 2	DISTRICT: THANA: UNION: VILLAGE:	UNPROMPTED PROMPTED NO HEALTH ..... 1 2 3 FAMILY PLANNING .... 1 2 3 BOTH ..... 1 2 3 ORS..... 1 2 3 DON'T KNOW 1 2 3
03. NAME: _____ NONE	FWV.....1 SACMO/MA.....2 FWA.....3 FWA with CSBA .....4 HEALTH ASSISTANT .....5 HA with CSBA .....6 COMMUNITY MOBILIZER.....7 OTHER_____8 DON'T KNOW 9	GOVERNMENT ..... .01 NGO..... 02 PRIVATE..... 03 RELIGIOUS ..... .04 OTHER _____ 96 DON'T KNOW..... 98	YES .....1 (GO TO 305) NO 2	DISTRICT: THANA: UNION: VILLAGE:	UNPROMPTED PROMPTED NO HEALTH ..... 1 2 3 FAMILY PLANNING .... 1 2 3 BOTH ..... 1 2 3 ORS..... 1 2 3 DON'T KNOW 1 2 3
04. NAME: _____ NONE	FWV.....1 SACMO/MA.....2 FWA.....3 FWA with CSBA .....4 HEALTH ASSISTANT .....5 HA with CSBA .....6 COMMUNITY MOBILIZER.....7 OTHER_____8 DON'T KNOW 9	GOVERNMENT ..... .01 NGO..... 02 PRIVATE..... 03 RELIGIOUS ..... .04 OTHER _____ 96 DON'T KNOW..... 98	YES .....1 (GO TO 305) NO 2	DISTRICT: THANA: UNION: VILLAGE:	UNPROMPTED PROMPTED NO HEALTH ..... 1 2 3 FAMILY PLANNING .... 1 2 3 BOTH ..... 1 2 3 ORS..... 1 2 3 DON'T KNOW 1 2 3

Name of the fieldworker	301. What is the title/position of this fieldworker?	302. Under what authority does this fieldworker work ?	303: Does he/she live in this locality?	304. Where does he/she live?	305. What services does he/she provide?
05. NAME: _____ NONE	FWV.....1 SACMO/MA.....2 FWA.....3 FWA with CSBA .....4 HEALTH ASSISTANT .....5 HA with CSBA .....6 COMMUNITY MOBILIZER.....7 OTHER_____8 DON'T KNOW 9	GOVERNMENT ..... .01 NGO..... 02 PRIVATE..... 03 RELIGIOUS ..... .04 COTHER_____ 96 DON'T KNOW..... 98	YES .....1 (GO TO 305) NO 2	DISTRICT: THANA: UNION: VILLAGE:	UNPROMPTED PROMPTED NO HEALTH ..... 1 2 3 FAMILY PLANNING .... 1 2 3 BOTH ..... 1 2 3 ORS..... 1 2 3 DON'T KNOW 1 2 3
06. NAME: _____ NONE	FWV.....1 SACMO/MA.....2 FWA.....3 FWA with CSBA .....4 HEALTH ASSISTANT .....5 HA with CSBA .....6 COMMUNITY MOBILIZER.....7 OTHER_____8 DON'T KNOW 9	GOVERNMENT ..... .01 NGO..... 02 PRIVATE..... 03 RELIGIOUS ..... .04 COTHER_____ 96 DON'T KNOW..... 98	YES .....1 (GO TO 305) NO 2	DISTRICT: THANA: UNION: VILLAGE:	UNPROMPTED PROMPTED NO HEALTH ..... 1 2 3 FAMILY PLANNING .... 1 2 3 BOTH ..... 1 2 3 ORS..... 1 2 3 DON'T KNOW 1 2 3

Community-Questionnaire # 13

4: List Depotholders.

Please tell us about any depotholders who may work in this village, that is, a person who sells family planning or ORS from his or her house.

400. Name of the depotholder	401. Under what authority does this depotholder work ?	402: Does he/she live in this locality?	403. Where does he/she live?	404. What services does he/she provide?
01. NAME: _____ NONE	GOVERNMENT .....01 NGO.....02 PRIVATE.....03 RELIGIOUS .....04 OTHER _____96 DON'T KNOW 98	YES ..... 1 (GO TO 404) ◄ NO 2	DISTRICT: THANA: UNION: VILLAGE:	UNPROMPTED PROMPTED NO HEALTH .....1 2 3 FAMILY PLANNING.....1 2 3 BOTH .....1 2 3 ORS .....1 2 3 DON'T KNOW 1 2 3
02. NAME: _____ NONE	GOVERNMENT .....01 NGO.....02 PRIVATE.....03 RELIGIOUS .....04 OTHER _____96 DON'T KNOW 98	YES ..... 1 (GO TO 404) ◄ NO 2	DISTRICT: THANA: UNION: VILLAGE:	UNPROMPTED PROMPTED NO HEALTH .....1 2 3 FAMILY PLANNING.....1 2 3 BOTH .....1 2 3 ORS .....1 2 3 DON'T KNOW 1 2 3
03. NAME: _____ NONE	GOVERNMENT .....01 NGO.....02 PRIVATE.....03 RELIGIOUS .....04 OTHER _____96 DON'T KNOW 98	YES ..... 1 (GO TO 404) ◄ NO 2	DISTRICT: THANA: UNION: VILLAGE:	UNPROMPTED PROMPTED NO HEALTH .....1 2 3 FAMILY PLANNING.....1 2 3 BOTH .....1 2 3 ORS .....1 2 3 DON'T KNOW 1 2 3

5: Availability of Doctors (allopathic, homeopathic) and Pharmacies

Please tell us about the doctors and pharmacies working in this village/mohalla.

No.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
501	Are there any allopathic/MBBS doctors in this village/mohalla?	YES ..... 1 NO ..... 2 →	503
502	How many allopathic/MBBS doctors are in this village/mohalla?	ONE ..... 1 2-5 ..... 2 MORE THAN 5 ..... 3 DON'T KNOW 8	
503	How far away is the nearest allopathic/MBBS doctor?	MILE .....1 KILOMETER .....2 DK .....98 IN THIS VILLAGE/ MOHALLA 00	
504	Are there any homeopathic doctors in this village/mohalla?	YES ..... 1 NO ..... 2 →	506
505	How many homeopathic doctors are in this village/mohalla?	ONE ..... 1 2-5 ..... 2 MORE THAN 5 ..... 3 DON'T KNOW 8	
506	How far away is the nearest homeopathic doctor?	MILE .....1 KILOMETER .....2 DK .....98 IN THIS VILLAGE/ MOHALLA 00	
507	Are there any ayurvedic/unani doctors in this village/mohalla?	YES ..... 1 NO ..... 2 →	509
508	How many ayurvedic/unani doctors are in this village/mohalla?	ONE ..... 1 2-5 ..... 2 MORE THAN 5 ..... 3 DON'T KNOW 8	
509	How far away is the nearest ayurvedic/unani doctor?	MILE .....1 KILOMETER .....2 DK .....98 IN THIS VILLAGE/ MOHALLA 00	
510	Are there any pharmacies in this village/mohalla?	YES ..... 1 NO ..... 2 →	512
511	How many pharmacies are in this village/mohalla?	ONE ..... 1 2-5 ..... 2 MORE THAN 5 ..... 3 DON'T KNOW 8	
512	How far away is the nearest pharmacy?	MILE .....1 KILOMETER .....2 DK .....98 IN THIS VILLAGE/ MOHALLA 00	

6: List of doctors

601. Please provide us the name of all doctors working in this village/mohalla.

A. NAME OF DOCTOR (known as)	B. TYPE OF DOCTOR	C. Is the (NAME) qualified doctor?
NAME _____	ALLOPATHIC ..... 1 HOMEOPATHIC..... 2 AYURVEDIC/UNANI 3	HAVE A CERTIFICATE .....1 HAVE A CERTIFICATE (PALLI DOCTOR) 2 NO CERTIFICATE 3
NAME _____	ALLOPATHIC ..... 1 HOMEOPATHIC..... 2 AYURVEDIC/UNANI 3	HAVE A CERTIFICATE .....1 HAVE A CERTIFICATE (PALLI DOCTOR) 2 NO CERTIFICATE 3
NAME _____	ALLOPATHIC ..... 1 HOMEOPATHIC..... 2 AYURVEDIC/UNANI 3	HAVE A CERTIFICATE .....1 HAVE A CERTIFICATE (PALLI DOCTOR) 2 NO CERTIFICATE 3
NAME _____	ALLOPATHIC ..... 1 HOMEOPATHIC..... 2 AYURVEDIC/UNANI 3	HAVE A CERTIFICATE .....1 HAVE A CERTIFICATE (PALLI DOCTOR) 2 NO CERTIFICATE 3
NAME _____	ALLOPATHIC ..... 1 HOMEOPATHIC..... 2 AYURVEDIC/UNANI 3	HAVE A CERTIFICATE .....1 HAVE A CERTIFICATE (PALLI DOCTOR) 2 NO CERTIFICATE 3
NAME _____	ALLOPATHIC ..... 1 HOMEOPATHIC..... 2 AYURVEDIC/UNANI 3	HAVE A CERTIFICATE .....1 HAVE A CERTIFICATE (PALLI DOCTOR) 2 NO CERTIFICATE 3
NAME _____	ALLOPATHIC ..... 1 HOMEOPATHIC..... 2 AYURVEDIC/UNANI 3	HAVE A CERTIFICATE .....1 HAVE A CERTIFICATE (PALLI DOCTOR) 2 NO CERTIFICATE 3
NAME _____	ALLOPATHIC ..... 1 HOMEOPATHIC..... 2 AYURVEDIC/UNANI 3	HAVE A CERTIFICATE .....1 HAVE A CERTIFICATE (PALLI DOCTOR) 2 NO CERTIFICATE 3
NAME _____	ALLOPATHIC ..... 1 HOMEOPATHIC..... 2 AYURVEDIC/UNANI 3	HAVE A CERTIFICATE .....1 HAVE A CERTIFICATE (PALLI DOCTOR) 2 NO CERTIFICATE 3
NAME _____	ALLOPATHIC ..... 1 HOMEOPATHIC..... 2 AYURVEDIC/UNANI 3	HAVE A CERTIFICATE .....1 HAVE A CERTIFICATE (PALLI DOCTOR) 2 NO CERTIFICATE 3
NAME _____	ALLOPATHIC ..... 1 HOMEOPATHIC..... 2 AYURVEDIC/UNANI 3	HAVE A CERTIFICATE .....1 HAVE A CERTIFICATE (PALLI DOCTOR) 2 NO CERTIFICATE 3
NAME _____	ALLOPATHIC ..... 1 HOMEOPATHIC..... 2 AYURVEDIC/UNANI 3	HAVE A CERTIFICATE .....1 HAVE A CERTIFICATE (PALLI DOCTOR) 2 NO CERTIFICATE 3
NAME _____	ALLOPATHIC ..... 1 HOMEOPATHIC..... 2 AYURVEDIC/UNANI 3	HAVE A CERTIFICATE .....1 HAVE A CERTIFICATE (PALLI DOCTOR) 2 NO CERTIFICATE 3
NAME _____	ALLOPATHIC ..... 1 HOMEOPATHIC..... 2 AYURVEDIC/UNANI 3	HAVE A CERTIFICATE .....1 HAVE A CERTIFICATE (PALLI DOCTOR) 2 NO CERTIFICATE 3
NAME _____	ALLOPATHIC ..... 1 HOMEOPATHIC..... 2 AYURVEDIC/UNANI 3	HAVE A CERTIFICATE .....1 HAVE A CERTIFICATE (PALLI DOCTOR) 2 NO CERTIFICATE 3
NAME _____	ALLOPATHIC ..... 1 HOMEOPATHIC..... 2 AYURVEDIC/UNANI 3	HAVE A CERTIFICATE .....1 HAVE A CERTIFICATE (PALLI DOCTOR) 2 NO CERTIFICATE 3
NAME _____	ALLOPATHIC ..... 1 HOMEOPATHIC..... 2 AYURVEDIC/UNANI 3	HAVE A CERTIFICATE .....1 HAVE A CERTIFICATE (PALLI DOCTOR) 2 NO CERTIFICATE 3
NAME _____	ALLOPATHIC ..... 1 HOMEOPATHIC..... 2 AYURVEDIC/UNANI 3	HAVE A CERTIFICATE .....1 HAVE A CERTIFICATE (PALLI DOCTOR) 2 NO CERTIFICATE 3
NAME _____	ALLOPATHIC ..... 1 HOMEOPATHIC..... 2 AYURVEDIC/UNANI 3	HAVE A CERTIFICATE .....1 HAVE A CERTIFICATE (PALLI DOCTOR) 2 NO CERTIFICATE 3

7: List of SBA:

No.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
701a	Is there any SBA working in this village/moholla ?	YES ..... 1 NO 2	
701b	How far away is the nearest SBA ?	MILE .....1 KILOMETER .....2 DK .....98 IN THIS VILLAGE/ MOHALLA 00	
701c	Please provide us the name and address of all SBA working in this village?	NAME & ADDRESS :_____ _____ Designation_____ NAME & ADDRESS :_____ _____ Designation_____ NAME & ADDRESS :_____ _____ Designation_____	
	ENDING TIME	HOUR..... MINUTES	

Community-Questionnaire # 17

SUMMARY INDICATORS

Appendix F

Indicator	Bangladesh Demographic and Health Survey						
	1993-1994	1996-1997	1999-2000	2004	2007	2011	2014
Fertility							
Total fertility rate (TFR) 15-49	3.4	3.3	3.3	3.0	2.7	2.3	2.3
Adolescent fertility (15-19)[a]	33	36	35	33	33	30	31
Marriage							
Percentage of women age 20-24 married before age 18	73.3	68.5	65.3	68.4	66.2	64.9	58.6
Contraceptive prevalence rate (CPR)[b]							
Any method	44.6	49.2	53.8	58.1	55.8	61.2	62.4
Any modern method	36.2	41.5	43.4	47.3	47.5	52.1	54.1
Pill	17.4	20.8	23.0	26.2	28.5	27.2	27.0
Injectables	4.5	6.2	7.2	9.7	7.0	11.2	12.4
Condom	3.0	3.9	4.3	4.2	4.5	5.5	6.4
Female sterilization	8.1	7.6	6.7	5.2	5.0	5.0	4.6
Male sterilization	1.1	1.1	0.5	0.6	0.7	1.2	1.2
IUD	2.2	1.8	1.2	0.6	0.9	0.7	0.6
Implants	na	0.1	0.5	0.8	0.7	1.1	1.7
Contraceptive prevalence rate (modern methods) among married adolescents							
Age 15-19	19.6	27.8	31.2	34.1	37.6	42.4	46.7
Contraceptive prevalence rate (modern methods) in low performing divisions[b]							
Sylhet	na	16.0	25.0	22.0	24.7	35.2	40.9
Chittagong	23.4	30.8	34.9	37.4	38.2	44.5	47.2
Unmet need for family planning[b]							
Percentage of currently married women with unmet need for family planning	21.6	19.7	18.2	15.0	16.8	13.5	12.0
Fertility preference[b]							
Percentage of currently married women age 15-49 who want no more children[c]	57.9	58.8	60.0	60.1	62.5	64.9	62.5
Antenatal coverage							
Percentage of last live births in the three years preceding the survey for which women received at least one ANC from a medically trained provider	na	na	na	50.5	53.4	54.6	63.9
Antenatal care visit 4+							
Percentage of last live births in the three years preceding the survey for which women received four or more ANC from any provider	na	na	na	16.7	22.0	25.5	31.2
Skilled assistance at delivery							
Percentage of live births in the three years preceding the survey attended by medically trained provider	na	na	na	15.6	20.9	31.7	42.1
Percentage of births in the three years preceding the survey delivered in health facilities by wealth quintile							
Lowest quintile	na	na	na	2.5	6.3	9.9	14.9
Two lowest quintiles	na	na	na	2.8	6.2	13.5	19.2
Highest quintile	na	na	na	37.6	48.5	59.8	70.2
Total	na	na	na	11.7	17.3	28.8	37.4
Postnatal care (within two days of delivery)							
Percentage of last live births in the three years preceding the survey where mother/child received PNC from a medically trained provider within two days of delivery							
Mother	na	na	na	15.8	20.1	27.1	36.4
Child	na	na	na	13.0	20.1	29.6	31.5
Childhood mortality (five-year period preceding the survey)							
Neonatal mortality rate	52	48	42	41	37	32	28
Postnatal mortality rates	35	34	24	24	15	10	10
Infant mortality rate	87	82	66	65	52	43	38
Child mortality rate	50	37	30	24	14	11	8
Under-5 mortality rate	133	116	94	88	65	53	46

Bangladesh Demographic and Health Survey							
Indicator	1993-1994	1996-1997	1999-2000	2004	2007	2011	2014
Percentage of children who received specific vaccines by 12 months							
BCG	79.4	84.2	90.0	93.3	96.8	97.8	97.8
Pentavalent3[d]	59.0	66.5	70.2	80.3	90.0	93.2	90.9
Polio3	59.7	60.1	69.1	81.6	89.7	93.2	91.1
Measles	55.0	61.2	62.1	70.3	77.2	84.0	79.9
All vaccines	46.2	46.9	52.8	68.4	76.0	82.5	78.0
Use of antibiotics for treatment of ARI							
Percentage of children under 5 with symptoms of ARI/pneumonia receiving antibiotics[e]	na	na	na	na	na	71.4	34.2
Treatment for diarrhea							
Percentage of children under 5 with diarrhea treated with ORT (ORS or homemade solution)	58.3	61.0	73.6	74.6	81.2	80.6	84.3
Percentage of children under 5 with diarrhea treated with ORT and zinc	na	na	na	na	na	34.1	38.1
Nutritional status of children							
Percentage of children under 5 clarified as malnourished according to three anthropometric indices of nutritional status[f]							
Height-for-age (stunting)							
Severe	na	na	na	22.1	16.1	15.3	11.6
Moderate or severe	na	na	na	50.6	43.2	41.3	36.1
Weight for-height (wasting)							
Severe	na	na	na	3.4	2.9	4.0	3.1
Moderate or severe	na	na	na	14.5	17.4	15.6	14.3
Weight-for-age (underweight)							
Severe	na	na	na	13.6	11.8	10.4	7.7
Moderate or severe	na	na	na	42.5	41.0	36.4	32.6
Exclusive breastfeeding							
Percent of children under 6 months who are exclusively breastfed (based on 24 hour recall)	45.9	45.1	46.1	42.2	42.9	63.5	55.3
Infant and Young Child Feeding (IYCF)							
Percentage of children 6-23 months fed with appropriate infant and young child feeding practices	na	na	na	na	na	20.9	22.8
Vitamin A supplementation							
Percentage of children age 6-59 months receiving vitamin-A supplementation in the 6 months preceding the survey	na	na	na	na	83.5	59.5	62.1
Percentage of children age 9-59 months receiving vitamin-A supplementation in the 6 months preceding the survey	na	na	80.4	81.8	88.3	61.6	63.2
Nutritional status of women							
Percentage of ever-married women age 15-49 who are							
Thin (BMI <18.5)	na	52.0	45.4	34.3	29.7	24.2	18.6
Overweight or obese (BMI ≥25)	na	2.8	4.5	9.0	11.8	16.5	23.8
Percentage of respondents who have heard of HIV/AIDS							
Ever-married women 15-49[g]	na	18.7	30.8	60.0	67.4	69.1	69.5

na = Not applicable
[a] Percentage of women age 15-19 who had children or currently pregnant
[b] Rate for 2007, 2011, and 2014 are for currently married women age 15-49
[c] Wanted no more children or have been sterilized
[d] Rate for 1993-94, 1996-97, 1999-2000, 2004, and 2007 are for DPT3
[e] Methods and tools used in 2011 and 2014 were different
[f] Based on WHO Child Growth Standards adopted in 2006
[g] Rate for 2007, 2011, and 2014 are for ever-married women age 15-49