# Bangladesh

## Demographic and Health Survey

## 2014

## Key Indicators

# BANGLADESH
# DEMOGRAPHIC AND HEALTH SURVEY

# 2014

## KEY INDICATORS

**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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**Director General**
**National Institute of Population Research and Training**
**Ministry of Health and Family Welfare**

# FOREWORD

The Bangladesh Demographic and Health Survey (BDHS) 2014 is a nationwide sample survey of ever-married women of reproductive age designed to provide information on fertility and childhood mortality levels; fertility preferences; use of family planning methods; maternal, newborn, and child health including breastfeeding practices; nutritional status of under-5 children; knowledge and attitudes toward HIV/AIDS and other sexually transmitted infections (STIs); and community-level data on accessibility and availability of health and family planning services. BDHS 2014 is the seventh survey of its kind conducted in 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.

This report presents the preliminary results for the major findings of the survey. A more comprehensive report with policy implications of the findings is scheduled to be published later in 2015.

The 2014 survey has been conducted successfully due to the dedicated support and involvement of a large number of individuals and institutions. I am deeply indebted and grateful to all those who contributed to BDHS 2014. Because of their efforts, data could be made available in a timely fashion. I would like to put on record my sincere appreciation for the Technical Working Group members, representatives on the Technical Review Committee, field staff, the data processing team, and particularly the survey respondents. I am thankful to the Research Unit of NIPORT, Mitra and Associates, and ICF International for completing the task on time. USAID, Bangladesh, deserves special thanks for providing financial and technical support for the survey.

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# 1 INTRODUCTION

The 2014 Bangladesh Demographic and Health Survey (BDHS) is the seventh national-level demographic and health survey designed to provide information on demographic status, family planning, maternal health, and children's health and nutritional status. The BDHS included a household survey of ever-married women age 15-49. The survey also included a community questionnaire administered during the listing of households to informants in communities around the sample points from which the households were selected. This report presents major findings from data collected in the household survey using the Household Questionnaire and the Woman's Questionnaire. A more comprehensive and detailed report is scheduled for release later in 2015. The data in the final report are not expected to differ substantially from the findings presented in this key indicators report; however, the results presented here should be regarded as provisional and may be subject to modification. To examine trends, the findings from the 2014 survey have been compared with similar indicators from past surveys.

As in past BDHS surveys, 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 (MOHFW). 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 survey received financial support from the U.S. Agency for International Development (USAID).

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, including breastfeeding practices, nutrition levels, and newborn care; knowledge and attitudes toward HIV/AIDS and other sexually transmitted infections (STIs); and community-level data on accessibility and availability of health and family planning services. This information is intended to assist policymakers and program managers in evaluating the Health, Population and Nutrition Sector Development Program (HPNSDP) 2011-16 and in designing programs and strategies for improving health and family planning services in the country.

# 2 SURVEY IMPLEMENTATION

## 2.1 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 the list of enumeration areas (EAs) of the 2011 Population and Housing Census (PHC) of the People's Republic of Bangladesh, provided by the Bangladesh Bureau of Statistics (BBS), as a sampling frame. 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 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. In accord with this design, 18,000 residential households were selected and completed interviews were expected from about 18,000 ever-married women age 15-49.

A household listing operation was carried out in all selected EAs from May 21 to August 17, 2014, in four phases, each about four weeks in duration. Twenty teams of two persons each were deployed to carry out the listing of households and administer the Community Questionnaire. In addition, 10 supervisors were deployed to check and verify the work of the listing teams. The number of teams was reduced to 19 in the third phase and to 11 in the final phase.

Any analysis using the 2014 BDHS data requires that sampling weights are 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 is to generate a revised urban-rural population distribution and is not expected to lead to any significant differences in the overall survey indicators.

## 2.2 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 questionnaires were adapted for use in Bangladesh during a series of meetings with a Technical Working Group (TWG) (see Appendix A for a list of members). Draft questionnaires were then circulated to other interested groups and were reviewed by the BDHS Technical Review Committee (see Appendix A). 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 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. 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 informants in the cluster, such as community leaders, teachers, government officials, social workers, religious leaders, traditional healers, and health care providers.

## 2.3 TRAINING AND FIELDWORK

Training of the 2014 BDHS field workers took place from June 1 to June 26, 2014. A total of 164 field staff 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 talk about family planning methods and programs as well as programs in maternal and child health was given by a former NIPORT staff member.

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 to the field to visit the interviewing teams throughout the data collection period.

In addition, NIPORT monitored fieldwork by sending two quality control teams, each comprised of three members. The teams went to the field in tours of 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. Fieldwork was also monitored through visits by representatives from USAID, The DHS Program, NIPORT, and other Technical Review Committee members.

## 2.4 DATA PROCESSING

Completed questionnaires for the BDHS 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. The data were processed by eight data entry operators and two data entry supervisors. Data processing commenced on July 24, 2014, and ended on November 20, 2014. The task was carried out using CSPro, a software jointly developed by the U.S. Census Bureau, ICF Macro, and Serpro S.A.

## 2.5 COVERAGE OF THE SAMPLE

Table 1 shows the results of the household and individual women's interviews. From a total of 17,989 selected households, 17,565 were found to be 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.

Table 1 Results of the household and individual interviews

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

| | Urban | | Rural | | Total | |
|---|---|---|---|---|---|---|
| Result | Number | Percentage | Number | Percentage | Number | Percentage |
| **Household interviews** | | | | | | |
| Households selected | 6,210 | 100.0 | 11,779 | 100.0 | 17,989 | 100.0 |
| Households occupied | 6,062 | 97.6 | 11,503 | 97.7 | 17,565 | 97.6 |
| Households interviewed | 5,930 | 97.8 | 11,370 | 98.8 | 17,300 | 98.5 |
| Households absent for extended period | 95 | 1.5 | 188 | 1.6 | 283 | 1.6 |
| Dwelling vacant or destroyed | 44 | 0.7 | 74 | 0.6 | 118 | 0.7 |
| Other | 9 | 0.1 | 14 | 0.1 | 23 | 0.1 |
| Household response rate[1] | na | 97.8 | na | 98.8 | na | 98.5 |
| **Interviews with ever-married women age 15-49** | | | | | | |
| Number of eligible women | 6,324 | 100.0 | 11,921 | 100.0 | 18,245 | 100.0 |
| Number of eligible women interviewed | 6,167 | 97.5 | 11,696 | 98.1 | 17,863 | 97.9 |
| Eligible women response rate[2] | na | 97.5 | na | 98.1 | na | 97.9 |

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

# 3 KEY FINDINGS FROM THE 2014 BDHS

## 3.1 HOUSING CHARACTERISTICS AND HOUSEHOLD POSSESSIONS

Table 2 presents information on housing characteristics. It 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 all over the country, with more coverage in urban areas (91 percent in urban and 51 percent in rural areas). 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 all over 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).

Table 2 Household characteristics

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

| Housing characteristics | Residence | | Total |
|---|---|---|---|
| | Urban | Rural | |
| **Electricity** | | | |
| National grid | 90.7 | 51.4 | 62.4 |
| Solar | 2.6 | 14.6 | 11.2 |
| National grid or solar | 92.7 | 65.1 | 72.9 |
| **Flooring material** | | | |
| 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 |
| Other | 0.5 | 0.3 | 0.3 |
| **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 |
| Number | 4,844 | 12,456 | 17,300 |

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). The proportion of households in Bangladesh that have earth and sand flooring has gradually declined from 81 percent in 2007 to 74 percent in 2011 to the current rate of 68 percent. On the other hand, a higher proportion of households has cement or ceramic tiles as flooring: 19 percent in 2007, 26 percent in 2011, and 32 percent in 2014 (NIPORT et al., 2009; NIPORT et al., 2013).

Most Bangladeshi households (85 percent) use tin as roofing materials. Nine in ten rural households and seven in ten urban households use this roofing material. In addition, about three in ten urban households use cement as roofing material.

Table 3 shows information on household assets, which are an important consideration when measuring the socioeconomic status and access to communication and transportation to allow greater access to health services. Possession of mobile phones has continued to increase, from 78 percent in 2011 to 89 percent of households in 2014 (Table 3). The increase is mainly due to a larger increase of mobile phone ownership in rural areas (from 75 percent in 2011 to 87 percent in 2014) than in urban areas (from 89 percent in 2011 to 93 percent in 2014). Four out of ten households have a television set. Urban households are more likely to possess a television (71 percent) than rural households (33 percent). Ownership of a radio has decreased from 8 percent in 2011 to 4 percent in 2014, while ownership of a television has increased from 40 percent to 44 percent at the same time. Refrigerators are available in 20 percent of households, with urban households being more than three times as likely (41 percent) as rural households (12 percent) to own one. Six in ten households possess an electric fan, with a higher percentage in urban areas than in rural areas (86 percent and 49 percent, respectively). Seven percent of households own a water pump, 11 percent in urban areas and 6 percent in rural areas. Five percent of households own a computer, 12 percent in urban areas and 2 percent in rural areas.

There has been little change in possession of means of transportation since 2011. A bicycle is the most commonly owned means of transport in Bangladesh, with one in four households owning a bicycle. Ownership of bicycles 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). There is no difference between rural and urban households. Ownership of a motorcycle is slightly higher in urban areas (8 percent) than in rural areas (6 percent).

Nine in ten households (92 percent) own a homestead, and 45 percent own land other than a homestead. Rural households are more likely to own land than urban households. Ownership of all forms of land has declined slightly from 95 percent in 2011 to 93 percent in 2014.

More than half of households (55 percent) own chicken or ducks, the most commonly owned type of livestock. One in three households owns cows, and one in five households owns goats or sheep. As expected, rural households are more likely than urban households to own each type of livestock.

Table 3 Household possessions

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

| | Residence | | |
|---|---|---|---|
| Possession | Urban | Rural | Total |
| **Household effects** | | | |
| 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 |
| **Means 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 |

## 3.2 RESPONDENTS' BACKGROUND CHARACTERISTICS

The distribution of the ever-married women age 15-49 interviewed in the 2014 BDHS is presented by selected background characteristics in Table 4. Almost all of the respondents (94 percent) were categorized as currently married at the time of the interview. Twenty-nine percent of the respondents were under age 25, 36 percent are in the 25-34 age group, and a similar percentage (35 percent) are age 35 and over.

Twenty-eight percent of respondents lives in urban areas. Thirty-five percent of the respondents live in Dhaka, and 19 percent live in Chittagong. Rangpur and Rajshahi each have 12 percent of women. Sylhet and Barisal are the smallest divisions, accounting for only 7 and 6 percent of respondents, respectively. The proportion of respondents in all divisions is similar to that in 2011.

One in four ever-married women age 15-49 has never attended school, while 14 percent of women have completed secondary or higher education. Compared with data from the 2011 BDHS, these results show a 3 percentage-point decline in the proportion of women who have never attended school and a 2 percentage-point increase in the proportion of women who have completed secondary education. The proportions in other educational groups remain almost unchanged.

In addition to standard background characteristics, most of the results in this report are shown by wealth quintiles, an indicator of the economic status of households. The 2014 BDHS collected detailed information on dwelling and household characteristics and access to a variety of consumer goods and services, which are used as a measure of economic status. The wealth index is a measure of inequalities in household characteristics, in the use of health and other services, and in health outcomes. The distribution of respondents is, by definition, close to 20 percent in each wealth quintile. Table 4 shows that 45 percent of the respondents are in the two highest quintiles, while 36 percent are in the two lowest quintiles.

Table 4 Background characteristics of respondents

Percent distribution of ever-married women age 15-49 by 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 |
| **Wealth quintile** | | | |
| Lowest | 17.9 | 3,197 | 3,091 |
| Second | 18.0 | 3,213 | 3,148 |
| Middle | 19.3 | 3,439 | 3,523 |
| Fourth | 20.9 | 3,741 | 3,782 |
| Highest | 23.9 | 4,273 | 4,319 |
| Total | 100.0 | 17,863 | 17,863 |

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

## 3.3 FERTILITY

The total fertility rate (TFR) represents the average number of children a woman would have by the end of her reproductive period if she were to follow 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).

In the 2014 BDHS, ever-married women were asked to provide information on all the live births they had had in their life. To encourage complete reporting, each woman was first asked about the number of sons and daughters living with her, the number living elsewhere, and the number who had died. She was then asked for a history of all her births, including the month and year in which each child was born, the child's name, sex, and, if dead, the age at death, and, if alive, the current age and whether the child was living with her.

Age-specific and total fertility rates are calculated directly from the birth history data and are shown in Table 5, along with the general fertility rates and crude birth rates.[1] The total and age-specific fertility rates are for the three-year period before the survey, a period covering principally the calendar years 2012-2014. The total fertility rate (TFR) is the sum of the age-specific rates and is a useful measure of the level of recent fertility. The total fertility rate for the three-year period before the survey is 2.3 births per woman. The total fertility rate in the rural areas is higher than in urban areas (2.4 compared with 2.0 births per woman).

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. Table 5 shows a GFR of 90 live births per 1,000 women age 15-44 and a crude birth rate of 22.2 live births per 1,000 population.

[1] Fertility measures are calculated directly from the birth history data. Although information on fertility was obtained from ever-married women, estimates are presented for all women regardless of marital status. Data on the age structure of the population of never-married women from the Household Questionnaire are used to calculate all-women rates. This procedure assumes that women who have never married have had no children.

Table 5 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

The TFRs for the seven BDHS surveys since 1993-1994 and the three preceding surveys carried out since 1975 are presented in Table 6 and Figure 1. The survey results reflect the decline in fertility 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.

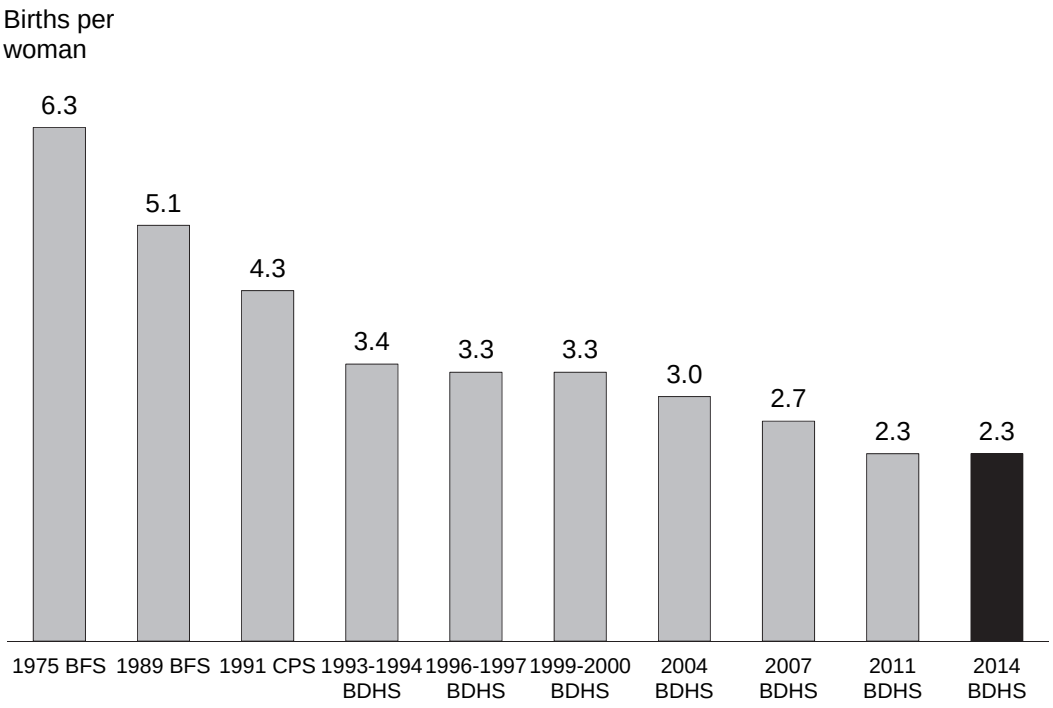
Table 6 Trends in current fertility rates

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 | 5 |
| 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 1*** **Trends in total fertility rates, 1975-2014**




An examination of the changes in the age-specific fertility rates in Table 6 and Figure 2 indicate 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 2*** **Trends in age-specific fertility rates, 2004-2014**

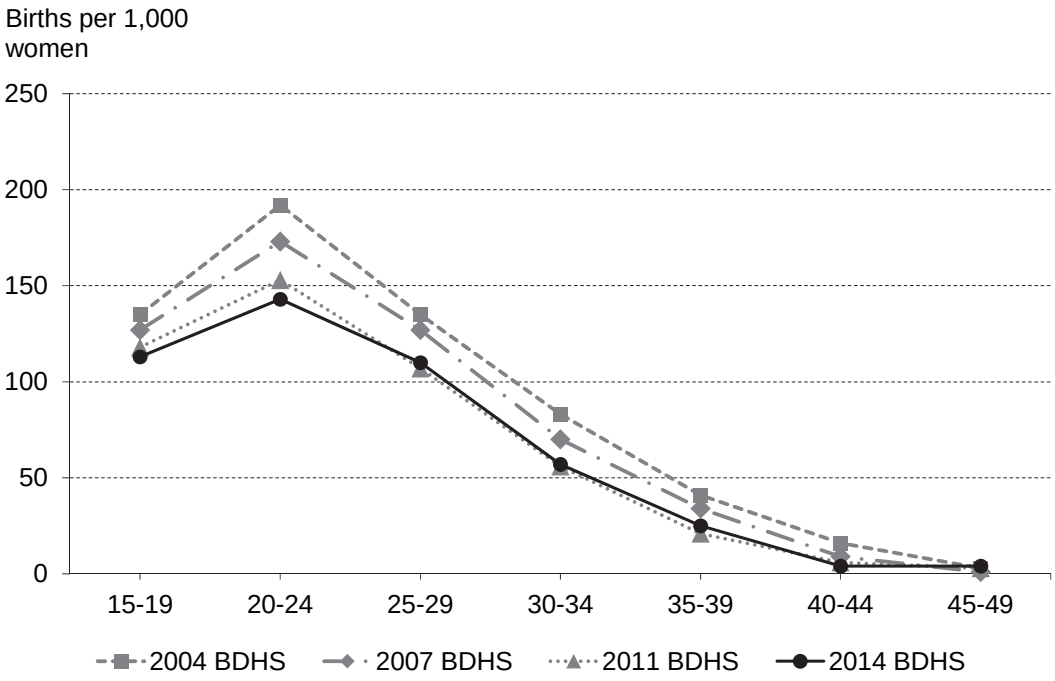


Table 7 and Figure 3 show that in the 2014 BDHS, Khulna and Rangpur Divisions have the lowest TFR (1.9 births per woman) and Sylhet Division has the highest TFR (2.9 births per woman). The data indicate that in the last three years fertility has slightly declined in four divisions (Barisal, Chittagong, 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.

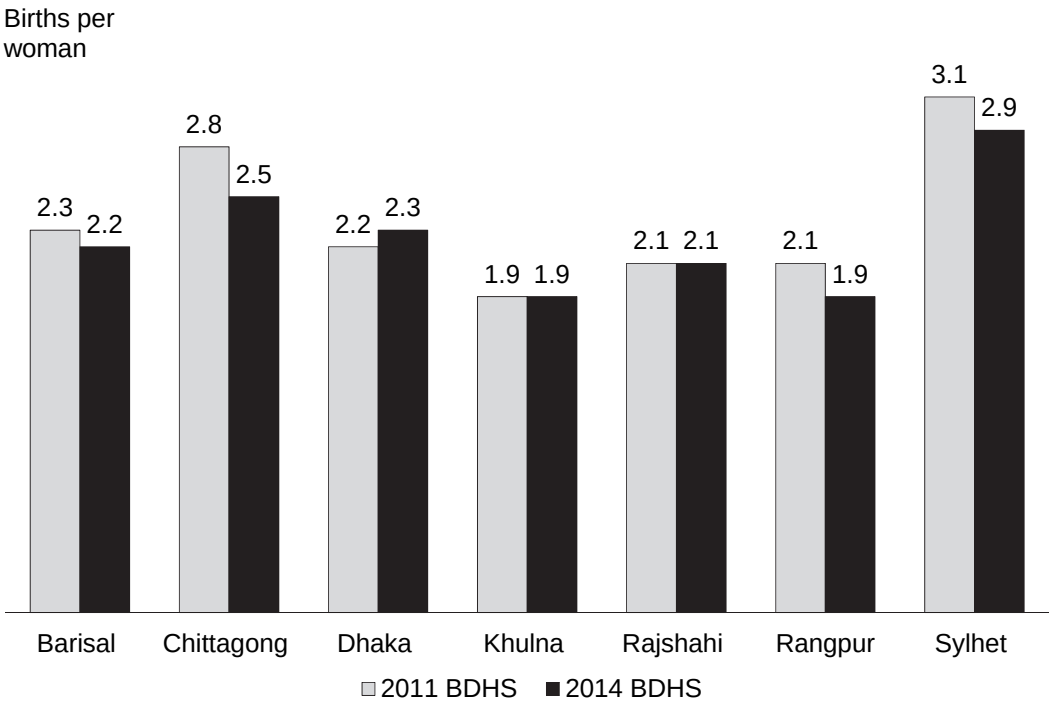
Table 7 Current fertility by division

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 3*** **Trends in total fertility rates by division, 2011 and 2014**




## 3.4 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. 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 8 shows that 31 percent of adolescents age 15-19 in Bangladesh have begun childbearing; about one in four teenagers has 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 in Rajshahi and Rangpur (37 percent each) compared with other divisions. Childbearing begins later in Sylhet than in other divisions. 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. Overall, teenage childbearing has not changed since 2011.

Table 8 Teenage pregnancy and motherhood

Percentage of women age 15-19 who have had a live birth or who are pregnant with their first child, and percentage who have begun childbearing, by background characteristics, 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 | Total |
|---|---|---|---|---|
| **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 | 32.8 | 8.4 | 41.2 | 712 |
| Second | 26.8 | 6.9 | 33.8 | 834 |
| Middle | 24.8 | 5.8 | 30.6 | 938 |
| Fourth | 23.8 | 5.2 | 29.1 | 1,039 |
| Highest | 17.2 | 5.4 | 22.6 | 953 |
| 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.

## 3.5 FAMILY PLANNING

### 3.5.1 Current Use

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 9). 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 9 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 | LAM | tradi-tional method | Periodic absti-nence | With-drawal | Other | Not current-ly using | Total | Number of women |
| **Age** | | | | | | | | | | | | | | | | | |
| 15-19 | 51.2 | 46.7 | 29.7 | 9.6 | 6.2 | 0.0 | 0.0 | 0.2 | 0.9 | 0.0 | 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 | 0.0 | 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 | 0.0 | 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 | 0.0 | 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 | 0.0 | 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 | 0.0 | 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 | 0.0 | 13.0 | 10.1 | 1.4 | 1.5 | 61.9 | 100.0 | 1,512 |
| **Living children** | | | | | | | | | | | | | | | | | |
| 0 | 26.5 | 22.6 | 14.1 | 0.2 | 8.0 | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 | 3.9 | 2.4 | 1.5 | 0.0 | 73.5 | 100.0 | 1,707 |
| 1 | 59.1 | 53.5 | 31.6 | 11.4 | 7.9 | 0.7 | 0.2 | 0.5 | 1.3 | 0.0 | 5.6 | 4.0 | 1.6 | 0.0 | 40.9 | 100.0 | 3,991 |
| 2 | 72.6 | 63.3 | 31.6 | 15.5 | 8.2 | 3.8 | 1.2 | 0.6 | 2.4 | 0.0 | 9.3 | 6.7 | 2.4 | 0.2 | 27.4 | 100.0 | 4,956 |
| 3 | 71.5 | 61.5 | 27.1 | 14.6 | 4.9 | 9.5 | 2.0 | 1.1 | 2.2 | 0.0 | 10.0 | 7.9 | 2.0 | 0.1 | 28.5 | 100.0 | 3,250 |
| 4+ | 60.6 | 49.3 | 20.4 | 13.2 | 2.3 | 8.4 | 2.6 | 0.7 | 1.6 | 0.0 | 11.4 | 8.9 | 1.5 | 0.9 | 39.4 | 100.0 | 2,953 |
| **Residence** | | | | | | | | | | | | | | | | | |
| Urban | 65.9 | 56.2 | 26.7 | 9.8 | 11.7 | 4.7 | 1.2 | 0.7 | 1.5 | 0.0 | 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 | 0.0 | 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 | 0.0 | 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 | 0.0 | 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 | 0.0 | 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 | 0.0 | 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 | 0.0 | 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 | 0.0 | 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 | 0.0 | 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 | 0.0 | 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 | 0.0 | 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 | 0.1 | 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 | 0.0 | 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 | 0.0 | 9.7 | 7.1 | 2.6 | 0.1 | 37.0 | 100.0 | 2,516 |
| **Wealth quintile** | | | | | | | | | | | | | | | | | |
| Lowest | 62.7 | 55.1 | 25.1 | 17.9 | 1.3 | 5.8 | 2.1 | 0.3 | 2.6 | 0.0 | 7.6 | 5.7 | 1.7 | 0.3 | 37.3 | 100.0 | 2,943 |
| Second | 62.7 | 54.9 | 27.9 | 15.8 | 2.0 | 4.6 | 1.6 | 0.8 | 2.0 | 0.0 | 7.8 | 6.2 | 1.6 | 0.0 | 37.3 | 100.0 | 3,038 |
| Middle | 63.5 | 55.8 | 30.0 | 12.4 | 4.9 | 4.3 | 1.4 | 0.8 | 1.9 | 0.0 | 7.7 | 6.0 | 1.6 | 0.2 | 36.5 | 100.0 | 3,276 |
| Fourth | 60.1 | 51.9 | 27.0 | 11.6 | 5.7 | 4.6 | 0.9 | 0.5 | 1.6 | 0.0 | 8.3 | 5.8 | 1.8 | 0.7 | 39.9 | 100.0 | 3,551 |
| Highest | 63.3 | 53.2 | 25.2 | 6.7 | 15.4 | 3.9 | 0.5 | 0.7 | 0.8 | 0.0 | 10.1 | 7.3 | 2.6 | 0.1 | 36.7 | 100.0 | 4,050 |
| Total | 62.4 | 54.1 | 27.0 | 12.4 | 6.4 | 4.6 | 1.2 | 0.6 | 1.7 | 0.0 | 8.4 | 6.2 | 1.9 | 0.3 | 37.6 | 100.0 | 16,858 |

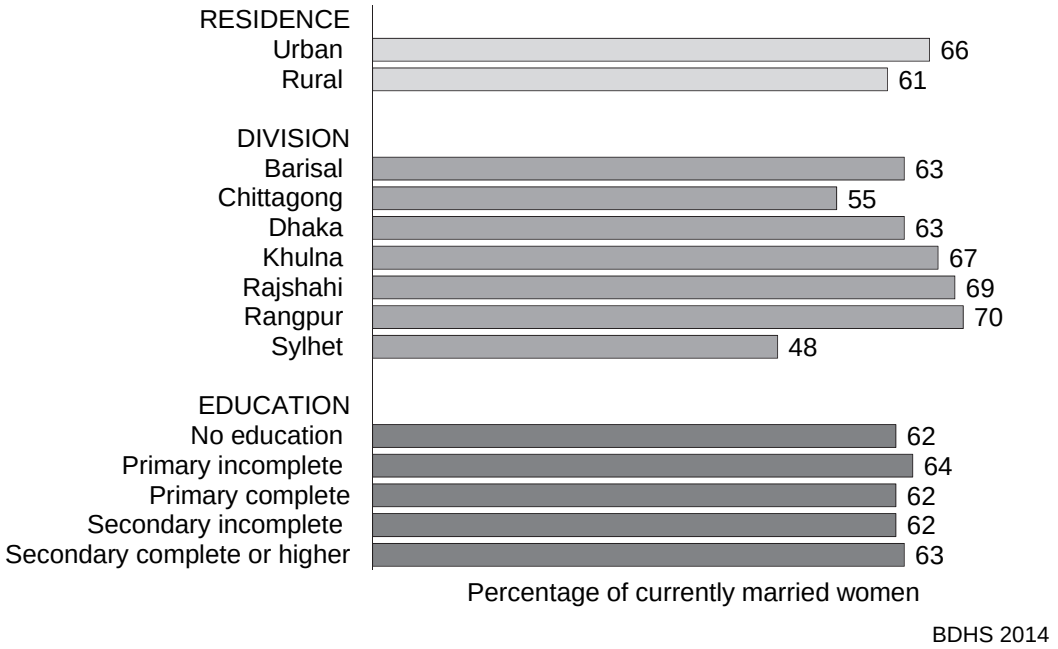
Note: If more than one method is used, only the most effective method is considered in this tabulation.
[1] Primary complete is defined as completing grade 5.
[2] Secondary complete is defined as completing grade 10.

Table 9 and Figure 4 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). Rangpur and Rajshahi have the highest contraceptive use rates—almost 70 percent.

There is very little variation in contraceptive use by women's education. Some variation in method choice is 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 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 to 7 percent of those in the highest wealth quintile. Condom use is only 1 percent among couples in the lowest wealth quintile compared with 15 percent among those in the highest wealth quintile. Also, the use of any long-acting and permanent methods of contraception declines as economic status increases.

***Figure 4*** **Contraceptive use by background characteristics**




### 3.5.2 Trends in Contraceptive Use

Use of contraception among married women in Bangladesh has increased gradually, from 8 percent in 1975 to 62 percent in 2014 (Table 10 and Figure 5). 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 method use by 2 percentage points, and traditional method use fell by 1 percentage point. 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.

Under the Health Population and Nutrition Sector Development Program (HPNSDP), Bangladesh aims to increase overall use of contraception to 72 percent by 2016 (MOHFW, 2011). This means an increase of 10 percentage points would need to occur in the next two years, or an average of 5 percentage points of an increase per year. The HPNSDP also focuses on reducing regional differences in contraceptive use, in particular in the low-performing divisions, Chittagong and Sylhet. The HPNSDP aims to increase modern contraceptive use in Chittagong and Sylhet to 50 percent by 2016. Based on the 2014 BDHS data, to reach this level in the next two years, modern contraceptive method use in Chittagong and Sylhet must increase by 3 and 9 percentage points, respectively. Between 2011 and 2014, modern contraceptive method use in Chittagong increased by 2 percentage points and in Sylhet by 6 percentage points (Figure 6).

Table 10 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

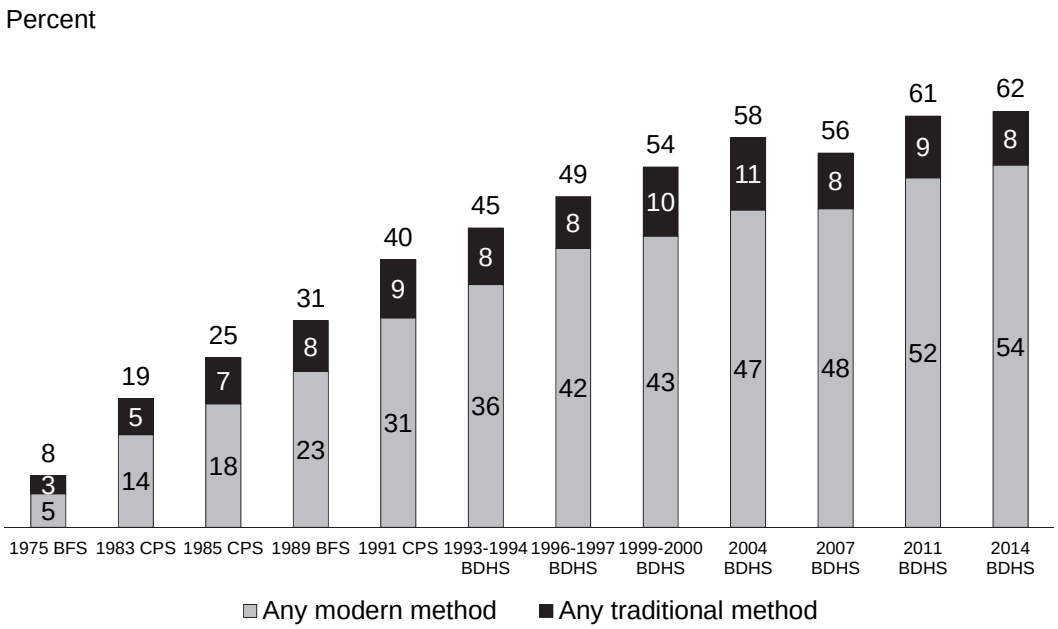
| Method | 1975 BFS | 1983 CPS | 1985 CPS | 1989 BFS | 1991 CPS | 1993-94 BDHS | 1996-97 BDHS | 1999-2000 BDHS | 2004 BDHS | 2007 BDHS[1] | 2011 BDHS[1] | 2014 BDHS[1] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Any method** | **7.7** | **19.1** | **25.3** | **30.8** | **39.9** | **44.6** | **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.

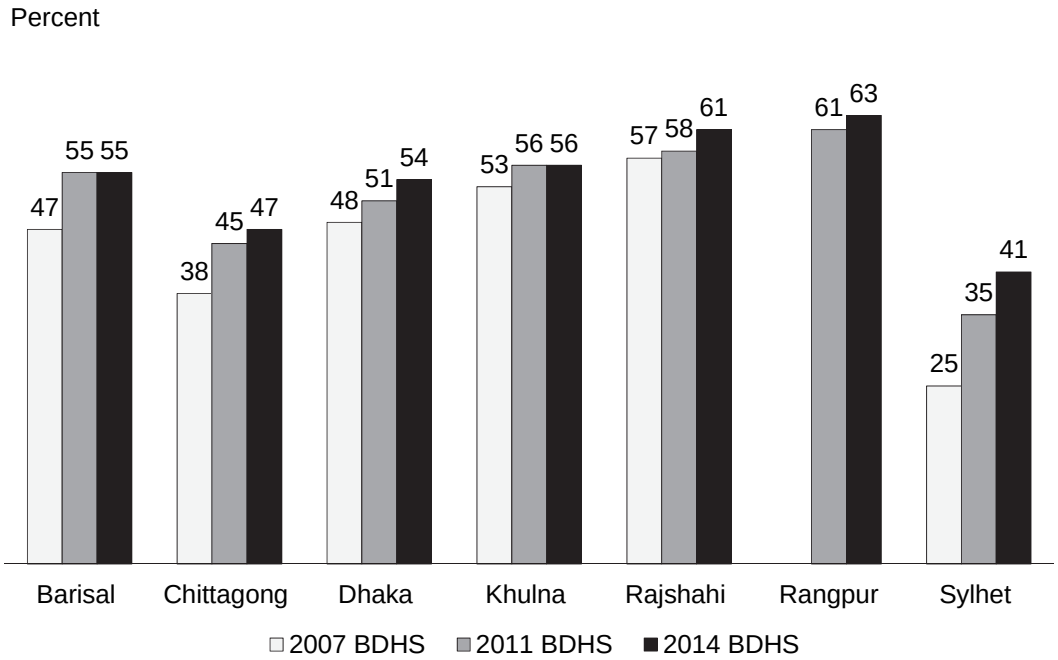
Sources: 1975 Bangladesh Fertility Survey (BFS) (Islam and Islam, 1993:43); 1983 Contraceptive Prevalence Survey (CPS) (Mitra and Kamal, 1985:159); 1985 CPS (Mitra 1987:147); 1989 BFS (Huq and Cleland, 1990:64); 1991 CPS (Mitra et al., 1993:53); 1993-1994 Bangladesh Demographic and Health Survey (BDHS) (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 5*** **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 6*** **Trends in use of modern contraceptives by division, 2007-2014**




Note: Rajshahi includes Rangpur division in 2007

### 3.5.3 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. Contraceptive discontinuation rates are presented in Table 11. These rates are based on information collected in the 5-year, month-by-month calendar of contraceptive use in the BDHS questionnaire.

The results indicate that 30 percent of contraceptive users stop using a method within 12 months of starting. Not surprisingly, discontinuation rates are much higher for more temporary methods like condoms (40 percent) and the pill (34 percent) than for longer-term methods like implants (7 percent).

The all-method discontinuation rate has declined from 36 percent in 2011 to the current rate of 30 percent in 2014.

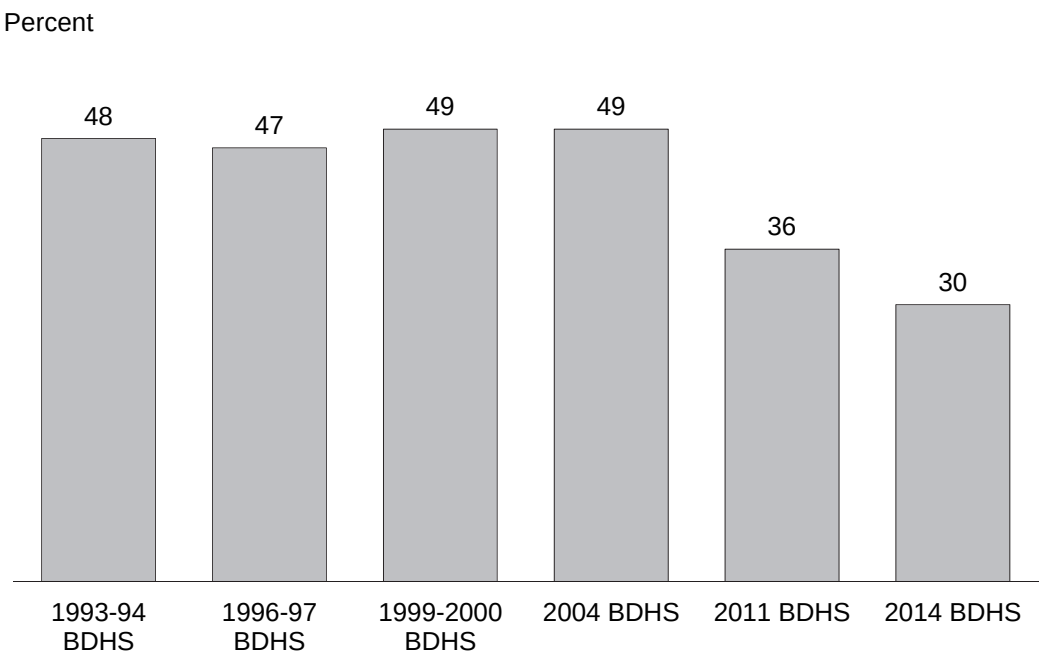
Table 11 Twelve-month contraceptive discontinuation rates

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 | 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 |
| Condom | 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[1] | 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] Includes male sterilization
[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

***Figure 7*** **Trends in all methods contraceptive discontinuation rates, 1993/94-2014**




### 3.5.4 Sources of Family Planning Methods

In the 2014 BDHS, women who were currently using a modern method of contraception were asked where they obtained the method the last time they used it. Because women often do not know what category their source fits into (e.g., 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.

Table 12 shows 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 a large proportion receiving the method from a government fieldworker (20 percent). Overall, 43 percent of modern contraceptive users get their supplies from a private 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 nonmedical source, mainly a shop (3 percent). Nongovernmental organizations (NGOs) supply contraceptives to 4 percent of users of modern methods. Although the public sector is still the most prominent source of contraceptive supply, the share of the private sector as a source of contraceptive supply has increased from 36 percent in 2004 to 47 percent in 2014 (Figure 8).

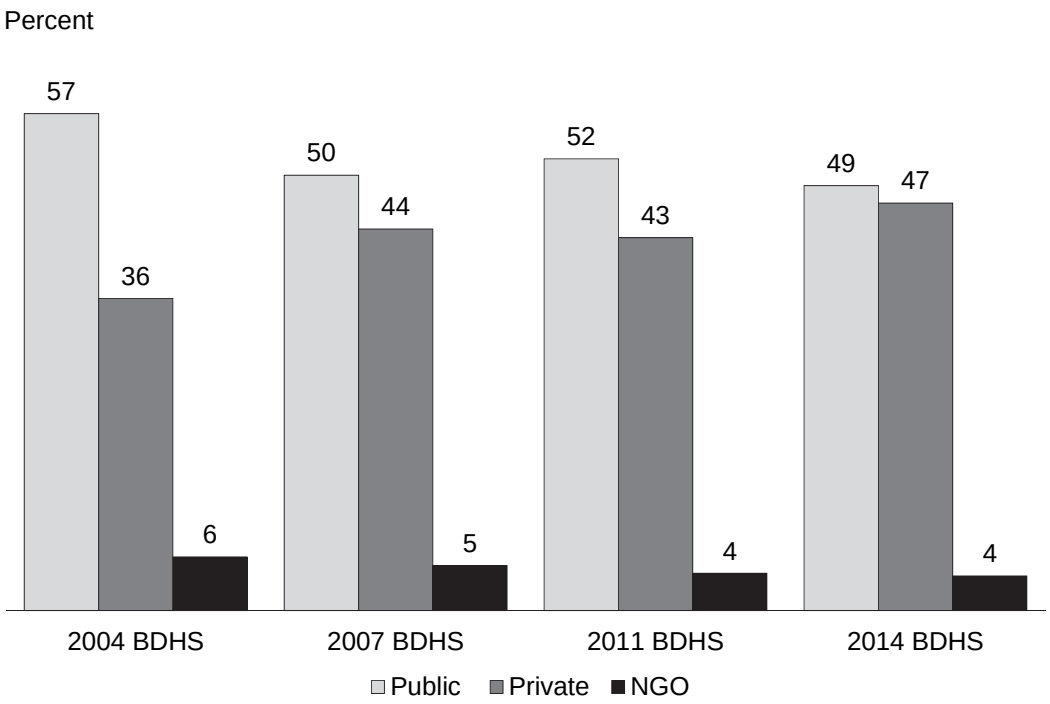
The source of modern contraceptive methods varies largely by the specific method. Male sterilization, the IUD, and implants are almost exclusively obtained from a public sector facility, particularly at upazila health complexes and family welfare centers. Both family welfare centers and private hospitals/clinics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

Table 12 Source of supply of specific modern methods

Percent distribution of current users of modern contraceptive methods among women age 15-49 by most recent source of method, according to specific method, Bangladesh 2014

| | Modern method | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Source | Pill | Injectables | Condoms | Female sterilization | Male sterilization | IUD | Implants | Total |
| **Public sector** | **42.3** | **61.0** | **14.9** | **68.7** | **84.5** | **92.1** | **93.1** | **48.7** |
| Public hospital | 0.6 | 1.6 | 1.9 | 11.4 | 11.2 | 6.3 | 6.2 | 2.4 |
| District hospital | 0.5 | 0.4 | 0.0 | 11.6 | 16.8 | 8.8 | 8.1 | 2.1 |
| Maternal and child welfare center | 0.4 | 2.1 | 0.5 | 10.7 | 8.7 | 10.4 | 18.1 | 2.6 |
| Upazila health complex | 4.4 | 12.4 | 2.3 | 3.3 | 5.5 | 31.0 | 11.0 | 6.5 |
| UH and family welfare center | 1.7 | 6.5 | 1.3 | 31.6 | 39.2 | 34.7 | 47.7 | 8.0 |
| Satellite clinic/EPI outreach site | 1.9 | 7.6 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 2.7 |
| Community clinic | 3.6 | 9.8 | 1.4 | 0.0 | 0.0 | 0.9 | 0.5 | 4.3 |
| Government fieldworker | 29.0 | 20.6 | 7.0 | 0.0 | 0.0 | 0.0 | 1.5 | 20.1 |
| Other | 0.1 | 0.1 | 0.1 | 0.0 | 3.1 | 0.0 | 0.0 | 0.1 |
| **NGO sector** | **3.1** | **9.6** | **2.0** | **2.0** | **3.0** | **1.3** | **4.8** | **4.4** |
| Static clinic | 1.2 | 6.3 | 1.3 | 2.0 | 3.0 | 1.3 | 4.5 | 2.6 |
| Satellite clinic | 0.0 | 0.4 | 0.2 | 0.0 | 0.0 | 0.0 | 0.3 | 0.2 |
| Depo holder | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |
| Fieldworker | 1.7 | 2.8 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 1.5 |
| **Private medical sector** | **49.1** | **28.8** | **76.0** | **28.8** | **7.5** | **6.6** | **2.2** | **43.0** |
| Private hospital/clinic | 0.1 | 0.7 | 0.4 | 28.8 | 7.5 | 6.6 | 1.9 | 3.0 |
| Qualified doctor | 0.1 | 0.8 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 |
| Non-qualified doctor's chamber | 0.7 | 5.0 | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 | 1.6 |
| Pharmacy | 48.2 | 22.2 | 74.6 | 0.0 | 0.0 | 0.0 | 0.3 | 38.1 |
| Other | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **Other private source** | **5.4** | **0.3** | **6.6** | **0.0** | **0.0** | **0.0** | **0.0** | **3.5** |
| Shop | 3.9 | 0.2 | 6.1 | 0.0 | 0.0 | 0.0 | 0.0 | 2.7 |
| Friend/relatives | 1.5 | 0.1 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.8 |
| Other | 0.1 | 0.1 | 0.5 | 0.1 | 0.3 | 0.0 | 0.0 | 0.1 |
| Don't know | 0.0 | 0.0 | 0.0 | 0.0 | 4.7 | 0.0 | 0.0 | 0.1 |
| Missing | 0.1 | 0.2 | 0.1 | 0.5 | 0.0 | 0.0 | 0.0 | 0.1 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Number of women | 4,549 | 2,094 | 1,086 | 775 | 210 | 107 | 289 | 9,110 |

***Figure 8*** **Trends in source of contraceptive methods, 2004-2014**




## 3.6 FERTILITY PREFERENCES

Table 13 shows the percent distribution of currently married women by desire for another child, according to the number of living children. Overall, 63 percent of married women age 15-49 do not want any more children, including 6 percent who have been sterilized. 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.

Table 13 Fertility preferences by number of living children

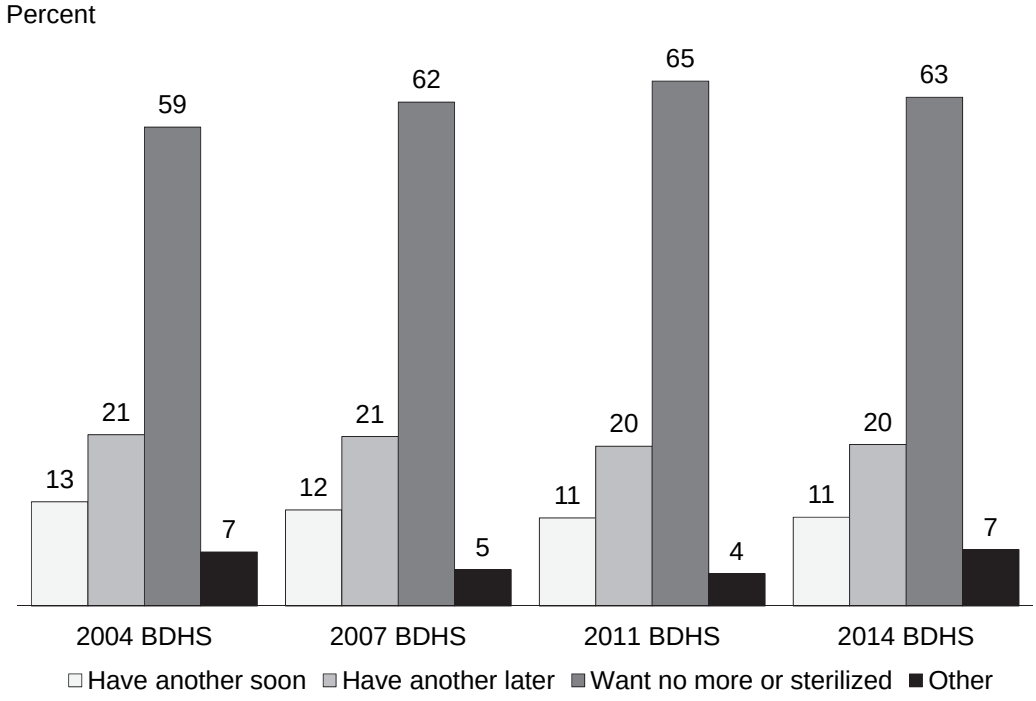
Percent distribution of currently married women age 15-49 by desire for children, according to number of living children, Bangladesh 2014

| | Number of living children[1] | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Desire for children | 0 | 1 | 2 | 3 | 4 | 5 | 6+ | Total |
| 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 |
| Declare infecund | 4.7 | 1.5 | 2.4 | 3.2 | 6.3 | 6.9 | 9.0 | 3.3 |
| Missing | 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 |
| Number of women | 1,243 | 4,128 | 5,108 | 3,378 | 1,670 | 798 | 533 | 16,858 |

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

Figure 9 shows that desire to limit childbearing has increased over time, from 59 percent in 2004 to 63 percent in 2014. Desire for more children, however, did not change much.

***Figure 9*** **Trends in fertility preferences among currently married women age 15-49**




### 3.6.1 Unmet Need for Family Planning

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, which led to unmet need being calculated inconsistently. The revised definition 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, percentage of demand satisfied, 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 14). The total demand for family planning in Bangladesh is 74 percent, of which 73 percent has been satisfied by the use of modern methods.

Table 14 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

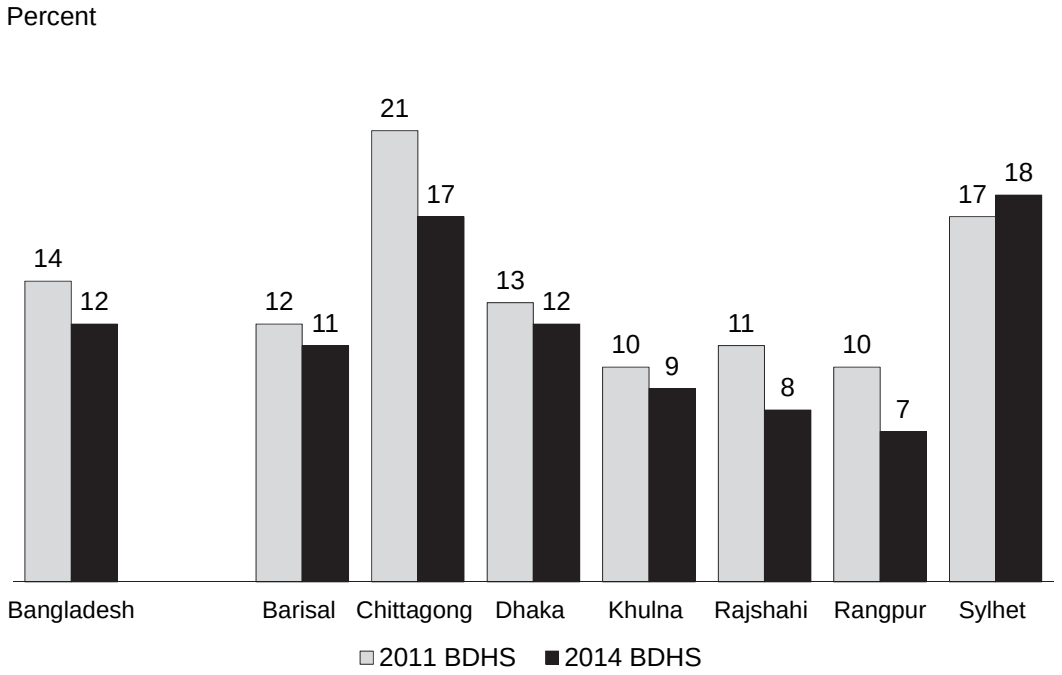
| | Unmet need for family planning[1] | | | Met need for family planning (currently using)[2] | | | Total demand for family planning[3] | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Background characteristic | For spacing | For limiting | Total | For spacing | For limiting | Total | For spacing | For limiting | Total | Percentage of demand satisfied | Percentage of demand satisfied by modern methods[4] | Number of women |
| **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 |
| **Mother's 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[5] | 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[6] | 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 | 5.4 | 7.8 | 13.2 | 13.8 | 48.9 | 62.7 | 19.2 | 56.8 | 75.9 | 82.6 | 72.6 | 2,943 |
| Second | 4.6 | 6.2 | 10.8 | 16.3 | 46.4 | 62.7 | 20.9 | 52.6 | 73.4 | 85.3 | 74.7 | 3,038 |
| Middle | 5.9 | 5.5 | 11.4 | 17.6 | 45.9 | 63.5 | 23.5 | 51.3 | 74.9 | 84.8 | 74.5 | 3,276 |
| Fourth | 5.7 | 7.5 | 13.2 | 19.2 | 40.9 | 60.1 | 24.9 | 48.4 | 73.3 | 82.0 | 70.7 | 3,551 |
| Highest | 5.1 | 6.2 | 11.3 | 20.3 | 42.9 | 63.3 | 25.4 | 49.2 | 74.6 | 84.8 | 71.3 | 4,050 |
| 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.
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
[3] Total demand is the sum of unmet need and met need (with all methods)
[4] Modern methods include female sterilization, male sterilization, IUD, implants, injectables, pill, male condom, female condom, emergency contraception, standard days method (SDM) and lactational amenorrhea method (LAM)
[5] Primary complete is defined as completing grade 5.
[6] Secondary complete is defined as completing grade 10.

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 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 10). The HPNSDP results framework has set a target to reduce unmet need for family planning services to 9 percent by 2016 (MOHFW, 2011).

***Figure 10*** **Trends in unmet need for family planning services among currently married women age 15-49, by division, 2011-2014**




## 3.7 MATERNAL AND NEWBORN HEALTH

### 3.7.1 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.

Table 15 and Figure 11 show that 79 percent of women with a birth in the three years preceding the survey received antenatal care at least once from any provider. The majority of women (64 percent) received care from a medically trained provider, that is, a qualified doctor; nurse, midwife, or paramedic; family welfare visitor (FWV); community skilled birth attendant (CSBA); or medical assistant (MA) or sub-assistant community medical officer (SACMO). There has been a sharp increase in antenatal care in the three years between BDHS 2011 and BDHS 2014, 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.

Antenatal care from any provider has increased by 11 percentage points from 68 percent in 2011 to 79 percent in 2014, and antenatal care from a medically trained provider during the same period has increased by 9 percentage points from 55 to 64 percent. This is a positive trend because there has been a concern that

between 2004 and 2011 antenatal care from a medically trained provider had changed very little (4 percentage points from 51 percent to 55 percent). The increase in antenatal coverage is observed among all subgroups of women. Older women, women with a higher birth order, and women who live in rural areas are less likely to receive antenatal care from a trained provider than other women. Mothers in Khulna are most likely to receive antenatal care from a medically trained provider (74 percent), while those in Sylhet are least likely to receive care (53 percent). The likelihood of receiving antenatal care from a medically trained provider increases with the mother's education level and wealth status. For example, coverage of antenatal care from a trained provider increases from 35 percent for mothers in the lowest wealth quintile to 88 percent for mothers who are in the highest wealth quintile. The huge gap in use of antenatal care from a trained provider between the richest and the poorest has declined only slightly (from 57 percentage points to 53 percentage points) in the last three years.

Table 15 Antenatal care

Percent distribution of women who had a live birth in the three years preceding the survey by antenatal care (ANC) provider during pregnancy for the most recent birth, according to background characteristics, Bangladesh 2014

| Background characteristic | Medically trained provider | | | | | Community health care provider | HA/ FWA | NGO worker | Trained birth attendant | Untrained birth attendant | Unqualified provider | Other | No one | Total | Any ANC | Percentage receiving ANC from a medically trained provider[1] | Number of women |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Qualified doctor | Nurse/ midwife/ paramedic | FWV | CSBA | MA/ SACMO | | | | | | | | | | | | |
| **Mother's age at birth** | | | | | | | | | | | | | | | | | |
| <20 | 57.5 | 4.1 | 2.5 | 0.1 | 0.1 | 1.1 | 3.9 | 9.9 | 0.2 | 0.0 | 0.7 | 0.2 | 19.6 | 100.0 | 80.4 | 64.4 | 1,472 |
| 20-34 | 58.3 | 3.0 | 2.4 | 0.2 | 0.1 | 1.4 | 5.0 | 6.7 | 0.1 | 0.0 | 0.8 | 0.1 | 21.8 | 100.0 | 78.2 | 64.0 | 2,971 |
| 35+ | 52.5 | 2.0 | 1.9 | 0.6 | 0.0 | 1.0 | 8.2 | 3.9 | 0.0 | 0.2 | 0.4 | 0.0 | 29.3 | 100.0 | 70.7 | 57.0 | 184 |
| **Birth order** | | | | | | | | | | | | | | | | | |
| 1 | 64.9 | 4.0 | 2.0 | 0.0 | 0.1 | 0.9 | 3.9 | 7.9 | 0.1 | 0.0 | 0.7 | 0.1 | 15.4 | 100.0 | 84.6 | 71.0 | 1,846 |
| 2-3 | 56.8 | 3.1 | 2.9 | 0.2 | 0.1 | 1.8 | 5.3 | 7.5 | 0.1 | 0.0 | 0.7 | 0.2 | 21.3 | 100.0 | 78.7 | 63.1 | 2,141 |
| 4-5 | 45.6 | 2.5 | 2.3 | 0.2 | 0.3 | 0.6 | 5.0 | 7.9 | 0.0 | 0.1 | 1.3 | 0.0 | 34.4 | 100.0 | 65.6 | 50.8 | 484 |
| 6+ | 27.5 | 1.7 | 0.4 | 0.7 | 0.0 | 1.1 | 6.3 | 5.7 | 0.0 | 0.0 | 0.8 | 0.0 | 55.8 | 100.0 | 44.2 | 30.3 | 155 |
| **Residence** | | | | | | | | | | | | | | | | | |
| Urban | 74.0 | 3.3 | 1.6 | 0.0 | 0.0 | 0.6 | 3.5 | 5.9 | 0.1 | 0.0 | 0.5 | 0.2 | 10.5 | 100.0 | 89.5 | 78.8 | 1,209 |
| Rural | 52.1 | 3.4 | 2.7 | 0.2 | 0.2 | 1.6 | 5.2 | 8.2 | 0.1 | 0.0 | 0.9 | 0.1 | 25.3 | 100.0 | 74.7 | 58.6 | 3,418 |
| **Division** | | | | | | | | | | | | | | | | | |
| Barisal | 50.6 | 2.7 | 3.9 | 0.4 | 0.5 | 2.2 | 8.1 | 3.6 | 0.0 | 0.0 | 1.0 | 0.3 | 26.8 | 100.0 | 73.2 | 58.0 | 268 |
| Chittagong | 60.1 | 4.0 | 2.1 | 0.0 | 0.0 | 1.3 | 2.4 | 3.3 | 0.1 | 0.0 | 1.1 | 0.2 | 25.4 | 100.0 | 74.6 | 66.3 | 1,011 |
| Dhaka | 61.0 | 2.1 | 1.1 | 0.1 | 0.0 | 0.8 | 5.9 | 12.2 | 0.0 | 0.0 | 0.7 | 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 | 5.8 | 0.2 | 0.0 | 0.4 | 0.6 | 11.3 | 100.0 | 88.7 | 73.9 | 371 |
| Rajshahi | 55.0 | 5.0 | 3.5 | 0.4 | 0.0 | 1.1 | 6.2 | 3.5 | 0.2 | 0.0 | 0.6 | 0.3 | 24.2 | 100.0 | 75.8 | 63.9 | 464 |
| Rangpur | 51.9 | 5.5 | 4.6 | 0.0 | 0.4 | 2.5 | 3.5 | 12.7 | 0.2 | 0.0 | 0.0 | 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 | 3.8 | 0.3 | 0.1 | 1.6 | 0.1 | 37.5 | 100.0 | 62.5 | 53.1 | 428 |
| **Education** | | | | | | | | | | | | | | | | | |
| No education | 33.8 | 3.0 | 1.9 | 0.3 | 0.1 | 1.1 | 8.7 | 7.3 | 0.1 | 0.0 | 0.7 | 0.1 | 42.9 | 100.0 | 57.1 | 39.0 | 655 |
| Primary incomplete | 41.5 | 3.9 | 2.9 | 0.4 | 0.2 | 1.2 | 6.5 | 9.2 | 0.1 | 0.0 | 1.0 | 0.3 | 32.9 | 100.0 | 67.1 | 48.8 | 749 |
| Primary complete[2] | 48.9 | 3.7 | 2.8 | 0.0 | 0.1 | 1.1 | 4.4 | 10.8 | 0.1 | 0.0 | 0.9 | 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 | 8.6 | 0.1 | 0.0 | 0.9 | 0.2 | 14.5 | 100.0 | 85.5 | 70.2 | 1,892 |
| Secondary complete or higher[3] | 83.6 | 3.7 | 2.0 | 0.1 | 0.0 | 0.5 | 2.6 | 1.9 | 0.1 | 0.0 | 0.2 | 0.1 | 5.3 | 100.0 | 94.7 | 89.4 | 787 |
| **Wealth index quintile** | | | | | | | | | | | | | | | | | |
| Lowest | 28.2 | 3.1 | 3.7 | 0.0 | 0.2 | 1.1 | 8.8 | 11.1 | 0.1 | 0.0 | 1.0 | 0.1 | 42.5 | 100.0 | 57.5 | 35.3 | 960 |
| Second | 46.7 | 3.6 | 3.4 | 0.1 | 0.2 | 1.4 | 5.2 | 7.7 | 0.1 | 0.0 | 0.6 | 0.2 | 30.6 | 100.0 | 69.4 | 54.1 | 842 |
| Middle | 58.9 | 3.5 | 2.2 | 0.4 | 0.0 | 2.9 | 3.6 | 7.7 | 0.2 | 0.0 | 0.3 | 0.1 | 20.2 | 100.0 | 79.8 | 65.0 | 832 |
| Fourth | 67.2 | 3.8 | 2.3 | 0.3 | 0.2 | 1.2 | 3.8 | 8.1 | 0.1 | 0.0 | 1.6 | 0.0 | 11.6 | 100.0 | 88.4 | 73.7 | 933 |
| Highest | 84.5 | 2.8 | 0.6 | 0.0 | 0.0 | 0.3 | 2.5 | 4.0 | 0.0 | 0.0 | 0.4 | 0.2 | 4.7 | 100.0 | 95.3 | 88.0 | 1,059 |
| Total | 57.9 | 3.3 | 2.4 | 0.2 | 0.1 | 1.3 | 4.7 | 7.6 | 0.1 | 0.0 | 0.8 | 0.1 | 21.4 | 100.0 | 78.6 | 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 attendant, MA = medical assistant, SACMO = sub-assistant community medical officer, HA = health assistant, FWA = family welfare assistant
[1] Medically trained providers include qualified doctor, nurse/midwife/paramedic, FWV, CSBA, MA/SACMO
[2] Primary complete is defined as completing grade 5.
[3] Secondary complete is defined as completing grade 10.

Figure 11 shows that antenatal coverage for births in the three years preceding the survey has increased substantially from 58 percent in 2004 to 79 percent in 2014. During the same period, antenatal care from a medically trained provider increased from 51 percent to 64 percent.

***Figure 11*** **Trends in utilization of antenatal care, 2004-2014**

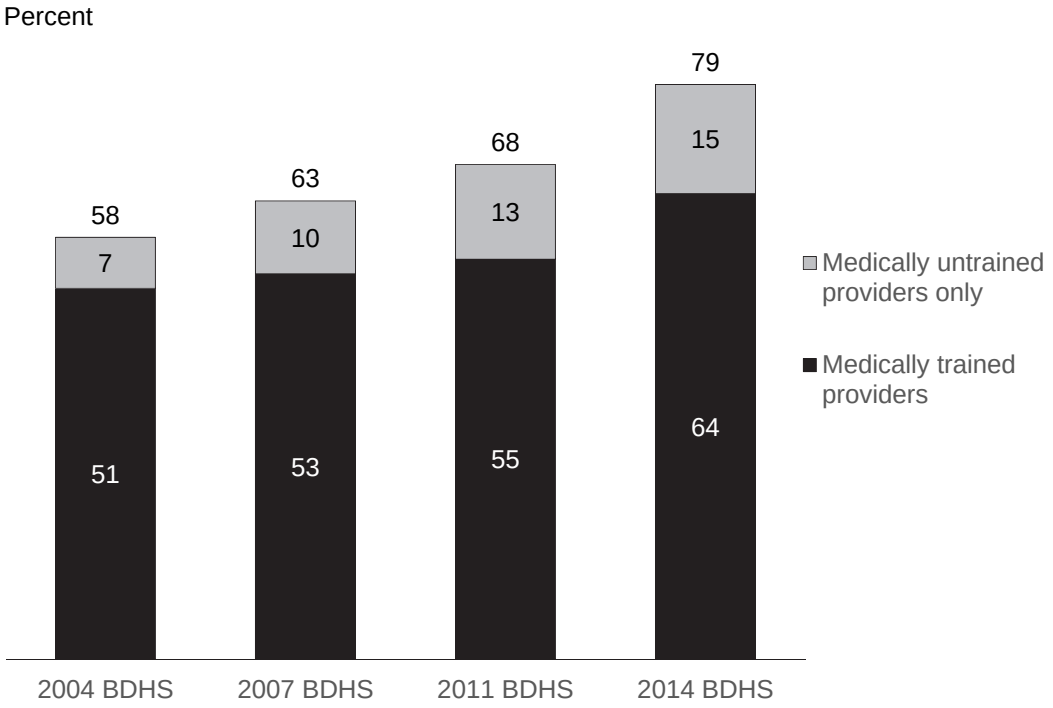



Table 16 shows that 31 percent of women with a live birth in the three years before the survey made four or more ANC visits during their pregnancy. Urban women are more likely than rural women to have made four or more antenatal visits (46 percent compared with 26 percent). For urban women this percentage 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. 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.

Table 16 Number of antenatal care visits

Percent distribution of women who had a live birth in the three years preceding the survey by number of antenatal care (ANC) visits for the most recent 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 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 |

### 3.7.2 Place of Delivery

Respondents in the 2014 BDHS were asked about the place of delivery of all children born in the three years before the survey. Table 17 shows that 37 percent of births in the three years before the survey were delivered at a health facility. Although 22 percent of the births were delivered in a private facility, only 13 percent were delivered in a public facility, and 62 percent delivered at home. The likelihood of delivering in a health facility is lower for women age 35 or older compared with those who are younger. Facility delivery decreases sharply as birth order increases. On the other hand, the 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 17 Place of delivery

Percent distribution of live births in the three years preceding the survey by place of delivery, according to background characteristics, Bangladesh 2014

| Background characteristic | Place of delivery | | | Place of delivery | | | Percentage delivered in health facility | Percentage delivered by C-section | Number of births |
|---|---|---|---|---|---|---|---|---|---|
| | Public | Private | NGO | Home | Other/ missing | Total | | | |
| **Mother's age at birth** | | | | | | | | | |
| <20 | 12.2 | 21.8 | 2.2 | 63.7 | 0.2 | 100.0 | 36.1 | 21.3 | 1,562 |
| 20-34 | 13.3 | 22.9 | 2.2 | 60.9 | 0.6 | 100.0 | 38.5 | 24.0 | 3,144 |
| 35+ | 9.5 | 17.9 | 3.4 | 69.3 | 0.0 | 100.0 | 30.7 | 17.4 | 198 |
| **Birth order** | | | | | | | | | |
| 1 | 14.4 | 29.7 | 2.3 | 53.3 | 0.3 | 100.0 | 46.3 | 29.7 | 1,979 |
| 2-3 | 13.2 | 20.4 | 2.1 | 63.7 | 0.6 | 100.0 | 35.7 | 21.4 | 2,256 |
| 4-5 | 8.2 | 8.5 | 2.6 | 80.4 | 0.3 | 100.0 | 19.3 | 8.9 | 503 |
| 6+ | 3.7 | 3.2 | 2.4 | 90.6 | 0.0 | 100.0 | 9.4 | 4.1 | 167 |
| **Residence** | | | | | | | | | |
| Urban | 15.8 | 35.6 | 5.4 | 42.3 | 0.9 | 100.0 | 56.8 | 38.1 | 1,267 |
| Rural | 11.8 | 17.7 | 1.1 | 69.1 | 0.3 | 100.0 | 30.6 | 17.6 | 3,637 |
| **Division** | | | | | | | | | |
| Barisal | 10.9 | 17.2 | 1.8 | 69.0 | 1.1 | 100.0 | 29.9 | 17.7 | 279 |
| Chittagong | 11.9 | 20.0 | 3.3 | 64.4 | 0.4 | 100.0 | 35.2 | 18.3 | 1,074 |
| Dhaka | 11.4 | 27.0 | 2.1 | 59.1 | 0.4 | 100.0 | 40.5 | 29.1 | 1,740 |
| Khulna | 19.2 | 31.9 | 3.4 | 45.0 | 0.5 | 100.0 | 54.6 | 33.0 | 387 |
| Rajshahi | 15.3 | 22.9 | 0.9 | 60.7 | 0.2 | 100.0 | 39.2 | 22.3 | 488 |
| Rangpur | 16.5 | 16.1 | 1.7 | 65.3 | 0.3 | 100.0 | 34.3 | 17.5 | 461 |
| Sylhet | 9.9 | 11.3 | 1.4 | 76.6 | 0.8 | 100.0 | 22.6 | 10.9 | 474 |
| **Education** | | | | | | | | | |
| No education | 8.0 | 6.3 | 1.3 | 83.8 | 0.5 | 100.0 | 15.7 | 7.0 | 704 |
| Primary incomplete | 11.1 | 9.4 | 2.5 | 76.5 | 0.4 | 100.0 | 23.0 | 10.1 | 801 |
| Primary complete[1] | 12.5 | 15.5 | 1.7 | 69.6 | 0.8 | 100.0 | 29.6 | 13.8 | 579 |
| Secondary incomplete | 14.2 | 23.7 | 2.4 | 59.3 | 0.4 | 100.0 | 40.3 | 24.6 | 1,999 |
| Secondary complete or higher[2] | 15.5 | 50.3 | 2.7 | 31.3 | 0.2 | 100.0 | 68.6 | 51.2 | 821 |
| **Wealth quintile** | | | | | | | | | |
| Lowest | 8.5 | 6.1 | 0.4 | 84.7 | 0.3 | 100.0 | 15.0 | 6.8 | 1,037 |
| Second | 11.6 | 10.6 | 0.4 | 77.0 | 0.3 | 100.0 | 22.6 | 9.6 | 895 |
| Middle | 13.6 | 17.1 | 2.2 | 66.9 | 0.2 | 100.0 | 33.0 | 17.6 | 894 |
| Fourth | 13.3 | 26.2 | 3.2 | 56.9 | 0.4 | 100.0 | 42.7 | 26.7 | 980 |
| Highest | 16.8 | 48.1 | 4.6 | 29.6 | 0.9 | 100.0 | 69.5 | 49.8 | 1,098 |
| **Number of ANC visits[3]** | | | | | | | | | |
| None | 5.4 | 5.2 | 0.3 | 89.1 | 0.1 | 100.0 | 10.8 | 4.5 | 992 |
| 1 | 11.1 | 13.8 | 1.3 | 73.5 | 0.3 | 100.0 | 26.2 | 13.2 | 827 |
| 2 | 13.4 | 26.0 | 2.1 | 58.1 | 0.4 | 100.0 | 41.5 | 24.5 | 748 |
| 3 | 17.9 | 27.2 | 3.4 | 51.4 | 0.1 | 100.0 | 48.5 | 31.1 | 612 |
| 4 or more | 17.1 | 37.2 | 4.1 | 41.1 | 0.5 | 100.0 | 58.4 | 41.1 | 1,442 |
| Don't know/missing | 19.7 | 31.2 | 0.0 | 49.1 | 0.0 | 100.0 | 50.9 | 31.2 | 6 |
| Total | 12.8 | 22.4 | 2.2 | 62.2 | 0.4 | 100.0 | 37.4 | 22.9 | 4,904 |

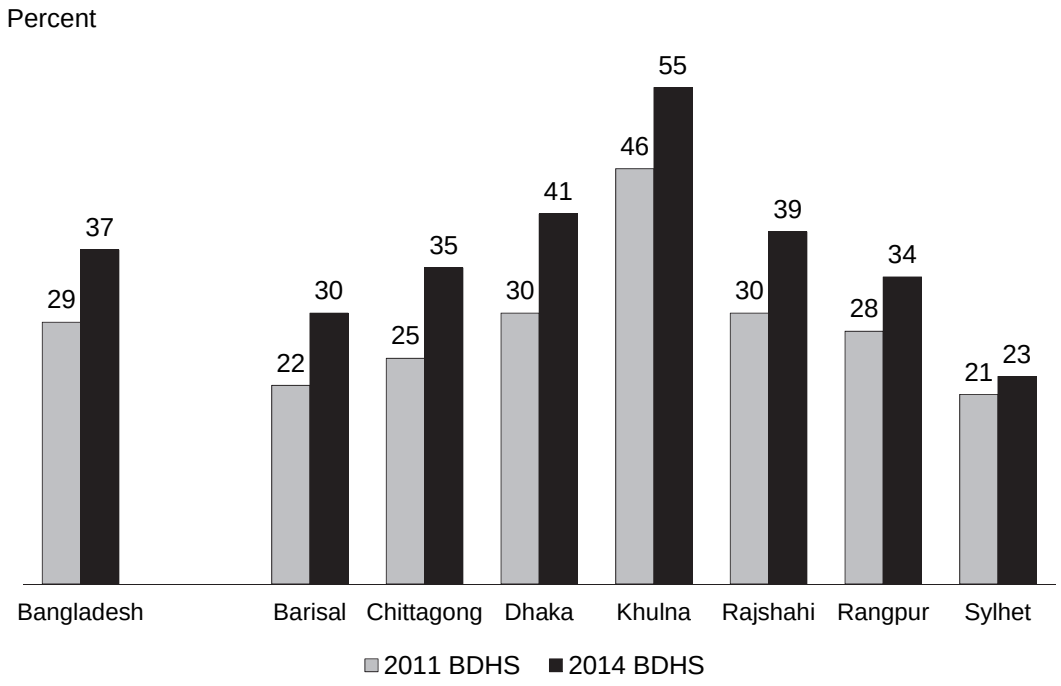
Note: BRAC Maternity/Delivery Centers (also known as birthing huts) are included in the category '*other*'. Deliveries in these centers are not considered to be facility births in this report.
[1] Primary complete is defined as completing grade 5.
[2] Secondary complete is defined as completing grade 10.
[3] Includes only the most recent birth in the three years preceding the survey

Although still low, the proportion of births delivered at health facilities has been increasing rapidly from 12 percent in 2004 to 17 percent in 2007, 29 percent in 2011, and to the current level of 37 percent.

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 in the past three years to women in the lowest wealth quintile were delivered in a health facility compared with 70 percent of births in the highest wealth quintile. 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 12 shows that the proportion of births delivered at health facilities has increased in every division between 2011 and 2014.

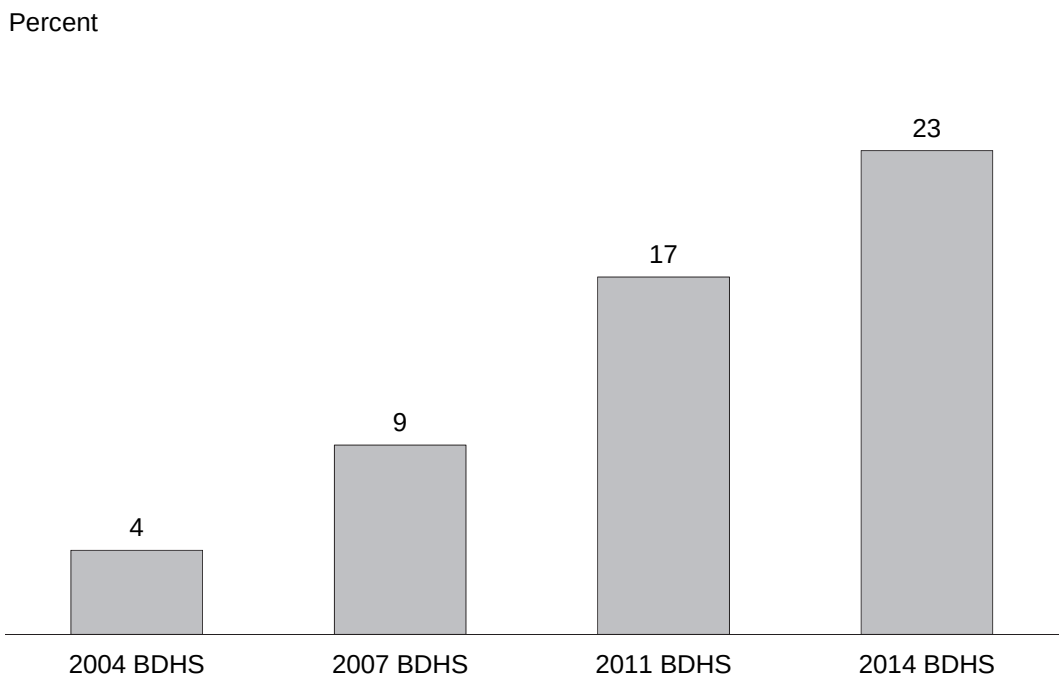
***Figure 12*** **Trends in facility births by division**




### 3.7.3 Cesarean Section

Table 17 also shows the percentage of births during the three years preceding the survey delivered by Cesarean section (C-section), which is sometimes considered to be a proxy indicator of women's access to skilled care for complicated deliveries. In 2014, 23 percent of births were delivered by C-section, which implies that six in ten 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 and 18 percent, respectively). Half of births among women who have secondary or higher education and those who are in the highest wealth quintile are 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 13).

***Figure 13*** **Trends in births delivered by C-section, 2004-2014**




### 3.7.4 Assistance at Delivery

Obstetric care from a trained provider during delivery is critical for the reduction of maternal and neonatal mortality. Four in ten births (42 percent) in the three years preceding the survey were attended by medically trained personnel, that is, a qualified doctor; nurse or midwife; family welfare visitor (FWV); or community skilled birth attendant (CSBA) (Table 18). Another four in ten births (38 percent) were assisted by dais or untrained traditional birth attendants, 10 percent by trained traditional birth attendants and 7 percent by relatives and friends.

First order births are more likely to be assisted by a medically-trained provider. Across residence, births in urban areas and in Khulna are much more likely to be assisted by medically trained personnel than births in other areas. Delivery by medically trained personnel is more common among births to mothers with secondary or higher education, as well as births to mothers in the highest wealth quintile.

The proportion of deliveries by medically trained providers doubled from 16 percent in 2004 to 32 percent in 2011, and has increased to 42 percent in 2014 (Figure 14). The HPNSDP targets delivery by a medically trained provider to reach 50 percent by 2016 (MOHFW, 2011).

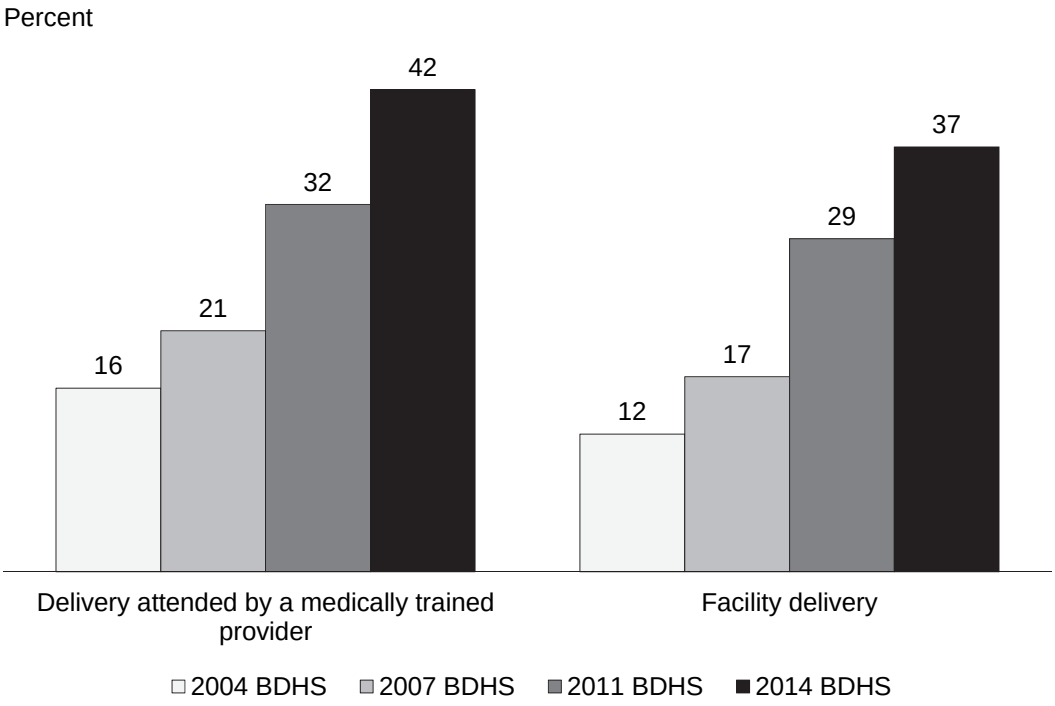
Table 18 Assistance during delivery

Percent distribution of live births in the three years preceding the survey by person providing assistance during delivery, according to background characteristics, Bangladesh 2014

| | Assistance during delivery | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Background characteristic | Qualified doctor | Nurse/ midwife/ paramedic | FWV | CSBA | CHCP | NGO worker | HA/ FWA | Trained traditional birth attendant | Untrained traditional birth attendant | Unqualified 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 | 0.3 | 0.9 | 10.4 | 38.1 | 2.1 | 5.9 | 0.0 | 0.2 | 100.0 | 41.8 | 1,562 |
| 20-34 | 31.7 | 10.7 | 0.3 | 0.0 | 0.1 | 0.2 | 0.7 | 10.4 | 36.7 | 1.8 | 6.9 | 0.1 | 0.2 | 100.0 | 42.8 | 3,144 |
| 35+ | 24.8 | 7.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 10.7 | 46.1 | 0.0 | 10.7 | 0.5 | 0.0 | 100.0 | 32.0 | 198 |
| **Birth order** | | | | | | | | | | | | | | | | |
| 1 | 39.6 | 11.7 | 0.4 | 0.1 | 0.1 | 0.3 | 0.8 | 9.7 | 30.1 | 2.0 | 5.0 | 0.0 | 0.2 | 100.0 | 51.7 | 1,979 |
| 2-3 | 29.0 | 11.0 | 0.3 | 0.1 | 0.1 | 0.3 | 0.6 | 10.7 | 38.1 | 1.9 | 7.5 | 0.0 | 0.2 | 100.0 | 40.5 | 2,256 |
| 4-5 | 13.0 | 8.5 | 0.1 | 0.0 | 0.2 | 0.4 | 1.1 | 11.8 | 54.8 | 1.0 | 8.9 | 0.3 | 0.0 | 100.0 | 21.5 | 503 |
| 6+ | 7.2 | 3.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 10.2 | 65.7 | 1.2 | 10.6 | 1.9 | 0.0 | 100.0 | 10.4 | 167 |
| **Residence** | | | | | | | | | | | | | | | | |
| Urban | 48.9 | 11.2 | 0.4 | 0.0 | 0.0 | 0.5 | 0.7 | 7.3 | 25.5 | 1.3 | 4.3 | 0.0 | 0.0 | 100.0 | 60.5 | 1,267 |
| Rural | 24.6 | 10.6 | 0.3 | 0.1 | 0.2 | 0.2 | 0.8 | 11.5 | 41.8 | 2.0 | 7.6 | 0.1 | 0.3 | 100.0 | 35.6 | 3,637 |
| **Division** | | | | | | | | | | | | | | | | |
| Barisal | 24.0 | 12.1 | 0.2 | 0.3 | 0.2 | 0.0 | 0.2 | 12.7 | 42.7 | 2.3 | 4.1 | 0.2 | 0.8 | 100.0 | 36.7 | 279 |
| Chittagong | 28.7 | 14.5 | 0.6 | 0.0 | 0.1 | 0.1 | 0.6 | 7.1 | 41.6 | 1.7 | 4.8 | 0.0 | 0.2 | 100.0 | 43.9 | 1,074 |
| Dhaka | 37.1 | 6.2 | 0.0 | 0.1 | 0.2 | 0.2 | 0.8 | 10.6 | 34.8 | 1.4 | 8.4 | 0.1 | 0.0 | 100.0 | 43.5 | 1,740 |
| Khulna | 42.2 | 15.8 | 0.2 | 0.0 | 0.0 | 0.5 | 0.6 | 9.0 | 24.3 | 1.2 | 6.1 | 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 | 1.5 | 1.5 | 18.1 | 29.7 | 3.2 | 7.5 | 0.3 | 0.1 | 100.0 | 37.9 | 461 |
| Sylhet | 15.7 | 11.1 | 0.3 | 0.1 | 0.0 | 0.0 | 0.9 | 13.5 | 47.2 | 1.4 | 9.0 | 0.0 | 0.7 | 100.0 | 27.1 | 474 |
| **Education** | | | | | | | | | | | | | | | | |
| No education | 10.6 | 6.5 | 0.1 | 0.0 | 0.0 | 0.3 | 0.8 | 11.7 | 57.8 | 2.1 | 9.5 | 0.2 | 0.4 | 100.0 | 17.1 | 704 |
| Primary incomplete | 16.1 | 10.4 | 0.2 | 0.0 | 0.4 | 0.7 | 0.5 | 12.8 | 48.9 | 1.5 | 8.3 | 0.1 | 0.3 | 100.0 | 26.6 | 801 |
| Primary complete[2] | 22.2 | 10.5 | 0.7 | 0.1 | 0.3 | 0.0 | 0.0 | 11.6 | 45.4 | 1.4 | 7.1 | 0.4 | 0.3 | 100.0 | 33.5 | 579 |
| Secondary incomplete | 33.3 | 12.4 | 0.2 | 0.1 | 0.1 | 0.1 | 0.9 | 10.2 | 33.1 | 2.5 | 6.9 | 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 | 0.3 | 1.1 | 6.6 | 14.4 | 0.4 | 2.2 | 0.0 | 0.1 | 100.0 | 75.0 | 821 |
| **Wealth quintile** | | | | | | | | | | | | | | | | |
| Lowest | 10.6 | 7.1 | 0.2 | 0.0 | 0.0 | 0.3 | 0.7 | 13.3 | 54.9 | 2.7 | 9.9 | 0.1 | 0.4 | 100.0 | 17.9 | 1,037 |
| Second | 16.9 | 11.0 | 0.2 | 0.1 | 0.5 | 0.2 | 0.8 | 11.7 | 48.2 | 2.1 | 7.8 | 0.1 | 0.3 | 100.0 | 28.2 | 895 |
| Middle | 26.4 | 10.9 | 0.5 | 0.1 | 0.2 | 0.1 | 0.9 | 9.7 | 37.1 | 2.6 | 11.2 | 0.2 | 0.1 | 100.0 | 37.9 | 894 |
| Fourth | 34.6 | 13.7 | 0.4 | 0.2 | 0.0 | 0.4 | 0.6 | 11.5 | 33.1 | 1.4 | 3.7 | 0.0 | 0.3 | 100.0 | 48.9 | 980 |
| Highest | 61.9 | 11.2 | 0.3 | 0.0 | 0.0 | 0.4 | 0.6 | 6.2 | 16.9 | 0.5 | 2.1 | 0.0 | 0.0 | 100.0 | 73.4 | 1,098 |
| Total | 30.9 | 10.8 | 0.3 | 0.1 | 0.1 | 0.3 | 0.7 | 10.4 | 37.5 | 1.8 | 6.7 | 0.1 | 0.2 | 100.0 | 42.1 | 4,904 |

FWV = family welfare visitor, CSBA = community skilled birth attendant, CHCP = community health care provider, HA = health assistant, FWA = family welfare assistant
[1] Medically trained providers include qualified 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.

***Figure 14*** **Trends in use of skilled birth attendants and health facilities, 2004-2014**




### 3.7.5 POSTNATAL CARE

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. In addition, the first two days following delivery are critical for monitoring complications for both mothers and their newborns.

The 2014 BDHS data show that 36 percent of mothers and 36 percent of children in Bangladesh receive postnatal care from a medically trained provider within 42 days after delivery (Table 19). The vast majority of these mothers and children receive postnatal care within the crucial first two days of delivery (34 percent and 32 percent, respectively).

Table 19 Postnatal care for mothers and children

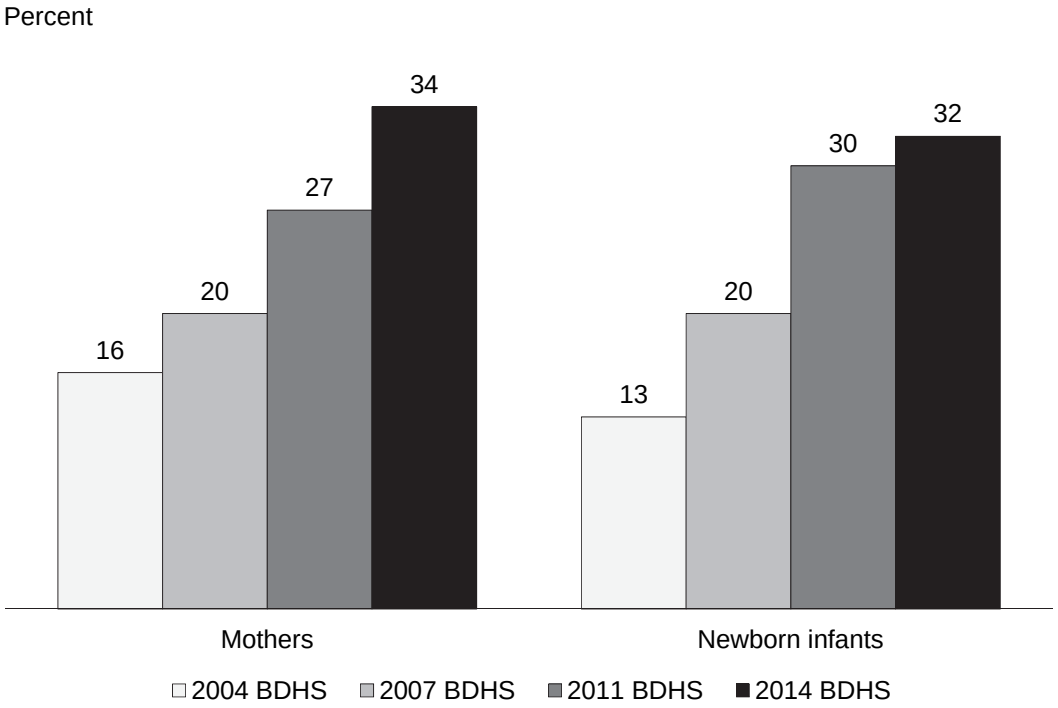
Percent distribution of last births in the three years preceding the survey for which the mothers and/or the children received postnatal care from a medically trained provider[1], by timing of postnatal care, Bangladesh 2014

| | Respondent | |
|---|---|---|
| Timing | Women | Children |
| Within 2 days of delivery | 33.9 | 31.5 |
| 3-6 days after delivery | 1.2 | 1.2 |
| 7-41 days after delivery | 1.0 | 3.3 |
| Within 42 days of delivery | 36.1 | 36.0 |
| Did not receive postnatal checkup | 60.6 | 63.5 |
| Delivery at home or other—no information on timing | 2.7 | 0.0 |
| Don't know/missing | 0.6 | 0.5 |
| Total | 100.0 | 100.0 |
| Number | 4,627 | 4,627 |

Note: Women and children who received a checkup after 41 days are assumed to have not received postnatal care.
[1] Qualified doctor, nurse/midwife/paramedics including family welfare visitor (FWV) and community skilled birth attendant (CSBA)

Occurrence of a postnatal checkup from a medically trained provider within two days of delivery has increased from 20 percent in 2007 to 27 percent in 2011, to the current level of 34 percent for mothers (Figure 15). For children, a postnatal checkup from a medically trained provider within the first two days has increased from 20 percent in 2007 to the current level of 32 percent. The HPNSDP 2011-2016 sets a target of 50 percent of women receiving at least one postnatal visit by a medically trained provider within 48 hours of birth by 2016 (MOHFW, 2011).

***Figure 15*** **Trends in utilization of postnatal care for mothers and children from a medically trained provider within two days of delivery, 2004-2014**




### 3.7.6 ESSENTIAL NEWBORN CARE

Essential newborn care focuses on the use of clean instruments to cut the umbilical cord, cord care, keeping the baby warm, delayed bathing, and immediate initiation of breastfeeding. 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.

Table 20 shows that for almost nine in ten of the most recent births delivered at home in the three years before the survey, a clean delivery kit/bag was used or the blade was boiled during delivery. This practice has increased slightly from 86 percent in 2011 to 88 percent in 2014 (Figure 16).

Between 2011 and 2014, use of the recommended practice of drying the newborns within 5 minutes of birth has increased substantially, increasing from 51 to 67 percent. In contrast, the recommended practice of applying nothing to the umbilical cord of the newborn has declined from 59 to 48 percent.

Adherence to recommended practices regarding initiation of breastfeeding within one hour of birth and delayed bathing of the newborn has increased slightly in the last three years. At present, mothers initiate breastfeeding within one hour of birth for more than half of newborns (57 percent) and delay bathing to 72 hours after birth for about one in three newborns (34 percent).

Overall, only 6 percent of newborns receive all five recommended essential newborn care practices. This proportion was 5 percent in 2011 (Figure 16).

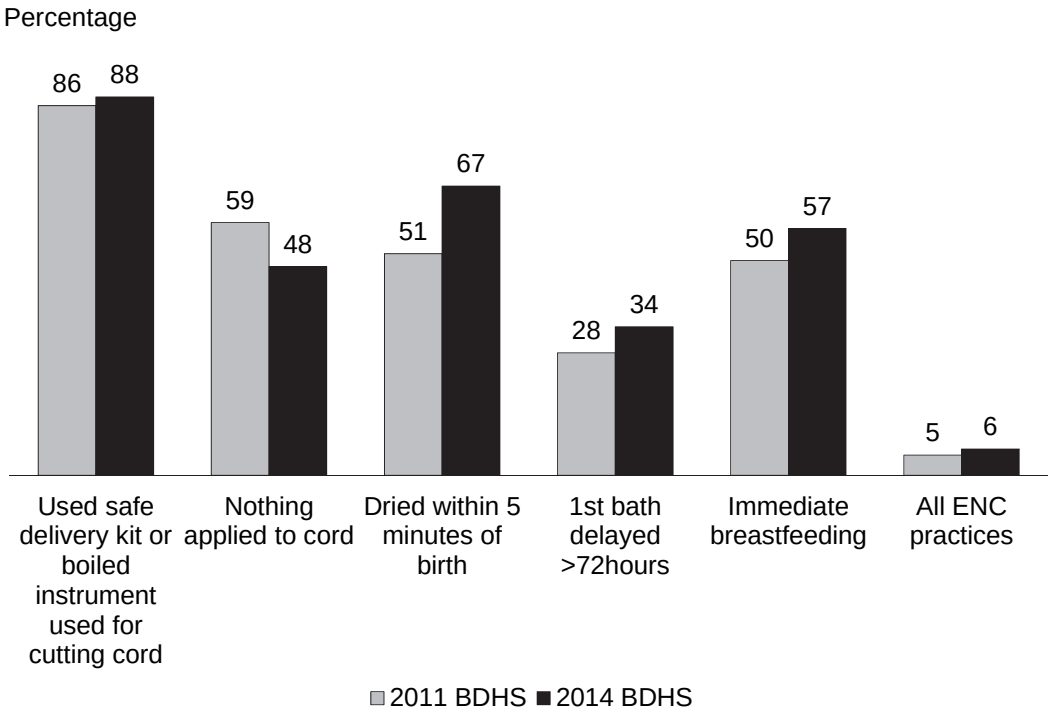
Table 20 Essential newborn care

Percentage of non-institutional most recent live births in the three years preceding the survey by essential newborn care practice, according to background characteristics, Bangladesh 2014

| Background characteristic | Used safe delivery kit or boiled blade during delivery | Nothing applied to the umbilical cord or applied chloroxidine after it was cut and tied | Dried within 0-4 minutes after birth | Delayed bathing (72+ hours after delivery) | Immediate breastfeeding (within 1 hour after birth) | All the essential newborn care practices[1] | Number of non-institutional births |
|---|---|---|---|---|---|---|---|
| **Mother's age at birth** | | | | | | | |
| <20 | 82.4 | 46.9 | 66.1 | 36.6 | 59.2 | 6.3 | 920 |
| 20-34 | 90.2 | 49.2 | 67.5 | 34.1 | 56.1 | 6.1 | 1,793 |
| 35+ | 90.4 | 47.5 | 65.5 | 22.0 | 58.0 | 4.4 | 123 |
| **Birth order** | | | | | | | |
| 1 | 82.7 | 45.4 | 67.1 | 35.5 | 58.2 | 5.4 | 955 |
| 2-3 | 89.8 | 50.4 | 66.0 | 36.6 | 57.5 | 6.7 | 1,352 |
| 4-5 | 91.3 | 49.1 | 71.3 | 28.1 | 54.0 | 5.8 | 388 |
| 6+ | 91.0 | 48.2 | 63.1 | 22.6 | 55.8 | 5.8 | 141 |
| **Residence** | | | | | | | |
| Urban | 89.6 | 41.1 | 68.1 | 30.0 | 54.7 | 5.5 | 501 |
| Rural | 87.3 | 50.0 | 66.7 | 35.3 | 57.7 | 6.3 | 2,335 |
| **Division** | | | | | | | |
| Barisal | 85.5 | 30.7 | 56.2 | 33.2 | 56.4 | 2.6 | 186 |
| Chittagong | 88.3 | 47.8 | 65.6 | 28.2 | 50.1 | 3.6 | 648 |
| Dhaka | 86.4 | 53.2 | 63.7 | 33.8 | 58.1 | 5.2 | 941 |
| Khulna | 91.5 | 38.8 | 71.7 | 31.1 | 52.2 | 6.8 | 166 |
| Rajshahi | 76.2 | 47.4 | 74.6 | 35.9 | 63.0 | 6.8 | 278 |
| Rangpur | 93.2 | 53.3 | 73.9 | 50.7 | 64.3 | 13.3 | 292 |
| Sylhet | 94.1 | 47.3 | 70.3 | 34.6 | 60.3 | 8.6 | 326 |
| **Education** | | | | | | | |
| No education | 85.8 | 51.9 | 65.0 | 23.2 | 58.1 | 4.2 | 549 |
| Primary incomplete | 84.8 | 47.5 | 67.3 | 29.4 | 57.6 | 5.7 | 570 |
| Primary complete[2] | 89.3 | 48.7 | 69.4 | 38.6 | 55.9 | 6.1 | 376 |
| Secondary incomplete | 88.0 | 48.6 | 66.4 | 38.8 | 56.1 | 6.3 | 1,100 |
| Secondary complete or higher[3] | 94.5 | 40.9 | 69.5 | 44.6 | 61.0 | 10.6 | 241 |
| **Wealth index quintile** | | | | | | | |
| Lowest | 84.8 | 53.5 | 66.5 | 28.8 | 62.4 | 6.1 | 812 |
| Second | 87.6 | 50.7 | 65.1 | 35.1 | 51.7 | 6.6 | 649 |
| Middle | 88.0 | 48.6 | 62.6 | 38.9 | 55.7 | 5.8 | 548 |
| Fourth | 90.3 | 46.1 | 69.1 | 37.5 | 56.8 | 5.5 | 521 |
| Highest | 90.3 | 33.4 | 76.3 | 34.2 | 58.5 | 6.7 | 306 |
| Total | 87.7 | 48.4 | 67.0 | 34.4 | 57.2 | 6.1 | 2,836 |

[1] All essential newborn care includes used clean delivery kit or boiled blade, nothing applied to cord or applied chloroxidine, dried within 5 minutes after birth, delayed bathing 72 hours or over, and immediate breast feeding.
[2] Primary complete is defined as completing grade 5.
[3] Secondary complete is defined as completing grade 10.

***Figure 16*** **Essential newborn care practices among noninstitutional births, 2011 and 2014**




## 3.8 CHILDHOOD MORTALITY

One important objective of the 2014 BDHS was to measure levels and trends in mortality among children, since infant and child mortality rates are basic indicators of a country's socioeconomic situation and quality of life. Rates of childhood mortality will also vary over time in relation to changes in epidemiological risks (exposure to disease), nutritional deficits (susceptibility to disease and death), and the extent to which a country's health and social service sectors prevent and mitigate these threats to health and survival.

The data for child 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.

The mortality rates presented in this section are defined as follows:

**Neonatal mortality**: the probability of dying within the first month of life
**Postneonatal mortality**: the difference between infant and neonatal mortality
**Infant mortality**: the probability of dying before the first birthday
**Child mortality**: the probability of dying between the first and fifth birthday
**Under-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 (age 12 months).

### 3.8.1 Level of Childhood Mortality

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 per 1,000 live births (Table 21).

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 per 1,000 live births (Table 21). Bangladesh has achieved its Millennium Development Goal 4 target for under five mortality (48 per 1000 births by 2015) ahead of time.

The infant mortality rate is 38 deaths per 1,000 live births, and the child mortality rate is 8 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.

Table 21 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) | Postneonatal 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

### 3.8.2 Trends in Childhood Mortality

Since 1993-1994, the DHS surveys in Bangladesh have obtained childhood mortality rates for the five-year period preceding the survey. Over the last two decades, the data confirm a steady downward trend in childhood mortality (Table 22 and Figure 17). Between the 1989-1993 and 2010-2014 periods, infant mortality declined by 56 percent from 87 deaths per 1,000 live births to 38 deaths per 1,000 live births. Even more impressive are the 71 percent decline in postneonatal mortality and the 65 percent decline in under-5 mortality over the same period. As a consequence of this rapid rate of decline, Bangladesh has achieved its MDG 4 target for under-5 mortality of 48 deaths per 1,000 live births by 2015.

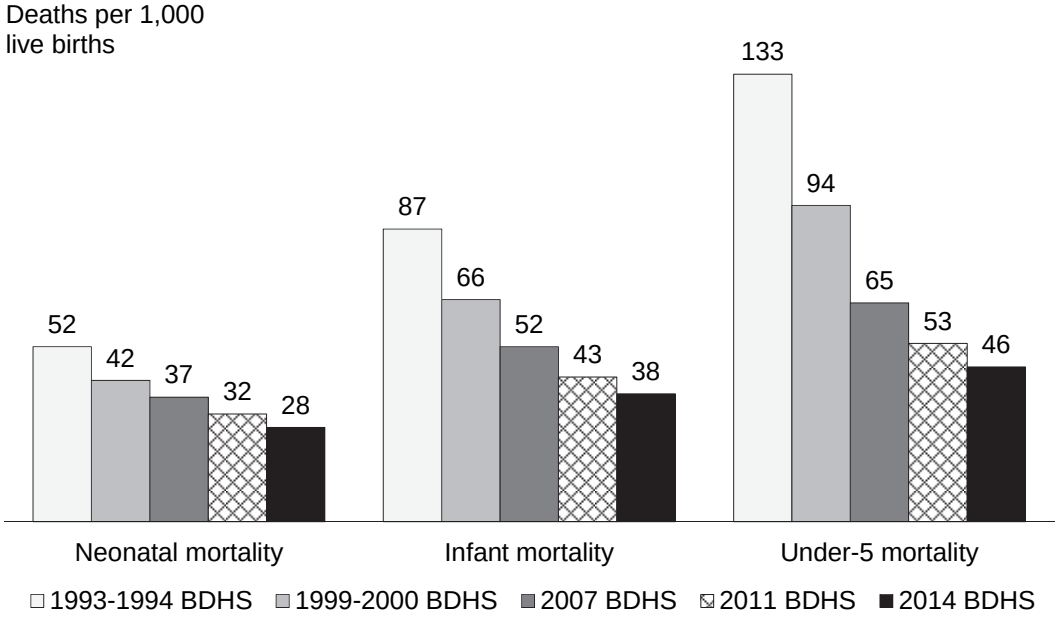
Table 22 Trend in early childhood mortality

Neonatal, postneonatal, infant, child, and under-five 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-five 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 17*** **Trends in childhood mortality rates, 1989-2014**




## 3.9 CHILD HEALTH

### 3.9.1 Vaccination of Children

Universal immunization of children against the major vaccine-preventable diseases (tuberculosis, diphtheria, pertussis, tetanus, hepatitis, *haemophilus influenzae* type B, poliomyelitis, pneumonia, and measles) is globally recognized as one of the most cost-effective programs to reduce infant and child morbidity and mortality. The government of Bangladesh initiated the National Immunization Program against six vaccine-preventable diseases (tuberculosis; diphtheria, pertussis, and tetanus; polio; and measles) in 1979. Efforts were further intensified after 1985 when Bangladesh committed itself to reaching universal immunization by 1990 (Jamil et al., 1999). The Expanded Program on Immunization (EPI) incorporated the hepatitis B (HepB) vaccine in 2003 and the *haemophilus influenzae* type B (Hib) vaccine in 2009. This was done in the form of the pentavalent vaccine that included diphtheria, pertussis, tetanus (DPT), HepB, and the new Hib vaccine. By 2011, the pentavalent vaccine had replaced the DPT and HepB vaccines in the EPI program in Bangladesh (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 immunized 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 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 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 questionnaire. If the vaccination card was not available (or a vaccination was not recorded), mothers were asked to recall whether the child had received each vaccine.

Table 23 presents information on vaccination coverage according to the source of information. Data are presented 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). The coverage for the pentavalent and polio vaccines decline 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.

Vaccinations are most effective when given at the proper age. Therefore, it is recommended that children complete the schedule of immunizations during their first year of life (i.e., by 12 months of age). Overall, 78 percent of children age 12-23 months had received all the recommended vaccinations before their first birthday. The 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.

Table 23 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 age 12 months, Bangladesh 2014

| | | Pentavalent | | | Polio | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Source of information | BCG | 1 | 2 | 3 | 0 | 1 | 2 | 3 | 4 | Measles | All basic vaccinations[1] | No vaccinations | Number of children |
| **Vaccinated at any time before survey** | | | | | | | | | | | | | |
| Vaccination card | 73.8 | 73.8 | 72.8 | 70.8 | 17.5 | 73.7 | 72.7 | 70.4 | 60.2 | 65.8 | 65.2 | 0.0 | 1,207 |
| Mother's report | 24.1 | 23.2 | 22.6 | 20.5 | 3.6 | 23.7 | 22.8 | 21.0 | 5.9 | 20.3 | 18.6 | 2.0 | 426 |
| Either source | 97.9 | 97.0 | 95.4 | 91.3 | 21.1 | 97.4 | 95.5 | 91.4 | 66.1 | 86.1 | 83.8 | 2.0 | 1,633 |
| **Vaccinated by age 12 months[2]** | 97.8 | 97.0 | 95.3 | 90.9 | 21.1 | 97.4 | 95.4 | 91.1 | 62.7 | 79.9 | 78.0 | 2.0 | 1,633 |

[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.

Table 24 shows that vaccination cards were seen for 74 percent of children age 12-23 months. Results indicate that 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 24 Vaccinations by background characteristics

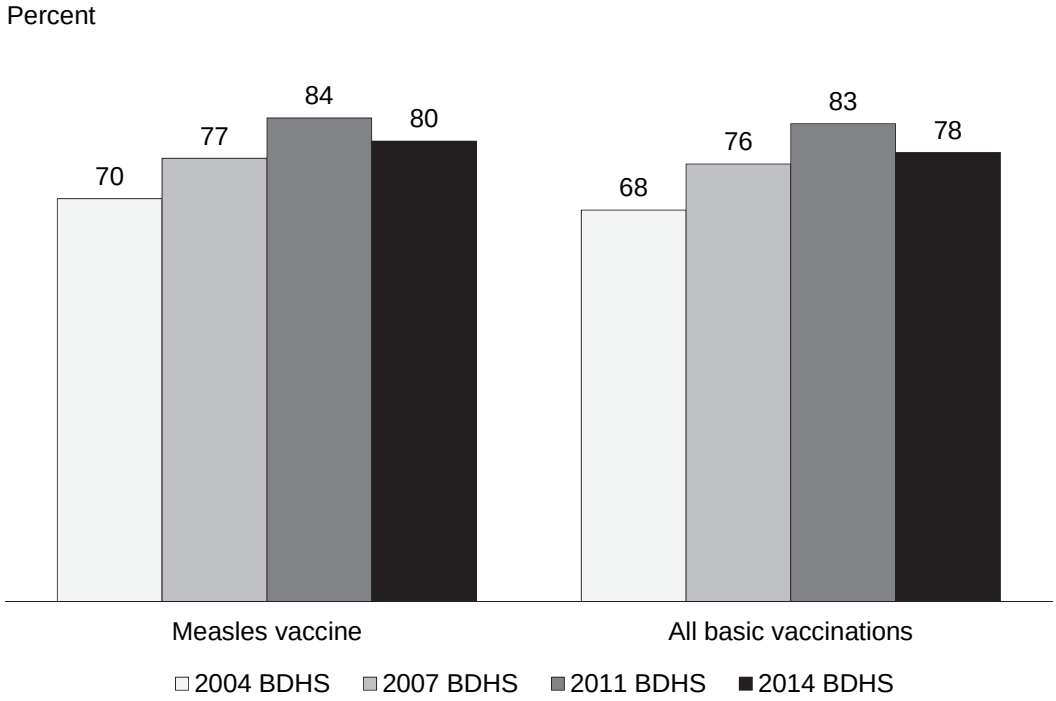
Percentage of children age 12-23 months who received specific vaccines at any time before the survey (according to a vaccination card or the mother's report), and percentage with a vaccination card seen, by background characteristics, Bangladesh 2014

| Background characteristic | BCG | Pentavalent | | | Polio | | | | | Measles | All basic vaccinations[2] | No vaccinations | Percentage with a vaccination card seen | Number of children |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 0[1] | 1 | 2 | 3 | 4 | | | | | |
| **Sex** | | | | | | | | | | | | | | |
| Male | 98.3 | 96.9 | 95.4 | 90.4 | 20.0 | 97.5 | 95.4 | 90.9 | 63.8 | 85.9 | 83.6 | 1.5 | 74.0 | 862 |
| Female | 97.5 | 97.1 | 95.5 | 92.3 | 22.3 | 97.4 | 95.6 | 92.0 | 68.7 | 86.4 | 84.1 | 2.5 | 73.8 | 772 |
| **Birth order** | | | | | | | | | | | | | | |
| 1 | 98.9 | 97.7 | 96.3 | 92.2 | 22.1 | 98.5 | 96.5 | 92.0 | 66.7 | 88.5 | 85.9 | 1.0 | 70.4 | 660 |
| 2-3 | 97.8 | 97.4 | 95.8 | 92.8 | 21.8 | 97.5 | 95.8 | 92.7 | 65.9 | 86.7 | 84.8 | 2.1 | 76.4 | 767 |
| 4-5 | 97.9 | 95.9 | 92.7 | 88.0 | 18.9 | 95.7 | 92.5 | 89.2 | 67.2 | 79.0 | 76.6 | 2.1 | 76.3 | 151 |
| 6+ | 87.8 | 87.1 | 87.1 | 67.3 | 6.2 | 87.1 | 87.1 | 71.6 | 57.5 | 69.1 | 64.9 | 12.2 | 75.0 | 55 |
| **Residence** | | | | | | | | | | | | | | |
| Urban | 98.9 | 98.5 | 97.2 | 93.6 | 26.0 | 98.6 | 97.5 | 93.0 | 71.8 | 90.0 | 87.6 | 1.0 | 74.3 | 423 |
| Rural | 97.6 | 96.5 | 94.8 | 90.4 | 19.4 | 97.0 | 94.8 | 90.8 | 64.1 | 84.8 | 82.5 | 2.3 | 73.8 | 1,210 |
| **Division** | | | | | | | | | | | | | | |
| Barisal | 97.8 | 97.0 | 95.1 | 91.6 | 32.6 | 97.5 | 95.6 | 88.2 | 71.8 | 87.5 | 81.5 | 1.8 | 78.7 | 92 |
| Chittagong | 96.9 | 96.3 | 92.7 | 88.3 | 22.9 | 96.7 | 92.7 | 88.9 | 65.8 | 87.6 | 83.3 | 2.9 | 69.1 | 349 |
| Dhaka | 99.1 | 98.4 | 98.2 | 93.9 | 16.9 | 98.7 | 98.2 | 93.9 | 65.0 | 88.4 | 87.4 | 0.9 | 72.6 | 624 |
| Khulna | 98.9 | 98.1 | 95.1 | 92.0 | 26.0 | 98.1 | 95.7 | 92.6 | 69.1 | 86.2 | 85.5 | 1.1 | 78.2 | 129 |
| Rajshahi | 98.3 | 97.8 | 95.1 | 93.0 | 25.5 | 97.7 | 95.0 | 92.9 | 71.0 | 86.0 | 83.6 | 1.7 | 77.5 | 163 |
| Rangpur | 100.0 | 99.5 | 99.0 | 97.9 | 26.9 | 100.0 | 99.0 | 97.9 | 75.3 | 90.3 | 90.0 | 0.0 | 85.6 | 146 |
| Sylhet | 91.3 | 87.5 | 86.0 | 76.0 | 11.5 | 89.0 | 86.6 | 77.9 | 48.4 | 65.6 | 61.1 | 8.3 | 67.7 | 129 |
| **Educational attainment** | | | | | | | | | | | | | | |
| No education | 93.9 | 92.7 | 87.1 | 80.1 | 17.2 | 92.9 | 87.3 | 80.8 | 61.5 | 75.6 | 73.8 | 6.1 | 74.2 | 209 |
| Primary incomplete | 97.8 | 96.8 | 95.2 | 87.7 | 22.4 | 97.1 | 95.0 | 87.5 | 68.0 | 78.5 | 75.2 | 2.2 | 79.9 | 234 |
| Primary complete[3] | 96.4 | 95.1 | 93.9 | 88.4 | 7.2 | 95.5 | 94.2 | 89.7 | 56.9 | 79.1 | 76.2 | 3.2 | 71.5 | 225 |
| Secondary incomplete | 99.1 | 98.1 | 97.1 | 94.2 | 22.2 | 98.8 | 97.3 | 94.5 | 66.1 | 89.7 | 87.9 | 0.8 | 72.8 | 701 |
| Secondary complete or higher[4] | 99.4 | 99.4 | 99.0 | 97.9 | 32.0 | 99.2 | 98.9 | 96.4 | 75.8 | 97.5 | 94.8 | 0.6 | 73.4 | 264 |
| **Wealth quintile** | | | | | | | | | | | | | | |
| Lowest | 96.4 | 93.8 | 90.2 | 81.1 | 15.8 | 94.1 | 90.3 | 81.4 | 60.2 | 72.7 | 69.1 | 3.6 | 75.0 | 363 |
| Second | 97.7 | 97.9 | 97.4 | 92.9 | 14.7 | 98.1 | 97.5 | 93.2 | 59.6 | 85.8 | 82.9 | 1.9 | 73.7 | 286 |
| Middle | 97.7 | 96.5 | 93.9 | 92.9 | 18.2 | 97.5 | 94.1 | 93.2 | 65.5 | 88.1 | 87.2 | 2.3 | 70.0 | 302 |
| Fourth | 98.3 | 97.7 | 96.9 | 94.1 | 23.3 | 98.3 | 97.0 | 94.9 | 70.4 | 93.0 | 90.8 | 1.5 | 74.6 | 324 |
| Highest | 99.5 | 99.4 | 99.1 | 96.3 | 32.0 | 99.4 | 99.1 | 95.3 | 73.9 | 92.0 | 90.4 | 0.5 | 75.6 | 359 |
| Total | 97.9 | 97.0 | 95.4 | 91.3 | 21.1 | 97.4 | 95.5 | 91.4 | 66.1 | 86.1 | 83.8 | 2.0 | 73.9 | 1,633 |

[1] Polio 0 is the polio vaccination given at birth.
[2] BCG, measles, and three doses each of DPT/Penta and polio vaccine (excluding polio vaccine given at birth)
[3] Primary complete is defined as completing grade 5.
[4] Secondary complete is defined as completing grade 10.

The proportion of children receiving all basic vaccinations by age 12 months has decreased by 5 percentage points between 2011 and 2014 (Figure 18). The decline in immunization coverage is of concern. Rumors of sickness and death caused by immunization for measles may have contributed to this decline. Such rumors appeared in social media and on TV in 2013 and 2014. The Ministry of Health and Family Welfare investigated the reported cases, however, and found that the vaccine was not responsible for any deaths among children.

***Figure 18*** **Trends in vaccination coverage by age 12 months, 2004-2014**




### 3.9.2 Treatment of Childhood Respiratory Illness

Acute respiratory infections (ARI) are a leading cause of childhood illness and death. Early diagnosis and treatment with antibiotics can reduce the number of deaths caused by ARIs, 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. Overall, 5 percent of children under age 5 had symptoms of ARI in the two weeks preceding the survey, and 42 percent of these children received advice or treatment from a health facility or provider. In addition, treatment was sought from a pharmacy for 26 percent of children and from a traditional doctor for 25 percent.

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. The data show that 34 percent of children 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.

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 questions asked in the two surveys differ. In the 2011 BDHS, respondents were asked which drugs children with ARI symptoms took, and responses were recorded and checked against a coded list of antimalarial drugs, two types of antibiotics, and other drugs. This likely resulted in an overestimation of the use of antibiotics. In contrast, the 2014 BDHS interviewers asked the name of the drug(s) used, checked for them in a more detailed list, and recorded the appropriate code for antibiotic, antimalarial, and other drug(s).

Table 25 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 |
| **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 | 23.2 | 114 |
| Second | 6.3 | 1,405 | 43.5 | 28.3 | 27.5 | 1.1 | 6.0 | 34.1 | 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 | 32.5 | 80 |
| Highest | 3.5 | 1,701 | 57.8 | 16.5 | 10.8 | 3.9 | 14.9 | 45.8 | 59 |
| Total | 5.4 | 7,760 | 42.0 | 25.5 | 24.5 | 2.7 | 10.6 | 34.2 | 417 |

[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.

### 3.9.3 Treatment of Childhood Diarrhea

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 (SMC) and other pharmaceutical companies.

Respondents in the 2014 BDHS were asked if their children under age 5 had experienced an episode of diarrhea in the two weeks before the survey. 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 26 shows that 6 percent of children under age 5 had diarrhea in the two weeks preceding the survey. Overall, 36 percent of children under age 5 with diarrhea were taken to a health facility or provider for treatment. Eight in 10 children with diarrhea were given oral rehydration therapy (ORT), that is, either a solution made from oral rehydration salt (ORS) packets or a homemade sugar-salt solution, and 38 percent received both ORT and zinc. Figure 19 shows that between 2011 and 2014 there was a slight increase in use of ORT (81 to 84 percent) and ORT with zinc (34 to 38 percent).

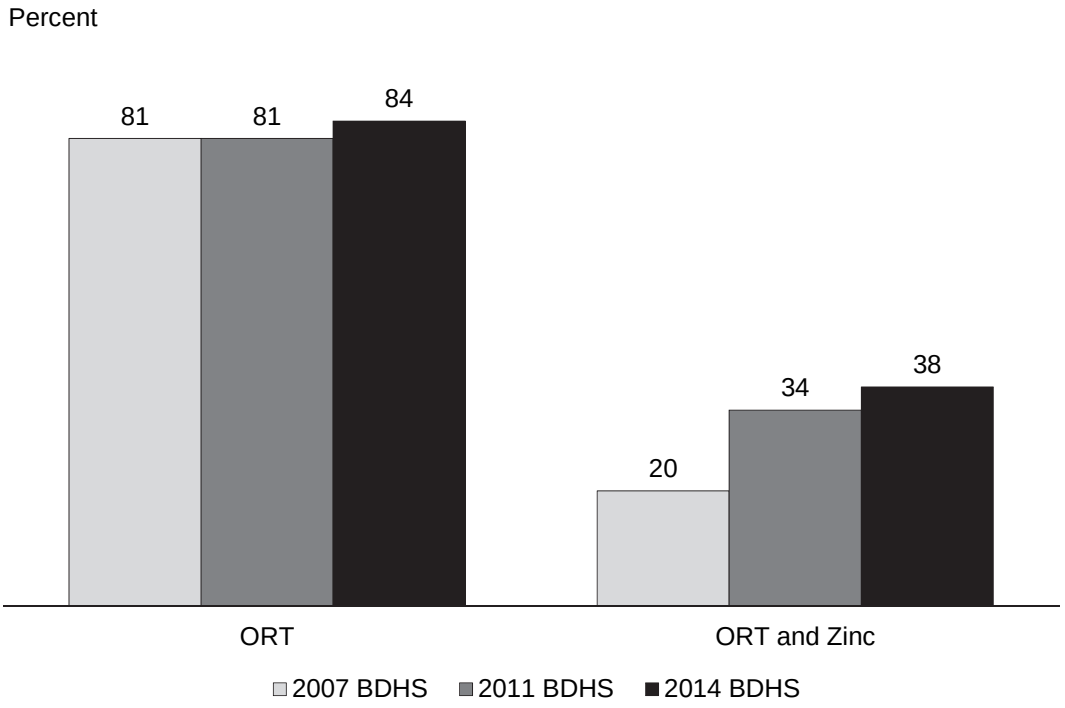
Table 26 Prevalence and treatment of diarrhea

Among children under age 5 who had diarrhea during the two weeks preceding the survey, percentage for whom advice or treatment was sought from a health facility or provider, percentage given a fluid made from oral rehydration salt (ORS) packets, and percentage given any oral rehydration therapy (ORT), by background characteristics, Bangladesh 2014

| Background characteristic | Among children under age 5: | | Percentage for whom advice or treatment was sought from a health facility/ provider[1] | Percentage given fluid from ORS packet | Percentage given | | | | | Number with diarrhea |
|---|---|---|---|---|---|---|---|---|---|---|
| | Percentage with diarrhea | Number of children | | | ORT and zinc[2] | ORT, no zinc[2] | Total ORT[2] | Zinc, no ORT[2] | Total zinc | |
| **Age in months** | | | | | | | | | | |
| <6 | 6.0 | 657 | 20.8 | 47.8 | 1.3 | 50.2 | 51.5 | 16.7 | 18.0 | 39 |
| 6-11 | 6.7 | 857 | 39.5 | 62.5 | 35.8 | 36.5 | 72.3 | 10.5 | 46.3 | 57 |
| 12-23 | 8.5 | 1,633 | 42.1 | 82.8 | 46.8 | 43.2 | 90.0 | 4.3 | 51.1 | 138 |
| 24-35 | 5.1 | 1,563 | 41.1 | 89.6 | 59.3 | 33.7 | 92.9 | 1.4 | 60.7 | 79 |
| 36-47 | 4.0 | 1,535 | 25.0 | 75.1 | 33.3 | 49.4 | 82.7 | 10.5 | 43.8 | 61 |
| 48-59 | 4.3 | 1,515 | 35.1 | 81.7 | 22.5 | 70.9 | 93.4 | 0.8 | 23.3 | 65 |
| **Sex** | | | | | | | | | | |
| Male | 5.7 | 4,051 | 37.2 | 80.8 | 40.1 | 47.8 | 87.9 | 4.3 | 44.4 | 232 |
| Female | 5.6 | 3,710 | 35.2 | 72.9 | 35.8 | 44.5 | 80.2 | 8.0 | 43.8 | 208 |
| **Residence** | | | | | | | | | | |
| Urban | 5.7 | 1,984 | 53.4 | 83.4 | 40.4 | 48.1 | 88.5 | 1.8 | 42.1 | 112 |
| Rural | 5.7 | 5,777 | 30.4 | 74.8 | 37.3 | 45.6 | 82.8 | 7.5 | 44.8 | 328 |
| **Division** | | | | | | | | | | |
| Barisal | 6.5 | 444 | 32.5 | 85.8 | 52.3 | 36.1 | 88.5 | 0.0 | 52.3 | 29 |
| Chittagong | 6.7 | 1,668 | 40.5 | 79.5 | 38.7 | 45.0 | 83.8 | 4.2 | 42.9 | 111 |
| Dhaka | 6.5 | 2,733 | 37.2 | 81.8 | 39.7 | 49.2 | 88.9 | 7.2 | 46.9 | 177 |
| Khulna | 3.6 | 580 | 34.9 | 70.0 | 35.7 | 48.5 | 84.3 | 0.0 | 35.7 | 21 |
| Rajshahi | 4.3 | 797 | 34.3 | 72.3 | 20.8 | 61.5 | 82.4 | 3.1 | 23.9 | 34 |
| Rangpur | 2.7 | 768 | 23.4 | 49.4 | 20.9 | 35.8 | 56.7 | 30.6 | 51.5 | 21 |
| Sylhet | 6.1 | 771 | 32.7 | 66.7 | 42.7 | 36.5 | 79.2 | 3.7 | 46.4 | 47 |
| **Education** | | | | | | | | | | |
| No education | 5.9 | 1,270 | 36.8 | 85.9 | 43.0 | 45.0 | 87.9 | 2.7 | 45.6 | 74 |
| Primary incomplete | 6.3 | 1,269 | 27.1 | 66.5 | 35.4 | 38.1 | 73.6 | 10.1 | 45.6 | 80 |
| Primary complete[3] | 6.1 | 896 | 22.4 | 69.5 | 16.0 | 64.2 | 80.3 | 12.7 | 28.7 | 55 |
| Secondary incomplete | 5.9 | 3,102 | 39.5 | 80.3 | 47.3 | 41.8 | 89.1 | 2.3 | 49.6 | 184 |
| Secondary complete or higher[4] | 3.8 | 1,223 | 54.8 | 76.9 | 24.2 | 58.4 | 82.5 | 11.3 | 35.5 | 46 |
| **Wealth quintile** | | | | | | | | | | |
| Lowest | 6.2 | 1,679 | 28.5 | 72.0 | 46.1 | 37.7 | 83.8 | 6.3 | 52.4 | 105 |
| Second | 6.2 | 1,405 | 33.3 | 76.4 | 34.2 | 52.2 | 86.4 | 5.4 | 39.6 | 87 |
| Middle | 6.3 | 1,419 | 29.6 | 77.8 | 24.2 | 56.0 | 80.3 | 6.9 | 31.1 | 90 |
| Fourth | 4.5 | 1,557 | 33.5 | 75.8 | 43.5 | 38.0 | 81.5 | 7.6 | 51.1 | 70 |
| Highest | 5.2 | 1,701 | 57.2 | 83.6 | 42.1 | 46.9 | 89.0 | 4.3 | 46.4 | 89 |
| Total | 5.7 | 7,760 | 36.3 | 77.0 | 38.1 | 46.2 | 84.3 | 6.0 | 44.1 | 440 |

[1] Excludes pharmacy, shop, and traditional practitioner
[2] ORT Includes fluid prepared from oral rehydration salt (ORS) packets and recommended home fluids (RHF).
[3] Primary complete is defined as completing grade 5.
[4] Secondary complete is defined as completing grade 10.

***Figure 19*** **Trends in use of ORT and zinc for treatment of diarrhea in children under age 5, 2007-2014**




## 3.10 NUTRITION

### 3.10.1 Children's Nutritional Status

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 achieving 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 of 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 he or she is considered to be 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 (-3 SD) 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 age because he or she is stunted, because he or she 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.

In the survey, all children under age 6 listed in the household were eligible for height and weight measurement, although the data analysis is restricted to children under 5. Table 27 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 age and selected background characteristics.

The data show that 36 percent of children under 5 are considered to be short for their age or stunted, while 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 decreases to 38 percent among children 48-59 months. 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 (40 percent) than children whose mothers have completed secondary and higher education (29 percent). The differentials across wealth quintiles are larger. Children whose mothers are in the lowest wealth quintile are two and a half times more likely to be stunted (50 percent) than children whose mothers are in the wealthiest quintile (21 percent).

Fourteen percent of children are considered wasted or too thin for their height and 3 percent are severely wasted. Wasting peaks at age 9-11 months (20 percent for moderate wasting and 6 percent for severe wasting). Differentials in wasting by other background characteristics are similar to those for stunting; however, the differences are smaller.

Thirty-three 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 reference, the 2014 BDHS data show that Bangladesh is 2 percentage points short of reaching MDG1 target for underweight. One in five children less than 6 months is 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. Patterns of differentials by other background characteristics are similar to those for stunting and wasting.

Table 27 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 |
| **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[3]** | | | | | | | | | | | | |
| No education | 13.0 | 40.2 | -1.6 | 2.7 | 14.9 | 0.8 | -0.9 | 8.5 | 35.1 | 0.3 | -1.6 | 1,883 |
| Primary incomplete | 14.3 | 38.5 | -1.7 | 4.2 | 15.8 | 1.0 | -1.0 | 9.9 | 36.9 | 0.2 | -1.6 | 1,321 |
| Primary complete[4] | 12.8 | 37.7 | -1.6 | 3.3 | 15.2 | 1.2 | -0.9 | 8.8 | 35.7 | 0.3 | -1.6 | 852 |
| Secondary incomplete | 9.9 | 33.9 | -1.5 | 3.1 | 14.5 | 1.8 | -0.9 | 6.4 | 30.2 | 0.3 | -1.5 | 2,319 |
| Secondary complete or higher[5] | 8.3 | 28.5 | -1.3 | 2.4 | 10.0 | 2.5 | -0.7 | 5.4 | 25.0 | 1.2 | -1.2 | 944 |
| **Wealth quintile** | | | | | | | | | | | | |
| Lowest | 19.1 | 50.2 | -2.0 | 3.8 | 17.5 | 0.6 | -1.1 | 13.3 | 45.8 | 0.1 | -1.9 | 1,590 |
| Second | 12.9 | 41.0 | -1.7 | 3.2 | 15.7 | 1.0 | -1.0 | 8.2 | 37.4 | 0.0 | -1.7 | 1,328 |
| Middle | 9.9 | 36.9 | -1.6 | 3.2 | 13.9 | 2.1 | -0.9 | 6.2 | 33.5 | 0.1 | -1.5 | 1,377 |
| Fourth | 10.1 | 32.2 | -1.4 | 2.3 | 11.7 | 0.8 | -0.8 | 6.4 | 27.4 | 0.3 | -1.4 | 1,478 |
| Highest | 5.8 | 20.5 | -1.1 | 2.9 | 12.8 | 2.7 | -0.6 | 4.2 | 19.3 | 1.3 | -1.0 | 1,545 |
| **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 |
| Missing[6] | 17.3 | 32.4 | -1.5 | 3.6 | 13.7 | 0.7 | -0.9 | 9.2 | 31.8 | 0.0 | -1.5 | 195 |
| 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 spent the night before the interview in the household. Each of the indices is expressed in standard deviation units (SDs) from the median of the WHO Child Growth Standards adopted in 2006. The indices in this table are NOT comparable to those based on the previously used 1977 NCHS/CDC/WHO Reference. Table is based on children with valid dates of birth (month and year) and valid measurement of both height and weight.

[1] Recumbent length is measured for children under age 2 and 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 Growth Standards population median.

[3] For women who are not interviewed, information is taken from the Household Questionnaire. Excludes children whose mothers are not listed in the Household Questionnaire.

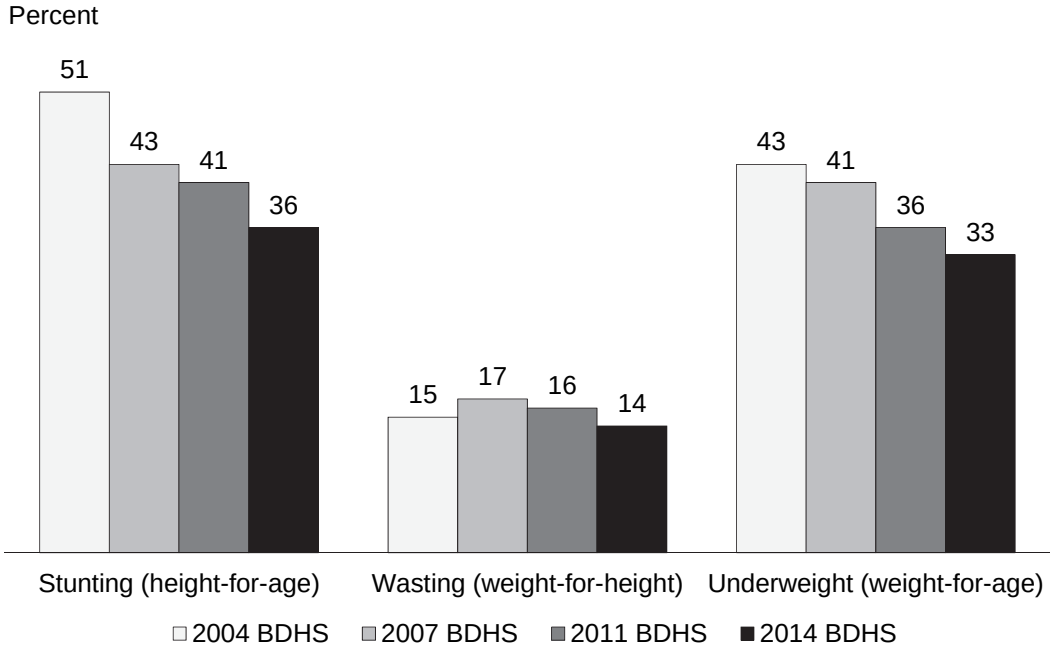
[4] Primary complete is defined as completing grade 5.

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

[6] Includes children whose mothers are deceased

There has been some improvement in child nutritional status over the past decade (Figure 20). The level of stunting among children under 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. It has then gradually declined 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 20*** **Trends in nutritional status of children under age 5, 2004-2014**




### 3.10.2 Breastfeeding Practices

Breast milk contains all the nutrients needed by children in the first six months of life. Supplementing breast milk before 6 months is discouraged because it increases the likelihood of contamination, and hence risk of diarrhea. At about the seventh month of the baby's development, breast milk should be complemented by other solid or mushy food to provide adequate nourishment.

The 2014 BDHS collected data on infant feeding for the youngest children under 2 who were living with their mother using a 24-hour recall period. Table 28 shows that almost all Bangladeshi babies are breastfed for the first year of life. Children are breastfed for an extended time; 87 percent of children age 20-23 months are still being breastfed. Complementary foods are introduced at an early age. Among infants less than 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. Bottle feeding is common in Bangladesh; 22 percent of infants 6-9 months are fed with a bottle with a nipple.

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 21). There was a sharp increase in exclusive breastfeeding from 43 percent to 64 percent between the 2007 BDHS and the 2011 BDHS. Intensive mass media campaigns for a couple of years prior to the 2011 survey could have impacted the status of and/or mothers reporting on breastfeeding in 2011. In the 2011 BDHS report and results dissemination, the increased level of breastfeeding was discussed. 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 6 months in 2014 is 5 percentage points higher than the HPNSDP target of 50 percent of exclusive breastfeeding by 2016 (MOHFW, 2011).

Table 28 Breastfeeding status by age

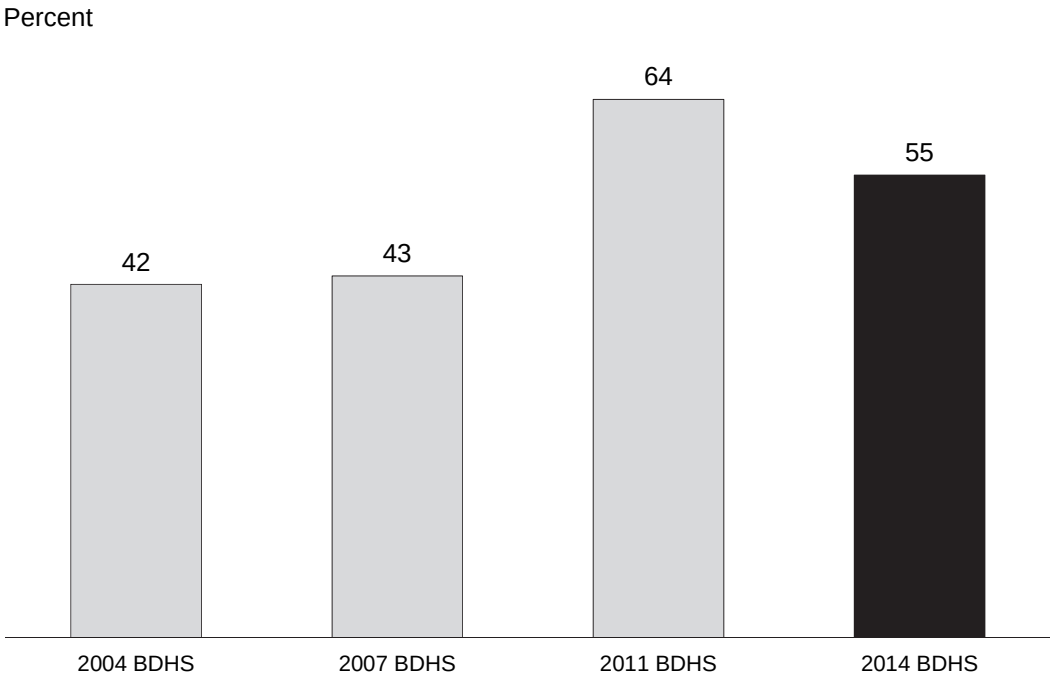
Percent distribution of youngest children under age 2 who are living with their mother, by breastfeeding status, and the percentage currently breastfeeding; and the percentage of all children under age 2 using a bottle with a nipple, according to age in months, Bangladesh 2014

| | Percent distribution of youngest children under 2 living with their mother by breastfeeding status | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Age in months | Not breast-feeding | Exclusively breastfed | Breast-feeding and consuming plain water only | Breast-feeding and consuming nonmilk liquids[1] | Breast-feeding and consuming other milk | Breast-feeding and comple-mentary foods | Total | Percent-age currently breast-feeding | Number of youngest children under age 2 | 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, nonmilk liquids/juice, other milk, and complementary foods (solids and semi-solids) are hierarchical and mutually exclusive, and their percentages add to 100 percent. Thus children who receive breast milk and nonmilk liquids and who do not receive other milk and who do not receive complementary foods are classified in the nonmilk liquid category even though they may also get plain water. Any children who get complementary food are classified in that category as long as they are breastfeeding as well.

[1] Nonmilk liquids include juice, juice drinks, clear broth, or other liquids.

## *Figure 21* Trends in exclusive breastfeeding practices among children age 0-5 months, 2004-2014



### 3.10.3 Infant and Young Child Feeding Practices

Appropriate nutrition for infants and young children includes feeding children a variety of foods to ensure that nutrient requirements are met. A breastfed child of age 6-8 months should receive two or three meals a day, while those of ages 9-23 months should receive three or four meals a day. Nonbreastfed children should receive four or five meals a day at ages 6-23 months. "Meals" include both meals and snacks (other than trivial amounts). Children 6-23 months should receive animal source foods and vitamin A-rich fruits and vegetables daily. Therefore, four food groups are considered as the minimum appropriate number of food groups for these children. Nonbreastfed children 6-23 months should also receive milk products to ensure their calcium needs are met.

Table 29 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.

Table 29 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 6-23 months, percentage fed: | | | | Among nonbreastfed children 6-23 months, percentage fed: | | | | | Among all children 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 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 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 | 18.3 | 57.0 | 16.1 | 634 | (59.7) | (27.7) | (79.8) | (6.1) | 35 | 97.9 | 18.8 | 58.1 | 15.6 | 668 |
| Primary complete | 30.6 | 67.0 | 26.8 | 1,115 | 58.0 | 50.1 | 71.6 | 23.6 | 91 | 96.8 | 32.1 | 67.4 | 26.5 | 1,206 |
| Secondary incomplete | 45.8 | 71.4 | 42.2 | 219 | * | * | * | * | 18 | 98.8 | 47.3 | 72.8 | 41.7 | 236 |
| Secondary complete or higher | * | * | * | 0 | * | * | * | * | 0 | * | * | * | * | 0 |
| **Wealth quintile** | | | | | | | | | | | | | | |
| Lowest | 16.9 | 54.4 | 14.3 | 488 | * | * | * | * | 21 | 97.6 | 17.8 | 55.5 | 14.1 | 509 |
| Second | 22.8 | 60.2 | 18.4 | 438 | * | * | * | * | 14 | 97.5 | 22.1 | 60.5 | 17.8 | 451 |
| Middle | 27.3 | 70.9 | 23.8 | 406 | (66.6) | (54.4) | (67.4) | (18.2) | 35 | 97.4 | 29.4 | 70.6 | 23.4 | 440 |
| Fourth | 30.2 | 61.5 | 26.4 | 474 | (68.7) | (58.4) | (87.2) | (17.9) | 26 | 98.3 | 31.7 | 62.9 | 25.9 | 500 |
| Highest | 34.7 | 67.4 | 32.3 | 478 | 67.4 | 48.9 | 79.6 | 28.6 | 63 | 96.2 | 36.4 | 68.8 | 31.9 | 540 |
| 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 denotes 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] Minimum meal frequency is receiving solid or semisolid food at least twice a day for infants 6-8 months and at least three times a day for 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 the minimum meal frequency, and receive solid or semisolid foods from at least four food groups not including the milk or milk products food group

[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

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 (2 percentage point increase) between 2011 and 2014 BDHS, and is far below the HNPSDP target for 2016 of 52 percent (MOHFW, 2011).

Feeding according to IYCF recommendations is low during ages 6-8 months (7 percent), increasing to 34 percent among 18-23-month-old children. Boys are as likely as girls to be fed according to appropriate IYCF practices. Adherence to IYCF practices is better in urban areas than in rural areas (29 compared with 21 percent). The recommended IYCF practices are lowest in Sylhet (17 percent) and highest in Khulna (31 percent). IYCF practices improve with increasing mother's education levels and wealth scores. Overall IYCF practice is low among all subgroups. Even among the highest wealth quintile, only 3 out of 10 children receive appropriate feeding. This points, among other things, to a lack of knowledge on appropriate feeding practices for infant and young children.

Since nonbreastfed children are very uncommon in this age group, this indicator is largely dependent on breastfed babies. Overall, 26 percent of breastfed children age 6-23 months are given the recommended four or more food groups, and 63 percent are fed at least the minimum number of times.

### 3.10.4 Vitamin A 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 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 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 prior to the survey. Table 30 shows that 62 percent of children age 6-59 months had received vitamin A supplementation in the six months before the survey. The coverage for children age 9-59 months is similar (63 percent). The level of vitamin A supplementation varies across subgroups of children. It is higher among older children and children who live in urban areas. Across divisions, vitamin A supplementation is 65 percent or higher in Chittagong, Khulna, and Rangpur, but lower than 60 percent in Rajshahi and Sylhet. The children's likelihood of receiving vitamin A increases with their mother's education and wealth status.

Table 30 Vitamin A supplementation

Percentage of children age 6-59 months who received a vitamin A capsule in the six months preceding the survey, by selected background characteristics, Bangladesh 2014

| Background characteristic | Received vitamin A capsule | Number of children |
|---|---|---|
| **Age** | | |
| 6-8 | 42.6 | 403 |
| 9-11 | 56.9 | 454 |
| 12-23 | 62.2 | 1,633 |
| 24-35 | 65.4 | 1,563 |
| 36-47 | 65.2 | 1,535 |
| 48-59 | 62.1 | 1,515 |
| 12-59 | 63.7 | 6,247 |
| 9-59 | 63.2 | 6,700 |
| **Sex** | | |
| Male | 61.7 | 3,682 |
| Female | 62.5 | 3,421 |
| **Residence** | | |
| Urban | 65.3 | 1,813 |
| Rural | 61.0 | 5,291 |
| **Division** | | |
| Barisal | 64.1 | 399 |
| Chittagong | 65.0 | 1,524 |
| Dhaka | 62.0 | 2,509 |
| Khulna | 64.5 | 532 |
| Rajshahi | 56.6 | 737 |
| Rangpur | 65.5 | 697 |
| Sylhet | 55.5 | 706 |
| **Education** | | |
| No education | 57.5 | 1,189 |
| Primary incomplete | 55.7 | 1,146 |
| Primary complete[1] | 55.1 | 820 |
| Secondary incomplete | 64.8 | 2,859 |
| Secondary complete or higher[2] | 71.9 | 1,090 |
| **Wealth quintile** | | |
| Lowest | 55.6 | 1,542 |
| Second | 60.9 | 1,290 |
| Middle | 64.6 | 1,276 |
| Fourth | 61.1 | 1,438 |
| Highest | 68.4 | 1,556 |
| Total | 62.1 | 7,103 |

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

## 3.11 KNOWLEDGE OF HIV/AIDS AND WAYS TO AVOID AIDS

The 2014 BDHS included a series of questions to gauge the knowledge of respondents about human immunodeficiency virus (HIV) and acquired immune deficiency syndrome (AIDS) and their attitudes toward 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 31 shows that 7 in 10 ever-married women age 15-49 have heard of HIV/AIDS, which is the same as documented in the 2011 BDHS. Awareness about HIV/AIDS among women varies by age, with women below 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 have heard of HIV/AIDS, compared with two in five women with no education (Figure 22). The proportion of ever-married women who have ever heard of AIDS increases steadily as wealth quintile increases.

HIV/AIDS prevention programs focus their messages and efforts on two important aspects of behavior: limiting the number of sexual partners/staying faithful to one uninfected partner, and use of condoms. To ascertain whether programs have effectively communicated these messages, respondents were asked specific questions about whether it is possible to reduce the chances of getting the AIDS virus by using a condom at every sexual encounter and limiting sexual intercourse to one uninfected partner.

Table 31 Knowledge of AIDS

Percentage of ever-married women age 15-49 who have heard of AIDS, by background characteristics, Bangladesh 2014

| Background characteristic | Women | |
|---|---|---|
| | Have 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 | 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 | 42.8 | 3,197 |
| Second | 54.3 | 3,213 |
| Middle | 70.1 | 3,439 |
| Fourth | 79.3 | 3,741 |
| Highest | 92.0 | 4,273 |
| Total | 69.5 | 17,863 |

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

***Figure 22*** **Knowledge of AIDS**

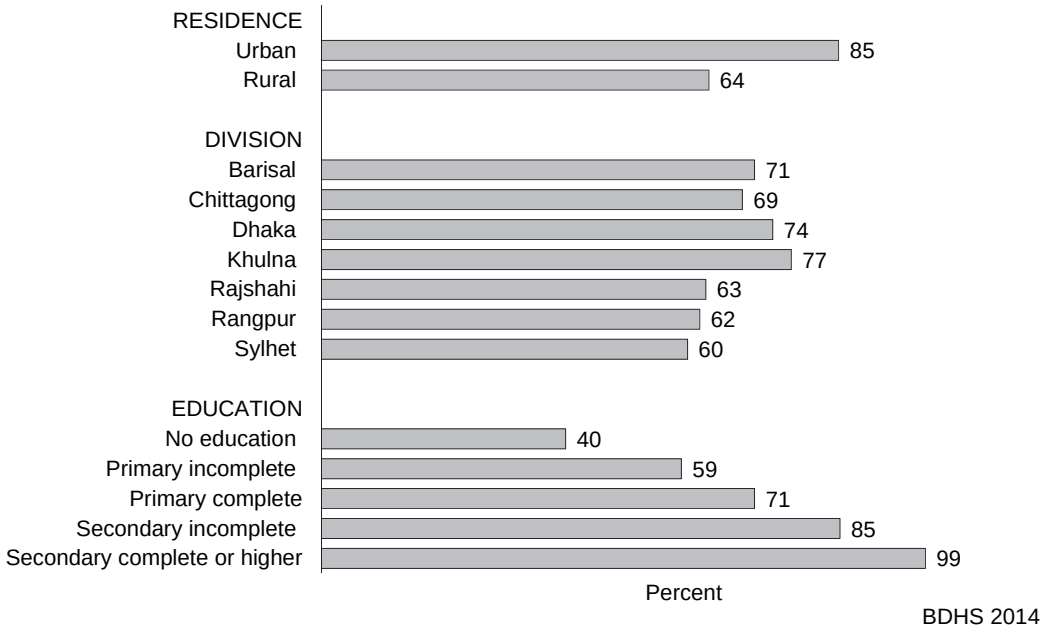



Table 32 shows that 51 percent of ever-married women say that HIV infection can be reduced by limiting sex to one uninfected partner who has no other partners, 42 percent cite using condoms at every sexual encounter, and 34 percent are aware of both means of reducing the risk of HIV transmission. However, there has been a slight decline in knowledge of HIV prevention methods. Between 2011 and 2014 the proportion of ever-married women who are knowledgeable about both methods of HIV prevention decreased from 37 to 34 percent.

Knowledge of the various methods of HIV/AIDS prevention varies by the respondent's age, with women age 20-24 and age 25-29 being more knowledgeable than other women. Knowledge of HIV/AIDS prevention methods is higher in urban than in rural areas and among those living in Dhaka. Knowledge of HIV/AIDS prevention methods increases with the woman's education and wealth status.

Table 32 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 partner who is not infected and has no other partners, by background characteristics, Bangladesh 2014

| | Percentage who say HIV can be prevented by | | | |
|---|---|---|---|---|
| Background characteristic | Using condoms | Limiting sexual intercourse to one uninfected partner | Using condoms and limiting sexual intercourse to one uninfected partner | Number of women |
| **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 | 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[1] | 38.4 | 49.4 | 30.4 | 1,986 |
| Secondary incomplete | 51.1 | 63.3 | 41.9 | 5,628 |
| Secondary complete or higher[2] | 70.7 | 79.5 | 61.4 | 2,571 |
| **Wealth quintile** | | | | |
| Lowest | 22.8 | 29.4 | 18.8 | 3,197 |
| Second | 29.2 | 38.5 | 24.0 | 3,213 |
| Middle | 39.6 | 49.9 | 31.4 | 3,439 |
| Fourth | 46.9 | 57.2 | 38.3 | 3,741 |
| Highest | 61.6 | 71.5 | 52.3 | 4,273 |
| Total | 41.5 | 50.9 | 34.3 | 17,863 |

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

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# APPENDIX A

## MEMBERS OF THE TECHNICAL REVIEW COMMITTEE AND THE TECHNICAL WORKING GROUP

**Technical Review Committee (TRC)**

| | |
|---|---|
| Mr. Mohammad Wahid Hossain ndc, Director General, NIPORT | Chairman |
| Mr. Md. Fazlul Huq, Joint Secretary (FW-Program), Ministry of Health and Family Welfare | Member |
| 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 |
| Prof. Dr. Mohammad Shahidullah, Pro-Vice Chancellor, BSMMU | Member |
| 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 |
| Representative, SIDA, Bangladesh | Member |
| Country Representative, GiZ, Bangladesh | Member |
| Representative, JICA, Bangladesh | Member |
| Mr. Jan Borg, Health Adviser, AUSAID, Bangladesh | Member |
| Dr. Kanta Jamil, Sr. M&E and Research Advisor, OPHNE, USAID, Bangladesh | Member |
| Chief of Party, NHSDP | Member |
| Dr. Ishtiaq Mannan, Chief of Party, MCHIP, Save the Children International | Member |
| Mr. Toslim Uddin Khan, General Manager (Program), Social Marketing Company (SMC) | Member |
| Dr. Kaosar Afsana, Director, BRAC Health Program | Member |
| Dr. Peter Kim Streatfield, Director, CPUCC, ICDDR,B | Member |
| Dr. Shams El Arifeen, Director, CCAH, ICDDR,B | Member |
| Representative, ICF International, USA | Member |
| Mr. S. N. Mitra, Executive Director, Mitra and Associates | Member |
| Mrs. Shahin Sultana, Sr. Research Associate, NIPORT | Member |
| Mr. Subrata K. Bhadra, Sr. Research Associate, NIPORT | Member |
| Mr. Mohammed Ahsanul Alam, Evaluation Specialist, NIPORT | Member |
| Mr. Md. Rafiqul Islam Sarker, Director (Research), NIPORT | Member-Secretary |

**Technical Working Group (TWG)**

| | |
|---|---|
| Mr. Md. Rafiqul Islam Sarker, Director (Research), NIPORT | Chairman |
| Dr. Peter Kim Streatfield, Director, CPUCC, ICDDR,B | Member |
| Dr. Shams El Arifeen, Director, CCAH, ICDDR,B | Member |
| Dr. Kanta Jamil, Sr. M&E and Research Advisor, OPHNE, USAID, Bangladesh | Member |
| Dr. Istiaq Mannan, Chief of Party, MCHIP, Save the Children International | Member |
| Dr. Karar Zunaid Ahsan, Sr. M&E Advisor, PMMU, MOHFW | Member |
| Prof. Nitai Chakraborty, Department of Statistics, University of Dhaka | Member |
| Dr. Yasmin Ahmed, Independent Consultant | Member |
| Representative, ICF International, USA | Member |
| Mr. S. N. Mitra, Executive Director, Mitra and Associates | Member |
| Mrs. Shahin Sultana, Sr. Research Associate, NIPORT | Member |
| Mr. Mohammed Ahsanul Alam, Evaluation Specialist, NIPORT | Member |
| Mr. Subrata K. Bhadra, Sr. Research Associate, NIPORT | Member-Secretary |

# APPENDIX B

## SUMMARY INDICATORS

| Bangladesh Demographic and Health Survey | | | | | | | |
|---|---|---|---|---|---|---|---|
| Indicator | 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 |
| 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 | 15.0 |
| Highest quintile | na | na | na | 37.6 | 48.5 | 59.8 | 69.5 |
| 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 | 33.9 |
| 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 |
| 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 |

| Bangladesh Demographic and Health Survey | | | | | | | |
|---|---|---|---|---|---|---|---|
| Indicator | 1993-1994 | 1996-1997 | 1999-2000 | 2004 | 2007 | 2011 | 2014 |
| 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 |
| 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