

Utilization of Essential Service Delivery (UESD) Survey 2016



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This report presents the findings of the 2016 Utilization of Essential Service Delivery (UESD) Survey. The survey was carried out by the National Institute of Population Research and Training (NIPORT) under the Operational Plan – Training, Research and Development of the Health, Population and Nutrition Sector Development Programme (HPNSDP). Research, Training and Management (RTM) International - a private research firm helped in field data collection and data processing for the survey. The opinions expressed in this report do not necessarily reflect the views of different involved agencies or organizations.

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ACRONYMS

ANC	Antenatal Care
APR	Annual Programme Review
BDHS	Bangladesh Demographic and Health Survey
CHCP	Community Health Care Provider
CPR	Contraceptive Prevalence Rate
C-section	Caesarean section
CSBA	Community Skilled Birth Attendant
FWA	Family Welfare Assistant
FWV	Family Welfare Visitor
HA	Health Assistant
HPN	Health Population and Nutrition
HPNSDP	Health Population and Nutrition Sector Development Programme
IUD	Intra Uterine Device
IYCF	Infant and Young Child Feeding
LAPM	Long-acting or Permanent Method
MIS	Management Information System
MOHFW	Ministry of Health and Family Welfare
NIPORT	National Institute of Population Research and Training
NGO	Non-Governmental Organization
PNC	Postnatal Care
PSU	Primary Sampling Unit
SACMO	Sub-Assistant Community Medical Officer
SBA	Skilled Birth Attendant
TBA	Traditional Birth Attendant
UESD	Utilization of Essential Service Delivery
WHO	World Health Organization



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PREFACE

Utilization of Essential Service Delivery (UESD) Survey aims to provide information on indicators underlined in the results framework of the Health, Population and Nutrition Sector Development Programme (HPNSDP) to monitor the current status of health care utilization for the purpose of programme monitoring and evaluation. UESD 2016 is the fifth survey of its kind. The earlier UESD surveys were conducted in 2006, 2008, 2010 and 2013. UESD 2016 is a nationally representative survey of 11,278 ever married women age 15-49 from 11,751 households covering 300 sample points of both urban and rural areas from seven administrative divisions of the country. The survey collected information on five out of nine indicators on utilization of essential HPN services including antenatal care coverage (at least 4 visits), delivery by skilled birth attendant, postnatal care within 48 hours, contraceptive prevalence rate and Vitamin A supplementation for children. The survey also measured improvement in equity in essential HPN service utilization through two important indicators: the proportion of births in health facilities by wealth quintiles and the use of modern contraceptives in low performing areas (Sylhet and Chittagong division). HPNSDP targets to improve awareness of healthy behaviours were assessed through obtaining information on exclusive breast-feeding rate among infants up to six months of age and the percent of children 6-23 months fed with appropriate IYCF practices. The 2016 UESD collected information on HPNSDP goal level indicators on the nutritional status of children. The survey was implemented by NIPORT under the Operational Plan - Training Research and Development of HPNSDP. Research, Training and Management (RTM) International - a private research firm helped in field data collection and data processing for the survey.

The provisional report of the 2016 UESD, with its key indicators was released in May 2017 and the results were shared with the stakeholders. We are happy to present the 2016 UESD Survey report. The data reveal continued progress in most of the indicators and accomplishments of HPNSDP during 2011-2016. However, it is expected that the findings presented in this report will be instrumental in addressing future directions for implementation of HPN sector programme.

I am grateful to the individuals who provided continuous technical support to design and carry out the survey to a successful conclusion.

Sincere thanks are noted for the professionals of Research Unit of NIPORT and RTM International for undertaking and completing the survey.

Rownaq Jahan

SUMMARY OF FINDINGS

Utilization of Essential Service Delivery (UESD) Survey generates information on indicators underlined in the results framework of the Health, Population and Nutrition Sector Development Programme (HPNSDP) for monitoring and evaluation of the current status of health care utilization in Bangladesh. The 2016 UESD is the fifth survey, following those implemented in 2006, 2008, 2010 and 2013. UESD 2016 is a nationally representative survey of 11,278 ever married women age 15-49 from 11,751 households covering 300 sample clusters including 104 urban PSUs and 196 rural PSUs from seven administrative divisions of the country. The survey used a two-stage stratified sample scheme prepared for the 2014 Bangladesh Demographic and Health Survey. All ever-married women age 15-49 who are usual residence of selected households were selected for interview. The survey was implemented by NIPORT. Research, Training and Management (RTM) International - a private research firm was assigned for field data collection and data processing for the survey.

Findings

The priority of HPNSDP is to stimulate demand and improve access to and utilization of health, population and nutrition (HPN) services. The huge programme is being monitored through a set of results level indicators to be reviewed annually. UESD 2016 obtains information on service delivery improvement, which is result component one of HPNSDP. Under this component, the survey provides estimates of indicators to attain the following three results:

- Increase utilization of essential HPN services
- Improve equity in essential HPN service utilization
- Improved awareness of healthy behaviour.

Result 1.1 Increase utilization of essential HPN services

UESD 2016 collected information on five out of nine indicators, which includes antenatal care coverage (at least 4 visits), delivery by skilled birth attendant, postnatal care within 48 hours, contraceptive prevalence rate and Vitamin A supplementation for children.

Antenatal care coverage (at least 4 visits)

WHO recommends that a pregnant woman should have at least four antenatal care (ANC) visits under

normal circumstances. Findings show that 32 percent of women with a live birth in the three years preceding the survey made four or more ANC visits during their pregnancy. The proportion of women who made recommended ANC visits has increased 6 percentage points in last five years from 26 percent in BDHS 2011 to 32 percent in UESD 2016. However, to achievement is far behind to reach HPNSDP target for four or more ANC visits at 50 percent level by 2016.

Delivery by skill birth attendant

HPNSDP aims to improve coverage of skilled delivery practices at 50 percent by 2016. Findings show that 49 percent of births in Bangladesh were attended by medically trained providers, that is, a qualified doctor, nurse, midwife, family welfare visitor (FWV), or community skilled birth attendant (CSBA). Findings indicate that 45 percent of births in Bangladesh are delivered at a health facility: 28 percent in a private facility, 14 percent in a public facility, and 3 percent in an NGO facility. Deliveries at home (55 percent) are more prevalent till now.

Over the last five years, the proportion of delivery by medically trained providers has increased substantially from 32 percent in BDHS 2011 and 49 percent in UESD 2016. Simultaneously, facility delivery and C-section rates are increasing in same pace. During last five years, the proportion of births delivered at health facilities increased from 33 to 45 percent and the proportion of births delivered by C-section increased from 21 to 28 percent. However, in 2016, Bangladesh is just one percentage point short in attaining HPNSDP target for delivery attended by a medically trained provider (50 percent).

Postnatal care within 48 hours

The first two days following delivery are critical for monitoring complications arising from delivery. Postnatal care is a crucial component of safe motherhood and postnatal check-ups provide an opportunity to save the mother and their babies. Data show that 43 percent of mothers and 37 percent of children received postnatal care from a medically trained provider within the crucial 48 hours of delivery. The percentage of mothers and their children receiving postnatal check-up from medically trained providers within 2 days of delivery has increased substantially in last five years. HPNSDP target for providing postnatal care to at least 30 percent mothers within 2 days of births by 2016 has been achieved.

Contraceptive prevalence rate

Family planning is an important component of essential HPN services. Overall, 64 percent of currently married women age 15-49 are currently using a contraceptive method. There has been three percentage points increase in contraceptive prevalence rate in last five years (from 61 percent in 2011 to 64 percent in 2016). Fifty six percent of women use a modern method and the pill is by far the most widely used method (29 percent) followed by injectables (12 percent), male condoms (7 percent), periodic abstinence (6 percent), and female sterilization (5 percent).

The method mix has not significantly changed over the past five years. Currently only 8 percent of married couples use a long-acting or permanent method (LAPM), namely sterilization, IUD, and implants, which account for 13 percent of all contraceptive use.

Bangladesh aims to increase contraceptive prevalence rate to 72 percent by 2016. This aim has not been fulfilled because Bangladesh stands 8 percentage points behind the set milestone in 2016.

Vitamin A Supplementation

Vitamin A intake is an important indicator for monitoring vitamin A supplementation programme for children. More than three in four children (77 percent) age 6-59 months received a vitamin A supplement in the six months preceding the survey. Findings show that the proportion receiving Vitamin A intake in the six month preceding the survey has increased by 17 percentage points in the last five years (from 60 percent in 2011 BDHS to 77 percent in UESD 2016). However, HPNSDP target to increase Vitamin A supplementation up to 90 percent by 2016 has not achieved.

Result 1.2 Improve equity in essential HPN service utilization

One of the important aspects of HPNSDP is to improve equity in essential HPN service utilization. There are three indicators in measuring achievements for this result. However, UESD 2016 collected information for two indicators: one is the proportion of births in health facilities by wealth quintiles and another is use of modern contraceptives in low performing areas (Sylhet and Chittagong).

Births in health facilities by wealth quintiles

UESD 2016 shows that overall 45 percent of births in Bangladesh are delivered at a health facility and women in (73 percent) in the richest quintile are more likely to deliver at a health facility than the women in the poorest (24 percent) quintile. In the effort to achieve equity in delivery in a health facility, HPNSDP sets to reduce poor-rich ratio <1:4 by 2016. Data reveal that Bangladesh has been successful in reducing the gap between the poorest and the richest women in use of facilities for delivery (poor-rich ratio 1:3 in 2016) and HPNSDP target for equity in facility delivery has been achieved.

Use of modern contraceptives in low performing areas

There is wide variation in contraceptive use by administrative divisions. Use of modern contraceptive methods is the lowest in Sylhet and Chittagong divisions. HPNSDP aims to increase modern contraceptives use in Sylhet to 40 percent and in Chittagong division to 45 percent by 2016. UESD 2016 observes that use of modern contraceptive methods among currently married women is 43 percent in Sylhet and 49 percent in Chittagong division. That means HPNSDP aims to increase modern contraceptive methods use in Chittagong and Sylhet divisions has been achieved. Comparison with BDHS 2011 reveals that use of modern contraceptives increased by 8 percentage points in Sylhet and 4 percentage points in Chittagong division in last five years.

Result 1.3 Improved awareness of healthy behaviour

HPNSDP desires to improve awareness of healthy behaviours to ensure healthy life of women and children. In attaining this result, there are two indicators to estimate the breastfeeding and Infant and Young Child Feeding (IYCF) practices. These are exclusive breast-feeding rate among infants up to 6 months of age and the percent of children 6-23 months fed with appropriate IYCF practices.

Exclusive breastfeeding

Breastfeeding is almost universal in Bangladesh. UESD 2016 found that 60 percent of infants breastfed exclusively during the first 6 months of life. The finding is same as UESD 2013 estimate of exclusive breastfeeding (60 percent) and four percentage points lower than BDHS 2011 estimate of exclusive breastfeeding (64 percent) up to six months of age.

However, HPNSDP is successful in attaining its target to achieve 50 percent exclusive breastfeeding rate by 2016.

Appropriate infant and young child feeding practices

The IYCF practices take into account the feeding practices with minimum standards for food diversity (the number of food groups consumed), feeding frequency (the number of times the child is fed), and consumption of breast milk or other types of milk or milk products. UESD 2016 reveals that among children age 6-23 months, feeding breast milk/milk or milk products are universal. More than one in three children (34 percent) receives the appropriately diverse diet, and over seventy percent are fed the recommended number of times with solid or semisolid foods. Only three in ten children (30 percent) complies with the three IYCF recommendations. Comparison with BDHS 2011 shows that IYCF practices have increased by nine percentage points in last five years from 21 percent in BDHS 2011 to 30 percent in UESD 2016. However, the increase is not sufficient to attain HPNSDP target to increase appropriate IYCF practices among 45 percent of children age 6-23 months by 2016.

HPNSDP goal: Ensure quality and equitable health care for all citizens of Bangladesh

Nutritional status of children

The goal of HPNSDP is to ensure quality and equitable health care for all citizens of Bangladesh. At goal level there are eight indicators on fertility, maternal and childhood mortality, nutritional status of children, and prevalence of HIV. UESD 2016 includes two indicators on nutritional status of children for measuring prevalence of stunting and underweight among children under five years of age.

Prevalence of stunting

The 2016 UESD collected data on the nutritional status of children by measuring the height and weight of all children under age five in the selected households. Overall, 34 percent of children under age five are stunted (short for age). Comparison with BDHS 2011 shows that the prevalence of stunting has decreased by seven percentage points from 41 to 34 percent in last five years and HPNSDP target in reducing stunting at 38 percent by 2016 has been successfully achieved.

Prevalence of underweight

Underweight is an overall indicator of nutritional status reflecting both chronic and acute malnutrition of children. Result shows that 27 percent of children under age five are underweight (thin for age). The prevalence of underweight has declined by nine percentage points during last five years (from 36 percent in BDHS 2011 to 27 percent in UESD 2016). This implies that HPNSDP target in reducing the prevalence of underweight among children to 33 percent by 2016 has been achieved.

1. BACKGROUND

The Ministry of Health and Family Welfare (MOHFW) implemented the Health, Population and Nutrition Sector Development Programme (HPNSDP) during July 2011 to December 2016. The priority of HPNSDP was to stimulate demand and improve access to and utilization of health, population and nutrition (HPN) services in order to reduce morbidity and mortality, particularly among infants, children and women; reduce population growth rate and improve nutritional status, especially of women and children. HPNSDP had a monitoring and evaluation component with a provision of joint review of the sector program in every year (Annual Programme Review-APR) to oversee the implementation progress. APR supposes to assess the impact of the sector program on access to poor, equity, and gender and also to review performance against the indicators set in the results framework of HPNSDP.

Although MIS exists in health and family planning programmes, this MIS cannot be expected to provide all necessary data for programme performance monitoring. The other credible national data sources that exist are either not implemented annually, or do not contain the information needed for the performance monitoring. Hence, there is a need to collect new data on utilization of essential HPN services component of the results framework to aid APR of HPNSDP.

In this context, since 2006 NIPORT is conducting the Utilization of Essential Service Delivery (UESD) Survey to gather information on indicators underlined in HPNSDP results framework to measure and monitor the current status of health care utilization annually. The 2016 UESD is the fifth survey of such kind. As specified in the results framework of HPNSDP, UESD is not undertaken every year, as because Bangladesh Demographic and Health Survey (BDHS) also generates data on same indicators in every three to four years. In that case the information on these important indicators has been obtained from BDHS.

2. OBJECTIVES

UESD 2016 aims to obtain information on utilization of essential HPN services and equity in service utilization, and also to measure awareness of mothers on healthy behaviour.

3. METHODOLOGY

3.1 Sample design

The sample design of UESD 2016 aims to generate estimates for HPNSDP service utilization indicators from nationally representative sample of urban and rural households. The sampling scheme of the survey was similar to that of Bangladesh Demographic and Health Survey (BDHS) 2014. The purpose of using BDHS methodology is that the estimates generated from this survey are comparable with the rates derived from BDHS. This enables to have annual rates in between BDHS which is conducted only once in three years.

BDHS 2014 used a stratified cluster sampling scheme consisting 207 urban and 393 rural primary sampling units selected from seven administrative divisions (new division Mymensingh was not included it was not separated in BDHS 2014 sampling scheme). On an average 30 households per primary sampling unit and 18,000 households in total were included in the survey. However, for the purpose of UESD survey 2016, minimum required sample size of 12,000 households was determined considering 10 percent relative standard error, a design effect of 1.5 and response rate of 95 percent.

UESD Survey 2016 used a stratified two stages cluster sampling scheme of BDHS 2014. In the first stage, instead of 600 primary sampling units (PSUs) of BDHS sampling scheme, UESD survey systematically selected 300 PSUs proportionately from urban and rural areas mainly due to reduce the

Table 3.1 shows allocation of PSUs by division as well as rural and urban stratum. It also shows a comparative allocation of BDHS 2014 and UESD 2016 PSUs.

Division	Urban		Rural	
	BDHS 2014	UESD 2016	BDHS 2014	UESD 2016
Barisal	22	11	50	25
Chittagong	33	17	59	29
Dhaka	49	24	60	30
Khulna	29	15	56	28
Rajshahi	28	14	59	30
Rangpur	24	12	61	30
Sylhet	22	11	48	24
Total	207	104	393	196

time and cost of the survey. A complete household listing operation was then carried out in all of the selected PSUs to provide a sampling frame for the second-stage selection of households. In the second stage of sampling, a systematic sample of 40 households was selected per PSU to cover the

required sample size about 12,000 households. All ever-married women age 15-49 who are usual residence of selected households were selected for interview.

3.2 List of indicators

UESD 2016 attempts to capture the following indicators underlined in the results framework of HPNSDP (MOHFW 2011).

Results level: Component 1- Service delivery improved

Result 1.1 Increase utilization of essential HPN services: maternal, neonatal, and child health, family planning and reproductive health, nutrition services

- Percent of delivery by skilled birth attendant
- Antenatal care coverage (at least 4 visits)
- Postnatal care within 48 hours (at least 1 visit)
- Contraceptive prevalence rate (CPR)
- Percent of children (6-59 months) receiving Vitamin A supplementation in the last 6 months

Result 1.2 Improve equity in essential HPN service utilization

- Proportion of births in health facilities by wealth quintiles
- Use of modern contraceptives in low performing areas (Sylhet and Chittagong division)

Result 1.3 Improved awareness of healthy behaviour

- Rate of exclusive breastfeeding in infants up to 6 months
- Percent of children 6-23 months fed with appropriate Infant and Young Child Feeding (IYCF) practices

Goal level: Ensure quality and equitable health care for all citizens of Bangladesh

- Prevalence of stunting among children under 5 years of age
- Prevalence of underweight among children under 5 years of age

3.3 Survey implementation and questionnaire

The survey was implemented by NIPORT under the Operational Plan - Training, Research and Development of HPNSDP. Research, Training and Management (RTM) International - a private research firm helped in field data collection and data processing for the survey. A review committee also provided technical support in designing the survey.

In the first stage of sampling, selection of PSU was carried out centrally. In the second stage of sampling, based on fresh household listing operation, a systematic sample of 40 households was selected from each PSU. All ever-married women age 15-49 were selected as eligible respondent for the survey. The field survey was carried out during November-December 2016.

The questionnaire of the survey was consisting of two parts: household part and individual part. Household part was used to list all usual household members in the selected households, housing structure, possession of durable goods, and anthropometry of under five children. The individual part of the questionnaire was used to collect information from ever-married women age 15-49. Women were asked questions on the following topics:

- Background characteristics (age, education, marital status, religion etc.)
- List of births during the past 5 years
- Use of family planning methods, source of methods
- Antenatal, delivery and postnatal care, and source of services
- Vitamin A supplementation
- Breastfeeding and IYCF practices

3.4 Coverage of sample

Table 3.2 shows the results of the household and individual woman's interviews. From a total of 12,000 selected households, 11,893 were found to be occupied. Interviews were successfully completed in 11,751 households or 99 percent of all the occupied households. A total of 11,820 ever-married women age 15-49 were identified in these households, and 11,278 were interviewed, yielding a response rate of 95 percent. The response rates don't notably vary by urban-rural residence.

Table 3.2 Results of the household and individual interviews

Number of households, number of interviews, and response rates, according to residence (unweighted), Bangladesh 2016

Result	Residence		Total
	Urban	Rural	
Household interviews			
Households selected	4,160	7,840	12,000
Households occupied	4,115	7,778	11,893
Households interviewed	4,063	7,688	11,751
Household response rate ¹	98.7	98.8	98.8
Interviews with ever-married women age 15-49			
Number of eligible women identified	4,142	7,678	11,820
Number of eligible women interviewed	3,946	7,332	11,278
Eligible woman response rate ²	95.3	95.5	95.4

¹Households interviewed/households occupied

²Eligible women interviewed/eligible women

4. RESULTS

4.1 Household Characteristics

Figure-1 shows the distribution of the de jure household population by age and sex. The 2016 UESD enumerated a total of 50,848 persons (25,048 males and 25,799 females). The sex ratio is 97 males per 100 females. This is similar to the sex ratio of 95 males per 100 females obtained in BDHS 2014. The sex composition of the population remains same in urban-rural areas (97 males per 100 females).

One-third of the de jure household population (32 percent) is under age 15, and 10 percent is under age 5. People age 65 and older account for just 5 percent of the total population. The proportion of the population under age 15 is somewhat lower in urban than rural areas, as is the proportion of the population older than age 65 (Appendix: Table 1).

Figure 1: Population pyramid

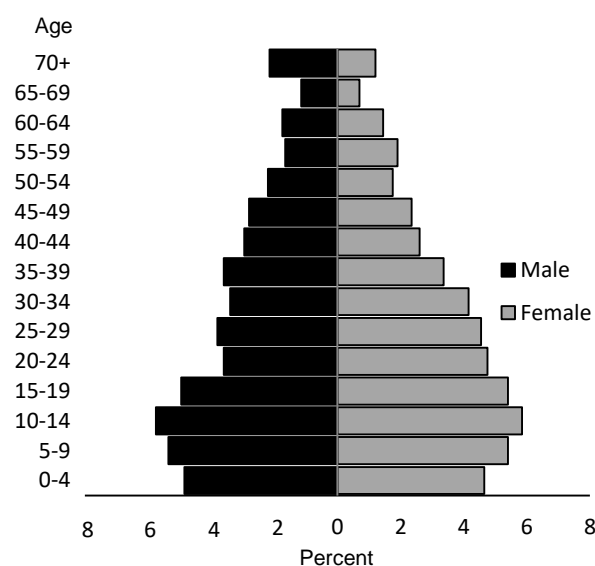


Table 4.1.1 presents information on household composition. About half of the households (48 percent) in Bangladesh are composed of four to five members. The average household size is 4.3 persons, as compared with 4.5 in BDHS 2014. There is no difference in household size between urban and rural areas.

Household size	Residence		Total
	Urban	Rural	
1	1.2	1.5	1.5
2	8.1	10.0	9.5
3	24.7	20.9	21.9
4	29.1	28.4	28.6
5	18.5	19.3	19.0
6	9.7	10.5	10.3
7	4.5	4.4	4.5
8	1.7	2.2	2.1
9+	2.5	2.8	2.7
Total	100.0	100.0	100.0
Mean size	4.30	4.34	4.33
Number of households	3,287	8,464	11,751

Note: Table is based on usual residents.

Household characteristics and household assets can be used to measure the socioeconomic status of household members. Table 4.1.2 presents information on the availability of electricity, source of drinking water, sanitation facility and type of flooring material by residence. In 2016, 88 percent of households in Bangladesh have access to electricity. It reflects continuous improvement in electricity connection from 60 percent in BDHS 2011, 66 percent in UESD 2013, 73 percent in BDHS 2014, and 88 percent in UESD 2016. However, access to electricity varies widely between urban and rural areas, with 95 percent households in urban areas and 85 percent households in rural areas having electricity.

Access to improved drinking water is common in Bangladesh (99 percent). Tube wells are the main source of drinking water both in urban (63 percent) and rural areas (93 percent). Piped water is accessible only in urban areas; more than one in three urban households drink piped water, mainly piped inside the dwelling.

Eighty-seven percent of the households have improved sanitation facility; of them 61 percent households have non-shared facilities and 26 percent have shared facilities. Surprisingly, use of non-shared improved facilities is more in rural areas than in urban areas. In contrast, use of shared improved facilities are more in urban areas, while there is no difference in use of non-improved facilities between urban and rural areas. The proportion of households with no toilet facilities declined from 5 percent in 2011 to 2 percent in 2016.

Household characteristic	Residence		Total
	Urban	Rural	
Electricity			
Yes	94.9	85.0	87.8
No	5.1	15.0	12.2
Source of drinking water			
<i>Improve source</i>			
Piped into dwelling	22.8	3.0	8.6
Piped to yard/plot	7.0	1.9	3.3
Public tap/standpipe	5.4	0.5	1.9
Tubewell or borehole	63.1	92.7	84.4
Protected well	0.0	0.1	0.1
Rain water	0.0	0.2	0.1
Bottled water	0.2	0.0	0.1
<i>Non-improve source</i>			
Unprotected well	0.0	0.1	0.1
Tanker truck/ Cart with drum	0.4	0.0	0.1
Surface water	0.2	1.4	1.1
Sanitation facility			
<i>Improved, not shared facility</i>			
Flush/pour flush to piped sewer system	9.5	1.1	3.5
Flush/pour flush to septic tank	10.7	6.0	7.3
Flush/pour flush to pit latrine	0.4	0.8	0.7
Ventilated improved pit (VIP) latrine	15.9	14.8	15.1
Pit latrine with slab	19.7	40.7	34.8
<i>Improved, shared facility</i>			
Flush/pour flush to piped sewer system	4.5	0.5	1.6
Flush/pour flush to septic tank	5.4	1.4	2.5
Flush/pour flush to pit latrine	0.3	0.2	0.2
Ventilated improved pit (VIP) latrine	9.3	4.6	6.0
Pit latrine with slab	11.8	16.7	15.3
<i>Non-improved facility</i>			
Flush to somewhere else/ Flush don't know where	7.7	0.4	2.5
Pit latrine without slab/open pit	3.5	8.6	7.2
Composting toilet	0.1	0.0	0.0
Bucket toilet	0.0	0.2	0.2
Hanging toilet/hanging latrine	0.4	1.3	1.0
No facility/bush/field	0.8	2.6	2.1
Flooring materials			
Earth, sand	31.1	77.4	64.5
Cement	61.5	21.1	32.4
Ceramic tiles	6.8	0.8	2.5
Other	0.5	0.7	0.6
Total	100.0	100.0	100.0
Number of households	3,287	8,464	11,751

Earth and sand are the most common flooring materials used in Bangladesh (65 percent). These materials are predominantly used in rural areas (77 percent), while in urban areas the most common flooring material is cement (62 percent).

Household possessions

Possession of durable consumer goods is an important predictor of household socioeconomic status. Table 4.1.3 shows the percentages of urban and rural households that possess various durable commodities, means of transportation, agricultural land and farm animals.

Mobile phone and television are common information and communication devices possessed by most

households. Possession of mobile phones has increased sharply, from 78 percent in BDHS 2011 to 94 percent in UESD 2016. Almost all households in both urban and rural areas possess mobile phones. Half of the households have a television. Urban households are more likely to possess a television (72 percent) than rural households (41 percent). A refrigerator is available in 27 percent of households, with urban households are more than two times as likely (44 percent) as rural households (20 percent) to own one. Almost 75 percent of all households possess an electric fan, with a higher percentage in urban areas than rural areas (88 percent and 69 percent, respectively). Forty-four percent of households own an almirah/wardrobe; 61 percent in urban areas and 37 percent in rural areas. Five percent of all households have a personal computer/laptop. Urban households are more likely to have a computer than in rural households.

Ownership	Residence		Total
	Urban	Rural	
Household effects			
Radio	2.4	1.7	1.9
Television	72.3	41.3	50.0
Mobile phone	95.3	92.9	93.6
Non-mobile phone	4.9	2.3	3.0
Refrigerator	44.4	20.0	26.9
Almirah/wardrobe	60.7	37.2	43.8
Electric fan	88.3	68.7	74.2
DVD/VCD player	5.5	2.6	3.4
Water pump	10.4	5.7	7.1
IPS/Generator	3.5	0.6	1.4
Air conditioner	1.4	0.2	0.6
Computer/laptop	10.9	2.3	4.7
Means of transport			
Bicycle	12.8	25.2	21.7
Autobike/temp/CNG	2.5	2.9	2.8
Motor cycle/scooter	7.9	6.1	6.6
Rickshaw/van	3.9	5.4	5.0
Car/Truck/microbus	2.4	0.6	1.1
Ownership of agricultural land			
Homestead	86.8	92.6	91.0
Other land	31.5	43.4	40.1
Neither	11.8	5.7	7.4
Ownership of farm animals			
Bulls/buffalos	0.2	0.5	0.4
Cows	9.5	37.3	29.5
Goats/sheep	6.5	20.2	16.3
Chicken/ducks	21.7	61.3	50.2
Number of households	3,287	8,464	11,751

Bicycle is the most common means of personal transportation in Bangladesh; 22 percent of households own a bicycle, and ownership is much more common in rural areas (25 percent) than in urban areas (13 percent). Only 5 percent of households own a rickshaw or van (person-driven three wheeler), with little difference between rural and urban households. Ownership of a motorcycle is

slightly higher in urban areas (8 percent) than in rural areas (6 percent).

Ninety-one percent of households own a homestead, while 40 percent own land other than a homestead. Proportion of ownership of a homestead is almost same in urban and rural areas while other land is less common in urban than in rural areas.

Chicken or ducks, the most commonly owned type of livestock, are owned by almost half of households. About one in three households own cows, and one in six own goats or sheep. As expected, rural households are more likely than urban households to own each type of farm animals.

Socioeconomic status index

The wealth index used in this survey is a measure that has been used in DHS and other country-level surveys to measure inequalities: in household characteristics, in the use of health and other services, and in health outcomes (Rutstein et al., 2000). It serves as an indicator of household level wealth that is consistent with expenditure and income measures (Rutstein, 1999). The index is constructed using household asset data through principal components analysis. Detailed computation procedure of wealth index can be obtained from BDHS 2014 final report (NIPORT et al., 2016).

Table 4.1.4 Wealth quintiles

Percent distribution of households by wealth quintiles, according to residence and region, Bangladesh 2016

Residence/ division	Wealth quintile					Total	Number of persons
	Lowest	Second	Middle	Fourth	Highest		
Residence							
Urban	7.5	6.7	11.9	27.4	46.6	100.0	3,287
Rural	24.8	25.3	23.1	17.1	20.0	100.0	8,464
Division							
Barisal	27.4	26.7	20.4	16.4	9.1	100.0	678
Chittagong	17.0	15.6	21.4	26.3	19.7	100.0	1,980
Dhaka	17.6	16.5	14.0	18.4	33.4	100.0	4,139
Khulna	16.7	23.0	23.9	22.3	14.0	100.0	1,316
Rajshahi	24.4	20.6	25.0	21.4	8.7	100.0	1,465
Rangpur	23.5	30.8	27.2	13.6	5.0	100.0	1,473
Sylhet	25.2	18.0	17.1	21.3	18.4	100.0	701
Total	20.0	20.1	19.9	20.0	20.0	100.0	11,751

Table 4.1.4 presents the wealth quintiles by urban-rural residence and administrative division. More households (47 percent) residing in urban areas is in the highest wealth quintile as compared with households of the lowest quintile (8 percent). Among the administrative divisions, households in Dhaka are more likely to fall in the highest wealth quintile than the households of other divisions. In contrast, Barisal division have the highest proportion of the households in the lowest wealth quintile (27 percent).

4.2 Characteristics of Survey Respondents

Table 4.2 presents the demographic and socio-economic profile of the survey respondents; this includes age, marital status, residence, division, education, and wealth quintile of ever-married and currently married women.

Forty-four percent of ever married women and 46 percent of currently married women are under age 30. The majority of ever married women (95 percent) are currently married. A large number (72 percent) of the ever married and currently married women reside in the rural areas. The respondents are not evenly distributed across geographic divisions. More than one-third of respondents live in Dhaka, while only six percent live in Barisal division.

Table 4.2 Background characteristics of respondents

Percent distribution of ever-married and currently married women age 15-49, by selected characteristics, Bangladesh 2016

Characteristics	Weighted percent	
	Ever married women	Currently married women
Age		
15-19	8.4	8.7
20-24	17.2	17.6
25-29	18.7	19.2
30-34	18.7	18.9
35-39	15.1	15.0
40-44	12.3	11.8
45-49	9.5	8.7
Marital status		
Currently married	94.9	100.0
Divorced, separated or widowed/deserted	5.17	-
Residence		
Urban	28.4	28.3
Rural	71.6	71.7
Division		
Barisal	5.7	5.7
Chittagong	17.3	17.5
Dhaka	34.4	34.3
Khulna	11.8	11.8
Rajshahi	12.1	12.0
Rangpur	12.0	12.1
Sylhet	6.7	6.7
Education		
No education	24.2	23.0
Primary incomplete	13.9	13.8
Primary complete	16.8	17.0
Secondary incomplete	29.2	29.9
Secondary complete or higher	15.9	16.3
Wealth quintile		
Lowest	18.1	17.7
Second	19.3	19.2
Middle	20.5	20.6
Fourth	20.8	21.1
Highest	21.2	21.4
Total	100.0	100.0
Weighted number of women	11,278	10,700

Less than one in four ever married or currently married women age 15-49 have no education, while same proportion (16 percent) of ever married and currently married women have completed secondary

or higher education. Seventeen percent of them completed primary education. However, the proportion of ever married women having at least primary completed education increased from 54 percent in BDHS 2011 to 62 percent in UESD 2016.

Twenty-one percent of the currently and ever married women belong to the richest quintile while 18 percent belong to the poorest quintile.

4.3 HPNSDP Result 1.1: Increase Utilization of Essential HPN Services

UESD 2016 gathers information on HPN services to measure and monitor the current status of health care utilization. According to the results framework of HPNSDP, HPN service indicators are linked with maternal health care (antenatal care, delivery, and postnatal care), family planning, and child health care (Vitamin A supplementation).

4.3.1 Antenatal Care

Table 4.3.1.1 shows the percentage of women with a live birth by antenatal care provider during pregnancy. Women were asked to report on all persons they saw for antenatal care (ANC) for their last birth. However, if a woman received ANC from more than one provider, only the provider with the highest qualifications was considered in the tabulation.

Eighty percent of women with a birth in the three years preceding the survey received antenatal care at least once from any provider. About two in three women (63 percent) received ANC from a medically-trained provider, that is, a qualified doctor, nurse, midwife, paramedic, Family Welfare Visitor (FWV), Community Skilled Birth Attendant (CSBA), or Sub-assistant Community Medical Officer (SACMO).

The urban-rural differential in ANC coverage continues to be large; 76 percent of urban women received ANC from a medically-trained provider compared with 58 percent of rural women. Mothers in Khulna are most likely to receive antenatal care from a medically-trained provider (75 percent), while those in Sylhet are least likely to receive ANC (54 percent). However, Rangpur division has the highest proportion of mothers who receive ANC from a non-medically trained provider (35 percent).

The likelihood of receiving care from a medically-trained provider markedly increases with the mother's education level and wealth status. Thirty-nine percent of mothers with no education received ANC from a

trained provider compared with 88 percent of mothers with a secondary completed or higher education.

Table 4.3.1.1 Antenatal care

Percentage 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 2016

Background characteristics	Received Any ANC	Received ANC from	Received ANC from	No ANC	Number of women
		a medically trained provider	a non-medically trained provider		
Age					
< 20	82.3	60.9	21.4	17.6	402
20-34	80.5	64.1	16.4	19.5	2,041
35-49	65.2	52.7	12.5	34.5	164
Residence					
Urban	87.3	76.1	11.2	12.7	732
Rural	76.9	57.7	19.2	23.1	1,875
Division					
Barisal	79.4	66.5	12.9	20.6	165
Chittagong	74.1	65.2	8.9	25.9	552
Dhaka	77.9	61.6	16.3	22.1	822
Khulna	88.1	74.7	13.4	11.9	253
Rajshahi	84.0	64.0	20.0	16.0	268
Rangpur	91.6	56.8	34.8	8.4	308
Sylhet	71.5	53.8	17.7	28.3	239
Education					
No education	58.1	39.4	18.7	41.6	327
Primary incomplete	64.5	42.1	22.4	35.4	318
Primary complete	77.3	54.6	22.7	22.8	489
Secondary incomplete	85.8	69.3	16.5	14.2	994
Secondary complete or higher	94.8	87.7	7.1	5.2	480
Wealth index					
Lowest	62.6	39.3	23.3	37.3	506
Second	74.1	52.8	21.3	26.0	521
Middle	79.3	56.9	22.4	20.7	512
Fourth	88.1	77.1	11.0	11.9	519
Highest	93.8	86.5	7.3	6.2	548
Total	79.8	62.9	16.9	20.2	2,607

ANC from a medically-trained provider has increased in the last five; from 55 percent in BDHS 2011 to 63 percent in UESD 2016. Data show that a big gap still exists between women in the lowest and the highest quintiles in receiving ANC from a medically-trained provider. But in last five years the gap has slightly reduced. Between 2011 and 2016, antenatal care from a trained provider has increased more (from 30 to 39 percent) among women in the lowest wealth quintile.

Place of antenatal care

The place of antenatal care is important for monitoring performance of public, private and NGO sectors, ensuring quality of services and resource allocation. Table 4 of appendix shows the percentage of women with a live birth in the three years preceding the survey who received ANC for the most

recent birth by place of ANC. Because women may visit more than one type of facility for ANC during the same pregnancy, the categories are not mutually exclusive and do not sum to 100 percent.

Findings indicate that the private sector is the leading source for ANC (54 percent), followed by the public sector (32 percent), and NGO sector (13 percent). Fourteen percent of women received ANC at home.

The place of ANC does not vary according to mother's age at birth. The proportion of women received ANC from public facilities in urban and rural areas also does not differ much. However, use of NGO facilities for ANC is more in urban areas (17 percent) while use of private facilities is more in rural areas (55 percent).

Women who have completed secondary or higher education and women in the highest wealth quintile are more likely to receive ANC from the private sector. For example, 67 percent of women who completed secondary or higher education received ANC from the private sector compared with 40 percent of women with no education. Similarly, 67 percent of women in the highest wealth quintile received ANC from private facilities compared with 36 percent of women belong to the lowest quintile.

Women in Rangpur (44 percent) and Khulna (38 percent) divisions are using public facilities more than women in other divisions, while women in Chittagong (63 percent) division are most likely to use private sources for ANC.

Comparable data from the 2011 BDHS survey shows substantial decrease in the proportion of women who received ANC from the public sector. Between 2011 and 2016, the share in ANC delivery by public facilities decreased from 41 to 32 percent while the share of private facilities increased from 43 to 54 percent.

Place of ANC from medically trained provider by wealth

Place of ANC from medically trained providers has been analysed for five socio-economic groups. Although the richest prefers the private facilities more (72%), the highest proportion of the poorest (one in two or 50%) also receives ANC from private facilities (see table 5 of appendix). This indicates ongoing shift of preference for ANC care towards private sector. However, the use of public facilities for ANC from a medically trained provider is the highest among the poorest (44%) although it is declining. The highest

proportion of the poorest (15%) also receives ANC from a medically trained provider at home. Contrarily, the highest proportion of the richest (14%) uses NGO facilities for receiving ANC from a medically trained provider.

Number of antenatal visits

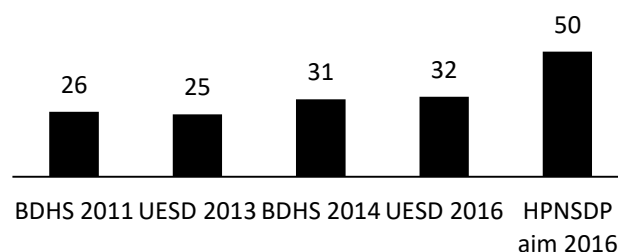
Under normal circumstances, the World Health Organization (WHO) recommends that a pregnant woman should have at least four ANC visits (WHO, 2007). Table 4.3.1.2 presents information on the number of antenatal visits for the most recent live birth in the three years preceding the survey. Thirty-two percent 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 almost twice as likely as rural women to have made four or more ANC visits (48 percent versus 26 percent). Women residing in urban areas, on an average, had more ANC visits than rural women (4.3 and 3.7 visits respectively).

Table 4.3.1.2 Number of antenatal care visits

Number of ANC visits	Residence		Total
	Urban	Rural	
None	12.7	23.5	20.4
1	12.3	16.3	15.2
2	13.9	18.5	17.2
3	13.5	15.9	15.2
4+	47.6	25.9	32.0
Total	100.0	100.0	100.0
Median number of visits (for those with ANC)	4.3	3.7	3.9
Number of women	733	1,875	2,607

The HPNSDP specifies a target of at least four ANC visits to be achieved by 50 percent of women who have a live birth by 2016. A comparison with the 2011

Figure 2: Trends in percent of women having four or more ANC visits for the most recent birth



BDHS survey shows that the percentage of pregnant women who made four or more ANC visits has increased by 6 percentage points in last five years (from 26 percent in 2011 to the current level of 32 percent) which was not sufficient to reach the target set for 2016.

Table 6 of appendix shows number of ANC visits for the most recent births according to wealth quintile. About 60 percent of women (58 percent) in the highest wealth quintile reported that they made four or more ANC visits as compared with 16 percent by the lowest quintiles. Compared to 2010 UESD survey, there is 9 percentage point increase in four or more ANC visits among the women in the highest quintile in 2016 UESD survey. Similarly, four or more ANC visits among the women in the lowest quintile has also increased by 9 percentage points (from 7 to 16 percent) between two surveys.

The median number of ANC visits increased by more than one visit during last five years. The median number of ANC visits is found 3.9 in 2016 UESD which was 2.7 in 2010 UESD. Those who received ANC in 2016, the median number of ANC visit is 1.5 visits more among the women in the highest quintile than the women in the lowest quintile (4.8 and 3.3 visits respectively).

4.3.2 Delivery Care

HPNSDP set indicators to monitor safe delivery practices by skilled birth attendants (SBAs) and equity in utilization of health facilities for delivery. Women interviewed in the 2016 UESD reported on the place and type of assistance during delivery of last birth. The tables presented in this report on delivery-related services are based on last live births in the three years preceding the survey.

Place of delivery

Table 7 of appendix presents the percent distribution of live births in the three years preceding the survey by place of delivery, according to background characteristics. Forty-five percent of births in Bangladesh are delivered at health facilities: 28 percent in private facilities, 14 percent in public facilities, and 3 percent in NGO facilities. Deliveries at home are more prevalent till now with 55 percent of births are delivered at home. During last five years, facility delivery has increased by 55 percent, from 29 percent in 2011 BDHS to 45 percent in 2016 UESD.

The likelihood of delivering in a health facility is almost similar among the women in different age

groups. Urban women are more likely to deliver at health facility (59 percent) than rural women (39 percent). The proportion of delivering at health facility is the highest in Khulna division (63 percent) and lowest in Sylhet division (29 percent). Women who have completed secondary education and those who reside in the highest wealth quintile have the highest likelihood of delivering in a health facility. For example, only 26 percent of women with no education deliver in a health facility compared with 73 percent of women with completed secondary education. Seventy-three percent of women in the highest quintile delivered at a health facility while only 24 percent of women in lowest quintile had facility delivery.

Table 4.3.2 Assistance during delivery

Percent distribution of last live births in the three years preceding the survey by percentage of births assisted by a skilled provider, delivered in a health facility, and delivered by Caesarean section according to background characteristics, Bangladesh 2016

Background characteristics	Percentage delivered by a medically trained provider	Percentage delivered in a health facility	Percentage delivered by C-section	Number of women
Age				
< 20	50.4	47.1	29.4	401
20-34	49.3	45.0	28.3	2,041
35-49	43.6	39.6	23.6	165
Residence				
Urban	63.4	59.3	37.3	732
Rural	43.5	39.4	24.6	1,876
Division				
Barisal	47.9	44.8	27.3	165
Chittagong	48.7	41.2	20.1	552
Dhaka	48.5	45.3	30.9	822
Khulna	64.4	63.2	44.7	253
Rajshahi	55.6	52.1	35.6	268
Rangpur	46.9	42.5	25.0	309
Sylhet	31.7	29.2	16.3	240
Education				
No education	31.1	25.6	11.6	328
Primary incomplete	35.2	29.2	17.3	318
Primary complete	35.7	33.1	19.0	488
Secondary incomplete	53.1	48.6	30.4	993
Secondary complete or higher	75.8	73.3	51.3	480
Wealth index				
Lowest	28.3	23.5	11.3	506
Second	38.8	34.2	22.3	521
Middle	40.6	37.3	20.3	512
Fourth	59.0	54.9	35.0	519
Highest	76.5	72.8	50.3	549
Total	49.1	45.0	28.2	2,607

Type of delivery by place

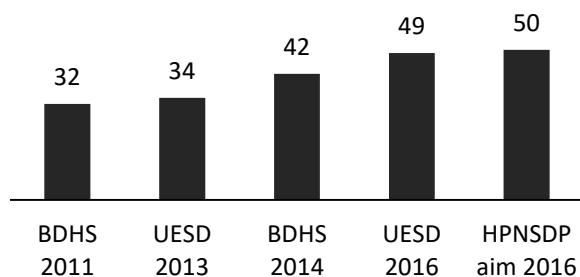
Table 8 of appendix shows the distribution of types of delivery by the place of birth. According to the 2016 UESD, more than one in four (28 percent) live births is delivered by caesarean operation. Findings show that private health facilities are predominant place for caesarean delivery. Four in five births (79 percent) in

private facilities are delivered by C-section. In contrast, one in three births in public (36 percent) and two in five births in NGO (41 percent) facilities delivery through C-section. During last five years, C-section increased from 11 percent in 2011 to 28 percent in 2016. Compared with the 2011 BDHS, delivery by C-Section in private (from 73 to 79 percent) and NGO (from 28 to 41 percent) facilities have increased notably in 2016.

Assistance during delivery

Delivery attended by a skilled provider is a core service utilization indicator of HPNSDP. Table 9 of appendix shows the percent distribution of last live births in the three years preceding the survey by type of assistance during delivery, according to background characteristics. Forty-nine percent of births in Bangladesh were attended by medically-trained personnel, that is, a qualified doctor, nurse, midwife, family welfare visitor (FWV), or community skilled birth attendant (CSBA). Thirty-six percent births were attended by qualified doctors and 13 percent by nurses/midwives and paramedics. Additionally, trained traditional birth attendants assisted in 7 percent of deliveries. However, about 30 percent of births in Bangladesh were assisted by dais or untrained traditional birth attendants (29 percent), and 12 percent of deliveries were assisted by relatives and friends.

Figure 3: Trends in percent of delivery attended by medically trained (skilled) providers



HPNSDP target for delivery by a medically-trained provider is set at 50 percent to be achieved by 2016 (MOHFW 2011). Over the last five years, the proportion of delivery by medically-trained providers has increased from 32 percent in BDHS 2011 to 49 percent in UESD 2016, which implies that Bangladesh is one percentage point short in attaining

HPNSDP target of 50 percent births attended by skilled provider by 2016.

The type of assistance during childbirth varies with certain background characteristics. As expected, medically assisted births are more common among women in urban areas (63 percent), women who have completed secondary or higher education (76 percent), and women from the highest wealth quintile (77 percent). Regional differentials in type of assistance at delivery are also evident. Among divisions, Khulna has the highest proportion of births assisted by medically-trained providers (64 percent), while Sylhet division has the lowest (32 percent).

Table 10 of appendix shows distribution of live births in the three years preceding the survey attended by a skilled provider, according to place of birth by wealth quintile. In general, more than half of the deliveries attended by medically trained providers are mostly done at private facilities (56 percent).

Selection of facilities for skilled deliveries varies between rich and poor households. Women in the highest quintile were found mostly delivered at private facility. Sixty-two percent of births of the richest households took place in private facilities while 41 percent of births of the poorest households took place in public facilities. Contribution of NGO in skilled deliveries is only 6 percent. However, rich-poor ratio in utilizing private facilities for skilled deliveries has reduced from 2.6 in 2010 UESD to 1.5 in 2016 UESD.

4.3.3 Postnatal Care for Mothers and Children

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

To assess the extent of postnatal care utilization, the 2016 UESD asked the respondent whether she and her child had received a health checkup after the delivery, the timing of the first check, and the type of health provider for the last birth in the three years preceding the survey.

Postnatal checkup

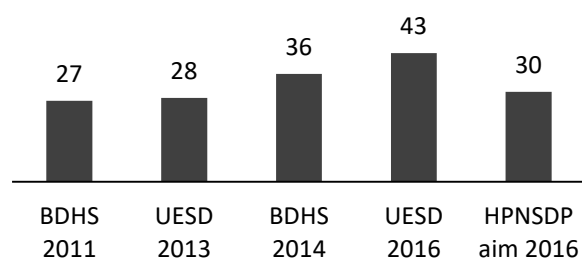
Table 4.3.3.1 shows the percent distribution of last live births in the three years preceding the survey for which the mothers and/or the children received postnatal care from any provider or a medically trained provider, by timing of postnatal care. Data show that 43 percent of mothers and 37 percent of children received postnatal care from a medically trained provider within the crucial first two days of delivery. On the other hand, 48 percent of mothers and 43 percent of children received a postnatal checkup from any provider within two days of delivery.

Table 4.3.3.1 Postnatal care for mothers and children

Percent distribution of last births in the three years preceding the survey for which the mothers and/or children received postnatal care from any provider and a medical provider, by timing of postnatal care, Bangladesh 2016

Timing	Mothers		Children	
	Any provider	Medically trained provider	Any provider	Medically trained provider
Within 2 days of delivery	47.5	42.6	42.8	37.2
3-6 days after delivery	2.3	1.5	3.9	2.1
7-41 days after delivery	3.0	2.0	7.9	4.6
Did not receive postnatal checkup	46.9	53.6	45.5	56.1
Don't know	0.2	0.2	0.0	0.0
Total	100.0	100.0	100.0	100.0
Number	2,607	2,607	2,607	2,607

Figure 4: Trends in percent of mothers received postnatal checkup from a medically trained provider within 2 days of delivery



The percentage of mothers receiving postnatal checkup from medically trained providers within two days of delivery has increased by 59 percent in last five years (from 27 percent in 2011 to 43 percent in 2016). The achievement is much higher than HPNSDP target of 30 percent set for 2016. The percentage of children receiving postnatal care from a medically trained provider within two days of delivery has also increased from 30 percent in 2011 to 37 percent in 2016. In both cases urban mothers

and children are more likely to receive postnatal health checkup within two days of delivery than their rural counterparts.

Table 4.3.3.2 presents differences in receiving postnatal care from a medically trained provider within two days of delivery by mother's age, residence, division, education, and wealth quintile. Urban women (55 percent), women who reside in Khulna division (61 percent), and women who have completed a secondary education or higher (68 percent) are much more likely to receive PNC from a medically trained provider within two days after delivery. The first postnatal checkup from a trained provider within two days of delivery is most common among the women in highest wealth quintile (67 percent) and least common in the lowest quintile (23 percent).

Table 4.3.3.2 Postnatal care by background characteristics

Percentage of last live births in the three years preceding the survey for which the mothers and the children received postnatal care (PNC) from a medically trained provider within 2 days of delivery, by background characteristics, Bangladesh 2016

Background characteristics	Mothers	Children	Number of women
Age			
< 20	43.4	38.3	401
20-34	42.8	37.5	2,041
35-49	38.2	29.7	165
Residence			
Urban	55.1	47.0	732
Rural	37.7	33.3	1,876
Division			
Barisal	45.1	35.2	165
Chittagong	42.2	40.0	552
Dhaka	39.2	34.4	822
Khulna	60.7	47.4	253
Rajshahi	53.7	48.3	268
Rangpur	37.0	31.5	309
Sylhet	29.6	25.4	240
Education			
No education	25.6	24.2	328
Primary incomplete	27.9	24.3	318
Primary complete	29.1	24.4	488
Secondary incomplete	47.3	42.1	993
Secondary complete or higher	67.7	57.5	480
Wealth quintile			
Lowest	23.3	21.1	506
Second	33.8	29.6	521
Middle	35.2	29.3	512
Fourth	52.2	43.9	519
Highest	66.6	60.2	549
Total	42.6	37.2	2,607

4.3.4 Contraceptive Use

This section presents results on contraceptive use and related information from the 2016 UESD survey. Information is presented on current use of

contraceptives, trend in current use, and source of supply of modern contraceptives.

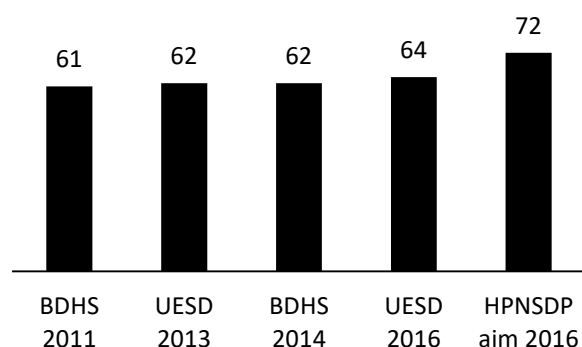
Current use of contraception

Overall, 64 percent of currently married women age 15-49 are currently using a contraceptive method. More than half of the women (56 percent) use a modern method, and 8 percent use a traditional method. Pill is by far the most widely used method (29 percent), followed by injectables (12 percent), male condoms (7 percent), periodic abstinence (6 percent), and female sterilization (5 percent). Two percent use Implants and about 1 percent each uses the IUD and male sterilization.

Trends in current use of contraceptive methods

Use of contraception among married women in Bangladesh has increased gradually. Over the past five years, contraceptive use has increased by three percentage points, from 61 percent in 2011 BDHS to 64 percent in 2016 UESD. That means HPNSDP has not been successful in attaining its aim to increase contraceptive prevalence rate to 72 percent by 2016.

Figure 5: Trends in contraceptive prevalence rate (percent of currently married women age 15-49 who are using a method of family planning)



Like overall use, use of modern methods has also increased by four percentage points between 2011 and 2016 (from 52 to 56 percent).

The method mix has not significantly changed over the past one decade (see Table 15 of appendix). Currently only 8 percent of married couples use a long-acting or permanent method (LAPM), namely sterilization, IUD, and implants, which account for 13 percent of all contraceptive use.

Table 4.3.4 Current use of contraception by background characteristics

Percent distribution of currently married women by contraceptive method currently using, according to background characteristics, Bangladesh 2016

Background characteristics	Any method	Any modern method	Any long-acting method	Any traditional method	Number of women
Residence					
Urban	64.3	55.2	7.6	9.0	3,033
Rural	63.4	55.7	8.6	7.7	7,667
Division					
Barisal	64.2	56.0	7.2	8.2	614
Chittagong	55.5	48.5	5.8	7.0	1,868
Dhaka	65.2	55.5	7.2	9.7	3,668
Khulna	66.6	57.0	9.0	9.6	1,259
Rajshahi	68.3	62.3	11.1	6.0	1,286
Rangpur	70.6	65.0	12.4	5.6	1,292
Sylhet	50.4	42.6	7.6	7.9	712
Education					
No education	64.6	54.2	13.3	10.4	2,462
Primary incomplete	67.4	59.2	12.3	8.2	1,480
Primary complete	65.1	58.5	7.3	6.6	1,816
Secondary incomplete	63.4	57.4	5.8	6.1	3,195
Secondary complete or higher	58.0	48.3	3.0	9.8	1,748
Wealth quintile					
Lowest	67.3	61.0	10.1	6.3	1,891
Second	67.1	59.1	10.6	8.0	2,050
Middle	66.5	58.1	9.2	8.4	2,199
Fourth	60.5	51.9	6.2	8.6	2,264
Highest	57.9	49.3	5.7	8.7	2,296
Total	63.7	55.6	8.3	8.1	10,700

Table 4.3.4 shows current use of contraception by background characteristics. Contraceptive use does not vary by place of residence. There is wide variation in contraceptive use by administrative divisions. Use of modern contraceptive methods among currently married women is the highest in Rangpur (65 percent) and the lowest in Sylhet (43 percent). Some variations in method choice are observed by women's education. Female sterilization is more prevalent among the women with no education. In contrast, condom use is the second most popular method among women with secondary or higher education (16 percent). A reverse trend is observed in overall contraceptive use by economic status of women (58 percent of women in the highest wealth quintile use contraceptives compared with 67 percent of women in the lowest wealth quintile). Use of sterilization, implants and injectables declines as wealth increases while use of condoms increases with wealth quintile.

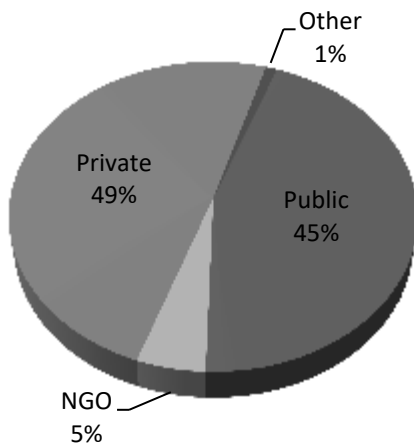
Source of contraceptives

To ascertain the sources of family planning methods in Bangladesh, the 2016 UESD asked women who were currently using a modern method of contraception where they obtained the method the last time they used it. The sources of family planning

methods are classified into four major categories: public sector sources (including government hospitals, maternal and child welfare centres, upazila health complexes, union health and family welfare centres, satellite/EPI clinics, community clinic and government fieldworkers), NGO sector sources (including NGO static clinics, fieldworkers and other NGO), private sources (including private hospitals and clinics, pharmacies and other private), and other sources (shop, friends or relatives and other).

Private sector becomes the predominant source providing contraceptive methods to about half of the all modern methods users (49 percent). In 2011, public sector provided contraceptives to 52 percent of modern method users, but this rate has decreased to 45 percent in 2016, e.g. 7 percentage point decrease in five years. Pharmacies are the most important source, serving 42 percent of contraceptive users followed by government fieldworkers supplying contraceptive methods to 17 percent of users. The rise of private sector contribution is mainly due to increase use of pharmacies for contraceptives methods. NGO sources supply contraceptives to 5 percent of users and its contribution remains unchanged in last five years.

Figure 6: Distribution of current users of modern family planning methods by source of supply



Source: UESD 2016

There are large differences by specific method in the source used. The public sector is the predominant source for long lasting and permanent methods e.g. sterilizations, IUDs, and implants. The upazila health complex accounts for the largest share of sterilizations and implants. The government fieldworkers and community clinics are becoming important for delivering injectables. One fifth of the injectables users, obtain their injectables from the

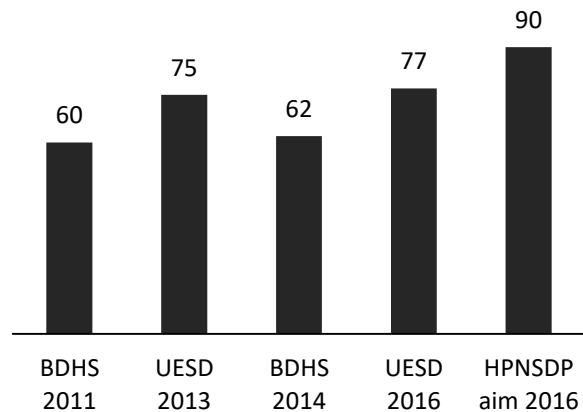
pharmacies. Pharmacies are also the predominant source for condoms (83 percent) and pills (53 percent). The government fieldworker is also an important source for pills (23 percent).

The 2016 UESD survey also shows a wide variation in source of modern contraceptives by wealth quintile. Use of private sources rises from 36 percent among women in the lowest wealth quintile to 74 percent among those in the highest quintile. Conversely, use of public sources shows completely an opposite pattern.

4.3.5 Vitamin A Supplementation

Vitamin A intake is an important indicator for monitoring Vitamin A supplementation programme for children. More than three in four children (77 percent) age 6-59 months received a Vitamin A supplement in the six months preceding the survey. Findings show that the proportion of receiving Vitamin A intake in the six month preceding the survey has increased 17 percentage points in last five years from 60 percent in the 2011 BDHS to 77 percent in the 2016 UESD survey. However, the current level of Vitamin A supplementation is a bit far from HPNSDP target to increase its coverage up to 90 percent by 2016.

Figure 7: Trends in Vitamin A coverage (percent of children age 6-59 months received a Vitamin A supplement in the six months preceding the survey)



Children age 24-35 months are the most likely to have Vitamin A supplements (82 percent). Across divisions, the proportion of children who receive Vitamin A supplements ranges from 70 percent in Rajshahi to 86 percent in Sylhet. In general, the likelihood of a child being given Vitamin A supplements increases with mother's education and wealth quintile.

Background Characteristic	Consumed vitamin A supplements	Number of children age 6-59 months
Age in months		
6-11	73.2	444
12-23	78.8	810
24-35	82.4	942
36-47	77.5	946
48-59	70.7	934
Sex		
Male	77.8	2,073
Female	75.8	2,002
Residence		
Urban	79.7	1,101
Rural	75.7	2,976
Division		
Barisal	74.3	253
Chittagong	74.1	835
Dhaka	73.1	1,335
Khulna	85.2	405
Rajshahi	70.3	408
Rangpur	84.6	474
Sylhet	86.3	366
Mother's education		
No education	69.8	516
Primary incomplete	74.9	530
Primary complete	75.2	759
Secondary incomplete	78.5	1,535
Secondary complete or higher	81.4	736
Wealth quintile		
Lowest	68.8	800
Second	76.6	826
Middle	79.4	778
Fourth	78.6	819
Highest	80.6	852
Total	76.8	4,076

4.4 HPNSDP Result 1.2: Improved Equity in Essential HPN Service Utilization

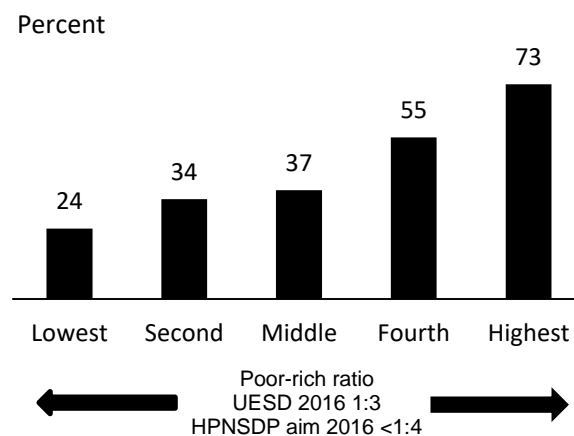
4.4.1 Equity in facility deliveries

In the effort to achieve equity in delivery in a health facility, the HPNSDP sets an aim to reduce poor-rich ratio of less than 1:4 by 2016 (MOHFW, 2011). According to UESD 2016, Bangladesh has reached the level to attain HPNSDP aim in reducing the gap between the poorest and the richest women in use of facilities for delivery. Data reveals that the poor-rich ratio in facility delivery among births in the three years before the survey is 1:4 (24 percent of births to women in the lowest wealth quintile were delivered in a health facility compared with 73 percent of births in the highest wealth quintile).

In the 2011 BDHS, 10 percent of births in the past three years to women in the lowest wealth quintile were delivered in a health facility compared with 60 percent of births in the highest wealth quintile. This translates to a ratio of 1:6. The 2016 UESD results

show substantial reduction in gap between richest and poorest women in utilizing the facilities for delivery.

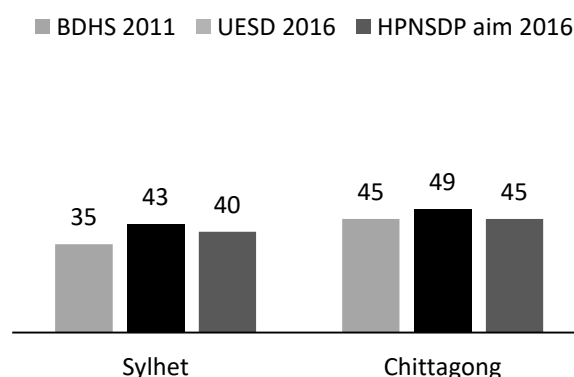
Figure 8: Percentage of births in health facilities by wealth quintile



4.4.2 Use of modern contraceptives in low performing areas

HPNSDP also focuses on reducing regional differences in contraceptive use. It aims to increase modern method contraceptive use in low performing areas (Sylhet and Chittagong divisions). Data reveal that both Sylhet and Chittagong division have successfully reach HPNSDP targets for increased use of modern contraceptive methods. Between 2011 and 2016, use of modern method in Sylhet division increased to 43 percent against a set target of 40 percent by 2016. Similarly, use of modern contraceptive method in Chittagong division reached to 49 percent against a set target of 45 percent by 2016.

Figure 9: Percent of currently married women using modern contraceptive methods



Comparison between BDHS 2011 and UESD 2016 data reveal that use of modern contraceptives increased 8 percentage points in Sylhet division and 4 percentage points in Chittagong division in last five years.

4.5 HPNSDP Result 1.3: Improved Awareness of Healthy Behaviour

4.5.1 Breastfeeding

Initiation of breastfeeding

Breastfeeding is almost universal in Bangladesh; 99 percent of last-born children who were born in the two years preceding the survey were breastfed at some point in their life.

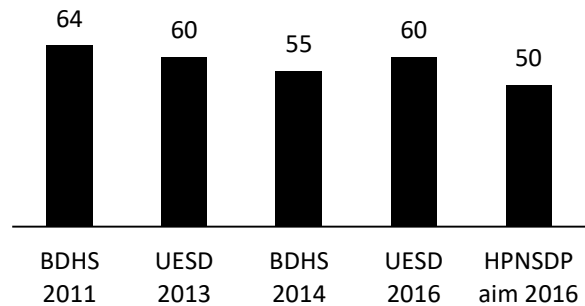
Overall, 51 percent of children are breastfed within one hour of birth, and 91 percent are breastfed within one day of birth. Compared with data for the 2011 BDHS, the percentage of children who were breastfed within one hour of birth has increased by four percentage points (from 47 to 51 percent).

Findings in Table 16 of appendix indicate no marked differences in the timing of initial breastfeeding within one hour of birth by the sex of the child. The timing of initiation of breastfeeding varies by other background characteristics. A notable variation in the timing of initial breastfeeding within one hour of birth has seen by geographic division. The proportion of children breastfed within one hour of birth is the highest in Sylhet division (59 percent) and the lowest in Khulna (40 percent). Newborn delivered in a health facility, attended by a medically trained provider, newborn of mother who completed secondary or higher education, and from households in the highest wealth quintile is less likely to begin breastfeeding within one hour of birth. Similar patterns were also reported in the 2013 UESD survey.

Exclusive breastfeeding practices

Exclusive breastfeeding practices and Infant and Young Child Feeding (IYCF) practices are two important indicators of HPNSDP for assessing the performance of expected results for improved awareness of health behaviour. The 2016 UESD collected data on infant and young child feeding for all last-born children under age 2 living with their mothers, using a 24-hour recall method. As shown in Table 17 of appendix, almost all Bangladeshi children are breastfed during the first year of life, and breastfeeding continues through the second year for 91 percent of the children.

Figure 10: Trends in exclusive breastfeeding practices (percent of children 0-5 months of age exclusively breastfed)



UESD 2016 reveals that 60 percent of infants are exclusively breastfeeding during the first 6 months of life which is more than HPNSDP target for 2016 (50 percent). The estimate is 4 percentage points less than that of BDHS 2011. However, Figure 10 provided evidence in support of substantial increase in exclusive breastfeeding practice in Bangladesh after remaining stagnant at around 40 percent in last decade.

4.5.2 Infant and Young Child Feeding Practices

Infant and young child feeding (IYCF) practices include initiating timely feeding of solid or semisolid foods at age 6 months and increasing the amount and variety of foods and frequency of feeding as the child gets older, while maintaining frequent breastfeeding. Guidelines have been established for IYCF practices for children age 0-23 months (WHO 2008). UESD 2016 collected information on IYCF practices for the youngest children age 6-23 months living with the mother. Using same definition used in BDHS and previous UESD surveys, IYCF indicators take into account children for whom feeding practices meet minimum standards with respect to:

- Food diversity (the number of food groups consumed);
- Feeding frequency (the number of times the child is fed); and
- Consumption of breast milk or other types of milk or milk products.

The results presented in Table 18 of appendix show that nearly all breastfed and non-breastfed children age 6-23 months are given breast milk or other milk products (97 percent). Overall, more than one of three children (34 percent) receives the appropriately diverse diet, and over seventy percent of children are fed the recommended number of times with solid or semisolid foods. Three in ten children (30 percent)

complies with three IYCF practices of consuming breast-milk or other milk products, having the minimum dietary diversity (4 or more food groups), and having the minimum meal frequency.

Comparison of BDHS 2011 and UESD 2016 estimates reveals that IYCF practices improved substantially in last five years (from 21 to 30 percent). However, HPNSDP does not successful attain its target in increasing IYCF practices among children 6-3 months to 45 percent by 2016.

The proportion of all children 6-23 months who are fed according to all 3 IYCF recommendations increases with the child's age, from 20 percent for children 6-11 months to 36 percent for children 12-23 months. Feeding practices don't vary between boys and girls, but there are differences across other background characteristics. Children living in urban areas (35 percent) are more likely to be fed according to the recommendation than their rural counterparts (29 percent). Children living in Sylhet and Barisal divisions are the least likely to be fed according to three IYCF practices (23 percent), while in other divisions the proportion ranges from 25 percent in Chittagong to 38 percent in Dhaka. There is a positive relationship between infant and child feeding practices and mother's education and household wealth status.

In terms of dietary diversity, only one in three breastfed children (34 percent) meet the minimum requirements for taking four or more food groups. However, about three in four breastfed children (74 percent) are meeting the minimum meal frequency criteria.

4.6 HPNSDP Goal: Ensure Quality and Equitable Health Care for All Citizens of Bangladesh

4.6.1. Nutritional status of children

The 2016 UESD collected data on the nutritional status of children by measuring the height and weight of all children under age five in the selected households. The nutritional status assessment of children helps to monitor progress in HPNSDP goal to ensure quality and equitable health care for all citizens of Bangladesh.

Measurement of nutritional status

The nutritional status of children in the survey population is compared with WHO Child Growth Standards (WHO 2006). These standards can 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 and wasting are considered severe if the child is more than three standard deviations (-3 SD) below the reference median. Severe wasting is closely linked to mortality risk.

Weight-for-age is a composite index of weight-for-height and height-for-age. Thus, it does not distinguish between acute malnutrition (wasting) and chronic malnutrition (stunting). A child can be underweight for his 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.

All children listed in the household questionnaire who were born in September 2011 or later were eligible

for height and weight measurement. Weight was measured using lightweight bathroom scales with digital screens. The height/length boards were produced locally using Shorr Productions standard. Recumbent length was recorded for children under age 2 or shorter than 85 centimeters. Standing height was measured for all other children. A total of 4,854 children under age five (unweighted) in the UESD sample households were eligible for anthropometric measurements. The following analysis focuses on the 4,125 children (85 percent) for whom complete and credible anthropometric and age data are available.

Appendix table 19 presents the percentage of children under age five classified as malnourished according to the three anthropometric indices of nutritional status (height-for-age, weight-for-height, and weight-for-age) by background characteristics.

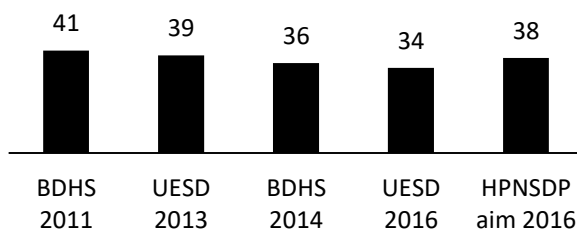
Height-for-age (stunting)

According to UESD 2016, thirty-four percent of under five children in Bangladesh are stunted, that means the prevalence of stunting decreased by seven percentage points in last five years (from 41 percent in 2011 BDHS to 34 percent in 2016 UESD). The data reveal that Bangladesh has successfully achieved HPNSDP goal to reduce the prevalence of stunting among children under five to 38 percent by 2016.

Analysis by age group shows that stunting is the highest (44 percent) in children age 18-23 months and the lowest (18 percent) in children age 0-8 months. Stunting is slightly higher among male children (35 percent) than among female children (33 percent).

Children in rural areas are more likely to be stunted (35 percent) compared with those in urban areas (32 percent). Stunting is the lowest in Rajshahi division (28 percent) and the highest in Sylhet division (45 percent). Mother's level of education has an inverse relationship with stunting levels. Children of mothers with no education are more likely to be stunted (37 percent) when compared with children of mothers who have completed secondary and higher education 30 percent). Similarly a large difference also exists by wealth quintiles; as wealth increases, the extent of stunting among children decreases. Children from the lowest wealth quintile are more likely to be stunted than children from the highest wealth quintile (40 percent in the lowest compared with 28 percent in the highest quintile).

Figure 11: Trends in the prevalence of stunting (percent of children under age five)



Note: Based on the 2006 WHO growth standard

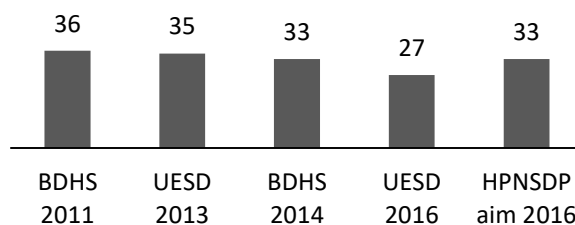
Weight-for-height (wasting)

Overall, 13 percent of children in Bangladesh are wasted, which is three percentage points lower than BDHS 2011 estimate (16 percent). Male children are more likely to be wasted. There is no difference between urban and rural children to be wasted. By division, wasting in children ranges from 12 percent in Dhaka to 17 percent in Rajshahi. Wasting prevalence does not show a linear relationship with mother's education. However, as expected, wasting prevalence is the highest among children of women of the lowest quintile (15 percent).

Weight-for-age (underweight)

UESD 2016 shows that twenty-seven percent of children under age five are underweight, which is nine percentage point lower than the estimate of BDHS 2011 (36 percent). That means Bangladesh has successfully attained HPNSDP goal of reducing the prevalence of underweight to less than 33 percent by 2016.

Figure 12: Trends in the prevalence of underweight (percent of children under age five)



Note: Based on the 2006 WHO growth standard

As other nutritional indices, the proportion of underweight is the highest (34 percent) among children age 24-59 months and the lowest (12 percent) among children <6 months. There is no difference between male and female children to be underweight.

Rural children are slightly more likely to be underweight (27 percent) than urban children (25 percent). Sylhet has the highest proportion (34 percent) of underweight children, while among the other divisions the proportion ranges from 21 percent in Dhaka to 30 percent in Barisal, Rajshahi and Rangpur divisions. Mother's education does not show any clear pattern of associated with underweight. A negative relationship is observed between household wealth and the percentage of underweight children; children in the poorest households (32 percent) are more likely to be underweight compared with children in the wealthiest households (21 percent).

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APPENDIX

TABLES

Description of Household Population

Table 1. Household population by age, sex, and residence

Percent distribution of the de jure household population by five-year age groups, according to sex and residence, Bangladesh 2016

Age	Urban			Rural			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
<5	9.3	9.4	9.4	9.8	9.2	9.5	9.7	9.3	9.5
5-9	10.9	10.3	10.6	10.7	11.0	10.8	10.7	10.8	10.8
10-14	10.8	11.0	10.9	11.8	12.0	11.9	11.5	11.7	11.6
15-19	9.3	11.3	10.3	10.1	10.6	10.3	9.9	10.8	10.3
20-24	7.6	11.2	9.4	7.0	8.8	7.9	7.2	9.5	8.3
25-29	8.5	9.7	9.1	7.3	8.9	8.1	7.6	9.1	8.4
30-34	7.8	8.4	8.1	6.5	8.3	7.4	6.8	8.3	7.6
35-39	8.0	7.0	7.5	6.9	6.6	6.7	7.2	6.7	6.9
40-44	6.3	5.0	5.7	5.7	5.3	5.5	5.9	5.2	5.5
45-49	5.8	4.8	5.3	5.6	4.6	5.1	5.6	4.7	5.1
50-54	4.3	2.8	3.5	4.4	3.7	4.1	4.4	3.5	3.9
55-59	3.0	3.3	3.2	3.4	4.0	3.7	3.3	3.8	3.5
60-64	3.2	2.6	2.9	3.6	3.1	3.4	3.5	2.9	3.2
65-69	2.0	1.1	1.6	2.4	1.4	1.9	2.3	1.4	1.8
70-74	1.7	1.1	1.4	2.3	1.0	1.6	2.1	1.0	1.6
75-79	.6	.3	.4	1.1	.6	.8	1.0	.5	.7
80+	.8	.7	.7	1.4	1.0	1.2	1.2	.9	1.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	6,971	7,163	14,135	18,077	18,636	36,713	25,048	25,799	50,848

Characteristics of Respondents

Table 2. Background characteristics of respondents

Percent distribution of ever-married women and currently married women age 15-49, by selected characteristics, Bangladesh 2016

Characteristics	Ever married women			Currently married women		
	Weighted percent	Weighted number	Unweighted number	Weighted percent	Weighted number	Unweighted Number
Age						
15-19	8.4	951	920	8.7	936	904
20-24	17.2	1,938	1,975	17.6	1,884	1,922
25-29	18.7	2,114	2,134	19.2	2,049	2,072
30-34	18.7	2,109	2,074	18.9	2,026	1,996
35-39	15.1	1,705	1,752	15.0	1,610	1,649
40-44	12.3	1,384	1,370	11.8	1,263	1,232
45-49	9.5	1,075	1,053	8.7	931	920
Marital status						
Currently married	94.9	10,700	10,695	100.0	10,700	10,695
Divorced, separated or widowed/deserted	5.17	578	583	-	-	-
Residence						
Urban	28.4	3,203	3,946	28.3	3,033	3,732
Rural	71.6	8,075	7,322	71.7	7,667	6,963
Division						
Barisal	5.7	648	1,324	5.7	614	1,260
Chittagong	17.3	1,952	1,777	17.5	1,868	1,701
Dhaka	34.4	3,874	1,985	34.3	3,668	1,875
Khulna	11.8	1,334	1,720	11.8	1,259	1,620
Rajshahi	12.1	1,362	1,552	12.0	1,287	1,462
Rangpur	12.0	1,348	1,458	12.1	1,291	1,405
Sylhet	6.7	759	1,462	6.7	712	1,372
Education						
No education	24.2	2,727	2,601	23.0	2,462	2,338
Primary incomplete	13.9	1,571	1,567	13.8	1,480	1,481
Primary complete	16.8	1,896	1,867	17.0	1,816	1,791
Secondary incomplete	29.2	3,289	3,314	29.9	3,195	3,209
Secondary complete or higher	15.9	1,795	1,929	16.3	1,747	1,876
Wealth quintile						
Poorest	18.1	2,044	2,014	17.7	1,892	1,876
Second	19.3	2,173	2,066	19.2	2,051	1,952
Middle	20.5	2,199	2,271	20.6	2,199	2,150
Fourth	20.8	2,263	2,565	21.1	2,263	2,455
Richest	21.2	2,295	2,362	21.4	2,295	2,262
Total	100.0	11,278	11,278	100.0	10,700	10,695

HPNSDP Result 1.1: Increase Utilization of Essential HPN Services

Antenatal care

Table 3. 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 2016

Background characteristics	Medically trained provider												No one	Total	Any ANC	ANC from a medically trained provider	Number of women	
	Qualified doctor	Nurse/ midwife/ paramedic	FWV	CSBA	SACMO	CHCP	HA/FWA	NGO worker	Trained TBA	Untrained TBA	Unqualified provider	Others						
Age																		
< 20	52.9	6.5	1.5	0.0	0.0	1.0	9.2	6.5	0.0	0.2	1.7	3.0	17.6	100.0	82.3	60.9	402	
20-34	56.8	6.0	1.2	0.1	0.0	1.9	5.6	7.2	0.2	0.0	0.8	0.6	19.5	100.0	80.5	64.1	2,041	
35-49	50.3	1.8	0.6	0.0	0.0	0.6	3.0	8.5	0.0	0.6	0.0	0.0	34.5	100.0	65.2	52.7	164	
Residence																		
Urban	68.0	7.1	1.0	0.0	0.0	0.8	3.0	6.1	0.1	0.1	0.8	0.3	12.7	100.0	87.3	76.1	732	
Rural	51.0	5.3	1.3	0.2	0.0	2.0	7.1	7.5	0.2	0.1	1.0	1.2	23.1	100.0	76.9	57.7	1,875	
Division																		
Barisal	60.0	3.6	2.4	0.6	0.0	1.2	3.0	6.7	0.0	0.6	1.2	0.0	20.6	100.0	79.4	66.5	165	
Chittagong	60.8	3.6	0.7	0.0	0.0	1.3	2.5	3.6	0.2	0.2	1.3	0.0	25.9	100.0	74.1	65.2	552	
Dhaka	53.8	7.2	0.6	0.0	0.0	2.7	3.6	6.9	0.2	0.0	0.6	2.2	22.1	100.0	77.9	61.6	822	
Khulna	66.8	6.3	1.6	0.0	0.0	2.0	4.0	6.3	0.0	0.0	0.8	0.4	11.9	100.0	88.1	74.7	253	
Rajshahi	52.2	9.3	2.2	0.4	0.0	1.9	8.2	6.3	0.4	0.4	2.2	0.4	16.0	100.0	84.0	64.0	268	
Rangpur	48.9	5.2	2.6	0.3	0.0	0.3	15.2	17.5	0.0	0.0	0.3	1.3	8.4	100.0	91.6	56.8	308	
Sylhet	49.2	4.2	0.4	0.4	0.0	0.8	11.3	4.2	0.0	0.0	0.8	0.4	28.3	100.0	71.5	53.8	239	
Education																		
No education	33.1	5.5	0.6	0.3	0.0	4.3	4.9	7.9	0.0	0.3	0.9	0.6	41.6	100.0	58.1	39.4	327	
Primary incomplete	33.2	7.5	1.3	0.0	0.0	1.3	6.3	12.5	0.3	0.0	0.9	1.3	35.4	100.0	64.5	42.1	318	
Primary complete	48.0	5.3	1.2	0.0	0.0	2.9	9.0	9.2	0.0	0.0	0.8	0.6	22.8	100.0	77.3	54.6	489	
Secondary incomplete	60.9	6.9	1.3	0.1	0.0	1.0	6.1	6.2	0.3	0.2	1.1	1.6	14.2	100.0	85.8	69.3	994	
Secondary complete or higher	83.3	3.1	1.0	0.2	0.0	0.6	3.1	2.5	0.0	0.0	0.6	0.2	5.2	100.0	94.8	87.7	480	
Wealth quintile																		
Lowest	30.0	8.1	1.0	0.2	0.0	1.0	10.3	8.7	0.0	0.2	1.8	1.6	37.3	100.0	62.6	39.3	506	
Second	46.0	4.4	2.1	0.2	0.0	3.1	8.1	9.0	0.0	0.0	1.0	0.2	26.0	100.0	74.1	52.8	521	
Middle	50.1	5.5	1.4	0.0	0.0	3.5	6.8	8.8	0.2	0.0	0.6	2.3	20.7	100.0	79.3	56.9	512	
Fourth	69.9	6.2	1.0	0.0	0.0	0.4	2.9	5.8	0.4	0.4	1.0	0.2	11.9	100.0	88.1	77.1	519	
Highest	81.0	4.9	0.4	0.0	0.0	0.4	2.4	3.6	0.2	0.0	0.5	0.4	6.2	100.0	93.8	86.5	548	
Total	55.8	5.8	1.2	0.1	0.0	1.7	6.0	7.1	0.2	0.1	0.9	1.0	20.2	100.0	79.8	62.9	2,607	

Table 4. Place of ANC

Among women age 15-49 who had a live birth in the three years preceding the survey, the percentage who received antenatal care (ANC) during the pregnancy of the most recent birth by place of ANC, according to background characteristics, Bangladesh 2016

Background characteristic	Place of ANC					Number of women
	Home	Public	Private	NGO	Other	
Age						
<20	16.4	32.1	52.0	11.8	0.6	330
20-34	14.0	31.9	54.0	13.6	0.3	1,643
35-49	14.0	36.1	52.3	5.6	0.0	107
Residence						
Urban	9.7	33.5	50.5	17.1	0.0	640
Rural	16.4	31.5	55.0	11.1	0.4	1,440
Division						
Barisal	15.3	32.1	58.0	5.3	0.0	131
Chittagong	7.3	27.7	62.6	9.5	0.0	408
Dhaka	21.1	29.7	55.1	13.6	0.6	640
Khulna	5.4	37.8	53.4	14.3	0.4	222
Rajshahi	19.6	29.3	56.4	12.4	0.4	225
Rangpur	11.4	43.6	32.3	22.8	0.0	282
Sylhet	14.6	29.1	54.7	7.0	0.6	172
Education						
No education	21.1	40.5	40.0	15.3	1.0	190
Primary incomplete	22.0	32.2	37.1	17.1	1.5	205
Primary complete	17.7	34.5	51.3	13.8	0.0	378
Secondary incomplete	14.2	30.4	54.7	13.6	0.2	852
Secondary complete or higher	5.7	29.7	66.6	8.1	0.0	455
Wealth quintile						
Lowest	23.1	38.8	36.3	12.0	1.6	317
Second	15.5	35.8	49.0	13.5	0.0	385
Middle	18.2	33.4	50.2	14.0	0.0	406
Fourth	10.3	32.3	57.1	10.5	0.2	458
Highest	8.9	23.9	67.3	14.6	0.0	514
Total	14.4	32.1	53.6	13.0	0.3	2,080

Table 5. ANC from medically trained provider by quintile

Percent distribution of live births in the three years preceding the survey from whom mother received ANC from medically trained provider, according to place of ANC by wealth quintile, Bangladesh 2016

Wealth quintile	Place of ANC					Number of women
	Home	Public	Private	NGO	Other	
Lowest	15.1	44.4	50.0	7.6	0.0	199
Second	5.1	34.2	65.1	8.8	0.0	275
Middle	8.9	31.8	60.3	12.3	0.0	292
Fourth	5.0	33.8	62.6	9.2	0.0	400
Highest	5.9	24.5	71.7	13.9	0.0	474
Total	7.2	32.1	63.7	10.9	0.0	1,640

Table 6. Number of antenatal care visits by wealth quintile

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 wealth quintile, Bangladesh 2016

Number of ANC visits	Wealth quintile					Total
	1	2	3	4	5	
None	37.7	26.2	20.9	12.5	6.2	20.4
1	16.8	19.0	17.6	14.5	8.6	15.2
2	16.0	18.5	18.8	20.6	12.2	17.2
3	13.2	15.0	15.6	16.8	15.2	15.2
4+	16.2	21.3	27.1	35.6	57.8	32.0
Total	100.0	100.0	100.0	100.0	100.0	100.0
Median number of visits (for those with ANC)	3.3	3.2	3.4	4.2	4.8	3.9
Number of women	506	520	512	519	547	2,607

Delivery Care

Table 7. Place of delivery

Percent distribution of live births in the three years preceding the survey by place of delivery, according to background characteristics, Bangladesh 2016

Background characteristic	Place of delivery					Total	Percentage delivered in a health facility	Percentage delivered by C-section	Number of births
	Public facility	Private facility	NGO facility	Home	Other				
Age									
< 20	16.0	28.2	3.0	52.4	0.5	100.0	47.1	29.4	401
20-34	13.9	27.8	3.3	54.6	0.3	100.0	45.0	28.3	2,041
35-49	17.7	21.3	0.6	60.4	0.0	100.0	39.6	23.6	164
Residence									
Urban	19.1	32.9	7.4	39.8	0.8	100.0	59.3	37.3	733
Rural	12.6	25.3	1.5	60.4	0.2	100.0	39.4	24.6	1,874
Division									
Barisal	12.7	30.3	1.8	55.2	0.0	100.0	44.8	27.3	165
Chittagong	16.6	20.3	4.3	57.5	1.3	100.0	41.2	20.1	551
Dhaka	12.6	29.5	3.2	54.6	0.1	100.0	45.3	30.9	822
Khulna	18.6	42.3	2.4	36.8	0.0	100.0	63.2	44.7	253
Rajshahi	14.2	35.4	2.6	47.4	0.4	100.0	52.1	35.6	267
Rangpur	14.3	24.4	3.9	57.5	0.0	100.0	42.5	25.0	308
Sylhet	12.9	14.5	1.7	70.5	0.4	100.0	29.2	16.3	240
Education									
No education	11.6	12.2	2.1	74.2	0.0	100.0	25.6	11.6	329
Primary incomplete	12.3	13.9	2.8	71.0	0.0	100.0	29.2	17.3	317
Primary complete	14.1	17.6	1.4	66.5	0.4	100.0	33.1	19.0	489
Secondary incomplete	14.4	30.8	3.5	50.7	0.6	100.0	48.6	30.4	994
Secondary complete or higher	18.3	50.0	5.0	26.5	0.2	100.0	73.3	51.3	480
Wealth quintile									
Lowest	11.1	11.7	1.0	75.9	0.4	100.0	23.5	11.3	506
Second	11.9	20.5	1.9	65.1	0.6	100.0	34.2	22.3	521
Middle	13.5	22.3	1.6	62.7	0.0	100.0	37.3	20.3	512
Fourth	17.7	33.7	3.5	44.8	0.4	100.0	54.9	35.0	520
Highest	17.9	47.5	7.3	26.8	0.5	100.0	72.8	50.3	549
Total	14.4	27.5	3.1	54.6	0.3	100.0	45.0	28.2	2,607

Table 8. Type of delivery by place of birth

Percent distribution of live births in the three years preceding the survey by type and place of delivery, Bangladesh 2016

Type of delivery	Place of birth					Total
	Public facility	Private facility	NGO facility	Home	Other	
C-section	36.2	78.9	40.7	0.0	0.0	28.2
Normal	63.8	21.1	59.3	100.0	100.0	71.8
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of birth	376	716	81	1,424	10	2,607

Table 9. Assistance during delivery

Percent distribution of live births in the three years preceding the survey by person providing assistance during delivery and percentage of births assisted by a skilled provider, according to background characteristics, Bangladesh 2016

Background characteristics	Medically trained provider													Percentage delivered by a medically trained provider	Number of women		
	Qualified doctor	Nurse/ midwife/ paramedic	FWV	CSBA	MA/SACMO	CHCP	HA/FWA	NGO worker	Trained TBA	Untrained TBA	Unqualified provider	Relatives & friends	No one			Total	
Age																	
< 20	38.1	12.2	0.0	0.2	0.7	0.0	2.0	2.0	8.0	25.4	0.5	10.9	0.0	100.0	50.4	401	
20-34	35.5	13.4	0.3	0.0	0.2	0.2	0.6	0.9	6.2	29.8	0.3	12.1	0.3	100.0	49.3	2,041	
35-49	32.1	10.9	0.0	0.6	1.2	0.0	0.0	0.6	8.5	32.7	0.0	13.3	0.0	100.0	43.6	165	
Residence																	
Urban	48.1	15.2	0.1	0.0	1.2	0.1	0.0	0.8	5.6	18.7	0.3	9.6	0.3	100.0	63.4	732	
Rural	30.9	12.2	0.3	0.1	0.1	0.2	1.1	1.1	7.0	33.5	0.3	13.0	0.3	100.0	43.5	1,876	
Division																	
Barisal	36.7	9.6	0.6	0.6	0.0	0.6	1.2	1.2	15.1	31.9	0.6	1.8	0.0	100.0	47.9	165	
Chittagong	31.6	16.9	0.2	0.0	1.8	0.0	0.4	0.4	5.8	33.6	0.9	8.3	0.2	100.0	48.7	552	
Dhaka	36.7	11.8	0.0	0.0	0.0	0.2	0.6	0.5	6.3	26.0	0.0	17.3	0.6	100.0	48.5	822	
Khulna	51.6	12.2	0.8	0.0	0.0	0.4	0.4	0.0	6.7	24.0	0.0	3.9	0.0	100.0	64.4	253	
Rajshahi	43.3	11.2	1.1	0.0	0.0	0.0	1.5	0.7	6.0	32.8	0.4	2.6	0.4	100.0	55.6	268	
Rangpur	27.8	18.4	0.0	0.6	0.0	0.3	1.3	5.2	3.9	22.7	0.0	19.7	0.0	100.0	46.9	309	
Sylhet	25.2	6.3	0.0	0.0	0.0	0.0	1.7	0.8	7.6	39.1	0.4	18.9	0.0	100.0	31.7	240	
Education																	
No education	17.1	14.0	0.0	0.0	0.6	0.0	0.9	0.6	5.2	46.3	0.3	14.6	0.3	100.0	31.1	328	
Primary incomplete	23.3	11.4	0.3	0.0	0.0	0.3	0.6	1.6	6.9	41.3	0.3	13.6	0.3	100.0	35.2	318	
Primary complete	24.6	10.9	0.0	0.2	0.4	0.2	1.0	1.8	9.6	30.7	0.6	19.9	0.0	100.0	35.7	488	
Secondary incomplete	38.1	14.5	0.5	0.1	0.4	0.2	0.8	0.8	6.2	27.7	0.3	10.3	0.1	100.0	53.1	993	
Secondary complete or higher	63.0	12.7	0.2	0.0	0.2	0.2	0.6	0.4	4.8	12.1	0.0	5.0	0.8	100.0	75.8	480	
Wealth quintile																	
Lowest	15.6	12.2	0.4	0.2	0.4	0.0	1.4	1.0	6.9	45.9	0.4	15.6	0.2	100.0	28.3	506	
Second	26.3	12.3	0.0	0.2	0.4	0.2	0.8	0.4	7.1	35.5	0.6	16.3	0.0	100.0	38.8	521	
Middle	27.1	12.9	0.8	0.0	0.4	0.6	1.2	2.5	6.6	32.6	0.4	14.6	0.4	100.0	40.6	512	
Fourth	43.6	15.3	0.2	0.0	0.6	0.0	0.6	0.4	5.8	23.9	0.0	9.3	0.4	100.0	59.0	519	
Highest	64.1	12.6	0.0	0.0	0.0	0.2	0.2	0.9	6.6	10.2	0.2	4.7	0.4	100.0	76.5	549	
Total	35.7	13.0	0.3	0.1	0.3	0.2	0.8	1.0	6.6	29.3	0.3	12.0	0.3	100.0	49.1	2,607	

Table 10. Place of skilled delivery by wealth quintile

Percent distribution of live births in the three years preceding the survey attended by a skilled provider, according to place of birth by wealth quintile, Bangladesh 2016

Wealth quintile	Place of birth					Number of women
	Public facility	Private facility	NGO facility	Home	Other	
Lowest	36.8	41.0	3.5	17.4	1.4	144
Second	29.2	53.0	4.5	13.4	0.0	202
Middle	31.7	52.4	3.4	12.5	0.0	208
Fourth	29.4	57.2	5.9	6.9	0.7	306
Highest	22.4	62.1	9.0	5.7	0.7	420
Total	28.3	55.5	6.0	9.6	0.5	1,280

Contraceptive Use

Table 11. Current use of contraception

Percent distribution of currently married women by contraceptive method currently using, according to age, Bangladesh 2016

Age	Modern method									Any traditional method	Traditional method			Not currently using	Total	Number of women
	Any modern method	Any modern method	Female sterilization	Male sterilization	Pill	IUD	Injectables	Implants	Condom		Periodic abstinence	Withdrawal	Other			
15-19	49.8	46.0	0.1	0.1	25.3	0.5	9.0	0.9	10.1	3.9	2.9	1.0	0.0	50.2	100.0	935
20-24	61.9	57.9	0.8	0.2	34.0	0.7	12.3	2.1	7.8	4.0	2.4	1.6	0.0	38.1	100.0	1,885
25-29	65.6	60.5	2.3	0.7	33.1	1.1	13.9	1.9	7.5	5.1	3.4	1.8	0.0	34.4	100.0	2,051
30-34	73.5	65.6	7.0	1.1	32.7	1.1	14.4	2.0	7.3	7.9	6.2	1.7	0.0	26.5	100.0	2,027
35-39	74.5	61.7	7.5	2.4	29.1	1.1	13.9	1.8	5.9	12.9	9.7	3.2	0.0	25.5	100.0	1,610
40-44	60.8	46.4	7.9	1.4	21.2	0.6	10.3	1.1	3.8	14.4	12.4	2.1	0.0	39.2	100.0	1,262
45-49	40.5	30.3	9.9	0.6	11.3	0.3	4.4	0.4	3.3	10.3	8.5	1.7	0.0	59.5	100.0	930
Total	63.7	55.6	4.8	1.0	28.6	0.9	12.0	1.6	6.7	8.1	6.2	1.9	0.0	36.3	100.0	10,700

Table 12. Trends in current use of contraceptive methods

Percentage of currently married women age 15-49 who are currently using specific family planning methods, selected sources, Bangladesh 2004-2016

Method	2004	2006	2007	2008	2010	2011	2013	2014	2016
	BDHS	UESD	BDHS	UESD	UESD	BDHS	UESD	BDHS	UESD
Any method	58.1	58.1	55.8	59.5	61.7	61.2	62.0	62.4	63.6
Any modern method	47.3	48.6	47.5	49.5	54.1	52.1	53.1	54.1	55.6
Female sterilization	5.2	4.7	5.0	4.5	4.6	5.0	5.1	4.6	4.8
Male sterilization	0.6	0.4	0.7	0.6	0.6	1.2	1.1	1.2	1.0
Pill	26.2	27.3	28.5	27.8	29.7	27.2	28.1	27.0	28.6
IUD	0.6	0.9	0.9	0.8	0.9	0.7	0.9	0.6	0.9
Injectables	9.7	11.2	7.0	10.5	12.5	11.2	11.9	12.4	12.0
Implants	0.8	1.1	0.7	1.3	1.3	1.1	0.9	1.7	1.6
Condom	4.2	3.0	4.5	4.0	4.4	5.5	5.1	6.4	6.7
Any traditional method	10.8	9.5	8.3	10.0	7.6	9.2	8.9	8.4	8.1
Periodic abstinence	6.5	8.4	4.9	9.1	6.0	6.9	7.3	6.2	6.2
Withdrawal	3.6	0.9	2.9	0.6	1.5	1.9	1.5	1.9	1.9
Other traditional methods	0.6	0.2	0.6	0.4	0.1	0.4	0.1	0.3	0.0
Number of women	10,582	9,652	10,192	9,636	11,012	16,635	11,150	16,858	10,700

Sources: 2004 BDHS (NIPORT et al., 2005:67); 2006 UESD (Al-Sabir et al., 2007:26); 2007 BDHS (NIPORT et al., 2008:52); 2008 UESD (Al-Sabir et al., 2009:38); 2010 UESD (Sultana, S. et al., 2011:30); 2011 BDHS (NIPORT et al., 2013:86); 2013 UESD (Sultana, S. et al., 2014:33); and 2014 BDHS (NIPORT et al., 2016:75)

Table 13. Current use of contraception by background characteristics

Percent distribution of currently married women by contraceptive method currently using, according to background characteristics, Bangladesh 2016

Background characteristics	Modern method									Any traditional method	Traditional method			Not currently using	Total	Number of women
	Any method	Any modern method	Female sterilization	Male sterilization	Pill	IUD	Injections	Implants	Condom		Periodic abstinence	Withdrawal	Other			
Residence																
Urban	64.3	55.2	4.0	0.6	27.4	1.3	9.8	1.7	10.4	9.0	6.6	2.5	0.0	35.8	100.0	3,033
Rural	63.4	55.7	5.2	1.1	29.1	0.7	12.9	1.6	5.2	7.7	6.0	1.7	0.0	36.6	100.0	7,667
Division																
Barisal	64.2	56.0	3.3	0.3	29.5	1.0	15.0	2.6	4.2	8.2	7.2	1.0	0.0	35.9	100.0	614
Chittagong	55.5	48.5	3.7	0.3	26.0	0.4	12.0	1.4	4.6	7.0	4.4	2.6	0.0	44.5	100.0	1,868
Dhaka	65.2	55.5	4.1	0.8	27.8	1.2	10.0	1.1	10.5	9.7	6.7	3.0	0.0	34.8	100.0	3,668
Khulna	66.6	57.0	5.6	0.6	27.8	0.4	14.1	2.4	6.0	9.6	7.7	1.9	0.0	33.4	100.0	1,259
Rajshahi	68.3	62.3	8.1	0.7	32.2	1.0	14.2	1.3	4.7	6.0	5.4	0.5	0.0	31.7	100.0	1,286
Rangpur	70.6	65.0	5.0	3.9	34.7	0.9	14.3	2.6	3.8	5.6	5.5	0.1	0.0	29.4	100.0	1,292
Sylhet	50.4	42.6	5.3	0.4	21.9	0.4	8.0	1.5	4.8	7.9	7.0	0.8	0.0	49.6	100.0	712
Education																
No education	64.6	54.2	9.8	1.4	22.8	0.5	15.2	1.6	2.7	10.4	8.3	2.1	0.0	35.4	100.0	2,462
Primary incomplete	67.4	59.2	5.7	2.6	28.9	1.4	15.6	2.6	2.4	8.2	6.9	1.3	0.0	32.6	100.0	1,480
Primary complete	65.1	58.5	3.7	1.0	31.9	0.8	14.2	1.8	5.1	6.6	5.2	1.4	0.0	35.0	100.0	1,816
Secondary incomplete	63.4	57.4	3.0	0.3	33.5	0.9	10.7	1.6	7.4	6.1	4.5	1.6	0.0	36.6	100.0	3,195
Secondary complete or higher	58.0	48.3	1.6	0.3	24.1	0.6	4.7	0.5	16.4	9.8	6.6	3.1	0.0	41.9	100.0	1,748
Wealth quintile																
Lowest	67.3	61.0	5.7	1.7	30.8	0.8	17.2	1.9	2.8	6.3	5.0	1.3	0.0	32.7	100.0	1,891
Second	67.1	59.1	6.0	1.2	31.0	0.9	14.7	2.5	2.7	8.0	6.1	2.0	0.0	32.9	100.0	2,050
Middle	66.5	58.1	5.1	1.5	30.7	0.7	13.1	1.9	5.0	8.4	6.5	1.9	0.0	33.5	100.0	2,199
Fourth	60.5	51.9	4.0	0.5	27.8	0.6	10.5	1.1	7.5	8.6	6.5	2.1	0.0	39.5	100.0	2,264
Highest	57.9	49.3	3.6	0.2	23.4	1.1	5.8	0.8	14.3	8.7	6.5	2.2	0.0	42.1	100.0	2,296
Total	63.7	55.6	4.8	1.0	28.6	0.9	12.0	1.6	6.7	8.1	6.2	1.9	0.0	36.3	100.0	10,700

Table 14. Source of supply of modern contraceptive methods

Percent distribution of current users of modern contraceptive methods by most recent source of supply, according to specific method, Bangladesh 2016

Source of supply	Contraceptive method							Total
	Female sterilization	Male sterilization	Pill	IUD	Injectables	Implants	Condom	
Public sector	55.7	88.7	42.0	78.1	57.1	83.1	11.9	45.3
Medical college hospital/district hospital	14.6	30.2	0.2	15.4	0.7	12.2	0.7	2.8
Maternal and child welfare center	3.1	12.3	0.2	7.7	0.7	5.8	0.7	1.1
Upazila health complex	35.1	42.5	1.2	30.8	4.7	50.0	0.3	7.1
Union health & family welfare center	1.7	2.8	3.4	7.7	6.9	9.9	0.6	3.9
Satellite clinic or EPI outreach site	0.4	0.0	2.6	0.0	7.9	2.9	0.1	3.2
Community clinic	0.4	0.9	11.1	2.2	15.5	1.7	2.6	9.5
Government fieldworker	0.0	0.0	22.9	11.0	19.9	0.0	6.5	17.2
Other public	0.4	0.0	0.4	3.3	0.8	0.6	0.4	0.5
Private sector	41.8	8.5	54.5	14.3	30.6	6.4	83.8	48.9
Private hospital or clinic	41.8	8.5	0.1	12.1	1.6	5.2	0.1	4.4
Qualified doctor chamber	0.0	0.0	0.1	1.1	1.1	0.0	0.1	0.3
Unqualified provider chamber	0.0	0.0	0.9	0.0	7.7	0.6	1.0	2.3
Pharmacy	0.0	0.0	53.4	0.0	20.2	0.6	82.6	41.9
Other private	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0
NGO sector	2.3	1.9	2.6	7.7	11.2	9.4	1.8	4.6
Static clinic	2.3	1.9	0.7	7.7	5.7	8.8	1.4	2.3
Satellite clinic	0.0	0.0	0.5	0.0	2.9	0.6	0.1	0.9
Depot holder	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1
Fieldworker	0.0	0.0	1.1	0.0	1.7	0.0	0.3	1.0
Other NGO	0.0	0.0	0.2	0.0	0.9	0.0	0.0	0.3
Other	0.2	0.9	0.8	0.0	0.9	2.1	1.9	1.0
Shop	0.0	0.0	0.5	0.0	0.2	0.0	1.5	0.5
Friend/relatives	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.1
Urban Health Center	0.0	0.0	0.1	0.0	0.5	2.1	0.0	0.2
Don't know	0.2	0.9	0.1	0.0	0.2	0.0	0.3	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	519	106	3,059	91	1,287	172	718	5,952

Table 15. Source of supply of modern contraceptive methods by wealth

Percent distribution of current users of modern contraceptive methods by most recent source of supply, according to wealth quintile, Bangladesh 2016

Wealth quintile	Source of supply				Number of women
	Public	Private	NGO	Other	
Lowest	59.7	35.7	4.1	0.5	1,149
Second	57.7	36.1	4.7	1.5	1,213
Middle	49.6	45.2	4.5	0.6	1,278
Fourth	37.5	55.8	5.9	0.9	1,173
Highest	21.3	73.9	3.6	1.2	1,129
Total	45.5	49.0	4.6	0.9	5,942

HPNSDP Result 1.3: Improved awareness of healthy behaviour

Breastfeeding

Table 16. Initial breastfeeding

Among last-born children who were born in the two years preceding the survey, the percentage who were ever breastfed and the percentages who started breastfeeding within one hour and within one day of birth, by background characteristics, Bangladesh 2016

Background characteristic	Among last-born children born in the past two years:			
	Percentage ever breastfed	Percentage who started breastfeeding within 1 hour of birth	Percentage who started breastfeeding within 1 day of birth ¹	Number of last-born children
Sex				
Male	98.2	49.7	89.7	906
Female	99.5	52.5	92.1	826
Assistance at delivery				
Medically trained provider	99.1	37.1	86.2	849
Untrained provider	98.6	64.4	95.4	883
Place of delivery				
Health facility	99.1	35.3	85.0	779
Home	98.6	63.9	95.7	953
Residence				
Urban	98.5	43.9	87.9	469
Rural	98.9	53.7	92.0	1,263
Division				
Barisal	100.0	52.4	98.1	103
Chittagong	99.2	46.3	91.2	364
Dhaka	98.0	51.9	90.3	549
Khulna	98.8	40.4	84.9	166
Rajshahi	98.9	52.8	84.7	176
Rangpur	99.5	57.4	93.9	198
Sylhet	98.9	58.8	96.0	177
Mother's education				
No education	99.1	57.9	91.2	228
Primary incomplete	96.2	51.4	91.9	210
Primary complete	99.7	52.1	94.8	330
Secondary incomplete	98.8	55.6	90.8	640
Secondary complete or higher	99.4	35.7	86.2	325
Wealth quintile				
Lowest	98.6	52.3	92.5	345
Second	99.7	57.7	92.9	339
Middle	99.4	58.0	93.5	352
Fourth	97.9	50.6	90.2	327
Highest	98.6	37.7	85.6	369
Total	98.8	51.0	90.9	1,732

Note: Table is based on children born in the two years preceding the survey regardless of whether the children are living or dead at the time of interview.

¹Includes children who started breastfeeding within one hour of birth

Table 17. Breastfeeding status by age

Percent distribution of youngest children under two years who are living with their mother by breastfeeding status and the percentage currently breastfeeding, according to age in months, Bangladesh 2016

Age in months	Breastfeeding status						Total	Percentage currently breast-feeding	Number of youngest child under two years living with their mother
	Not breast-feeding	Exclusively breastfed	Breastfeeding and consuming plain water only	Breastfeeding and consuming non-milk liquids ¹	Breastfeeding and consuming other milk	Breastfeeding and consuming complementary foods			
0-1	4.2	64.6	4.9	0.7	9.0	16.7	100.0	95.8	144
2-3	0.6	75.4	3.6	0.6	5.4	14.4	100.0	99.4	167
4-5	2.5	40.1	16.0	0.0	10.5	30.9	100.0	97.5	162
6-8	4.2	15.6	5.2	0.5	4.7	69.8	100.0	95.8	192
9-11	3.5	3.5	2.8	0.0	1.2	89.0	100.0	96.5	254
12-17	6.8	0.9	0.4	0.0	0.0	91.9	100.0	93.2	459
18-23	7.6	1.2	0.6	0.0	0.0	90.6	100.0	92.4	342
0-3	2.3	70.4	4.2	0.6	7.1	15.4	100.0	97.7	311
0-5	2.3	60.0	8.2	0.4	8.2	20.7	100.0	97.7	473
6-9	3.9	12.9	6.3	0.4	3.5	72.9	100.0	96.1	255
12-15	6.2	1.2	0.6	0.0	0.0	92.1	100.0	93.8	341
12-23	7.1	1.0	0.5	0.0	0.1	91.3	100.0	92.9	803
20-23	9.3	0.4	0.9	0.0	0.0	89.3	100.0	90.7	225

Note: Breastfeeding status refers to a "24-hour" period (yesterday and last night). Children who are classified as breastfeeding and consuming plain water only consumed no liquid or solid supplements. The categories of not breastfeeding, exclusively breastfed, breastfeeding and consuming plain water, non-milk liquids, other milk, and complementary foods (solids and semi-solids) are hierarchical and mutually exclusive, and their percentages add to 100 percent. Thus children who receive breast milk and non-milk liquids and who do not receive other milk and who do not receive complementary foods are classified in the non-milk liquid category even though they may also get plain water. Any children who get complementary food are classified in that category as long as they are breastfeeding as well.

¹ Non-milk liquids include juice, juice drinks, clear broth or other liquids.

Infant and Young Child Feeding practices

Table 18. 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 2016

Background characteristic	Among breastfed children 6-23 months, percentage fed:				Among non-breastfed children 6-23 months, percentage fed:				Among all children 6-23 months, percentage fed:				Number of all children 6-23 months	
	4+ food groups ¹	Minimum meal frequency ²	Minimum meal frequency	Both 4+ food groups and 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-breastfed children 6-23 months	Breast milk, milk, or milk products ⁶	4+ food groups ¹	Minimum meal frequency ⁷		With 3 IYCF practices
Age in months														
6-11	21.0	67.8	19.6	428	*	*	*	*	15	99.1	21.2	67.3	19.8	444
12-23	41.1	77.0	36.6	745	38.0	40.0	76.0	26.0	50	96.1	41.0	76.9	36.0	795
Sex														
Male	32.9	74.6	30.7	602	(51.5)	(42.4)	(63.6)	(24.2)	32	97.6	33.5	74.5	30.6	634
Female	34.7	72.5	30.1	571	(44.0)	(28.0)	(72.0)	(24.0)	33	96.7	34.4	72.4	29.8	605
Residence														
Urban	40.7	71.5	35.0	305	*	*	*	*	22	97.3	40.5	71.3	34.6	305
Rural	31.3	74.3	28.9	868	(42.9)	(37.1)	(68.6)	(22.9)	44	97.0	31.6	74.2	28.6	868
Division														
Barisal	32.9	71.2	23.3	73	*	*	*	*	1	100.0	32.9	71.2	23.3	74
Chittagong	29.0	70.1	26.1	241	*	*	*	*	15	95.7	28.9	69.9	25.1	256
Dhaka	40.8	74.9	37.9	355	*	*	*	*	27	97.1	40.9	74.5	37.8	381
Khulna	32.1	78.8	28.6	112	*	*	*	*	7	98.3	33.9	79.0	29.4	119
Rajshahi	33.3	72.7	27.3	132	*	*	*	*	5	98.5	32.8	72.3	27.7	137
Rangpur	34.5	78.6	33.6	139	*	*	*	*	8	95.3	33.1	78.9	32.0	147
Sylhet	25.4	68.9	23.8	122	*	*	*	*	4	97.6	24.8	67.5	23.0	126
Mother's education														
No education	26.1	73.9	21.6	153	*	*	*	*	0	100.0	26.0	74.0	21.4	153
Primary incomplete	24.7	70.2	23.2	150	*	*	*	*	7	97.5	25.8	69.0	24.5	158
Primary complete	27.4	70.4	25.2	230	*	*	*	*	12	96.3	26.4	69.5	24.4	243
Secondary incomplete	38.6	76.2	35.7	420	*	*	*	*	27	96.2	37.8	76.3	33.8	447
Secondary complete or higher ²	43.2	74.0	37.3	220	*	*	*	*	19	97.9	45.0	74.5	38.9	239
Wealth quintile														
Lowest	27.5	74.2	25.4	240	*	*	*	*	7	98.0	27.2	72.9	25.2	247
Second	28.3	69.5	24.2	244	*	*	*	*	7	98.0	27.6	68.5	23.6	251
Middle	33.0	75.0	30.8	227	*	*	*	*	18	93.9	32.5	75.6	29.0	246
Fourth	35.6	72.5	32.9	222	*	*	*	*	12	98.3	36.6	72.3	32.8	235
Highest	45.0	77.5	39.4	240	*	*	*	*	21	98.1	45.0	77.4	39.8	261
Total	33.8	73.6	30.4	1,173	46.2	36.9	70.8	26.2	65	97.2	34.0	73.4	30.2	1,239

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

¹ Food groups: a. infant formula, milk other than breast milk, cheese or yogurt or other milk products; b. foods made from grains, roots, and tubers, including porridge and fortified baby food from grains; c. vitamin A-rich fruits and vegetables (and red palm oil); d. other fruits and vegetables; e. eggs; f. meat, poultry, fish, and shellfish (and organ meats); g. legumes and nuts

² At least twice a day for breastfed infants 6-8 months and at least three times a day for breastfed children 9-23 months

³ Includes two or more feedings of commercial infant formula, fresh, tinned, and powdered animal milk, and yogurt

⁴ Minimum food 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, receiving solid or semisolid foods from at least four food groups not including the milk or milk products food group, and receiving the minimum meal frequency

⁶ Breastfeeding or not breastfeeding and receiving two or more feedings of commercial infant formula, fresh, tinned, and powdered animal milk, and yogurt

⁷ Children are fed the minimum recommended number of times per day according to their age and breastfeeding status as described in footnotes 2 and 4

HPNSDP Goal: Ensure quality and equitable health care for all citizens of Bangladesh

Nutritional status of children

Table 19. Nutritional status of children

Percentage of children under five years classified as malnourished according to three anthropometric indices of nutritional status: height-for-age, weight-for-height, and weight-for-age, by background characteristics, Bangladesh 2016

Background characteristic	Height-for-age ¹			Weight-for-height			Weight-for-age			Number of children		
	Percent-age below -3 SD	Percent-age below -2 SD ²	Mean Z-score (SD)	Percent-age below -3 SD	Percent-age below -2 SD ²	Percent-age above +2 SD	Mean Z-score (SD)	Percent-age below -3 SD	Percent-age below -2 SD ²		Percent-age above +2 SD	Mean Z-score (SD)
Age in months												
<6	7.4	17.6	-2	10.1	16.2	13.7	-0.3	4.6	12.2	4.0	-0.5	434
6-8	4.7	18.2	-9	3.5	12.9	7.7	-0.3	4.7	16.4	2.9	-0.8	171
9-11	6.5	24.2	-1.1	3.0	17.7	3.4	-0.5	6.9	21.1	1.7	-1.0	233
12-17	13.7	34.3	-1.6	4.2	14.4	4.2	-0.6	5.5	25.6	0.0	-1.3	402
18-23	21.9	43.5	-1.7	3.1	12.9	2.2	-0.8	12.3	33.0	0.6	-1.4	324
24-35	12.7	38.6	-1.7	2.2	12.4	1.4	-0.9	7.2	33.6	0.5	-1.5	865
36-47	15.2	39.8	-1.8	2.8	13.4	3.1	-0.7	8.4	29.5	0.5	-1.5	864
48-59	11.4	32.9	-1.6	2.7	11.7	5.1	-0.6	5.4	25.8	0.6	-1.3	835
Sex												
Male	12.5	34.9	-1.5	4.5	14.9	4.8	-0.6	6.6	26.6	1.0	-1.3	2100
Female	12.7	32.8	-1.5	2.8	12.0	4.2	-0.6	7.2	26.5	1.1	-1.3	2024
Residence												
Urban	12.8	31.7	-1.4	2.8	12.7	4.9	-0.5	6.2	24.5	1.3	-1.2	1124
Rural	12.5	34.6	-1.5	4.0	13.7	4.3	-0.7	7.2	27.4	0.9	-1.3	2999
Division												
Barisal	11.0	38.5	-1.6	4.3	14.9	3.2	-0.8	7.0	30.0	0.4	-1.4	256
Chittagong	15.2	35.2	-1.5	2.3	13.8	1.5	-0.8	6.2	28.5	1.1	-1.4	821
Dhaka	12.6	30.6	-1.5	3.6	11.7	8.0	-0.4	6.7	21.3	1.6	-1.1	1394
Khulna	9.8	32.7	-1.5	4.8	13.2	4.4	-0.6	4.3	24.2	0.7	-1.3	418
Rajshahi	7.0	27.8	-1.3	3.6	16.9	1.9	-0.9	7.0	30.0	0.7	-1.4	413
Rangpur	11.1	36.1	-1.4	4.9	14.4	3.1	-0.7	7.5	30.3	0.7	-1.4	451
Sylhet	18.9	45.0	-1.9	3.3	12.8	4.1	-0.6	10.8	34.0	0.3	-1.5	371
Mother's education												
No education	15.2	36.8	-1.6	2.9	12.7	5.5	-0.6	7.8	27.7	0.7	-1.4	553
Primary incomplete	14.6	35.9	-1.5	3.9	13.9	4.1	-0.8	8.3	32.0	0.6	-1.4	541
Primary complete	12.9	34.5	-1.5	2.7	14.4	4.4	-0.6	8.3	27.9	1.1	-1.3	762
Secondary incomplete	11.0	33.6	-1.5	4.4	14.0	4.6	-0.6	6.3	25.6	1.4	-1.2	1,551
Secondary complete or higher	12.0	30.0	-1.3	3.5	11.5	4.1	-0.6	5.0	22.7	0.8	-1.2	718
Wealth quintile												
Lowest	15.9	40.3	-1.7	4.5	14.9	2.6	-0.8	10.2	32.3	0.4	-1.5	843
Second	13.5	39.1	-1.7	4.3	15.0	5.2	-0.7	7.3	30.5	0.0	-1.4	824
Middle	12.2	31.3	-1.4	3.9	15.3	3.7	-0.7	7.0	26.3	1.1	-1.2	800
Fourth	10.8	30.5	-1.3	3.8	12.1	5.3	-0.6	5.2	23.4	1.7	-1.1	812
Highest	10.3	27.8	-1.3	1.7	9.8	5.7	-0.4	4.8	20.8	1.8	-1.0	846
Total	12.6	33.9	-1.5	3.6	13.4	4.5	-0.6	6.9	26.6	1.0	-1.3	4,125

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 (SD) from the median of the WHO Child Growth Standards adopted in 2006. The indices in this table are NOT comparable to those based on the previously used 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, or in the few cases when the age of the child is unknown and the child is less than 85 cm; standing height is measured for all other children

² Includes children who are below -3 standard deviations (SD) from the WHO Child Growth standards population median

Utilization of Essential Service Delivery (UESD) Survey 2016

Key Indicators

Indicators	BDHS 2004	UESD 2006	UESD 2008	BDHS 2011	UESD 2013	BDHS 2014	UESD 2016	HPNSDP aims 2016
Goal: Ensure quality and equitable health care for all citizens of Bangladesh								
<i>Among children under 5 years of age</i>								
Prevalence of stunting ¹ (%)	51	-	-	41	39	36	34	38
Prevalence of underweight ¹ (%)	43	-	-	36	35	33	27	33
Result 1.1: Increase utilization of essential HPN services								
<i>Among births three years before the survey</i>								
Antenatal care (at least 4 visits) (%)	17	15	17	26	25	31	32	50
Delivery attended by a medically trained provider (%)	16	18	21	32	34	42	49	50
PNC for mothers within 2 days of delivery from a medically trained provider (%)	16	14	16	27	28	34	43	30
Contraceptive prevalence rate (%)	58	58	60	61	62	62	64	72
Children (6-59 months) receiving Vitamin A supplementation in the last 6 months (%)	-	-	-	60	75	62	77	90
Result 1.2: Improve equity in essential HPN service utilization								
Births delivered in health facilities in the three years before the survey among poorest and richest women (%)	1:13	1:10	1:8	1:6	1:4	1:5	1:3	<1:4
Use of modern contraceptives in low performing areas (%)								
Sylhet division	22	25	25	35	39	41	43	40
Chittagong division	37	41	40	45	44	47	49	45
Result 1.3: Improved awareness of healthy behaviour								
Rate of exclusive breastfeeding in infants up to 6 months (%)	42	-	-	64	60	55	60	50
Children 6-23 months fed with appropriate Infant and Young Child Feeding (IYCF) practices (%)	-	-	-	21	32	23	30	45

¹ Based on the 2006 WHO growth standard