Bangladesh

Multiple Indicator Cluster Survey
2012-2013

Progotir Pathey

Final Report

Government of the People's
Republic of Bangladesh

Bangladesh Bureau of Statistics (BBS)
Statistics and Informatics Division (SID)
Ministry of Planning

United Nation
Children's Fund

MICS

Bangladesh

Multiple Indicator Cluster Survey 2012-2013

Progotir Pathey

Bangladesh Bureau of Statistics (BBS)
Statistics and Informatics Division, Ministry of Planning
Government of the People's Republic of Bangladesh
Dhaka, Bangladesh
www.bbs.gov.bd

Social Policy, Planning, Monitoring and Evaluation Section (SPPME)
United Nations Children's Fund (UNICEF)
BSL Office Complex
1, Minto Road, Dhaka-1000, Bangladesh
Telephone: (880-2) 55668088
Email: dhaka@unicef.org
www.unicef.org.bd

The Multiple Indicator Cluster Survey (MICS) was carried out in 2012-2013 by Bangladesh Bureau of Statistics (BBS) in collaboration with UNICEF Bangladesh, as part of the global MICS programme. Technical and financial support was provided by the United Nations Children's Fund (UNICEF).

The global MICS programme was developed by UNICEF in the 1990s as an international household survey programme to support countries in the collection of internationally comparable data on a wide range of indicators on the situation of children and women. MICS surveys measure key indicators that allow countries to generate data for use in policies and programmes, and to monitor progress towards the Millennium Development Goals (MDGs) and other internationally agreed upon commitments.

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Summary Table of Survey Implementation and the Survey

Population, Bangladesh MICS, 2012-2013

Survey implementation

Sample frame	Population and Housing Census, 2011	**Questionnaires**	Household Women (age 15-49) Children under five Water quality testing
Training of Trainers **Interviewer training**	October 1-14, 2012 November 1-14, 2012	**Fieldwork**	December 2012 – April 2013
Survey sample			
Households		Children under five	
Sampled	55,120	Eligible	23,402
Occupied	52,711	Mothers/caretakers interviewed	20,903
Interviewed	51,895	Response rate (Per cent)	89.3
Response rate (Per cent)	98.5		
Women		Water quality testing for households	
Eligible for interviews	59,599	**Arsenic**	
Interviewed	51,791	Planned	13,800
Response rate (Per cent)	86.9	Tested	12,952
		Response rate (Per cent)	93.9
		E. coli	
		Planned	2,760
		Tested	2,588
		Response rate (Per cent)	93.8

Survey population

Average household size	4.6	**Percentage of population living in**	
Percentage of population under:		Urban areas	20.7
Age 5	9.9	Rural areas	79.3
Age 18	39.0	**Division**	
Percentage of women age 15-49 years with at least one live birth in the last 2 years	15.3	Barisal	6.3
		Chittagong	20.1
		Dhaka	30.7
		Khulna	11.2
		Rajshahi	13.0
		Rangpur	11.9
		Sylhet	6.7

Housing characteristics

Percentage of households with	
Electricity	61.5
Finished floor	25.7
Finished roofing	97.4
Finished walls	29.4
Mean number of persons per room used for sleeping	2.7

Household or personal assets

Percentage of households that own	
A television	37.7
A refrigerator	14.2
Electric fan	53.0
Almirah / Wardrobe	41.4
Agricultural land	43.0
Farm animals/livestock	62.9
Percentage of households where at least a member has or owns a	
Watch	33.0
Mobile phone	85.9
Bicycle	28.7
Computer	3.4
Car or truck	0.7

Summary Table of Findings[1]

Multiple Indicator Cluster Surveys (MICS) and Millennium Development Goals (MDG) Indicators, Bangladesh MICS, 2012-2013

CHILD MORTALITY

Early childhood mortality*

MICS Indicator		Indicator	Description	Value
1.2	**MDG 4.2**	Infant mortality rate	Probability of dying between birth and the first birthday	46
1.5	**MDG 4.1**	Under-five mortality rate	Probability of dying between birth and the fifth birthday	58

* Indicator values are per 1,000 live births and refer to 2008.3. The West Model was assumed to approximate the age pattern of mortality in Bangladesh.

NUTRITION

Nutritional status

MICS Indicator		Indicator	Description	Value
2.1a 2.1b	**MDG 1.8**	Underweight prevalence (a) Moderate and severe (b) Severe	Percentage of children under age 5 who fall below (a) minus two standard deviations (moderate and severe) (b) minus three standard deviations (severe) of the median weight for age of the WHO standard	 31.9 8.8
2.2a 2.2b		Stunting prevalence (a) Moderate and severe (b) Severe	Percentage of children under age 5 who fall below (a) minus two standard deviations (moderate and severe) (b) minus three standard deviations (severe) of the median height for age of the WHO standard	 42.0 16.4
2.3a 2.3b		Wasting prevalence (a) Moderate and severe (b) Severe	Percentage of children under age 5 who fall below (a) minus two standard deviations (moderate and severe) (b) minus three standard deviations (severe) of the median weight for height of the WHO standard	 9.6 1.6
2.4		Overweight prevalence	Percentage of children under age 5 who are above two standard deviations of the median weight for height of the WHO standard	1.6

Breastfeeding and infant feeding

2.5		Children ever breastfed	Percentage of women with a live birth in the last 2 years who breastfed their last live-born child at any time	97.1
2.6		Early initiation of breastfeeding	Percentage of women with a live birth in the last 2 years who put their last newborn to the breast within one hour of birth	57.4
2.7		Exclusive breastfeeding under 6 months	Percentage of infants under 6 months of age who are exclusively breastfed	56.4
2.8		Predominant breastfeeding under 6 months	Percentage of infants under 6 months of age who received breast milk as the predominant source of nourishment during the previous day	71.9
2.9		Continued breastfeeding at 1 year	Percentage of children age 12-15 months who received breast milk during the previous day	95.3
2.10		Continued breastfeeding at 2 years	Percentage of children age 20-23 months who received breast milk during the previous day	87.5
2.11		Median duration of breastfeeding	The age in months when 50 per cent of children age 0-35 months did not receive breast milk during the previous day	32.1
2.12		Age-appropriate breastfeeding	Percentage of children age 0-23 months appropriately fed during the previous day	66.5

[1] *See Appendix E for a detailed description of MICS indicators*

Nutritional status			
MICS Indicator	**Indicator**	**Description**	**Value**
2.13	Introduction of solid, semi-solid or soft foods	Percentage of infants age 6-8 months who received solid, semi-solid or soft foods during the previous day	42.4
2.18	Bottle feeding	Percentage of children age 0-23 months who were fed with a bottle during the previous day	12.1
Salt iodization			
2.19	Iodized salt consumption	Percentage of households with salt testing 15 parts per million or more of iodate	54.3
Low-birthweight			
2.20	Low-birthweight infants	Percentage of most recent live births in the last 2 years weighing below 2,500 grams at birth	26.0
2.21	Infants weighed at birth	Percentage of most recent live births in the last 2 years who were weighed at birth	35.9

CHILD HEALTH			
Tetanus toxoid			
MICS Indicator	**Indicator**	**Description**	**Value**
3.9	Neonatal tetanus protection	Percentage of women age 15-49 years with a live birth in the last 2 years who were given at least two doses of tetanus toxoid vaccine within the appropriate interval prior to the most recent birth	80.8
Diarrhoea			
-	Children with diarrhoea	Percentage of children under age 5 with diarrhoea in the last 2 weeks	3.9
3.12	Diarrhoea treatment with oral rehydration therapy (ORT) and continued feeding	Percentage of children under age 5 with diarrhoea in the last 2 weeks who received ORT (ORS packet, pre-packaged ORS fluid, recommended homemade fluid or increased fluids) and continued feeding during the episode of diarrhoea	64.6
Acute Respiratory Infection (ARI) symptoms			
-	Children with ARI symptoms	Percentage of children under age 5 with ARI symptoms in the last 2 weeks	3.2
3.13	Care-seeking for children with ARI symptoms	Percentage of children under age 5 with ARI symptoms in the last 2 weeks for whom advice or treatment was sought from a health facility or provider	35.8
3.14	Antibiotic treatment for children with ARI symptoms	Percentage of children under age 5 with ARI symptoms in the last 2 weeks who received antibiotics	74.3
Solid fuel use			
3.15	Use of solid fuels for cooking	Percentage of household members in households that use solid fuels as the primary source of domestic energy to cook	88.2

Water and sanitation

MICS Indicator		Indicator	Description	Value
4.1	**MDG 7.8**	Use of improved drinking water sources	Percentage of household members using improved sources of drinking water	97.9
4.2		Water treatment	Percentage of household members in households using unimproved drinking water who use an appropriate treatment method	25.6
4.3	**MDG 7.9**	Use of improved sanitation	Percentage of household members using improved sanitation facilities which are not shared	55.9
4.4		Safe disposal of child's faeces	Percentage of children age 0-2 years whose last stools were disposed of safely	38.7
4.5		Place for handwashing	Percentage of households with a specific place for hand washing where water and soap or other cleansing agent are present	59.1
4.6		Availability of soap or other cleansing agent	Percentage of households with soap or other cleansing agent	94.0
4.S1a		Source water quality: arsenic content	Percentage of households using source water containing: a) over 50 ppb Arsenic concentration	12.5
4.S1b			b) over 10 ppb Arsenic concentration	25.5
4.S2a		Arsenic concentration of household drinking water	Percentage of household members using drinking water with: a) over 50 ppb Arsenic concentration	12.4
4.S2b			b) over 10 ppb Arsenic concentration	24.8
4.S3		*E.coli* concentration in source water	Percentage of households with *E.coli* risk level in source water ≥ 1 cfu/100ml	41.7
4.S4		*E.coli* concentration in household drinking water	Percentage of household members with *E. coli* risk level in household water ≥ 1 cfu/100ml	61.7

Reproductive health

Contraception and unmet need

MICS Indicator		Indicator	Description	Value
-		Total fertility rate	Total fertility rate for women age 15-49 years	2.3
5.1	**MDG 5.4**	Adolescent birth rate	Age-specific fertility rate for women age 15-19 years	83
5.2		Early childbearing	Percentage of women age 20-24 years who had at least one live birth before age 18	24.4
5.3	**MDG 5.3**	Contraceptive prevalence rate	Percentage of women age 15-49 years currently married or in union who are using (or whose partner is using) a (modern or traditional) contraceptive method	61.8
5.4	**MDG 5.6**	Unmet need	Percentage of women age 15-49 years who are currently married or in union who are fecund and want to space their births or limit the number of children they have and who are not currently using contraception	13.9

Maternal and newborn health

5.5a 5.5b	**MDG 5.5** **MDG 5.5**	Antenatal care coverage	Percentage of women age 15-49 years with a live birth in the last 2 years who were attended during their last pregnancy that led to a live birth (a) at least once by skilled health personnel (b) at least four times by any provider	 58.7 24.7

Maternal and newborn health : continued				
MICS Indicator		**Indicator**	**Description**	**Value**
5.6		Content of antenatal care	Percentage of women age 15-49 years with a live birth in the last 2 years who had their blood pressure measured and gave urine and blood samples during the last pregnancy that led to a live birth	38.0
5.7	**MDG 5.2**	Skilled attendant at delivery	Percentage of women age 15-49 years with a live birth in the last 2 years who were attended by skilled health personnel during their most recent live birth	43.5
5.8		Institutional deliveries	Percentage of women age 15-49 years with a live birth in the last 2 years whose most recent live birth was delivered in a health facility	31.0
5.9		Caesarean section	Percentage of women age 15-49 years whose most recent live birth in the last 2 years was delivered by caesarean section	19.1
Post-natal health checks				
5.10		Post-partum stay in health facility	Percentage of women age 15-49 years who stayed in the health facility for 12 hours or more after the delivery of their most recent live birth in the last 2 years	82.8
5.11		Post-natal health check for the newborn	Percentage of last live births in the last 2 years who received a health check while in facility or at home following delivery, or a post-natal care visit within 2 days after delivery	41.2
5.12		Post-natal health check for the mother	Percentage of women age 15-49 years who received a health check while in facility or at home following delivery, or a post-natal care visit within 2 days after delivery of their most recent live birth in the last 2 years	40.4

CHILD DEVELOPMENT			
MICS Indicator	**Indicator**	**Description**	**Value**
6.1	Attendance to early childhood education	Percentage of children age 36-59 months who are attending an early childhood education programme	13.4
6.2	Support for learning	Percentage of children age 36-59 months with whom an adult has engaged in four or more activities to promote learning and school readiness in the last 3 days	78.0
6.3	Father's support for learning	Percentage of children age 36-59 months whose biological father has engaged in four or more activities to promote learning and school readiness in the last 3 days	10.1
6.4	Mother's support for learning	Percentage of children age 36-59 months whose biological mother has engaged in four or more activities to promote learning and school readiness in the last 3 days	40.8
6.5	Availability of children's books	Percentage of children under age 5 who have three or more children's books	8.8
6.6	Availability of playthings	Percentage of children under age 5 who play with two or more types of playthings	60.3
6.7	Inadequate care	Percentage of children under age 5 left alone or in the care of another child younger than 10 years of age for more than one hour at least once in the last week	11.6
6.8	Early child development index	Percentage of children age 36-59 months who are developmentally on track in at least three of the following four domains: literacy-numeracy, physical, social-emotional, and learning	63.9

LITERACY AND EDUCATION

MICS Indicator		Indicator	Description	Value
7.1	**MDG 2.3**	Literacy rate among young women	Percentage of young women age 15-24 years who are able to read a short simple statement about everyday life or who attended secondary or higher education	82.0
7.2		School readiness	Percentage of children in first grade of primary school who attended pre-school during the previous school year	43.5
7.3		Net intake rate in primary education	Percentage of children of school-entry age who enter the first grade of primary school	33.1
7.4	**MDG 2.1**	Primary school net attendance ratio (adjusted)	Percentage of children of primary school age currently attending primary or secondary school	73.2
7.5		Secondary school net attendance ratio (adjusted)	Percentage of children of secondary school age currently attending secondary school or higher	46.1
7.6	**MDG 2.2**	Children reaching last grade of primary	Percentage of children entering the first grade of primary school who eventually reach last grade	96.4
7.7		Primary completion rate	Number of children attending the last grade of primary school (excluding repeaters) divided by number of children of primary school completion age (age appropriate to final grade of primary school)	79.5
7.8		Transition rate to secondary school	Number of children attending the last grade of primary school during the previous school year who are in the first grade of secondary school during the current school year divided by number of children attending the last grade of primary school during the previous school year	94.7
7.9	**MDG 3.1**	Gender parity index (primary school)	Primary school net attendance ratio (adjusted) for girls divided by primary school net attendance ratio (adjusted) for boys	1.07
7.10	**MDG 3.1**	Gender parity index (secondary school)	Secondary school net attendance ratio (adjusted) for girls divided by secondary school net attendance ratio (adjusted) for boys	1.30

CHILD PROTECTION

Birth registration

MICS Indicator	Indicator	Description	Value
8.1	Birth registration	Percentage of children under age 5 whose births are reported registered	37.0

Child discipline

8.3	Violent discipline	Percentage of children age 1-14 years who experienced psychological aggression or physical punishment during the last one month	82.3

Early marriage and polygyny

8.4	Marriage before age 15	Percentage of women age 15-49 years who were first married or in union before age 15	23.8
8.5	Marriage before age 18	Percentage of women age 20-49 years who were first married or in union before age 18	62.8
8.6	Young women age 15-19 years currently married or in union	Percentage of young women age 15-19 years who are married or in union	34.3
8.7	Polygyny	Percentage of women age 15-49 years who are in a polygynous union	4.2

Early marriage and polygyny : continued			
MICS Indicator	**Indicator**	**Description**	**Value**
8.8a 8.8b	Spousal age difference	Percentage of young women who are married or in union and whose spouse is 10 or more years older, (a) among women age 15-19 years (b) among women age 20-24 years	 20.4 21.8
Children's living arrangements			
8.13	Children's living arrangements	Percentage of children age 0-17 years living with neither biological parent	3.8
8.14	Prevalence of children with one or both parents dead	Percentage of children age 0-17 years with one or both biological parents dead	4.3
8.15	Children with at least one parent living abroad	Percentage of children 0-17 years with at least one biological parent living abroad	4.8

HIV/AIDS

HIV/AIDS knowledge and attitudes			
MICS Indicator	**Indicator**	**Description**	**Value**
-	Have heard of AIDS	Percentage of women age 15-49 years who have heard of AIDS	55.8
9.1 **MDG 6.3**	Knowledge about HIV prevention among young women	Percentage of young women age 15-24 years who correctly identify ways of preventing the sexual transmission of HIV, and who reject major misconceptions about HIV transmission	9.1
9.2	Knowledge of mother-to-child transmission of HIV	Percentage of women age 15-49 years who correctly identify all three means of mother-to-child transmission of HIV	21.7
9.3	Accepting attitudes towards people living with HIV	Percentage of women age 15-49 years expressing accepting attitudes on all four questions toward people living with HIV	37.2
HIV testing			
9.4	Women who know where to be tested for HIV	Percentage of women age 15-49 years who state knowledge of a place to be tested for HIV	11.3
9.7	HIV counselling during antenatal care	Percentage of women age 15-49 years who had a live birth in the last 2 years and received antenatal care during the pregnancy of their most recent birth, reporting that they received counselling on HIV during antenatal care	2.5
Orphans			
9.16 **MDG 6.4**	Ratio of school attendance of orphans to school attendance of non-orphans	Proportion attending school among children age 10-14 years who have lost both parents divided by proportion attending school among children age 10-14 years whose parents are alive and who are living with one or both parents	0.88

Access to mass media and ICT

Access to mass media			
MICS Indicator	**Indicator**	**Description**	**Value**
10.1	Exposure to mass media	Percentage of women age 15-49 years who, at least once a week, read a newspaper or magazine, listen to the radio, and watch television	1.6
Use of information/communication technology			
10.2	Use of computers	Percentage of young women age 15-24 years who used a computer during the last 12 months	6.1
10.3	Use of internet	Percentage of young women age 15-24 years who used the internet during the last 12 months	3.0

MICS

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List of Abbreviations

AIDS	Acquired Immune Deficiency Syndrome
BBS	Bangladesh Bureau of Statistics
CSPro	Census and Survey Processing System
GPI	Gender Parity Index
HIV	Human Immunodeficiency Virus
IDD	Iodine Deficiency Disorders
IUD	Intrauterine Device
LAM	Lactational Amenorrhea Method
MDG	Millennium Development Goals
MICS	Multiple Indicator Cluster Survey
MICS5	Fifth global round of Multiple Indicator Clusters Surveys programme
NAR	Net Attendance Rate
ORT	Oral rehydration treatment
ppb	Parts Per Billion
ppm	Parts Per Million
SPSS	Statistical Package for Social Sciences
UNAIDS	United Nations Programme on HIV/AIDS
UNDP	United Nations Development Programme
UNFPA	United Nations Population Fund
UNGASS	United Nations General Assembly Special Session on HIV/AIDS
UNICEF	United Nations Children's Fund
WFFC	World Fit for Children
WHO	World Health Organization

Message

It is my pleasure to compliment the Bangladesh Bureau of Statistics (BBS) on issuing the results of the Multiple Indicator Cluster Survey (MICS) conducted during 2012-2013. The survey report, titled 'Progotir Pathey' (Road to Progress) provides detailed information and analysis on the situation of children and women of Bangladesh in relation to indicators on health, nutrition, water and sanitation, education, protection, HIV and access to Information and Communication Technology (ICT).

I am particularly pleased to know that BBS, for the first time, has collected information on drinking water quality in the survey which, I believe, will be very useful to all relevant stakeholders to take appropriate corrective measures to improve the quality of drinking water in Bangladesh. The report also includes evidence on a wide range of other issues concerning the wellbeing of children and women. Therefore, I hope that policy-makers, planners, researchers, development partners and NGOs from all sectors will use the findings to inform the formulation of appropriate strategies for their programmes. The findings of the survey will also contribute to the UN Secretary-General's report to UN general assembly on the achievements of Millennium Development Goals (MDGs) by Bangladesh.

My sincere thanks goes to UNICEF Bangladesh for their continuous support at all stages of conducting the survey and publishing the report.

I would like to congratulate the Secretary, Statistics and Informatics Division, the Director General of BBS, the Project Director and the team of officials of the 'Monitoring the Situation of Children and Women Project' of BBS on the completion of this important report.

Dhaka
March, 2015

AHM Mustafa Kamal, FCA, MP
Minister
Ministry of Planning
Government of the Pepole's Republic of Bangladesh

MICS

Message

I would like to congratulate the Bangladesh Bureau of Statistics for carrying out the Multiple Indicator Cluster Survey (MICS) 2012-2013, with the support of UNICEF. MICS is well-known to researchers and planners globally for its high standard and rigorous methodology. Since 1995, UNICEF has supported about 240 MICS surveys in more than 100 countries.

The report presents the situation of children in Bangladesh based on 79 indicators and its findings will provide useful information for the UN Secretary-General's Final MDG progress report to be presented to the General Assembly in September 2015.

The present report and the earlier surveys on MICS are the result of continued cooperation between BBS and UNICEF since 1994. I thank UNICEF for extending its support to conducting MICS and helping to generate important evidence to assess progress towards MDGs, in particular those related to women's and children's wellbeing.

My sincere thanks to the Secretary, Statistics and Informatics Division, Ministry of Planning for giving her valuable strategic support and guidance for publishing MICS 2012-2013.

I would like to extend my sincere thanks to the Director General of BBS , Project Director of the Monitoring the Situation of Children and Women Project together with the team of BBS officials for issuing this report.

Dhaka
March, 2015

M. A. Mannan, MP
Minister of State
Ministry of Finance & Ministry of Planning
Government of the Pepole's Republic
of Bangladesh

Message

The Bangladesh Bureau of Statistics has been conducting the Multiple Indicator Cluster Survey (MICS) since 1993 in order to provide information on the situation of children and women. The fieldwork for this round of the MICS survey was conducted during December 2012-April 2013. It involved the collection of information on 79 indicators related to children and women, many of which are MDG indicators. Data on MDG indicators are expected to be used for reporting achievements of Bangladesh in the UN Secretary General's final MGD Progress report.

An important new addition to this round of MICS in Bangladesh is the collection of information on the quality of drinking water used by households for Arsenic and microbial (E.coll) contamination levels. It is the first time that such data has been collected for such a large scale survey in Bangladesh.

I would like to thank Director General, Bangladesh Bureau of Statistics for carrying out the survey work successfully and publishing the report. The formidable task of collecting data from 55,200 households from all over the country was successfully accomplished by the BBS officials associated with Monitoring the Situation of Children and Women (MSCW) Project. I take this opportunity to thank the Project Director, Deputy Project Director and the entire team for collecting and analyzing data for the report. The key findings of MICS 2012-2013 covering important indicators have already been released in June, 2014.

In conclusion, I believe the results of Bangladesh MICS 2012-2013 will be useful to policy-makers, researchers, planners and programme implementation managers in understanding and formulating strategies to improve the lives of children and women in Bangladesh.

Dhaka
March, 2015

Kaniz Fatema ndc
Secretary-in-charge
Statistics and Informatics Division
Ministry of Planning

Foreword

We are very pleased that the Bangladesh Bureau of Statistics (BBS) through a longstanding partnership with the UNICEF has successfully completed the Bangladesh Multiple Indicator Cluster Survey (MICS) for which data collection was undertaken during 2012-2013. The Bureau has been conducting the MICS since 1993, with the objective of generating information on the situation of children and women for effective use by planners, policy-makers, researchers and programme implementers at the national, regional and global levels.

The Bangladesh MICS 2012-2013 focused on indicators related to child mortality, nutrition and breastfeeding, child health, access to safe drinking water and improved sanitation, reproductive health, maternal and newborn health, child development, literacy and education, child protection, HIV/AIDS, and access to mass media and ICT. It provides estimates at national level with disaggregated data by division, location, sex, age, education and wealth quintile. For the first time, the survey included the assessment of the quality of drinking water for arsenic and microbial (E.coli) contamination levels.

The findings of the MICS 2012-2013, inform a wide range of Millennium Development Goal (MDG) indicators and could not have been made available at a better time as countries across the globe will report on the achievement of MDGs by 2015.

We would like to express our sincere thanks to the Secretary of the Statistics and Informatics Division, Ministry of Planning for providing guidance and valuable support for completing this technical report within the stipulated time. Members of the Steering Committee, Technical Committee and Working Group deserve special thanks for their contribution to the survey.

Furthermore, we express our sincere appreciation to Dr. Dipankar Roy, Project Director, Mr. Mohammad Shaheen, Deputy Project Director, Md. Abdur Rashid Howlader, Programmer, Mr. Abdul Latif, Statistical Officer and Mr. S.M. Anwar Hossain, Statistical Assistant of the Monitoring the Situation of Children and Women Project for their hard work and dedication for completing the survey and preparing this report.

Mr. Isa Achoba, Chief of Social Policy, Planning, Monitoring and Evaluation, Mr. Shantanu Gupta, Monitoring and Evaluation Specialist, Mr. Mashiur Rahman Khan, Knowledge Management Officer, all of UNICEF Bangladesh provided valuable support at all stages of the survey. Prof. Syed Shahadat Hossain, Ph.D. and Prof. Muhammad Shuaib, Director of Institute of Statistical Research and Training (ISRT), University of Dhaka, provided their expert opinion and supported development of the sampling design and training of survey officials.

Our sincere thanks also goes to MICS global team at UNICEF New York and Regional Office for South Asia (ROSA), including Mr. Attila Hancioglu, Mr. Turgay Unalan, Ms. Ivana Bjelic and Ms. Rhiannon James, for their continuous technical guidance throughout the survey implementation and finalization of this report. Thanks are also due to Richard Johnston from JMP, WHO for his valuable support in collection and analysis of results on water quality.

We hope that the report will prove useful to policy-makers, planners, researchers, development partners and NGOs in formulating their programmes and strategies for attaining national targets and assessing achievements for preparation of MDGs progress reports.

Edouard Beigbeder
Representative
UNICEF Bangladesh

Md. Baitul Amin Bhuiyan
Director General (A.C.)
Bangladesh Bureau of Statistics

Executive Summary

The Bangladesh Multiple Indicator Cluster Survey (MICS 2012-2013) was conducted from December 2012 to April 2013 by the Bangladesh Bureau Statistics, Ministry of Planning. Technical and financial support for the survey was provided by the United Nations Children's Fund (UNICEF) in Bangladesh.

MICS 2012-2013 provides valuable information and the latest evidence on the situation of children and women in Bangladesh, updating information from the previous 2006 Bangladesh MICS survey as well as earlier data collected in the MICS rounds since 1996.

The survey presents data from an equity perspective by indicating disparities by sex, area, division, education, living standards, and other characteristics. Bangladesh MICS 2012-2013 is based on a sample of 51,895 households interviewed and provides a comprehensive picture of children and women in the seven divisions of the country.

Child Mortality

In the MICS, child mortality rates are calculated based on an indirect estimation technique known as the Brass method using the data collection method of 'time since first birth' (TSFB). According to the survey results, the infant mortality rate in Bangladesh is 46 per 1,000 live births, and the under-five mortality rate 58 per 1,000 live births when a reference of TSFB 5-9 years is considered. Substantial disparities exist along the dimensions of education and living standards and between the different divisions for this estimate: children in the poorest households are four times as likely to die before reaching one and five years of age compared to children living in the richest households. In Sylhet division, both under-five and infant mortality rates are well above the national average.

Nutritional Status and Breastfeeding

Of the 35.9 per cent children below two years of age weighed at birth, 37.7 per cent were born with low weight. Proportion of children weighed at birth is more among households in the urban areas, as also in households with better educated head and having more wealthy households.

During the data collection for the survey, weights and heights/lengths of all children under 5 years of age in the sample households were measured using recommended anthropometric equipment (see www.childinfo.org). Analysis of data show that about one in three children (31.9 per cent) were underweight (weight-for-age malnourished), two in five (42 per cent) were stunted (height-for-age malnourished), and one in every ten children (9.6 per cent) were wasted (weight-for-height malnourished). Some 8.8 per cent of children were severely underweight and one in every 6 children (16.4 per cent) were stunted. Also about 1.6 per cent children in that age group were overweight. Disparities exist between urban and rural children and between children living in households of different education and wealth background.

Almost all newborn in Bangladesh, 97.1 per cent, were breastfed at some point after birth. However, only 57.4 per cent started breastfeeding at the correct time (i.e. within one hour of birth). The percentage of infants under 6 months of age who were exclusively breastfed is 56.4 and who received breast milk as the predominant source of nourishment during the day prior to the survey is 71.9. Overall, just two thirds, or 66.5 per cent, of children younger than two years were appropriately breastfed on the day prior to the survey. There is little difference in the pattern of breastfeeding across the country.

As far as complimentary feeding is concerned, 42.4 per cent infants aged 6-8 months received solid, semi-solid or soft foods during the day prior to the survey. Among children below the age of two years feeding with a bottle continued for 12.1 per cent cases.

Adequately iodized salt, defined as containing 15 or more parts per million (15+ ppm), is used in just over half of all households (54.3 per cent), with considerably higher consumption in urban areas and among richer households that than those in rural areas and from the poorer households. The overall consumption of iodized salt remains far below global standards: The World Health Organization (WHO) and UNICEF recommend Universal Salt Iodization as a safe, cost-effective and sustainable strategy to ensure sufficient intake of iodine.

Child Health and Care of Illness

Four of five mothers who gave birth within two years prior to the survey were adequately protected against neonatal tetanus (80.8 per cent). However, mothers in Sylhet division had significantly low protection from neonatal tetanus (66.7 per cent).

Of the children with diarrhoea, 64.6 per cent received oral rehydration therapy (ORT) and continued feeding during the episode.

About 3 per cent of children under-5 showed symptoms of pneumonia in the two weeks preceding the survey, of whom 35.8 per cent were taken to an appropriate health provider. Although appropriate medical care was sought for only one third of the children with ARI symptoms, antibiotic treatment was given to 74.3 per cent of them. The very high usage of antibiotics without prescription is prevalent across Bangladesh across all dimensions of education and wealth levels. Additionally, only 10.8 per cent of mothers or caretakers recognized the two danger signs of pneumonia, viz., fast breathing and difficulty in breathing, while 46.9 per cent knew at least one of them.

Cooking and heating with solid fuels lead to high levels of indoor smoke, thus causing damage to children's health. MICS show that solid fuels is widely used as a main source of energy for domestic cooking in Bangladesh (88.2 per cent), particularly in rural areas (96 per cent versus 58.3 per cent in urban areas), although the main place of cooking is mostly in a separate building (57.8 per cent) or outdoors (21.2 per cent).

Water and Sanitation

Drinking water is used from the improved drinking water sources almost universally (97.9 per cent of the population). Among those who do not use improved drinking water sources, one fourth (25.6 per cent) use an appropriate water treatment method. About 74.2 per cent of users of improved drinking water sources have a water source directly on their premises, 20.4 per cent take less than 30 minutes to get to improved drinking water sources. In the majority of households where water sources is not available on the premises, water is usually collected by adult woman (88.8 per cent) in the household. The time taken to reach improved drinking water sources varies significantly between divisions, and between households of different education and wealth levels.

Safe drinking water is a human right and a basic requirement for good health. Microbiological contamination of drinking water can lead to diarrhoeal diseases including shigellosis and cholera. Arsenic content in drinking water was measured in Bangladesh for both household drinking and source water. About 24.8 per cent of the population had drinking water in the household with arsenic above the WHO provisional guideline value of 10 parts per billion (ppb), and 12.4 per cent of the population exceeded the Bangladesh standard of 50 ppb. Arsenic contamination was slightly greater at the source, with 25.5 per cent exceeding 10 ppb and 12.5 per cent above 50 ppb.

The bacteria species Escherichia coli (E. coli) is the most commonly recommended faecal indicator, and many countries including Bangladesh have set a standard that no E. coli should be found in a 100 mL sample of drinking water. Overall, 41.7 per cent of the population had source water with detectable E. coli, while this value was 61.7 per cent for household samples, reflecting contamination occurring at the household level.

Over half of Bangladesh population use improved sanitation facilities that are not shared (55.9 per cent). Open defecation is not widespread with only 3.9 per cent of the population practicing it. However, in Rangpur division and also in the poorest quintiles of households, open defection is more prevalent (15.5 and 13.5 per cent respectively). Child faeces are disposed of in a safe manner in 38.7 per cent of children under the age of 2; unsafe child faeces disposal practices are again most common in Rangpur division and among the poorest households.

Soap or other cleansing agents for handwashing are available in 94 per cent of Bangladesh households. In households where a place for handwashing was observed, 59.1 per cent had both water and soap present at the designated place, 35 per cent had only water, and 4.3 per cent had neither water nor soap. The proportion of households with both water and soap present is lower in rural areas and also in the poorer and less educated households, mainly due to the lack of availability of soap.

Reproductive Health

The Total Fertility Rate (TFR) in Bangladesh is 2.3, meaning that a Bangladeshi woman, by the end of her reproductive years, will have given birth to an average of 2.3 children. There were 83 number of births to women 15 to 19 years of age per 1,000 women in that age group (adolescent birth rate).

Early childbearing is relatively common, with about one in four women (24.4 per cent) age 20-24 having had live birth before the age of 18. About 61.8 per cent of women aged 15-49 and currently married use some form of contraception. Of these, 59.3 per cent use modern methods of contraception. The unmet need for contraception is relatively low among women age 15-49 (13.9 per cent).

About 58.7 per cent of women aged 15–49 who gave birth in the two years preceding the survey received antenatal care from skilled health personnel at least once, and 24.7 per cent had the recommended four antenatal care visits by any provider. Some 38 per cent had their blood pressure measured and gave urine and blood samples during antenatal checkup. Considerable differences exist in availing antenatal care between urban and rural areas, and between women of different education levels and from households of different wealth levels.

Only 31 per cent of all deliveries took place in health facilities and only 43.5 per cent of women were attended by skilled health personnel during their most recent live birth. Of all the births, 19.1 per cent of women had delivery by caesarean section. Substantial disparities exist by all dimensions of background characteristics. A woman who completed secondary or higher education, for example, is five times as likely to have delivery in a health facility as a woman with no education.

About 82.8 per cent of women age 15-49 years with a live birth in the last two years stayed in the health facility for 12 hours or more after the latest delivery. While 41.2 per cent of the newborns in the last two years received a post natal health check within 2 days after delivery, 40.4 of the mothers received a health check within 2 days after delivery. Provision of post-natal care service differs substantially between different divisions and between urban and rural areas. Education and wealth also play an important role in the level of service received by the mothers and the newborns.

Early Childhood Development

Only 13.4 per cent of children aged 3-4 years receive early childhood education. However, a much higher proportion of children (78 per cent) have adults engage with them in four or more activities that promote learning and school readiness during the three days prior to the survey. Survey shows that, 40.8 per cent of children's biological mother and 10.1 per cent of children's biological father engaged in four or more activities during the three days prior to the survey. Exposure to books in early years in Bangladesh is poor; less than one in ten children under 5 have three or more children's books at home (8.8 per cent). Children of mothers with the higher education are relatively more exposed to books with 24.6 per cent having three or more children's books at home. The percentage of children with two or more types of playthings stands at 60.3 per cent.

One in ten children under-5 were left under inadequate care sometime during the week preceding the survey (11.6 per cent), which was mainly in terms of either left alone or in the care of another child under the age of 10.

The child development index score in Bangladesh is 63.9. The score is calculated based on the percentage of children aged 3-4 years who are developmentally on track in at least three of the following four domains: literacy/numeracy, physical, social/emotional and learning. Urban children, children who are attending early childhood education, and children of better educated mothers and wealthier households have slightly higher development index score.

Literacy and Education

Overall literacy among Bangladesh women age 15–24 years is high, at 82 per cent.

Less than half of children in the first grade of primary school, attended pre-school during the previous school year (43.5 per cent). The net intake rate in primary education, i.e. the percentage of children of school-entry age who enter the first grade of primary school, is low at 33.1 per cent, and there are significant differences between divisions, with Sylhet having the lowest at 23.1 per cent.

The primary school adjusted net attendance ratio is 73.2 per cent. 96.4 per cent of children entering the first grade of primary school eventually reach last grade, and the primary completion rate is 79.5 per cent. The primary completion rate is positively associated with mother's education and household wealth status, but it is lower in urban areas than in rural areas. Girls have much higher completion rate than boys.

Transition rate to secondary school in Bangladesh is 94.7 per cent. 46.1 per cent of children of secondary school age currently attend secondary school or higher, 33.7 per cent are still attending primary school, and 14.6 per cent are out of school. Compared with urban areas, rural areas have lower percentage attending secondary school or higher, and higher percentage legging behind in primary education. However, the out of school ratio is almost the same in urban and rural areas. Mother's education and household social economic status have a strong association with the out of school ratio.

Girls are in advantage in both primary school and secondary school attendance; the gender parity index for primary school age is 1.07 and for secondary school is 1.30. Gender disparity is significant in children of secondary school age, and is strongly associated with mother's education and household wealth.

Child Protection

The percentage of mothers or caretakers of children under the age of 5 whose birth has not been registered but know how to register a birth is relatively high in Bangladesh (60.5 per cent), and registration of birth is still not widely practiced, with only 37 per cent of births registered.

The difference between knowledge and practice persists across all background dimensions of households.

Majority of children aged 1-14 years in Bangladesh experienced some form of psychological aggression or physical punishment in the month prior to the survey (82.3 per cent). This again does not match with only about 33.3 per cent of respondents believing that children need to be physically punished.

Almost one in four women age 15-49 were (first) married before the age of 15 (23.8 per cent). Among women aged 20-49 years, the proportion who married before the age of 18 is 62.8 per cent. Of young women between 15 and 19, 34.3 per cent are already married. Early marriage is widely practiced in Bangladesh and is prevalent across all household background, although trends based on other data sources show that it is in decline in recent years.

Polygyny is rare among Bangladesh women, particularly towards recent years. Only 1 per cent of youngest women (aged 15-19) are in polygynous union as compared to 7 per cent of the oldest (aged 45-49).

The age difference between spouses is large and marriage to a much older husband or partner is common in Bangladesh. Some 20.4 per cent of women age 15-19, and 21.8 per cent of women age 20-24, are married to spouses who are 10 or more years older. Surprisingly, marriage to older spouse is more common in women with better education and living in richer households.

About 3.8 per cent of children aged 0-17 years live with neither of the biological parents. For 4.3 per cent of children reported to have one or both of his/her biological parents passed away. About 5 per cent of children have at least one biological parent living abroad.

HIV/AIDS and Orphanhood

More than half of women aged 15-49 in Bangladesh have heard of AIDS (55.8 per cent), but very few (6.6 per cent) have a comprehensive knowledge of HIV, meaning they can correctly identify two ways of preventing HIV infection; know that a healthy looking person can have HIV, and reject the two most common misconceptions about HIV transmission. Only one in five correctly identified all three means of mother-to-child transmission of HIV (21.7 per cent). On the whole, 37.2 per cent expressed accepting attitude towards people living with HIV on all four questions. On all HIV/AIDS related indicators, there are significant differences between urban and rural areas, between divisions, and between different education levels and socio-economic status.

Among young women of 15-24 years, 9.1 per cent correctly identified ways of preventing the sexual transmission of HIV and reject major misconceptions about HIV transmission. Additionally, 11.3 per cent of women age 15-49 know a place where they can be tested for HIV and 2.5 per cent of those who received antenatal care during their last pregnancy reported that they received counselling on HIV during antenatal care.

Some 0.3 per cent of children age 10-14 years in Bangladesh are orphans, of whom 76.7 per cent attend school. The ratio of school attendance of orphans to school attendance of non-orphans is 0.88.

Access to Mass Media and ICT

Of all women age 15-49 in Bangladesh, only 1.6 per cent read a newspaper or magazine, listened to the radio, and watched television, at least once a week. In young women between 15 and 24, 6.1 per cent used a computer and 3.0 per cent used internet during the 12 months prior to the survey. Access to mass media and ICT is more prevalent among younger women, and women who live in urban areas, with better education and living in richer households.

I. Introduction

Background

This report is based on the Bangladesh Multiple Indicator Cluster Survey (MICS), conducted in 2012-2013 by the Bangladesh Bureau of Statistics, Statistics and Informatics Division, Ministry of Planning. The survey provides statistically sound and internationally comparable data essential for developing evidence-based policies and programmes, and for monitoring progress toward national goals and global commitments. Among these global commitments are those emanating from the World Fit for Children Declaration and Plan of Action, the goals of the United Nations General Assembly Special Session on HIV/AIDS, the Education for All Declaration and the Millennium Development Goals (MDGs).

A Commitment to Action: National and International Reporting Responsibilities

The governments that signed the Millennium Declaration and the World Fit for Children Declaration and Plan of Action also committed themselves to monitoring progress towards the goals and objectives they contained:

"We will monitor regularly at the national level and, where appropriate, at the regional level and assess progress towards the goals and targets of the present Plan of Action at the national, regional and global levels. Accordingly, we will strengthen our national statistical capacity to collect, analyse and disaggregate data, including by sex, age and other relevant factors that may lead to disparities, and support a wide range of child-focused research. We will enhance international cooperation to support statistical capacity-building efforts and build community capacity for monitoring, assessment and planning." (A World Fit for Children, paragraph 60)

"…We will conduct periodic reviews at the national and subnational levels of progress in order to address obstacles more effectively and accelerate actions…." (A World Fit for Children, paragraph 61)

The Plan of Action of the World Fit for Children (paragraph 61) also calls for the specific involvement of UNICEF in the preparation of periodic progress reports:

"… As the world's lead agency for children, the United Nations Children's Fund is requested to continue to prepare and disseminate, in close collaboration with Governments, relevant funds, programmes and the specialized agencies of the United Nations system, and all other relevant actors, as appropriate, information on the progress made in the implementation of the Declaration and the Plan of Action."

Similarly, the Millennium Declaration (paragraph 31) calls for periodic reporting on progress:

"…We request the General Assembly to review on a regular basis the progress made in implementing the provisions of this Declaration, and ask the Secretary-General to issue periodic reports for consideration by the General Assembly and as a basis for further action."

Bangladesh has been responding to its commitment to children by implementing various development programmes through different social sector ministries such as the ministry of Health and Family Welfare, Ministry of Primary and Mass education, Ministry of Education, Ministry of Social Welfare, etc. A good number of laws/acts for protecting the rights of children have been enacted such as, the Children Act 2013, Birth and Death Registration Act 2013, Disabled People's Rights and Protection Act 2013, National Human Rights Act 2009. These were complemented by a number of national policies: Early Childhood Care and Development Policy 2013, National Children Policy 2011, National Health Policy 2011, National Education Policy 2010, Child Labor Elimination Policy 2010, National Population Policy 2012, etc. The government has also formulated the national development strategy and the Five Year Development Plans.

The Bangladesh MICS results will be critically important for final MDG reporting in 2015, and are expected to form part of the baseline data for the post-2015 era.

Bangladesh MICS is expected to contribute to the evidence base of several other important initiatives, including Committing to Child Survival: A Promise Renewed, a global movement to end child deaths from preventable causes, and the accountability framework proposed by the Commission on Information and Accountability for the Global Strategy for Women's and Children's Health.

This final report presents the results of the indicators and topics covered in the survey.

Survey Objectives

The 2012-2013 Bangladesh MICS has as its primary objectives:

- To provide up-to-date information for assessing the situation of children and women in Bangladesh;
- To generate data for the critical assessment of the progress made in various areas, and to put additional efforts in those areas that require more attention;
- To furnish data needed for monitoring progress toward goals established in the Millennium Declaration and other internationally agreed upon goals, as a basis for future action;
- To collect disaggregated data for the identification of disparities, to allow for evidence based policy-making aimed at social inclusion of the most vulnerable;
- To contribute to the generation of baseline data for the post-2015 agenda;
- To validate data from other sources and the results of focused interventions.

II. Sample and Survey Methodology

Sample Design

The sample for the Bangladesh Multiple Indicator Cluster Survey (MICS) was designed to provide estimates for a large number of indicators on the situation of children and women at the national level, for urban and rural areas, seven divisions and sixty four districts. The districts were identified as the main sampling strata and the sample was selected in two stages. Within each stratum, a specified number of census enumeration areas were selected systematically with probability proportional to size (pps). After a household listing was carried out within the selected enumeration areas, a systematic sample of 20 households was drawn in each sample enumeration area. Four (04) of the selected enumeration areas were not visited because they were inaccessible due to rough weather and hilly remote road communication during the fieldwork period. These enumeration areas were one each from Bagerhat, Gaibandha, Rangamati and Sirajganj districts. The sample was stratified by districts, and is not self-weighting. For reporting national level results, sample weights are used. A more detailed description of the sample design can be found in Appendix A, Sample design.

Readers may note that we have included maps showing the districts for some of the indicators with different colours being used to represent different ranges of values. The reader should treat interpretation of these maps with some caution, because the associated sampling errors at the district level would be larger than those at the division level.

Map HH.1 shows the number of enumeration areas under the districts visited during the survey with division boundaries. It is to be noted that a new Rangpur division has been created in 2010 comprising eight districts from formerly Rajshahi division.

Map HH.1: Number of enumeration areas covered in the survey by UNDAF and non-UNDAF districts, Bangladesh, 2012-2013

Questionnaires

Four sets of questionnaires were used in the survey: 1) a household questionnaire which was used to collect information on all *de jure* household members (usual residents), the household, and the dwelling; 2) a questionnaire for individual women administered in each household to all women age 15-49 years; 3) an under-5 questionnaire, administered to mothers (or caretakers) for all children under 5 living in the household; and 4) a water quality testing questionnaire to measure arsenic and *E.coli* content in the household drinking water in a sub-sample of households. The questionnaires included the following modules:

The Household Questionnaire included the following modules:

- List of Household Members
- Education
- Household Characteristics
- Child Discipline
- Water and Sanitation
- Handwashing
- Salt Iodization

The Questionnaire for Individual Women was administered to all women aged 15-49 years living in the households, and included the following modules:

- Women's Background
- Access to Mass Media and use of Information/Communication Technology
- Marriage
- Child Mortality
- Desire for Last Birth
- Maternal and Newborn Health
- Post-Natal Health Checks
- Contraception
- Unmet Need
- Illness Symptoms
- HIV/AIDS

The Questionnaire for Children Under Five was administered to mothers or caretakers of children under 5 years of age[2] living in the households. Normally, the questionnaire was administered to mothers of under-5 children; in cases when the mother was not listed in the household roster, a primary caretaker for the child was identified and interviewed. The questionnaire included the following modules:

- Age
- Birth Registration
- Early Childhood Development
- Breastfeeding
- Care of Illness
- Anthropometry

[2] *The terms "children under 5", "children age 0-4 years", and "children aged 0-59 months" are used interchangeably in this report.*

The Questionnaire on Water Quality Testing was administered to a sub-sample of sampled households for measuring arsenic and *E. coli*- content in the household drinking water and included only one module. A sub-sample of 5 households were selected per cluster, out of the selected 20 household for the survey, to test arsenic content of the household drinking water and one of these 5 households was identified to test *E.coli* content in the drinking water. Source water for this household was tested for arsenic and *E.coli* content.

- Water Quality

The questionnaires are based on the MICS5 model questionnaire[3] tested during the global MICS5 pilot study in Sirajganj and Bogra during May-June 2012. From the MICS5 pilot English version, the questionnaires were translated into Bengali and tested during the global MICS5 pilot. Based on the results of the pre-test, modifications were made to the wording and translation of the questionnaires. A copy of the Bangladesh MICS questionnaires is provided in Appendix F.

In addition to the administration of questionnaires, fieldwork teams tested the salt used for cooking in the households for iodine content, observed the place for handwashing and measured the weights and heights of children age under 5 years. Details and findings of these measurements are provided in the respective sections of the report.

Training and Fieldwork

Training for the fieldwork was conducted for 14 days in November, 2012. Training included lectures on interviewing techniques and the contents of the questionnaires, and mock interviews between trainees to gain practice in asking questions. Towards the end of the training period, trainees spent 2 (two) days in practice interviewing in Dhaka and Narayanganj.

The data were collected by 32 teams; each was comprised of four (04) female interviewers, one editor, one measurer and a supervisor. Fieldwork began in December, 2012 and concluded in April, 2013.

Data Processing

Data were entered using the CSPro software. The data were entered on 30 microcomputers and carried out by 30 data entry operators and 1 data entry supervisors. In order to ensure quality control, all questionnaires were double entered and internal consistency checks were performed. Procedures and standard programs developed under the global MICS5 programme and adapted to the Bangladesh questionnaire were used throughout. Data processing began simultaneously with data collection in December, 2012 and was completed in May, 2013. Data were analysed using the Statistical Package for Social Sciences (SPSS) software program, Version 18, and the model syntax and tabulation plans developed by UNICEF were used for this purpose.

[3] *The model MICS5 questionnaires can be found at http://www.childinfo.org/mics5_questionnaire.html*

III. Sample Coverage and the Characteristics of Households and Respondents

Sample Coverage

Of the 55,120 households selected for the sample, 52,711 were found to be occupied. Of these, 51,895 were successfully interviewed for a household response rate of 98.5 per cent.

In the interviewed households, 59,599 women (age 15-49 years) were identified. Of these, 51,791 were successfully interviewed, yielding a response rate of 86.9 per cent within interviewed households.

There were 23,402 children under age five listed in the household questionnaires. Questionnaires were completed for 20,903 of these children, which corresponds to a response rate of 89.3 per cent within interviewed households.

Overall response rates for households, women's questionnaire, and overall response rate for under-5 questionnaire are calculated for the individual interviews of women, and under-5s, respectively (Table HH.1).

Overall response rates 85.6 and 87.9 per cent are calculated for the individual interviews of women and under-5s, respectively (Table HH.1).

Table HH.1: Results of household, women's and under-5 interviews

Number of households, women and children under 5 by results of the household, women's and under-5's interviews, and household, women's and under-5's response rates, Bangladesh, 2012-2013

		Total	Area		Division						
			Urban	Rural	Barisal	Chittagong	Dhaka	Khulna	Rajshahi	Rangpur	Sylhet
Households	Sampled	55,120	9,080	46,040	5,400	9,580	14,000	8,580	6,580	7,180	3,800
	Occupied	52,711	8,628	44,083	5,296	9,209	13,056	8,187	6,343	6,975	3,645
	Interviewed	51,895	8,421	43,474	5,138	9,041	12,913	8,138	6,247	6,820	3,598
	Household response rate	98.5	97.6	98.6	97.0	98.2	98.9	99.4	98.5	97.8	98.7
Women	Eligible	59,599	10,279	49,320	5,766	10,603	14,671	9,332	6,922	7,642	4,663
	Interviewed	51,791	8,951	42,840	4,966	9,084	12,767	8,273	6,070	6,724	3,907
	Women's response rate	86.9	87.1	86.9	86.1	85.7	87.0	88.7	87.7	88.0	83.8
	Women's overall response rate	85.6	85.0	85.7	83.6	84.1	86.1	88.1	86.4	86.0	82.7
Children under 5	Eligible	23,402	3,673	19,729	2,232	4,917	5,820	3,013	2,254	2,892	2,274
	Mothers/caretakers interviewed	20,903	3,331	17,572	1,929	4,343	5,235	2,729	1,996	2,639	2,032
	Under-5's response rate	89.3	90.7	89.1	86.4	88.3	89.9	90.6	88.6	91.3	89.4
	Under-5's overall response rate	87.9	88.5	87.8	83.8	86.7	89.0	90.0	87.2	89.2	88.2

The household response rates were similar across divisions and areas of residence. The response rates of women and children under 5 were also in the same situation, with the exception of Sylhet where the women's response rate was 83.8 per cent. Low response of Sylhet for women could be due to the regions' known conservative social norms in practice, although this is not confirmed by any indicator. The results for Sylhet should be interpreted with some caution, as the response rate is low.

Characteristics of Households

The weighted age and sex distribution of survey population is provided in Table HH.2. The distribution is also used to produce the population pyramid in Figure HH.1. In the 51,895 households successfully interviewed in the survey, 237,396 household members were listed. Of these, 119,684 were males, and 117,712 were females.

Table HH.2: Household age distribution by sex

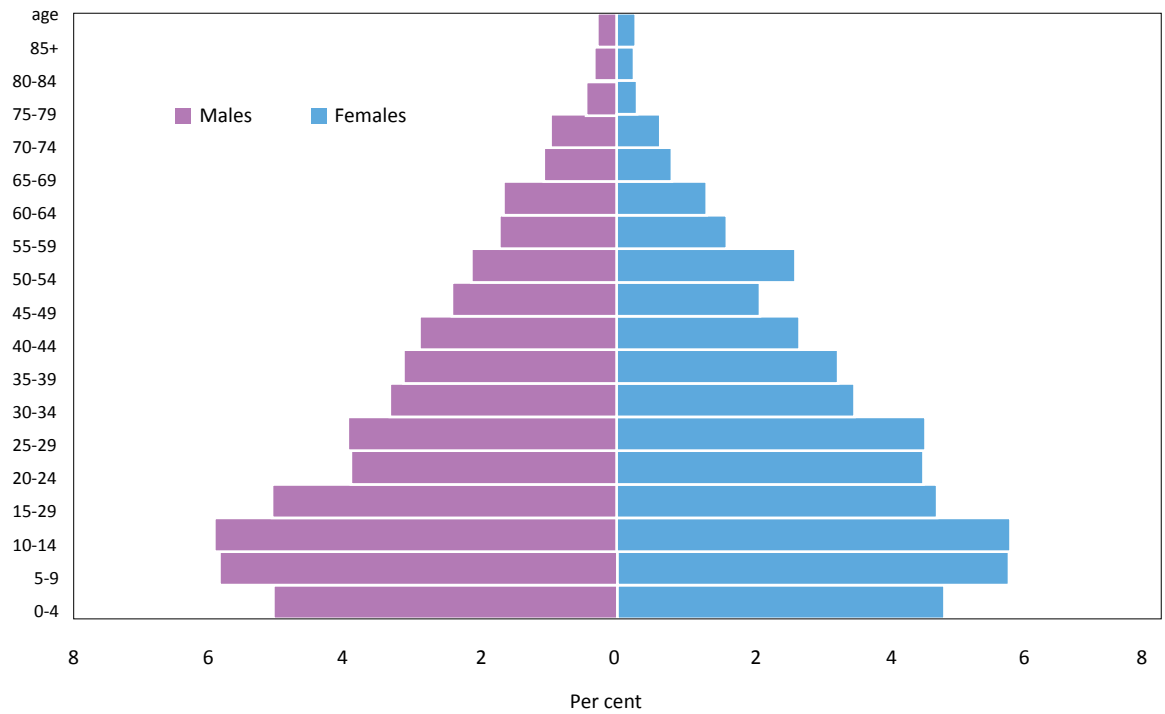
Per cent and frequency distribution of the household population by five-year age groups, dependency age groups, and by child (age 0-17 years) and adult populations (age 18 or more), by sex, Bangladesh, 2012-2013

		Total		Males		Females	
		Number	Per cent	Number	Per cent	Number	Per cent
Total		**237,396**	**100.0**	**119,684**	**100.0**	**117,712**	**100.0**
Age	0-4	23,430	9.9	12,014	10.0	11,416	9.7
	5-9	27,574	11.6	13,897	11.6	13,676	11.6
	10-14	27,839	11.7	14,085	11.8	13,754	11.7
	15-19	23,262	9.8	12,065	10.1	11,198	9.5
	20-24	20,036	8.4	9,314	7.8	10,722	9.1
	25-29	20,210	8.5	9,422	7.9	10,788	9.2
	30-34	16,262	6.9	7,949	6.6	8,313	7.1
	35-39	15,218	6.4	7,481	6.3	7,737	6.6
	40-44	13,307	5.6	6,912	5.8	6,395	5.4
	45-49	10,796	4.5	5,788	4.8	5,008	4.3
	50-54	11,345	4.8	5,103	4.3	6,243	5.3
	55-59	7,973	3.4	4,126	3.4	3,848	3.3
	60-64	7,126	3.0	3,981	3.3	3,144	2.7
	65-69	4,509	1.9	2,581	2.2	1,928	1.6
	70-74	3,863	1.6	2,338	2.0	1,525	1.3
	75-79	1,810	0.8	1,095	0.9	715	0.6
	80-84	1,413	0.6	805	0.7	609	0.5
	85+	1,377	0.6	705	0.6	672	0.6
	Missing/DK	45	0.0	24	0.0	21	0.0
Dependency age groups	0-14	78,842	33.2	39,996	33.4	38,846	33.0
	15-64	145,537	61.3	72,142	60.3	73,395	62.4
	65+	12,973	5.5	7,523	6.3	5,450	4.6
	Missing/DK	45	0.0	24	0.0	21	0.0
Children and adult populations	Children age 0-17 years	92,546	39.0	47,526	39.7	45,020	38.2
	Adults age 18+ years	144,805	61.0	72,133	60.3	72,672	61.7
	Missing/DK	45	0.0	24	0.0	21	0.0

Table HH.2 shows the age-sex structure of the household population. The proportions of child, working and old-age groups (0–14, 15–64 and 65 years and over) in the household population of the sample were 33.2, 61.3 and 5.5 per cent, respectively. In MICS 2006, these figures were 35.5, 59.8 and 4.7 per cent, higher in younger age and lower in older age. More significantly, the proportion of children aged 0-4 is 9.9 per cent in this survey as compared to 11.6 per cent in MICS 2006, indicating a drop of birth rate in recent years. Birth rate decrease is a trend that MICS 2006 had already identified after comparison with the census 2001.

The surveyed population indicates a sex ratio of 102, unchanged from that of MICS 2006. The dependency ratio was 63.2 per cent, much reduced from 67.2 per cent of MICS 2006. Similarly, the proportion of children aged 0-17 has also reduced from 42.3 per cent in MICS 2006 to 39.0 per cent in this survey. The total number of the children aged 0-17 is 92,546.

Figure HH.1: Age and sex distribution of household population, Bangladesh, 2012-2013



Note: 45 household members with missing age and/or sex are excluded

Tables HH.3, HH.4 and HH.5 provide basic information on the households, female respondents age 15-49 and children under-5. Both unweighted and weighted numbers are presented. Such information is essential for the interpretation of findings presented later in the report and provides background information on the representativeness of the survey sample. The remaining tables in this report are presented only with weighted numbers[4].

Table HH.3 provides basic background information on the households, including the sex of the household head, division, area, number of household members and education of head of the household head are shown in the table. These background characteristics are used in subsequent tables in this report; the figures in the table are also intended to show the numbers of observations by major categories of analysis in the report.

[4] *See Appendix A: Sample Design, for more details on sample weights.*

Table HH.3: Household composition

Per cent distribution of households by selected characteristics, Bangladesh, 2012-2013

		Weighted per cent	Number of households	
			Weighted	Unweighted
Total		**100.0**	**51,895**	**51,895**
Sex of household head	Male	90.3	46,868	47,242
	Female	9.7	5,027	4,653
Division	Barisal	6.1	3,155	5,138
	Chittagong	17.9	9,278	9,041
	Dhaka	31.9	16,556	12,913
	Khulna	11.9	6,167	8,138
	Rajshahi	14.4	7,449	6,247
	Rangpur	12.4	6,454	6,820
	Sylhet	5.5	2,836	3,598
Area	Urban	21.5	11,144	8,421
	Rural	78.5	40,751	43,474
Number of household members	1	1.9	987	971
	2	8.7	4,490	4,238
	3	18.1	9,407	9,073
	4	26.3	13,659	13,470
	5	20.3	10,551	10,823
	6	11.8	6,122	6,502
	7	6.0	3,123	3,276
	8	3.1	1,603	1,617
	9	1.6	840	845
	10+	2.1	1,112	1,080
Education of household head	None	42.1	21,823	22,613
	Primary incomplete	13.1	6,776	7,346
	Primary complete	11.7	6,053	5,914
	Secondary incomplete	17.2	8,938	8,790
	Secondary complete or higher	15.9	8,271	7,193
	Missing/DK	(0.1)	34	39
Mean household size		4.6	51,895	51,895

() Figure based one 25-49 unweighted case.

The weighted and unweighted total numbers of households are equal, since sample weights were normalized. The table also shows the weighted mean household size estimated by the survey.

According to Table HH.3, the majority households in Bangladesh were headed by a male (90.3 per cent); nearly half of the households heads sampled had no education (42.1 per cent). The composition of households, where comparable, was similar to that of MICS 2006[5].

The weighted number of households in some of the categories, such as, the divisions is very different from the unweighted number due to weights used in the calculation of proportions. Overall, 78.5 per cent of the population were living in rural areas. The division Dhaka had the largest share of the households, 31.9 per cent, and both Barisal and Sylhet had very small shares of the households, 6.1 and 5.5 per cent, respectively. Only 1.9 per cent of the household population was living in single households and about 73.4 per cent were living in households containing 2–5 persons. The average household size was 4.6 members, slightly reduced from 4.8 members in MICS 2006.

[5] *Corresponding table in MICS 2006 did not include the background variable education of household head.*

Characteristics of Female Respondents 15-49 Years of Age and Children Under-5

Tables HH.4 and HH.5 provide information on the background characteristics of female and of children under age 5. In both the tables, the total numbers of weighted and unweighted observations are equal, since sample weights have been normalized (standardized). In addition to providing useful information on the background characteristics of women and children under age five, the tables are also intended to show the numbers of observations in each background category. These categories are used in the subsequent tabulations of this report.

Table HH.4: Women's background characteristics

Per cent and frequency distribution of women age 15-49 years by selected background characteristics, Bangladesh, 2012-2013

		Weighted per cent	Number of women	
			Weighted	Unweighted
Total		**100.0**	**51,791**	**51,791**
Division	Barisal	6.0	3,083	4,966
	Chittagong	18.9	9,794	9,084
	Dhaka	31.7	16,411	12,767
	Khulna	11.7	6,046	8,273
	Rajshahi	13.7	7,088	6,070
	Rangpur	11.9	6,156	6,724
	Sylhet	6.2	3,212	3,907
Area	Urban	22.9	11,856	8,951
	Rural	77.1	39,935	42,840
Age	15-19	17.5	9,071	9,008
	20-24	17.1	8,831	8,478
	25-29	18.1	9,354	9,428
	30-34	14.4	7,432	7,490
	35-39	13.4	6,950	7,063
	40-44	11.0	5,697	5,751
	45-49	8.6	4,456	4,573
Marital status	Currently married	81.6	42,263	42,389
	Widowed	2.2	1,119	1,165
	Divorced	1.0	509	545
	Separated	0.5	258	224
	Never married/in union	14.8	7,641	7,468
Motherhood and recent births	Never gave birth	22.9	11,845	11,500
	Ever gave birth	77.1	39,946	40,291
	Gave birth in last two years	15.3	7,950	7,866
	No birth in last two years	61.8	31,997	32,425
Education	None	26.2	13,544	14,467
	Primary incomplete	13.0	6,735	7,048
	Primary complete	13.3	6,882	6,810
	Secondary incomplete	31.7	16,420	16,220
	Secondary complete or higher	15.9	8,210	7,246
Wealth index quintile	Poorest	18.3	9,467	11,784
	Second	19.1	9,872	10,790
	Middle	19.8	10,264	10,417
	Fourth	20.7	10,699	10,136
	Richest	22.2	11,490	8,664

Table HH.4 provides background characteristics of female respondents aged 15-49 years. The table includes information on the distribution of women according to region, urban/rural area of residence, age, marital status, motherhood status, births in last two years, education[6] and wealth index quintiles[7,8].

According to Table HH.4, the division Dhaka had the largest share of women (31.7 per cent). Barisal and Sylhet accounted for only 6 and 6.2 per cent respectively. Overall, 77.1 per cent of women live in rural areas. In the sample, 81.6 per cent of women were currently married and the percentages of divorced or separated women were very low (1.0 and 0.5 per cent respectively). Most women had given birth (77.1 per cent), but the majority did so more than two years ago (84.7 per cent). About 26.2 per cent of women had received no education, although a much higher 47.6 per cent had at least some education at secondary level.

The distribution of women in the wealth index quintiles was fairly even, although the richest had slightly more share (22.2 per cent) than the poorest (18.3 per cent).

The weighted number of households in some of the categories such as the divisions is very different from the unweighted number due to weights used in the calculation of proportions. The statistics in this survey are similar to that of MICS 2006 where comparable data are available, with the exception that women are better educated now than in 2006.

The background characteristics of children under 5 years are presented in Table HH.5. These include the distribution of children by several attributes: sex, region and area of residence, age, mother's or caretaker's education and wealth.

The table shows that, at the time of the survey, the proportion of boys was slightly higher than that of girls by 2.4 per cent. In total, 79.6 per cent of surveyed under-5 children live in rural areas and the division Dhaka has the highest share of the children, 30.9 per cent. The proportion of under-5 children with mother without education is 22.5 per cent, decreased from 35.6 per cent in MICS 2006. Nearly one quarter of, or 24.4 per cent, under-5 children were living in the poorest households, much more than the 18.5 per cent living in the richest households, although the percentage living in the poorest households had decreased from 25.3 per cent in MICS 2006.

[6] *Unless otherwise stated, "education" refers to the highest educational level attended by the respondent throughout this report when it is used as a background variable.*

[7] *The wealth index is a composite indicator of wealth. To construct the wealth index, principal components analysis is performed by using information on the ownership of consumer goods, dwelling characteristics, water and sanitation, and other characteristics that are related to the household's wealth, to generate weights (factor scores) for each of the items used. First, initial factor scores are calculated for the total sample. Then, separate factor scores are calculated for households in urban and rural areas. Finally, the urban and rural factor scores are regressed on the initial factor scores to obtain the combined, final factor scores for the total sample. This is carried out to minimize the urban bias in the wealth index values.*

Each household in the total sample is then assigned a wealth score based on the assets owned by that household and on the final factor scores obtained as described above. The survey household population is then ranked according to the wealth score of the household they are living in, and is finally divided into 5 equal parts (quintiles) from lowest (poorest) to highest (richest).

In Bangladesh MICS 2012-2013, the following assets were used in these calculations: water sources, toilet facility, housing, fuel types for cooking, electricity, bank account, durable goods (such as radio, TV, refrigerator, fixed telephone, watch, mobile phone, bicycle, motorcycle, boat with motor, car), animals (such as buffalo, cattle, horse, donkey, goat, sheep, chicken, pig).

The wealth index is assumed to capture the underlying long-term wealth through information on the household assets, and is intended to produce a ranking of households by wealth, from poorest to richest. The wealth index does not provide information on absolute poverty, current income or expenditure levels. The wealth scores calculated are applicable for only the particular data set they are based on.

Further information on the construction of the wealth index can be found in Filmer, D. and Pritchett, L., 2001. "Estimating wealth effects without expenditure data – or tears: An application to educational enrolments in states of India". Demography 38(1): 115-132. Rutstein, S.O. and Johnson, K., 2004. The DHS Wealth Index. DHS Comparative Reports No. 6. Calverton, Maryland: ORC Macro and Rutstein, S.O., 2008. The DHS Wealth Index: Approaches for Rural and Urban Areas. DHS Working Papers No. 60. Calverton, Maryland: Macro International Inc.

[8] *When describing survey results by wealth quintiles, appropriate terminology is used when referring to individual household members, such as for instance "women in the richest household population", which is used interchangeably with "women in the wealthiest survey population" and similar.*

Table HH.5: Under-5's background characteristics

Per cent and frequency distribution of children under five years of age by selected characteristics, Bangladesh, 2012-2013

		Weighted per cent	Number of children	
			Weighted	Unweighted
Total		**100.0**	**20,903**	**20,903**
Sex	Male	51.2	10,694	10,732
	Female	48.8	10,209	10,171
Division	Barisal	6.1	1,270	1,929
	Chittagong	22.9	4,792	4,343
	Dhaka	30.9	6,456	5,235
	Khulna	9.6	2,014	2,729
	Rajshahi	11.5	2,405	1,996
	Rangpur	11.3	2,372	2,639
	Sylhet	7.6	1,595	2,032
Area	Urban	20.4	4,268	3,331
	Rural	79.6	16,635	17,572
Age	0-5 months	9.5	1,981	1,959
	6-11 months	9.6	2,002	1,942
	12-23 months	19.6	4,093	4,026
	24-35 months	20.0	4,189	4,175
	36-47 months	20.7	4,332	4,391
	48-59 months	20.6	4,306	4,410
Respondent to the under-5 questionnaire	Mother	98.6	20,498	20,503
	Other primary caretaker	1.9	405	400
Mother's education*	None	22.5	4,700	5,255
	Primary incomplete	14.1	2,944	3,034
	Primary complete	15.6	3,256	3,219
	Secondary incomplete	34.9	7,291	7,062
	Secondary complete or higher	13.0	2,711	2,333
Wealth index quintile	Poorest	24.4	5,105	6,264
	Second	20.5	4,285	4,511
	Middle	18.6	3,886	3,777
	Fourth	17.9	3,750	3,415
	Richest	18.5	3,877	2,936

* In this table and throughout the report, mother's education refers to educational attainment of mothers as well as caretakers of children under 5, who are the respondents to the under-5 questionnaire if the mother is deceased or is living elsewhere.

Housing characteristics, asset ownership, and wealth quintiles

Tables HH.6, HH.7 and HH.8 provide further details on household level characteristics. HH.6 presents characteristics of housing, disaggregated by area and region, distributed by whether the dwelling has electricity, the main materials of the flooring, roof, and exterior walls, as well as the number of rooms used for sleeping.

The table HH.6 indicates that 61.5 per cent households have electricity nationally where urban gets the most share (88 per cent). Dhaka, Chittagong and Khulna divisions have over 60 per cent households connected with electricity while 62.4 per cent of households in Rangpur division do not have electricity.

The table HH.6 also gives information about structure of houses to assess the living conditions of the household members. As has been seen from the table the floor of 73.5 per cent households are considered to be natural, mostly located in rural areas (84.0 per cent) and only 25.7 per cent have finished floor. The natural floor is seen highest in Barisal divisions and lowest in Dhaka division.

Most of the household roofs are considered to be finished (97.4 per cent) with no significant differences observed in urban and rural areas, and in divisions.

The exterior walls are mostly rudimentary type (44.9 per cent) of which 49.3 per cent are in rural areas. The finished exterior wall seen only in 29.4 per cent households, are mostly located in urban areas (59.2 per cent).

In terms of overcrowding, 3 or more persons sleeping in one room, little more than 1 in every five households was crowded. Difference between urban and rural areas are not significant but exists in the divisions where 38.7 per cent households in Chittagong is seen as the highest and 14.3 per cent Rangpur as the lowest.

Table HH.6: Housing characteristics

Per cent distribution of households by selected housing characteristics, according to area of residence and regions, Bangladesh, 2012-2013

		Total	Area		Division						
			Urban	Rural	Barisal	Chittagong	Dhaka	Khulna	Rajshahi	Rangpur	Sylhet
Electricity	Yes	61.5	88.0	54.2	52.2	65.5	71.2	64.1	58.1	37.6	59.1
	No	38.5	12.0	45.8	47.8	34.5	28.8	35.9	41.9	62.4	40.9
	Missing	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0w	0.0	0.0
Flooring	Natural floor	73.5	35.3	84.0	89.1	72.1	61.9	74.3	81.1	87.2	76.0
	Rudimentary floor	0.4	0.3	0.5	0.1	0.7	0.9	0.0	0.0	0.2	0.0
	Finished floor	25.7	63.5	15.4	10.6	26.5	36.8	25.5	18.8	12.5	23.9
	Other	0.3	0.8	0.2	0.1	0.7	0.4	0.1	0.1	0.0	0.0
	Missing/DK	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Roof	Natural roofing	2.3	0.7	2.7	2.1	6.4	0.8	3.4	0.3	1.6	2.5
	Rudimentary roofing	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.1
	Finished roofing	97.4	99.0	96.9	97.8	93.2	99.1	94.8	99.7	98.3	97.4
	Other	0.3	0.2	0.3	0.0	0.4	0.0	1.7	0.0	0.0	0.0
	Missing/DK	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exterior walls	Natural walls	22.0	8.6	25.7	8.9	10.8	13.0	33.4	36.8	37.9	26.1
	Rudimentary walls	44.9	28.7	49.3	74.9	46.0	56.6	16.9	32.5	42.8	37.4
	Finished walls	29.4	59.2	21.3	16.0	23.8	30.3	49.6	29.7	19.2	36.4
	Other	3.7	3.5	3.7	0.1	19.4	0.1	0.1	1.1	0.0	0.1
	Missing/DK	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rooms used for sleeping	1	37.4	37.9	37.2	23.0	19.7	43.8	42.6	43.3	45.2	29.0
	2	39.7	38.5	40.0	40.8	41.1	37.8	40.7	40.3	40.2	40.0
	3 or more	22.6	23.3	22.5	36.1	38.7	18.2	16.5	16.1	14.3	30.8
	Missing/DK	0.3	0.3	0.3	0.2	0.5	0.2	0.2	0.4	0.3	0.2
Total		**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Number of households		51,895	11,144	40,751	3,155	9,278	16,556	6,167	7,449	6,454	2,836
Mean number of persons per room used for sleeping		2.7	2.6	2.7	2.3	2.5	2.8	2.7	2.6	2.8	2.9

In Table HH.7 households are distributed according to ownership of assets by households and by individual household members. This also includes ownership of dwelling. Among household items, most of the households owned cot/bet (96.5 per cent) and table (77.6 per cent) while two in every five household owned an almirah/wardrobe (41.4 per cent). Not much difference was observed in the area and in divisions. Results on ownership of some of the items like Television, Mobile phones, Refrigerator, Electric fan, etc., compare well with that of the Bangladesh Demographic and Health Survey undertaken in 2011.

Among the personal things owned by at least one member of household, mobile phone was owned by the largest proportion of households, about 86 per cent, with urban households having higher mobile ownership (93 per cent) than their rural counterparts (84 per cent). About two in five households (43 per cent) possessed agricultural land with proportions higher in rural (46.5 per cent) than in urban areas (30.3 per cent). Ownership of agricultural land is much lower in Chittagong and Sylhet divisions as compared to other divisions.

Table HH.7: Household and personal assets

Percentage of households by ownership of selected household and personal assets, and per cent distribution by ownership of dwelling, according to area of residence and regions, Bangladesh, 2012-2013

		Total	Area		Division						
			Urban	Rural	Barisal	Chittagong	Dhaka	Khulna	Rajshahi	Rangpur	Sylhet
Percentage of households that own a	Radio	3.9	4.5	3.7	4.8	2.9	3.8	4.0	6.3	3.0	2.5
	Television	37.7	65.6	30.0	22.2	39.2	45.7	37.9	36.4	25.4	33.4
	Non-mobile phone	1.3	4.9	0.3	0.4	0.9	2.1	0.8	0.9	1.0	1.8
	Refrigerator	14.2	36.0	8.2	7.7	18.0	21.0	9.7	8.8	4.5	14.5
	Electric fan	53.0	82.8	44.8	33.6	58.1	63.8	54.0	51.7	31.2	45.6
	Cot/Bed	96.5	96.8	96.4	97.3	90.6	98.1	97.3	98.1	98.7	95.2
	Table	77.6	78.7	77.3	72.6	75.6	74.8	75.0	81.6	89.5	73.5
	Almirah/Wardrobe	41.4	58.8	36.6	35.8	55.6	47.1	26.2	28.6	36.2	45.9
	Sofa set	11.1	26.7	6.8	5.4	17.0	11.7	6.6	8.9	6.4	19.8
	Water dispenser	5.5	16.1	2.6	1.7	7.6	6.7	5.5	2.7	1.4	11.5
	Water pump	3.6	7.1	2.6	1.3	2.0	4.2	6.3	3.1	2.2	6.3
Percentage of households that own	Agricultural land	43.0	30.3	46.5	45.4	36.2	44.5	46.2	47.2	42.3	37.7
	Farm animals/Livestock	62.9	28.2	72.4	69.2	60.8	51.8	74.7	71.8	70.8	60.2
Percentage of households where at least one member owns or has a	Watch	33.0	44.2	30.0	30.4	40.4	38.0	30.2	31.7	16.6	29.6
	Mobile telephone	85.9	93.0	84.0	85.8	90.3	88.9	87.5	82.8	73.9	86.9
	Bicycle	28.7	20.2	31.0	12.3	14.2	20.8	52.9	39.7	49.2	11.8
	Motorcycle or scooter	5.8	8.6	5.0	3.3	3.9	4.9	8.3	7.7	7.9	4.5
	Animal-drawn cart	0.3	0.1	0.3	0.0	0.0	0.1	0.8	0.6	0.2	0.3
	Car or truck	0.7	1.7	0.4	0.2	0.7	1.2	0.4	0.4	0.3	0.8
	Boat with motor	0.5	0.2	0.6	2.2	0.5	0.5	0.2	0.3	0.1	0.4
	Rickshaw/Van	5.1	4.3	5.4	3.4	3.4	3.8	7.3	8.4	7.3	2.3
	Nasiman/Kariman/ Votbati	0.7	0.4	0.8	0.6	0.5	0.4	1.6	1.4	0.4	0.4
	Easy bike/Auto bike (battery driven)	0.4	0.6	0.4	0.3	0.5	0.5	0.4	0.3	0.2	0.8
	Computer	3.4	11.3	1.2	1.2	2.2	5.7	2.6	2.7	1.9	2.9
	Bank account	28.6	44.7	24.1	24.9	36.8	32.0	30.8	22.0	12.8	33.6
Ownership of dwelling	Owned by a household member	81.7	54.4	89.1	88.8	84.9	72.6	83.8	85.6	89.3	83.8
	Not owned	18.3	45.5	10.9	11.2	15.1	27.4	16.2	14.4	10.7	16.1
	Rented	11.4	39.8	3.6	4.4	9.9	23.0	5.8	4.7	1.7	7.5
	Other	6.9	5.7	7.3	6.8	5.2	4.4	10.4	9.7	9.0	8.6
	Missing/DK	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total		**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Table HH.8 shows how the household populations in areas and regions are distributed according to household wealth quintiles. It shows a high concentration of households in the richest quintile in urban areas (52.4 per cent) as compared to the rural areas (11.5 per cent). The rural areas, as expected, has a higher proportion of households in the poorest quintile than in the urban areas. Among divisions, Dhaka has higher concentration of households in the richest quintile while Rangpur and Sylhet show higher proportions in the poorest quintile.

Table HH.8: Wealth quintiles

Per cent distribution of the household population by wealth index quintiles, according to area of residence and regions, Bangladesh, 2012-2013

		Wealth index quintile					Total	Number of household members
		Poorest	Second	Middle	Fourth	Richest		
Total		**20.0**	**20.0**	**20.0**	**20.0**	**20.0**	**100.0**	**237,396**
Area	Urban	8.4	7.9	11.2	20.0	52.4	100.0	49,249
	Rural	23.0	23.2	22.3	20.0	11.5	100.0	188,147
Division	Barisal	30.5	25.8	21.0	15.2	7.6	100.0	15,028
	Chittagong	18.5	15.9	19.7	24.1	21.7	100.0	47,725
	Dhaka	14.2	17.2	19.7	21.6	27.3	100.0	72,991
	Khulna	19.4	19.9	21.1	20.9	18.7	100.0	26,508
	Rajshahi	22.2	22.5	22.3	18.3	14.7	100.0	30,923
	Rangpur	26.8	29.6	19.7	13.5	10.3	100.0	28,234
	Sylhet	25.3	18.1	15.8	18.1	22.7	100.0	15,987

IV. Child Mortality

One of the overarching goals of the Millennium Development Goals (MDGs) is the reduction of infant and under-five mortality. Specifically, the MDGs call for the reduction in under-five mortality by two-thirds between 1990 and 2015. Monitoring progress towards this goal is an important but difficult objective.

The infant mortality rate is the probability of dying before the first birthday, while the under-five mortality rate is the probability of dying before the fifth birthday.

In Bangladesh MICS, an indirect method, known as the Brass method[9], was used. Robust estimates of the aforementioned indicators are produced by this indirect method, and are comparable with those obtained by applying direct methods.

The data used by the indirect methods are: the mean number of children ever born for five-year time-since-first-birth groups of women age 15 to 49 years, and the proportion of these children who are dead, also for five-year time-since-first-birth groups of women (Table CM.1). The technique converts the proportions dead among children of women in each time-since-first-birth (TSFB) group into probabilities of dying by taking into account the approximate length of exposure of children to the risk of dying, assuming a particular model age pattern of mortality. Based on previous information on mortality in Bangladesh, the West model life table was selected as most appropriate.

Table CM.1: Children ever born, children surviving and proportion dead

Mean and total numbers of children ever born, children surviving and proportion dead by time since first birth, Bangladesh, 2012-2013

	Children ever born		Children surviving		Proportion dead	Number of women age 15-49 years
	Mean	Total	Mean	Total		
Total	**2.5416**	**90,345**	**2.3444**	**83,333**	**0.0776**	**35,546**
Time since first birth						
0-4	1.2240	9,192	1.1659	8,756	0.0475	7,510
5-9	2.0275	16,474	1.9148	15,558	0.0556	8,125
10-14	2.8014	22,593	2.6033	20,995	0.0707	8,065
15-19	3.3388	22,039	3.0495	20,129	0.0866	6,601
20-24	3.8221	20,047	3.4120	17,895	0.1073	5,245

Table CM.2 provides estimates of infant and under-five mortality rates derived from proportion dead among children of women in various time-since-first-birth groups from 0-4 to 20-24. This table provides estimates of infant and under-5 mortality rates for various points in time prior to the survey. These estimates are later used in Figure CM.2 to compare the trend indicated by these rates with those from other data sources.

[9] *United Nations, 1983. Manual X: Indirect Techniques for Demographic Estimation (United Nations publication, Sales No. E.83.XIII.2). United Nations, 1990a. QFIVE, United Nations Program for Child Mortality Estimation. New York, UN Pop Division. United Nations, 1990b. Step-by-step Guide to the Estimation of Child Mortality. New York, UN. International Union for the Scientific Study of Population, 2013. Tools for Demographic Estimation. Paris, UNFPA*

Table CM.2: Infant and under-5 mortality rates by time since first birth groups of women

Indirect estimates of infant and under-5 mortality rates by time since first birth of women, and reference dates for estimates, West model, Bangladesh, *2012-2013*

Reference date		Infant mortality rate	Under-5 mortality rate
Time since first birth			
0-4	2011.0	47	61
5-9	2008.3	46	58
10-14	2005.7	53	69
15-19	2003.1	60	80
20-24	2000.3	68	93

To obtain the most recent single estimates of the two indicators by background characteristics, estimates from time since first birth (TSFB) group 5-9 years are presented in Table CM.3. Estimates for TSFB group 5-9 have been used since estimates for TSFB 0-4 group are subject to selection bias as most of the women reporting on children in this TSFB group have given birth at very early ages and are predominantly first birth which have elevated mortality risks. The estimates on child mortality rates presented in the Key Findings report, using the reference period of 'last 10 years', have been revised to include estimates from TSFB group 5-9 years.

Table CM.3: Infant and under-5 mortality rates by background characteristics

Indirect estimates of infant and under-five mortality rates by selected background characteristics, time since first birth version, West Model, Bangladesh, 2012-2013

		Infant Mortality Rate [1]	Under-five Mortality Rate [2]
Total		**46**	**58**
Sex	Male	51	65
	Female	40	52
Division	Barisal	38	47
	Chittagong	36	45
	Dhaka	48	62
	Khulna	33	41
	Rajshahi	58	78
	Rangpur	49	63
	Sylhet	59	80
Area	Urban	39	49
	Rural	47	61
Mother's education	None	60	80
	Primary incomplete	52	69
	Primary complete	54	71
	Secondary incomplete	37	46
	Secondary complete or higher	29	35
Wealth index quintiles	Poorest	59	79
	Second	46	58
	Middle	47	61
	Fourth	41	52
	Richest	29	35

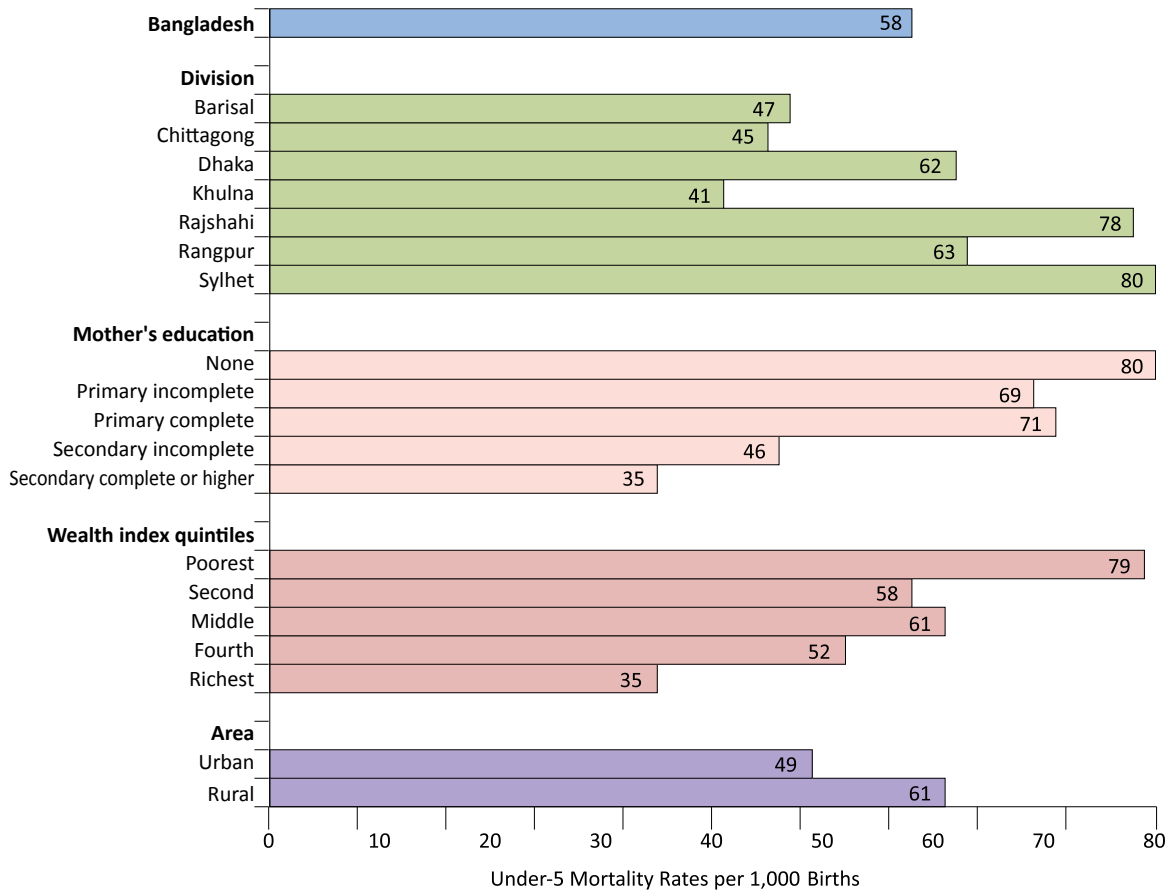
[1] MICS indicator 1.2; MDG indicator 4.2 - Infant mortality rate
[2] MICS indicator 1.5; MDG indicator 4.1 - Under-five mortality rate

Indicator values are per 1000 live births and refer to 2008.3.
The West Model was assumed to approximate the age pattern of mortality in Bangladesh.

The infant mortality rate is estimated at 46 per thousand live births, while the probability of dying under age 5 (U5MR) is around 58 per thousand live births. There is some difference between the probabilities of dying among males and female, with males having higher probabilities than females. Infant and under-5 mortality rates are lowest in Khulna division (33 and 41), while the figures for Sylhet are nearly 2 times higher (59 and 80) than that of Khulna division.

Differentials in under-5 mortality rates by selected background characteristics are shown in Figure CM.1.

Figure CM.1: Under-5 mortality rates by background characteristics, Bangladesh, 2012-2013



Mother's educational and household wealth statuses are strongly associated with the mortality rates. The higher the mother's education, or the richer the household, the lower the mortality rates. For example, under-five mortality rate is 35 in children of mothers who completed secondary education or higher, but 80, or more than two times of that, among children of mothers who have no education. Similar differentials in mortality are observed between the richest and the poorest households.

Map CM.1: Under-5 mortality rate by division, Bangladesh, 2012-2013

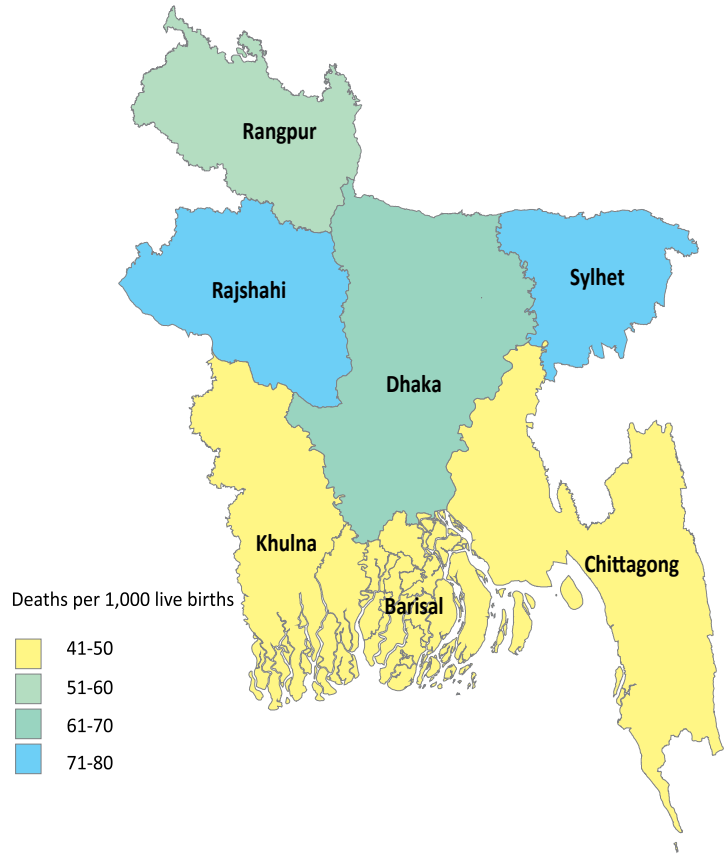
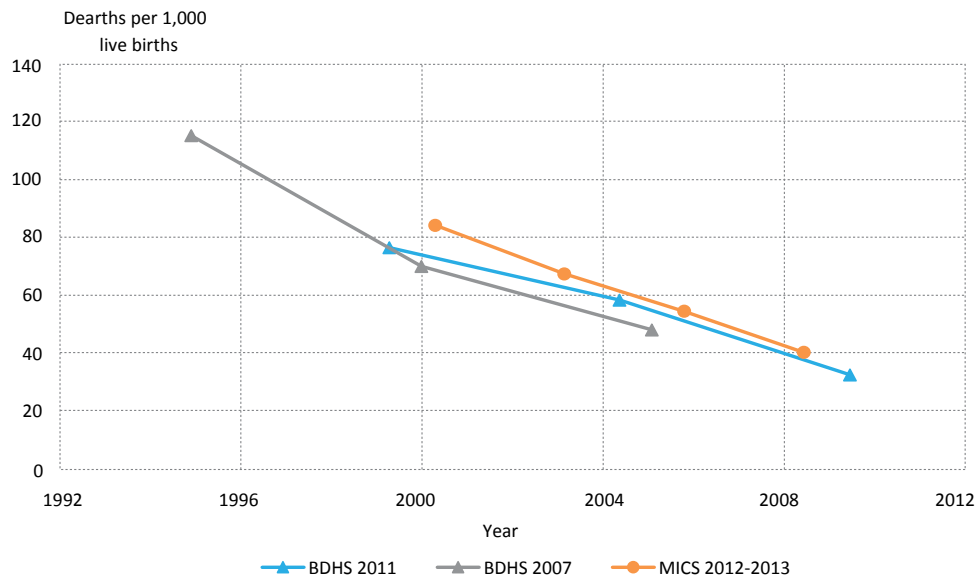


Figure CM.2 compares the findings of Bangladesh MICS with those from other data sources. Bangladesh MICS findings are obtained from Table CM.2. The MICS estimates indicate a decline in mortality during the last 8 years. The recent U5MR estimate (58 per thousand live births) from MICS using TSFB group 5-9 years is about 9 per cent higher than the estimate from Bangladesh Demographic and Health Survey (BDHS 2011) conducted about a year before MICS, though the two surveys use different methods of collecting the information and estimating the indicator. Further qualification of these apparent declines and differences as well as its determinants should be taken up in a more detailed and separate analysis.

Figure CM.2: Trend in under-5 mortality rates, Bangladesh, 2012-2013



V. Nutrition

Low Birth Weight

Weight at birth is a good indicator not only of a mother's health and nutritional status but also the newborn's chances for survival, growth, long-term health and psychosocial development. Low birth weight (defined as less than 2,500 grams) carries a range of grave health risks for children. Babies who were undernourished in the womb face a greatly increased risk of dying during their early days, months and years. Those who survive may have impaired immune function and increased risk of disease; they are likely to remain undernourished, with reduced muscle strength, throughout their lives, and suffer a higher incidence of diabetes and heart disease in later life. Children born with low birth weight also risk a lower IQ and cognitive disabilities, affecting their performance in school and their job opportunities as adults.

In the developing world, low birth weight stems primarily from the mother's poor health and nutrition. Three factors have most impact: the mother's poor nutritional status before conception, short stature (due mostly to under nutrition and infections during her childhood), and poor nutrition during pregnancy. Inadequate weight gain during pregnancy is particularly important since it accounts for a large proportion of foetal growth retardation. Moreover, diseases such as diarrhoea and malaria, which are common in many developing countries, can significantly impair foetal growth if the mother becomes infected while pregnant.

In the industrialized world, cigarette smoking during pregnancy is the leading cause of low birth weight. In developed and developing countries alike, teenagers who give birth when their own bodies have yet to finish growing run a higher risk of bearing low birth weight babies.

One of the major challenges in measuring the incidence of low birth weight is that more than half of infants in the developing world are not weighed at birth. In the past, most estimates of low birth weight for developing countries were based on data compiled from health facilities. However, these estimates are biased for most developing countries because the majority of newborns are not delivered in facilities, and those who are represent only a selected sample of all births.

Because many infants are not weighed at birth and those who are weighed may be a biased sample of all births, the reported birth weights usually cannot be used to estimate the prevalence of low birth weight among all children. Therefore, the percentage of births weighing below 2500 grams is estimated from two items in the questionnaire: the mother's assessment of the child's size at birth (i.e., very small, smaller than average, average, larger than average, very large) and the mother's recall of the child's weight or the weight as recorded on a health card if the child was weighed at birth[10].

[10] *For a detailed description of the methodology, see Boerma, J. T., Weinstein, K. I., Rutstein, S.O., and Sommerfelt, A. E. , 1996. Data on Birth Weight in Developing Countries: Can Surveys Help? Bulletin of the World Health Organization, 74(2), 209-16*

Table NU.1: Low birth weight infants

Percentage of last live-born children in the last two years that are estimated to have weighed below 2,500 grams at birth and percentage of live births weighed at birth, Bangladesh, 2014

		Per cent distribution of births by mother's assessment of size at birth					Total	Percentage of live births:		Number of last live-born children in the last two years
		Very small	Smaller than average	Average	Larger than average or very large	DK		Below 2,500 grams [1]	Weighed at birth [2]	
Total		**3.4**	**17.3**	**59.2**	**13.6**	**6.5**	**100.0**	**26.0**	**35.9**	**7,950**
Mother's age at birth	Less than 20 years	2.6	19.8	58.0	13.2	6.3	100.0	26.7	38.3	1,555
	20-34 years	3.4	16.4	59.9	14.0	6.3	100.0	25.5	36.3	5,809
	35-49 years	5.7	19.6	55.7	10.8	8.1	100.0	28.7	25.4	586
Birth order	1	2.5	17.9	59.4	14.0	6.3	100.0	25.6	44.8	2,912
	2-3	3.5	17.0	59.5	13.8	6.1	100.0	26.0	33.9	3,857
	4-5	5.2	15.6	60.1	11.3	7.9	100.0	26.3	22.6	914
	6+	5.2	20.5	51.6	14.0	8.7	100.0	28.2	12.4	266
Division	Barisal	1.2	19.6	63.1	9.8	6.3	100.0	26.3	17.5	475
	Chittagong	3.6	20.7	63.0	7.3	5.4	100.0	29.2	25.8	1,851
	Dhaka	3.3	16.3	57.4	14.0	8.9	100.0	25.0	40.6	2,503
	Khulna	5.3	13.5	54.7	21.4	5.2	100.0	24.2	44.3	760
	Rajshahi	2.7	11.8	64.7	16.3	4.6	100.0	22.6	34.5	850
	Rangpur	1.6	18.8	50.4	22.5	6.7	100.0	24.2	59.3	886
	Sylhet	5.6	19.4	63.6	7.8	3.6	100.0	29.3	19.5	625
Area	Urban	4.2	16.8	58.9	14.8	5.3	100.0	26.2	52.2	1,681
	Rural	3.2	17.4	59.3	13.3	6.8	100.0	25.9	31.5	6,268
Mothers' Education	None	4.6	22.5	55.2	9.9	7.8	100.0	29.5	19.2	1,460
	Primary incomplete	5.6	20.3	54.3	12.0	7.7	100.0	29.1	21.9	1,056
	Primary complete	3.6	18.9	55.5	14.2	7.9	100.0	26.5	25.4	1,231
	Secondary incomplete	2.9	15.0	62.5	14.0	5.6	100.0	24.6	40.5	3,043
	Secondary complete or higher	.8	12.5	64.3	18.1	4.2	100.0	21.6	68.8	1,160
Wealth index quintile	Poorest	4.9	22.4	53.3	11.2	8.1	100.0	29.6	20.4	1,828
	Second	4.0	18.5	57.9	12.9	6.6	100.0	27.0	26.3	1,607
	Middle	3.4	15.8	59.0	14.2	7.6	100.0	25.1	29.3	1,524
	Fourth	3.3	14.9	61.6	14.9	5.4	100.0	24.7	40.8	1,415
	Richest	1.0	13.7	65.7	15.4	4.2	100.0	22.7	65.6	1,575

[1] MICS indicator 2.20 - Low-birthweight infants
[2] MICS indicator 2.21 - Infants weighed at birth

DK: Don't know

Overall, 35.9 per cent of births were weighed at birth in Bangladesh and 26.0 per cent of infants are estimated to weigh less than 2500 grams at birth (Table NU.1).

It is worth noting that children being weighed at birth is positively related to mother's education and household wealth standard; children with mothers with secondary or higher education or from the richest households were three times more likely to have had their weight measured at birth than that for mothers with no education or belonging to the poorest households. These also vary significantly between urban and rural areas, and between different divisions.

Nutritional Status

Children's nutritional status is a reflection of their overall health. When children have access to an adequate food supply, are not exposed to repeated illness, and are well cared for, they reach their growth potential and are considered well nourished.

Under nutrition is associated with more than half of all child deaths worldwide. Undernourished children are more likely to die from common childhood ailments, and for those who survive, have recurring sicknesses and faltering growth. Three-quarters of children who die from causes related to malnutrition were only mildly or moderately malnourished – showing no outward sign of their vulnerability. The Millennium Development Goal target is to reduce by half the proportion of people who suffer from hunger between 1990 and 2015. A reduction in the prevalence of malnutrition will also assist in the goal to reduce child mortality.

In a well-nourished population, there is a reference distribution of height and weight for children under age five. Under-nourishment in a population can be gauged by comparing children to a reference population. The reference population used in this report is based on the WHO growth standards[11]. Each of the three nutritional status indicators – weight-for-age, height-for-age, and weight-for-height - can be expressed in standard deviation units (z-scores) from the median of the reference population.

Weight-for-age is a measure of both acute and chronic malnutrition. Children whose weight-for-age is more than two standard deviations below the median of the reference population are considered *moderately or severely underweight* while those whose weight-for-age is more than three standard deviations below the median are classified as *severely underweight.*

Height-for-age is a measure of linear growth. Children whose height-for-age is more than two standard deviations below the median of the reference population are considered short for their age and are classified as *moderately or severely wasted* . Those whose height-for-age is more than three standard deviations below the median are classified as *severely stunted.* Stunting is a reflection of chronic malnutrition as a result of failure to receive adequate nutrition over a long period and recurrent or chronic illness.

Weight-for-height can be used to assess wasting and overweight status. Children whose *weight-for-height* is more than two standard deviations below the median of the reference population are classified as *moderately or severely wasted*, while those who fall more than three standard deviations below the median are classified as *severely wasted* . Wasting is usually the result of a recent nutritional deficiency. The indicator of wasting may exhibit significant seasonal shifts associated with changes in the availability of food or disease prevalence.

Children whose weight-for-height is more than two standard deviations above the median reference population are classified as moderately or severely overweight.

In MICS, weights and heights of all children under 5 years of age were measured using the anthropometric equipment recommended[12] by UNICEF. Findings in this section are based on the results of these measurements.

Table NU.2 shows percentages of children classified into each of the above described categories, based on the anthropometric measurements that were taken during fieldwork. Additionally, the table includes mean z-scores for all three anthropometric indicators.

Children whose full birth date (month and year) were not obtained, and children whose measurements are outside a plausible range are excluded from Table NU.2. Children are excluded from one or more of the anthropometric indicators when their weights and heights have not been measured, whichever applicable. For example, if a child has been weighed but his/her height has not been measured, the child is included in underweight calculations, but not in the calculations for stunting and wasting. Percentages of children by age and reasons for exclusion are shown in the data quality Tables DQ.10, DQ.11, and DQ.12 in Appendix D. The tables show that due to incomplete dates of birth, implausible measurements, and/or missing weight and/or height, 4.7 per cent of

[11] *http://www.who.int/childgrowth/standards/technical_report*
[12] *See MICS Supply Procurement Instructions here: http://www.childinfo.org/mics5_planning.html*

children have been excluded from calculations of the weight-for-age indicator, 7.2 per cent from the height-for-age indicator, and 6.2 per cent for the weight-for-height indicator. As these percentages are a little higher than expected, result should be interpreted with caution.

Table NU.2: Nutritional status of children

Percentage of children under age 5 by nutritional status according to three anthropometric indices: weight for age, height for age, and weight for height, Bangladesh, 2012-2013

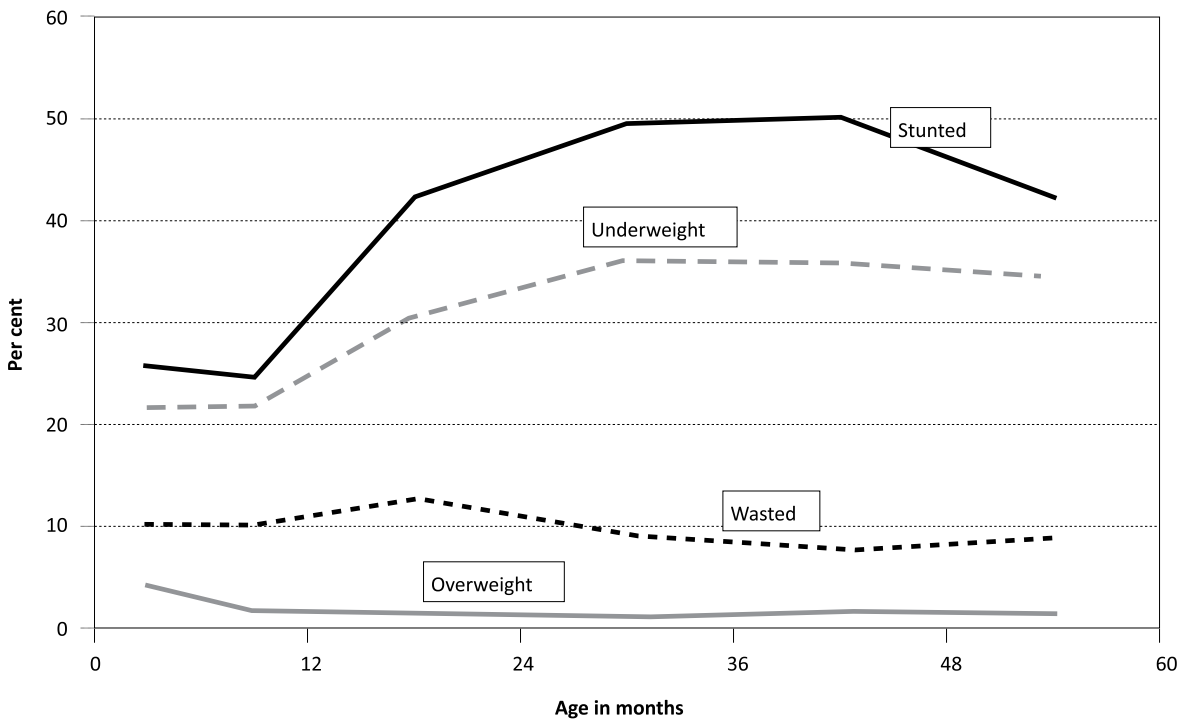
		Weight for age			Number of children under age 5	Height for age			Number of children under age 5	Weight for height				Number of children under age 5
		Underweight		Mean Z-Score (SD)		Stunted		Mean Z-Score (SD)		Wasted		Overweight	Mean Z-Score (SD)	
		Per cent below				Per cent below				Per cent below		Above		
		- 2 SD [1]	- 3 SD [2]			- 2 SD [3]	- 3 SD [4]			- 2 SD [5]	- 3 SD [6]	+ 2 SD [7]		
Total		**31.9**	**8.8**	**-1.5**	**19,921**	**42.0**	**16.4**	**-1.7**	**19,422**	**9.6**	**1.6**	**1.6**	**-0.7**	**19,640**
Sex	Male	32.1	8.8	-1.5	10,171	42.4	16.9	-1.7	9,920	10.4	2.1	1.6	-0.7	10,047
	Female	31.8	8.7	-1.5	9,750	41.6	16.0	-1.7	9,502	8.8	1.1	1.6	-0.7	9,593
Division	Barisal	35.2	9.7	-1.6	1,216	41.4	15.8	-1.7	1,199	11.7	1.5	0.8	-0.8	1,220
	Chittagong	32.2	9.2	-1.5	4,499	43.1	18.7	-1.8	4,447	9.2	1.8	1.2	-0.7	4,550
	Dhaka	30.8	8.9	-1.5	6,180	42.1	16.6	-1.7	6,007	9.2	1.3	2.2	-0.6	6,034
	Khulna	28.5	6.2	-1.4	1,964	34.4	11.3	-1.5	1,925	10.0	1.7	1.1	-0.7	1,926
	Rajshahi	29.9	7.2	-1.5	2,321	39.4	13.2	-1.7	2,278	9.1	1.5	1.2	-0.7	2,287
	Rangpur	32.6	8.1	-1.5	2,275	43.7	16.2	-1.8	2,213	8.7	1.4	1.1	-0.7	2,227
	Sylhet	39.7	13.1	-1.8	1,466	50.6	22.2	-2.0	1,353	13.3	2.8	2.9	-0.8	1,397
Area	Urban	27.0	7.2	-1.3	4,049	36.3	14.3	-1.5	3,943	9.1	1.4	2.7	-0.6	4,013
	Rural	33.2	9.1	-1.6	15,872	43.4	17.0	-1.8	15,479	9.8	1.7	1.3	-0.7	15,627
Age	0-5 months	21.8	6.9	-1.1	1,914	25.6	9.4	-1.0	1,839	10.0	2.1	4.1	-0.4	1,825
	6-11 months	21.9	7.1	-1.2	1,945	24.6	8.1	-1.2	1,906	10.1	2.1	1.5	-0.6	1,930
	12-23 months	30.8	9.3	-1.5	3,970	42.2	16.2	-1.7	3,885	12.7	2.4	1.2	-0.8	3,925
	24-35 months	36.2	10.6	-1.6	3,989	49.5	21.3	-2.0	3,830	9.2	1.8	1.2	-0.7	3,852
	36-47 months	35.8	9.5	-1.6	4,063	50.2	22.1	-2.0	3,979	7.6	0.9	1.6	-0.6	4,044
	48-59 months	34.6	7.3	-1.7	4,041	42.3	13.5	-1.8	3,982	8.8	1.0	1.3	-0.8	4,063
Mother's education	None	40.5	12.7	-1.8	4,429	51.4	23.7	-2.1	4,296	11.2	1.9	1.1	-0.8	4,389
	Primary incomplete	39.3	11.2	-1.7	2,807	51.1	20.2	-2.0	2,735	10.5	1.7	1.4	-0.8	2,758
	Primary complete	35.7	9.7	-1.6	3,103	48.2	19.5	-1.9	3,031	10.0	1.9	1.5	-0.7	3,086
	Secondary incomplete	27.2	6.7	-1.4	6,996	36.6	12.3	-1.6	6,852	9.3	1.7	1.6	-0.7	6,891
	Secondary complete or higher	17.5	3.8	-1.0	2,586	23.3	7.4	-1.1	2,508	6.4	0.7	2.9	-0.4	2,516
Wealth index quintile	Poorest	41.1	12.6	-1.8	4,832	52.8	23.2	-2.1	4,715	11.6	2.3	0.9	-0.8	4,803
	Second	37.4	10.9	-1.7	4,081	47.0	18.3	-1.9	3,975	11.2	1.9	1.2	-0.8	4,015
	Middle	33.3	9.0	-1.6	3,731	42.2	16.5	-1.8	3,632	9.5	1.8	1.2	-0.7	3,673
	Fourth	27.2	6.2	-1.4	3,580	36.9	13.2	-1.6	3,502	8.5	0.9	1.5	-0.7	3,536
	Richest	17.3	3.7	-1.0	3,696	27.0	8.7	-1.2	3,598	6.6	0.9	3.4	-0.4	3,612

1 MICS indicator 2.1a and MDG indicator 1.8 - Underweight prevalence (moderate and severe)
2 MICS indicator 2.1b - Underweight prevalence (severe)
3 MICS indicator 2.2a - Stunting prevalence (moderate and severe)
4 MICS indicator 2.2b - Stunting prevalence (severe)
5 MICS indicator 2.3a - Wasting prevalence (moderate and severe)
6 MICS indicator 2.3b - Wasting prevalence (severe)
7 MICS indicator 2.4 - Overweight prevalence

Almost one in every three children under five years of age in Bangladesh are moderately or severely underweight (31.9 per cent), and almost one in every ten are classified as severely underweight (8.8 per cent) (Table NU.2). About four in every 10 children (42 per cent) are moderately or severely stunted or too short for their age, and one in every ten children (9.6 per cent) are moderately or severely wasted or too thin for their height. Severely stunted and wasted children are respectively 16.4 and 1.6 per cent. Those children whose mothers have secondary or higher education or who are from the richest wealth quintile are the least likely to be underweight and stunted compared to children of mothers with no education or children from the poorest quintile class, respectively. Disparities exist between urban and rural children and between children living in households of different education and wealth background.

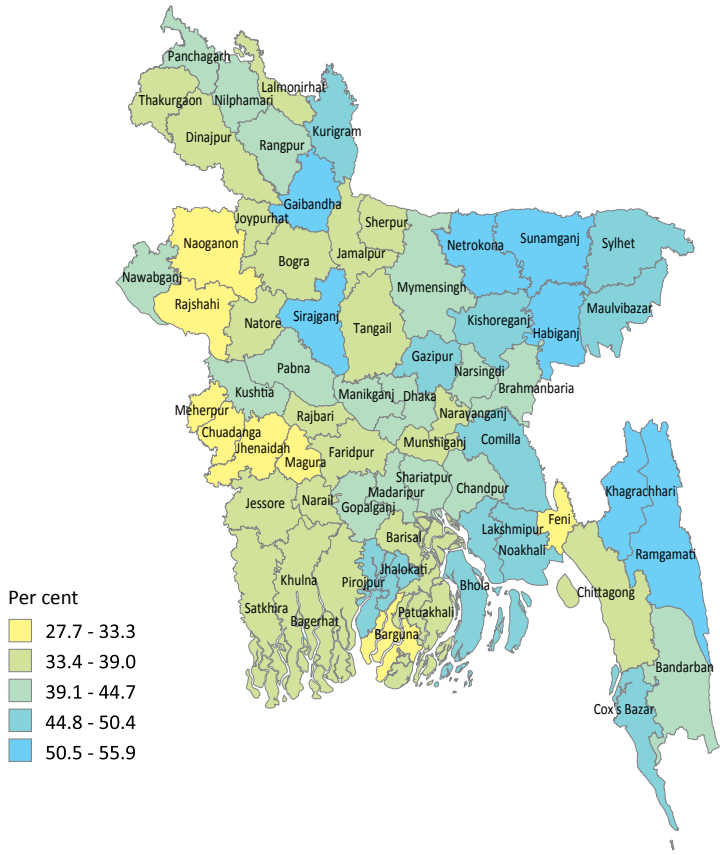
Children in Sylhet division are more likely to be underweight and stunted than other children. The percentage of wasted children is also highest in this division. Children with mothers having secondary or higher education are the least likely to be underweight or stunted compared to those with no education or primary incomplete. The age pattern shows that a higher percentage of children aged 24-47 months are stunted or underweight in comparison to children who are younger or older (Figure NU.1). This pattern is expected and is related to the age at which many children cease to be breastfed and are exposed to contamination in water, food, and environment. Children aged 12-23 however have higher percentage of wasting in comparison to younger and older children.

Figure NU.1: Underweight, stunted, wasted and overweight children under age 5 (moderate and severe), Bangladesh, 2012-2013



Map NU.1 shows the distribution of children who are stunted by district. At least one in every two child is stunted in about 8 districts spread over different divisions with Netrokona in Dhaka division having the highest percentage of stunted children and Meherpur in Khulna division with the least proportion.

Map NU.1: Children under five years of age who are stunted by district, Bangladesh, 2012-2013



Breastfeeding and Infant and Young Child Feeding

Proper feeding of infants and young children can increase their chances of survival; it can also promote optimal growth and development, especially in the critical window from birth to 2 years of age. Breastfeeding for the first few years of life protects children from infection, provides an ideal source of nutrients, and is economical and safe. However, many mothers don't start to breastfeed early enough, do not breastfeed exclusively for the recommended 6 months or stop breastfeeding too soon. There are often pressures to switch to infant formula, which can contribute to growth faltering and micronutrient malnutrition and can be unsafe if hygienic conditions, including safe drinking water are not readily available. Studies have shown that, in addition to continued breastfeeding, consumption of appropriate, adequate and safe solid, semi-solid and soft foods from the age of 6 months onwards leads to better health and growth outcomes, with potential to reduce stunting during the first two years of life[13].

UNICEF and WHO recommend that infants be breastfed within one hour of birth, breastfed exclusively for the first six months of life and continue to be breastfed up to 2 years of age and beyond[14]. Starting at 6 months, breastfeeding should be combined with safe, age-appropriate feeding of solid, semi-solid and soft foods[15]. A summary of key guiding principles[16,17], for feeding 6-23 month olds is provided in the table below along with proximate measures for these guidelines collected in this survey.

[13] *Bhuta Z. et al. (2013). Evidence-based interventions for improvement of maternal and child nutrition: what can be done and at what cost? The Lancet June 6, 2013.*
[14] *WHO (2003). Implementing the Global Strategy for Infant and Young Child Feeding. Meeting Report Geneva, 3-5 February 2003.*
[15] *WHO (2003). Global Strategy for Infant and Young Child Feeding.*
[16] *PAHO (2003). Guiding principles for complementary feeding of the breastfed child.*
[17] *WHO (2005). Guiding principles for feeding non-breastfed children 6-24 months of age*

The guiding principles for which proximate measures and indicators exist are:

(i) continued breastfeeding;

(ii) appropriate frequency of meals (but not energy density); and

(iii) appropriate nutrient content of food.

Feeding frequency is used as proxy for energy intake, requiring children to receive a minimum number of meals/snacks (and milk feeds for non-breastfed children) for their age. Diet diversity is used to ascertain the adequacy of the nutrient content of the food (not including iron) consumed. For diet diversity, seven food groups were created for which a child consuming at least four of these is considered to have a better quality diet. In most populations, consumption of at least four food groups means that the child has a high likelihood of consuming at least one animal-source food and at least one fruit or vegetable, in addition to a staple food (grain, root or tuber)[18].

These three dimensions of child feeding are combined into an assessment of the children who received appropriate feeding, using the indicator of "minimum acceptable diet". To have a minimum acceptable diet in the previous day, a child must have received:

(i) the appropriate number of meals/snacks/milk feeds;

(ii) food items form at least 4 food groups; and

(iii) breastmilk or at least 2 milk feeds (for non-breastfed children).

Guiding Principle (age 6-23 months)	Proximate measures	Table
Continue frequent, on-demand breastfeeding for two years and beyond	Breastfed in the last 24 hours	NU.4
Appropriate frequency and energy density of meals	**Breastfed children** Depending on age, two or three meals/snacks provided in the last 24 hours **Non-breastfed children** Four meals/snacks and/or milk feeds provided in the last 24 hours	NU.6
Appropriate nutrient content of food	Four food groups [19] eaten in the last 24 hours	NU.6
Appropriate amount of food	No standard indicator exists	na
Appropriate consistency of food	No standard indicator exists	na
Use of vitamin-mineral supplements or fortified products for infant and mother	No standard indicator exists	na
Practice good hygiene and proper food handling	While it was not possible to develop indicators to fully capture programme guidance, one standard indicator does cover part of the principle: Not feeding with a bottle with a nipple	NU.9
Practice responsive feeding, applying the principles of psycho-social care	No standard indicator exists	na
na= not available		

[18] *WHO (2008). Indicators for assessing infant and young child feeding practices. Part 1: Definitions.*

[19] *Food groups used for assessment of this indicator are 1) Grains, roots and tubers, 2) legumes and nuts, 3) dairy products (milk, yogurt, cheese), 4) flesh foods (meat, fish, poultry and liver/organ meats), 5) eggs, 6) vitamin-A rich fruits and vegetables, and 7) other fruits and vegetables.*

Table NU.3: Initial breastfeeding

Percentage of last-born children in the 2 years preceding the survey who were ever breastfed, percentage who were breastfed within one hour of birth and within one day of birth, and percentage who received a prelacteal feed, Bangladesh, 2012-2013

		Percentage ever breastfed [1]	Percentage who were first breastfed:		Percentage who received a prelacteal feed	Number of last live-born children in the last two years
			Within one hour of birth [2]	Within one day of birth		
Total		**97.1**	**57.4**	**88.0**	**22.7**	**7,950**
Division	Barisal	96.4	55.8	86.4	15.4	475
	Chittagong	95.0	53.1	88.3	16.1	1,851
	Dhaka	97.8	59.6	87.3	31.0	2,503
	Khulna	97.6	47.3	82.7	26.3	760
	Rajshahi	97.8	56.5	85.5	31.6	850
	Rangpur	98.7	59.1	93.2	13.0	886
	Sylhet	97.8	73.5	93.6	11.5	625
Area	Urban	96.7	52.7	84.4	24.4	1,681
	Rural	97.3	58.6	89.0	22.3	6,268
Months since last birth	0-11 months	96.6	57.7	87.7	21.9	3,871
	12-23 months	97.7	57.1	88.3	23.5	4,079
Assistance at delivery	Skilled attendant	97.8	47.9	83.6	25.4	3,459
	Traditional birth attendant	98.4	66.2	92.9	24.2	1,934
	Other	98.7	66.0	93.6	18.5	2,426
	No one/Missing	30.4	18.2	28.2	6.6	130
Place of delivery	Public sector health facility	97.1	49.2	84.0	19.0	1,040
	Private sector health facility	98.2	37.6	78.2	33.8	1,421
	Home	98.5	65.4	92.9	20.8	5,346
	Other/Missing	33.8	14.7	30.2	9.7	143
Mother's education	None	98.4	67.2	92.4	18.8	1,460
	Primary incomplete	96.2	55.1	87.1	24.5	1,056
	Primary complete	97.5	61.0	89.5	22.3	1,231
	Secondary incomplete	96.6	55.3	86.8	23.2	3,043
	Secondary complete or higher	97.5	48.8	84.9	25.2	1,160
Wealth index quintile	Poorest	97.5	62.5	90.6	19.4	1,828
	Second	97.3	61.7	89.9	19.5	1,607
	Middle	97.3	58.2	88.6	23.3	1,524
	Fourth	96.5	55.3	86.1	25.6	1,415
	Richest	96.9	48.1	84.1	26.5	1,575

[1] MICS indicator 2.5 - Children ever breastfed
[2] MICS indicator 2.6 - Early initiation of breastfeeding

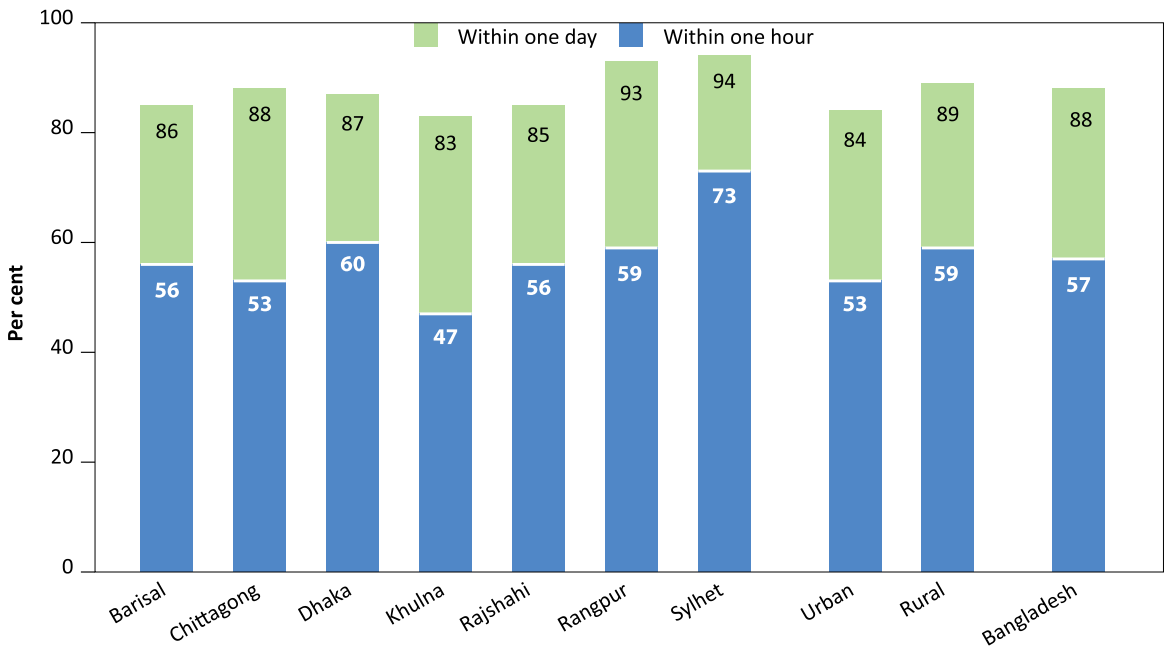
Table NU.3 is based on mothers' reports of what their last-born child, born in the last two years, was fed in the first few days of life. It indicates the proportion who were ever breastfed, those who were first breastfed within one hour and one day of birth, and those who received a prelacteal feed.[20]

[20] *Prelacteal feed refers to the provision any liquid or food, other than breastmilk, to a newborn during the period when breastmilk flow is generally being established (estimated here as the first 3 days of life).*

Although a very important step in management of lactation and establishment of a physical and emotional relationship between the baby and the mother, only 57.4 per cent babies are breastfed for the first time within one hour of birth, while 88 per cent of newborns in Bangladesh start breastfeeding within one day of birth. Some 22.7 per cent of children received a prelacteal feed. Children born in the public sector health facilities are much more likely to be breastfed within one hour of birth (49.2 per cent) than children born in the private sector facilities (37.6 per cent).

Large differences in breastfeeding within one hour or one day of birth are observed between the divisions. Khulna with 47.3 per cent of children breastfed within one hour is much lower than Sylhet at 73.5 per cent. Interestingly, breastfeeding within one hour or one day is found lower for deliveries with assistance from skilled birth attendants, though the attendants are trained to promote early breastfeeding practices. Prelacteal feeding seems to be associated with the wealth status of the household as higher proportion of children from the richest households receive a prelacteal feed.

Figure NU.2: Initiation of breastfeeding, Bangladesh, 2012-2013



The set of Infant and Young Child Feeding indicators reported in tables NU.4 through NU.8 are based on the mother's report of consumption of food and fluids during the day or night prior to being interviewed. Data are subject to a number of limitations, some related to the respondent's ability to provide a full report on the child's liquid and food intake due to recall errors as well as lack of knowledge in cases where the child was fed by other individuals.

In Table NU.4, breastfeeding status is presented for both *Exclusively breastfed* and *Predominantly breastfed;* referring to infants age less than 6 months who are breastfed, distinguished by *the former* only allowing vitamins, mineral supplements, and medicine and *the latter* allowing also plain water and non-milk liquids. The table also shows continued breastfeeding of children at 12-15 and 20-23 months of age.

Table NU.4: Breastfeeding

Percentage of living children according to breastfeeding status at selected age groups, Bangladesh, 2012-2013

		Children 0-5 months			Children 12-15 months		Children 20-23 months	
		Per cent exclusively breastfed [1]	Per cent predominantly breastfed [2]	Number of children	Per cent breastfed (Continued breastfeeding at 1 year) [3]	Number of children	Per cent breastfed (Continued breastfeeding at 2 years) [4]	Number of children
Total		**56.4**	**71.9**	**1,981**	**95.3**	**1,575**	**87.5**	**1,149**
Sex	Male	55.9	70.4	974	95.8	780	87.4	626
	Female	56.8	73.4	1,007	94.9	795	87.7	523
Division	Barisal	65.0	74.5	127	94.3	98	90.5	58
	Chittagong	69.4	82.8	440	93.2	405	77.7	299
	Dhaka	46.2	64.8	639	97.3	457	91.0	350
	Khulna	50.5	73.8	167	96.3	143	92.4	120
	Rajshahi	50.1	61.0	193	92.7	179	91.9	123
	Rangpur	67.7	75.7	235	98.2	174	92.8	114
	Sylhet	52.2	73.9	179	94.3	119	85.5	84
Area	Urban	52.7	71.4	380	93.8	326	86.8	262
	Rural	57.3	72.1	1,601	95.7	1,249	87.7	887
Mother's education	None	59.3	74.4	356	96.9	297	87.8	240
	Primary incomplete	59.5	75.9	273	99.2	170	84.0	171
	Primary complete	49.0	66.0	300	96.3	261	93.3	153
	Secondary incomplete	57.7	71.9	767	94.1	623	88.0	418
	Secondary complete or higher	53.9	71.4	285	92.7	222	84.4	167
Wealth index quintile	Poorest	58.5	73.8	449	97.5	365	89.9	302
	Second	62.3	75.4	436	95.9	300	89.5	232
	Middle	53.8	71.6	373	97.5	304	85.0	189
	Fourth	53.3	69.0	330	93.3	315	89.6	188
	Richest	52.4	68.8	393	92.0	292	83.1	238

[1] MICS indicator 2.7 - Exclusive breastfeeding under 6 months
[2] MICS indicator 2.8 - Predominant breastfeeding under 6 months
[3] MICS indicator 2.9 - Continued breastfeeding at 1 year
[4] MICS indicator 2.10 - Continued breastfeeding at 2 years

Approximately 56.4 per cent of children aged less than six months in Bangladesh were exclusively breastfed, a level lower than recommended. With 71.9 per cent predominantly breastfed, it is evident that water-based liquids are displacing feeding of breastmilk to a great degree. By age 12-15 months, 95.3 per cent of children are breastfed and by age 20-23 months, 87.5 per cent are breastfed. Differences in exclusive breastfeeding between girls and boys are minimal, and so are between different education of mother and wealth background. However, rates vary between divisions; some 46.2 per cent of children aged 0-5 months in Dhaka division were exclusively breastfed, as compared to 69.4 per cent in Chittagong.

Figure NU.3 shows the level of exclusive breastfeeding of children 0-5 months by different background characteristics. Unlike other indicators higher proportion of children are exclusively breastfed by mothers of lower levels of education and belonging to lower wealth categories as compared to higher education and richer classes, respectively, though the patterns are not so pronounced.

Figure NU.3: Percentage of children (0-5 months) exclusively breastfed by background characteristics, Bangladesh MICS, 2012-2013

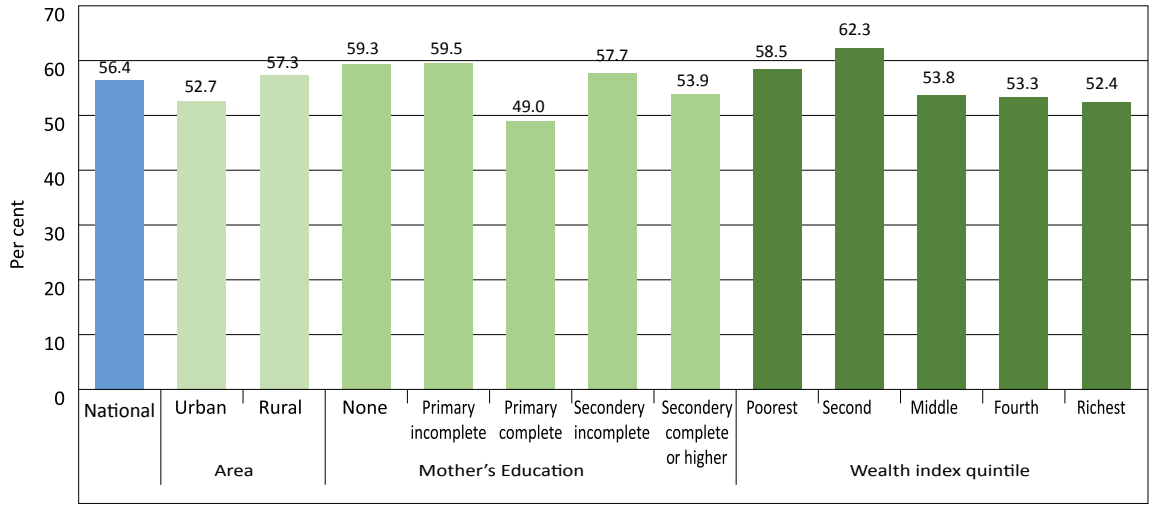


Table NU.5 shows the median duration of breastfeeding by selected background characteristics. Among children under age 3, the median duration is 32.1 months for any breastfeeding, 3.1 months for exclusive breastfeeding, and 4.9 months for predominant breast feeding. The differences in median duration of any breastfeeding and exclusive breastfeeding are not large across gender, but noticeable between areas and divisions; children in rural areas are likely to be breastfed for a longer period of time while that of Dhaka division for a shorter period of time. And so are those with mothers having lower levels of education or belonging to poorer households.

Table NU.5: Duration of breastfeeding

Median duration of any breastfeeding, exclusive breastfeeding, and predominant breastfeeding among children age 0-35 months, Bangladesh, 2012-2013

		Median duration (in months) of			Number of children age 0-35 months
		Any breastfeeding [1]	Exclusive breastfeeding	Predominant breastfeeding	
Median		**32.1**	**3.1**	**4.9**	**12,265**
Sex	Male	33.8	3.1	4.7	6,219
	Female	31.5	3.2	5.2	6,046
Region	Barisal	33.3	3.8	5.1	729
	Chittagong	25.1	4.6	7.7	2,866
	Dhaka	33.0	2.3	3.8	3,843
	Khulna	≥36.0	2.5	4.3	1,170
	Rajshahi	≥36.0	2.5	4.1	1,384
	Rangpur	33.9	4.0	5.5	1,337
	Sylhet	29.7	2.7	5.4	936
Area	Urban	28.2	2.7	4.4	2,535
	Rural	33.1	3.2	5.1	9,730
Mother's education	None	33.1	3.5	5.5	2,431
	Primary incomplete	≥36.0	3.6	5.5	1,665
	Primary complete	32.6	2.4	4.9	1,913
	Secondary incomplete	31.5	3.2	4.8	4,538
	Secondary complete or higher	29.5	2.8	4.3	1,717

Table NU.5: continued

		Median duration (in months) of			Number of children age 0-35 months
		Any breastfeeding [1]	Exclusive breastfeeding	Predominant breastfeeding	
Wealth index quintile	Poorest	33.5	3.4	5.6	2,876
	Second	≥36.0	3.8	5.8	2,478
	Middle	31.8	2.8	4.6	2,292
	Fourth	32.5	2.9	4.7	2,238
	Richest	27.5	2.7	4.2	2,382

[1] MICS indicator 2.11 - Duration of breastfeeding

The age-appropriateness of breastfeeding of children under age 24 months is provided in Table NU.6. Different criteria of feeding are used depending on the age of the child. For infants age 0-5 months, exclusive breastfeeding is considered as age-appropriate feeding, while children age 6-23 months are considered to be appropriately fed if they are receiving breastmilk and solid, semi-solid or soft food. The table shows that in Bangladesh, disparities in age appropriate feeding exist mainly in different divisions. For example, in Dhaka, 46.2 per cent children age 0-5 months are exclusively breastfed, whilst in Chittagong, 69.4 per cent of them are exclusively breastfed. For children age 6-23 months, these two divisions are also very different - 72 per cent in Dhaka compared to 55 per cent in Chittagong. As a result of feeding patterns, only 69.7 per cent of children age 6-23 months are being appropriately breastfed and age-appropriate breastfeeding among all children age 0-23 months drops to 66.5 per cent. A wide variation is observed across divisions (Table NU.6), with the Rangpur showing the highest percentage of under 24 month children appropriately fed (76.8 per cent) and Chittagong the lowest (58.3 per cent).

Table NU.6: Age-appropriate breastfeeding

Percentage of children age 0-23 months who were appropriately breastfed during the previous day, Bangladesh, 2012-2013

		Children age 0-5 months		Children age 6-23 months		Children age 0-23 months	
		Per cent exclusively breastfed [1]	Number of children	Per cent currently breastfeeding and receiving solid, semi-solid or soft foods	Number of children	Per cent appropriately breastfed [2]	Number of children
Total		**56.4**	**1,981**	**69.7**	**6,095**	**66.5**	**8,076**
Sex	Male	55.9	974	69.6	3,131	66.4	4,105
	Female	56.8	1,007	69.9	2,965	66.6	3,971
Division	Barisal	65.0	127	60.9	360	62.0	487
	Chittagong	69.4	440	55.0	1,476	58.3	1,916
	Dhaka	46.2	639	72.0	1,890	65.5	2,529
	Khulna	50.5	167	83.3	605	76.2	772
	Rajshahi	50.1	193	79.4	679	72.9	872
	Rangpur	67.7	235	80.0	661	76.8	896
	Sylhet	52.2	179	67.6	425	63.0	603
Area	Urban	52.7	380	66.4	1,311	63.3	1,691
	Rural	57.3	1,601	70.6	4,785	67.3	6,386
Mother's education	None	59.3	356	67.7	1,144	65.7	1,500
	Primary incomplete	59.5	273	71.1	766	68.0	1,039
	Primary complete	49.0	300	67.5	955	63.0	1,256
	Secondary incomplete	57.7	767	70.8	2,319	67.6	3,085
	Secondary complete or higher	53.9	285	70.9	911	66.8	1,196

Table NU.6: continued

		Children age 0-5 months		Children age 6-23 months		Children age 0-23 months	
		Per cent exclusively breastfed [1]	Number of children	Per cent currently breastfeeding and receiving solid, semi-solid or soft foods	Number of children	Per cent appropriately breastfed [2]	Number of children
Wealth index quintile	Poorest	58.5	449	70.7	1,391	67.7	1,840
	Second	62.3	436	70.9	1,198	68.6	1,634
	Middle	53.8	373	70.0	1,150	66.0	1,523
	Fourth	53.3	330	71.5	1,109	67.3	1,439
	Richest	52.4	393	65.7	1,248	62.5	1,640

[1] MICS indicator 2.7 - Exclusive breastfeeding under 6 months
[2] MICS indicator 2.12 - Age-appropriate breastfeeding

Overall, 42.4 per cent of infants aged 6-8 months in Bangladesh received solid, semi-solid, or soft foods at least once during the previous day (Table NU.7). Among currently breastfeeding infants this percentage is 41.6 while it is 67.7 among infants currently not breastfeeding. There is little difference between boys and girls who are currently breastfeeding and receiving solid, semi-solid or soft foods, but boys and girls who are currently not breastfeeding are very different with boys much more likely to be receiving solid, semi-solid or soft foods. Again, children living in urban areas are more likely to receive them than those living in rural areas

Table NU.7: Introduction of solid, semi-solid, or soft foods

Percentage of infants age 6-8 months who received solid, semi-solid, or soft foods during the previous day, Bangladesh, 2012-2013

		Currently breastfeeding		Currently not breastfeeding		All	
		Per cent receiving solid, semi-solid or soft foods	Number of children age 6-8 months	Per cent receiving solid, semi-solid or soft foods	Number of children age 6-8 months	Per cent receiving solid, semi-solid or soft foods [1]	Number of children age 6-8 months
Total		**41.6**	**987**	**(67.7)**	**35**	**42.4**	**1,022**
Sex	Male	41.9	522	(*)	20	43.2	542
	Female	41.2	465	(*)	15	41.6	479
Area	Urban	48.5	195	(*)	14	51.2	209
	Rural	39.9	792	(*)	21	40.2	813

[1] MICS indicator 2.13 - Introduction of solid, semi-solid or soft foods
( ) Figures that are based on 25-49 unweighted cases
(*) Figures that are based on less than 25 unweighted cases

The continued practice of bottle-feeding is a concern because of the possible contamination due to unsafe water and lack of hygiene in preparation. Table NU.8 shows that bottle-feeding is still prevalent in Bangladesh. 12.1 per cent of children 0-23 months are fed using a bottle with a nipple. This figure increases to 17.2 per cent in children age 6-11, although declines to 8.9 in children age 12-23. The higher the mother's education or the richer the household, the higher the proportion of children fed with a bottle with nipple (5.4 per cent in the poorest quintile and 21.9 per cent in the richest quintile). Wide gap also exist between divisions.

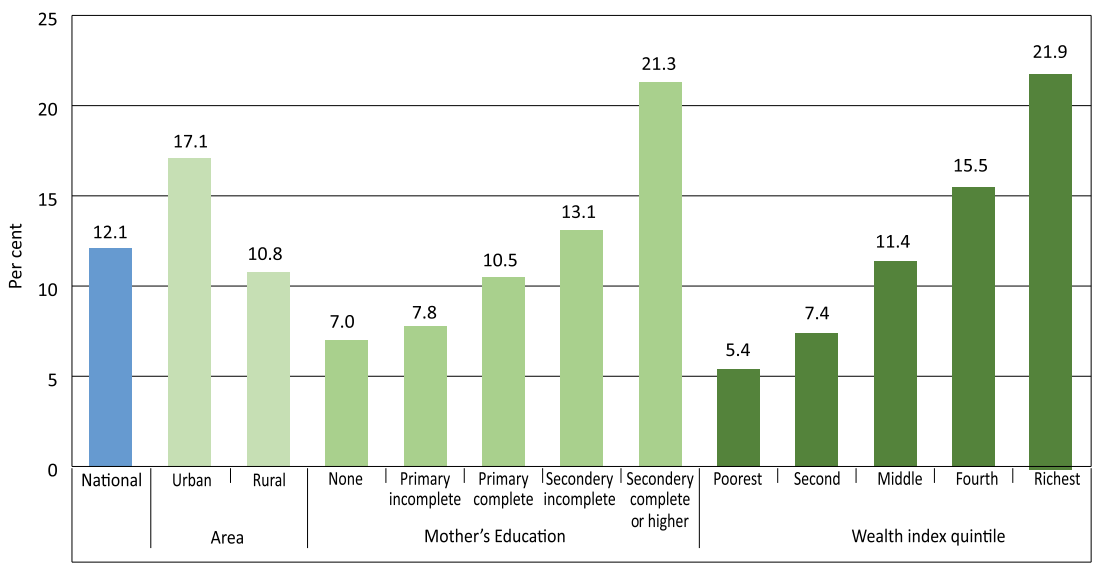
Table NU.8: Bottle feeding

Percentage of children age 0-23 months who were fed with a bottle with a nipple during the previous day, Bangladesh, 2012-2013

		Percentage of children age 0-23 months fed with a bottle with a nipple [1]	Number of children age 0-23 months
Total		**12.1**	**8,076**
Sex	Male	12.1	4,105
	Female	12.1	3,971
Age	0-5 months	13.5	1,981
	6-11 months	17.2	2,002
	12-23 months	8.9	4,093
Division	Barisal	10.2	487
	Chittagong	11.1	1,916
	Dhaka	17.4	2,529
	Khulna	8.6	772
	Rajshahi	15.5	872
	Rangpur	5.4	896
	Sylhet	4.5	603
Area	Urban	17.1	1,691
	Rural	10.8	6,386
Mother's education	None	7.0	1,500
	Primary incomplete	7.8	1,039
	Primary complete	10.5	1,256
	Secondary incomplete	13.1	3,085
	Secondary complete or higher	21.3	1,196
Wealth index quintile	Poorest	5.4	1,840
	Second	7.4	1,634
	Middle	11.4	1,523
	Fourth	15.5	1,439
	Richest	21.9	1,640

[1] MICS indicator 2.18 - Bottle feeding

Figure NU.4: Children age 0-23 months fed with a bottle with a nipple by background characteristics, Bangladesh, 2012-2013



Salt Iodization

Iodine Deficiency Disorders (IDD) is the world's leading cause of preventable mental retardation and impaired psychomotor development in young children. In its most extreme form, iodine deficiency causes cretinism. It also increases the risks of stillbirth and miscarriage in pregnant women. Iodine deficiency is most commonly and visibly associated with goitre. IDD takes its greatest toll in impaired mental growth and development, contributing in turn to poor school performance, reduced intellectual ability, and impaired work performance. The indicator is the percentage of households consuming adequately iodized salt (≥15 parts per million).

Government of Bangladesh introduced the Iodine Deficiency Disease Prevention Law ('Salt Law') making it mandatory for all edible salt to be iodized during 1989. UNICEF is providing support to the Government since then for implementation of the national universal salt iodization programme. In 2013, Government revised Salt Law to harmonise standards and include iodisation of all salt including in processed food, industrial salt. In addition to legislation, apart from this, Government of Bangladesh has increased efforts on establishing sustainable infrastructure for salt iodization and monitoring, creating consumer demand for adequately iodized salt, raising awareness on the importance of adequately iodized salt and the dangers of Iodine Deficiency Disorders on growth and development with support from UNICEF and other partners.

Table NU.9: Iodized salt consumption

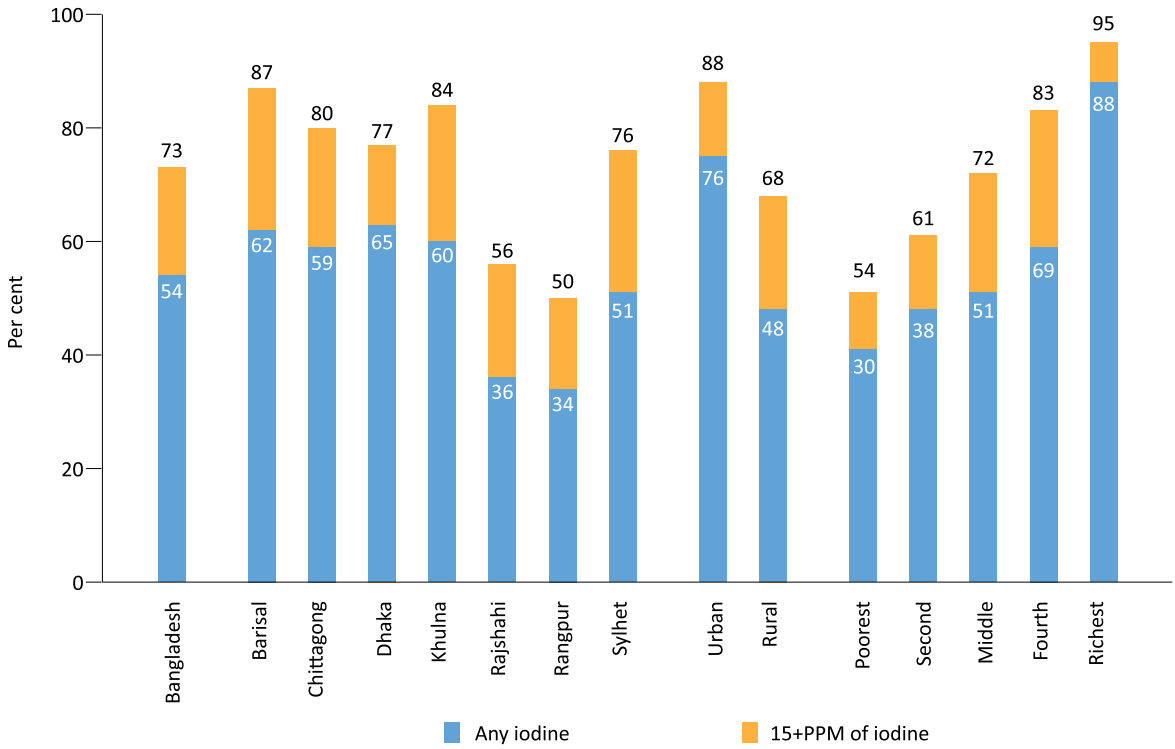
Per cent distribution of households by consumption of iodized salt, Bangladesh, 2012-2013

		Per cent of households in which salt was tested	Number of households	Per cent of households with salt test result				Total	Number of households in which salt was tested or with no salt
				Per cent of households with no salt	Not iodized 0 PPM	>0 and <15 PPM	15+ PPM [1]		
Total		**98.1**	**51,895**	**1.1**	**26.3**	**18.3**	**54.3**	**100.0**	**51,499**
Division	Barisal	99.4	3,155	0.2	12.7	24.7	62.4	100.0	3,143
	Chittagong	98.4	9,278	0.6	19.5	20.6	59.3	100.0	9,188
	Dhaka	98.2	16,556	1.1	21.9	12.4	64.6	100.0	16,428
	Khulna	98.8	6,167	0.8	15.5	23.7	60.1	100.0	6,139
	Rajshahi	98.2	7,449	0.9	42.8	20.1	36.3	100.0	7,381
	Rangpur	96.9	6,454	2.8	46.8	16.6	33.8	100.0	6,435
	Sylhet	96.9	2,836	1.4	22.2	25.7	50.7	100.0	2,786
Area	Urban	98.6	11,144	0.5	11.1	12.2	76.1	100.0	11,049
	Rural	98.0	40,751	1.3	30.4	20.0	48.4	100.0	40,450
Wealth index quintile	Poorest	97.6	11,195	1.7	44.2	24.5	29.6	100.0	11,117
	Second	97.8	10,510	1.5	37.1	23.3	38.2	100.0	10,434
	Middle	98.2	10,163	1.1	26.6	21.1	51.2	100.0	10,086
	Fourth	98.3	9,950	0.8	15.8	14.8	68.6	100.0	9,866
	Richest	98.9	10,078	0.3	5.2	6.8	87.7	100.0	9,997

[1] MICS indicator 2.19 - Iodized salt consumption

In about 98.1 per cent of households, salt used for cooking was tested for iodine content by using salt test kits and testing for the presence of potassium iodate content. Table NU.9 shows that in a very small proportion of households (1.1 per cent), there was no salt available. In 54.3 per cent of households, salt was found to contain 15 parts per million (ppm) or more of iodine. Use of adequately iodized salt was particularly low in Rangpur and Rajshahi (33.8 and 36.3 per cent). More than three quarters (76.1 per cent) of urban households were found to be using adequately iodized salt as compared to only 48.4 per cent in rural areas. As expected, the difference between the richest and poorest households in terms of iodized salt consumption is significant (Figure NU.5).

Figure NU.5: Percentage of households consuming adequately iodized salt, Bangladesh MICS, 2012-2013



VI. Child Health

Neonatal Tetanus Protection

One of the MDGs is to reduce by three quarters the maternal mortality ratio, with one strategy to eliminate maternal tetanus. Following on the 42nd and 44th World Health Assembly calls for elimination of neonatal tetanus, the global community continues to work to reduce the incidence of neonatal tetanus to less than 1 case of neonatal tetanus per 1,000 live births in every district by 2015.

The strategy for preventing maternal and neonatal tetanus is to ensure that all pregnant women receive at least two doses of tetanus toxoid vaccine. If a woman has not received at least two doses of tetanus toxoid during a particular pregnancy, she (and her newborn) are also considered to be protected against tetanus if the woman:

- Received at least two doses of tetanus toxoid vaccine, the last within the previous 3 years;
- Received at least 3 doses, the last within the previous 5 years;
- Received at least 4 doses, the last within the previous 10 years;
- Received 5 or more doses anytime during her life.

To assess the status of tetanus vaccination coverage, women who had a live birth during the two years before the survey were asked if they had received tetanus toxoid injections during the pregnancy for their most recent birth, and if so, how many. Women who did not receive two or more tetanus toxoid vaccinations during this recent pregnancy were then asked about tetanus toxoid vaccinations they may have previously received. Interviewers also asked women to present their vaccination card on which dates of tetanus toxoid are recorded and referred to information from the cards when available.

Table CH.1: Neonatal tetanus protection

Percentage of women age 15-49 years with a live birth in the last 2 years protected against neonatal tetanus, Bangladesh, 2012-2013

		Percentage of women who received at least 2 doses during last pregnancy	Percentage of women who did not receive two or more doses during last pregnancy but received:				Protected against tetanus [1]	Number of women with a live birth in the last 2 years
			2 doses, the last within prior 3 years	3 doses, the last within prior 5 years	4 doses, the last within prior 10 years	5 or more doses during lifetime		
Total		**39.2**	**22.7**	**6.2**	**9.9**	**2.8**	**80.8**	**7,950**
Division	Barisal	50.4	17.3	4.1	5.9	1.7	79.4	475
	Chittagong	49.3	19.2	4.2	5.8	.8	79.4	1,851
	Dhaka	40.0	21.0	7.2	11.3	3.0	82.5	2,503
	Khulna	24.2	34.9	8.3	11.9	4.1	83.4	760
	Rajshahi	36.9	26.3	6.2	11.4	4.2	85.0	850
	Rangpur	36.4	27.8	5.9	9.9	3.4	83.4	86
	Sylhet	22.4	17.6	8.0	14.4	4.4	66.7	625
Area	Urban	45.4	21.1	4.3	8.4	2.6	81.8	1,681
	Rural	37.5	23.2	6.7	10.3	2.9	80.5	6,268
Education	None	36.0	16.6	3.8	7.7	3.6	67.7	1,460
	Primary incomplete	38.9	21.5	4.8	10.1	3.1	78.4	1,056
	Primary complete	39.7	22.4	7.9	8.8	3.2	81.9	1,231
	Secondary incomplete	40.5	24.8	6.7	10.7	2.4	85.1	3,043
	Secondary complete or higher	39.3	26.7	7.5	11.3	2.3	87.1	1,160

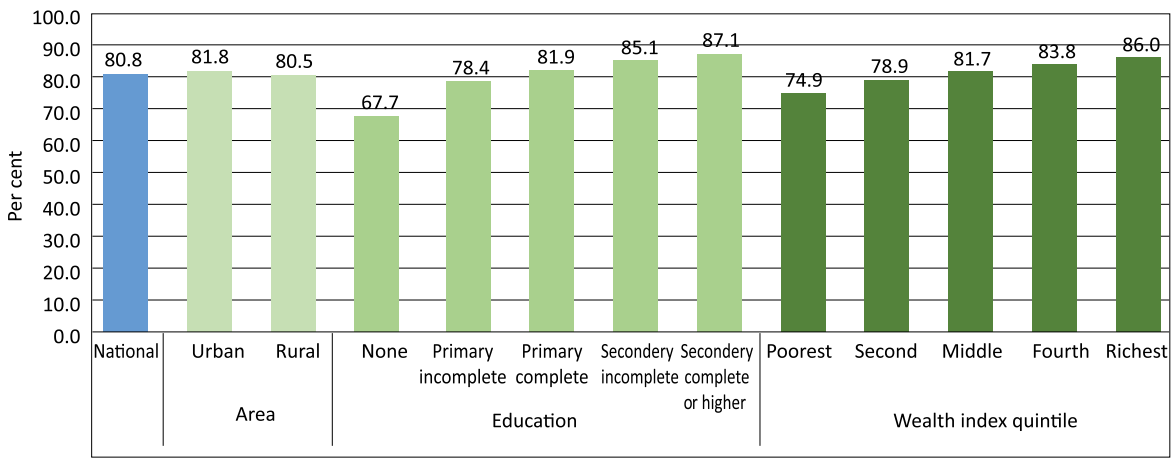
Table CH.1 : continued

		Percentage of women who received at least 2 doses during last pregnancy	Percentage of women who did not receive two or more doses during last pregnancy but received:				Protected against tetanus [1]	Number of women with a live birth in the last 2 years
			2 doses, the last within prior 3 years	3 doses, the last within prior 5 years	4 doses, the last within prior 10 years	5 or more doses during lifetime		
Wealth index quintile	Poorest	36.0	21.0	4.7	10.4	2.8	74.9	1,828
	Second	37.7	23.0	7.0	8.9	2.4	78.9	1,607
	Middle	38.3	23.5	7.0	9.6	3.3	81.7	1,524
	Fourth	38.9	26.2	6.3	9.2	3.2	83.8	1,415
	Richest	45.4	20.6	6.4	11.1	2.5	86.0	1,575

[1] MICS indicator 3.9 - Neonatal tetanus protection

Table CH.1 shows the protection status from tetanus of women who have had a live birth within the last 2 years. It indicates that about 80.8 per cent of women were adequately protected against tetanus. Protection levels are similar in most of the divisions, except in Sylhet, which lags behind other divisions in protection against tetanus (66.7 per cent). Overall, only about 4 in 10 women received at least two doses of Tetanus Toxoid during their last pregnancy. Protection against tetanus had a higher coverage among women who completed secondary school or higher (87.1 per cent) when compared to women with no education (67.7 per cent). The coverage also varied with the wealth levels (Figure CH.1).

Figure CH.1: Percentage of women age 15-49 years with a live birth in the last 2 years protected against neonatal tetanus by background characteristics, Bangladesh, 2012-2013



Care of Illness

A key strategy for accelerating progress toward MDG 4 is to tackle the diseases that are the leading killers of children under 5. Diarrhoea and pneumonia are two such diseases. The Global Action Plan for the Prevention and Control of Pneumonia and Diarrhoea (GAPPD) aims to end preventable pneumonia and diarrhoea death by reducing mortality from pneumonia to 3 deaths per 1000 live births and mortality from diarrhoea to 1 death per 1000 live births by 2025[21].

Table CH.2 presents the percentage of children under 5 years of age who were reported to have had an episode of diarrhoea, symptoms of acute respiratory infection (ARI), or fever during the 2 weeks preceding the survey. These results are not measures of true prevalence, and should not be used as such, but rather the period-prevalence of those illnesses over a two-week time window.

[21] *World Health Organization/The United Nations Children's Fund (UNICEF) 2013. "End preventable deaths: Global Action Plan for Prevention and Control of Pneumonia and Diarrhoea", 2013*

The definition of a case of diarrhoea or fever, in this survey, was the mother's or caretaker's report that the child had such symptoms over the specified period; no other evidence were sought beside the opinion of the mother. A child was considered to have had an episode of ARI if the mother or caretaker reported that the child had, over the specified period, an illness with a cough with rapid or difficult breathing, and whose symptoms were perceived to be due to a problem in the chest or both a problem in the chest and a blocked nose. While this approach is reasonable in the context of a MICS survey, these basically simple case definitions must be kept in mind when interpreting the results, as well as the potential for reporting and recall biases. Further, diarrhoea, fever and ARI are not only seasonal but are also characterized by the often rapid spread of localized outbreaks from one area to another at different points in time. The timing of the survey and the location of the teams might thus considerably affect the results, which must consequently be interpreted with caution. For these reasons, although the period-prevalence over a two-week time window is reported, these data should not be used to assess the epidemiological characteristics of these diseases but rather to obtain denominators for the indicators related to use of health services and treatment.

Table CH.2 Reported disease episodes

Percentage of children age 0-59 months for whom the mother/caretaker reported an episode of diarrhoea and/or symptoms of acute respiratory infection (ARI) in the last two weeks, Bangladesh, 2012-2013

		Percentage of children who in the last two weeks had:		Number of children age 0-59 months
		An episode of diarrhoea	Symptoms of ARI	
Total		**3.9**	**3.2**	**20,903**
Sex	Male	3.9	3.5	10,694
	Female	4.0	2.9	10,209
Division	Barisal	6.3	4.1	1,270
	Chittagong	4.5	3.6	4,792
	Dhaka	3.5	2.1	6,456
	Khulna	3.3	4.3	2,014
	Rajshahi	3.5	3.1	2,405
	Rangpur	3.8	3.2	2,372
	Sylhet	3.8	4.7	1,595
Area	Urban	4.6	2.4	4,268
	Rural	3.8	3.4	16,635
Age	0-11 months	5.4	4.5	3,983
	12-23 months	7.7	4.1	4,093
	24-35 months	3.3	3.0	4,189
	36-47 months	2.2	2.5	4,332
	48-59 months	1.4	2.1	4,306
Mother's education	None	3.8	2.9	4,700
	Primary incomplete	4.7	3.8	2,944
	Primary complete	3.6	3.2	3,256
	Secondary incomplete	3.9	3.5	7,291
	Secondary complete or higher	3.9	2.3	2,711
Wealth index quintile	Poorest	4.8	3.8	5,105
	Second	3.6	4.1	4,285
	Middle	3.4	3.0	3,886
	Fourth	3.7	2.8	3,750
	Richest	4.0	2.0	3,877

Overall, 3.9 per cent of under five children were reported to have had diarrhoea in the two weeks preceding the survey, 3.2 per cent symptoms of ARI (Table CH.2). There are minor differences between urban and rural areas, particularly in the case of diarrhoea and ARI.

Diarrhoea

Diarrhoea is a leading cause of death among children under five worldwide. Most diarrhoea-related deaths in children are due to dehydration from loss of large quantities of water and electrolytes from the body in liquid stools. Management of diarrhoea – mostly through oral rehydration salts (ORS) or a recommended home fluid (RHF) – can prevent many of these deaths. In addition, provision of zinc supplements has been shown to reduce the duration and severity of the illness as well as the risk of future episodes. Preventing dehydration and malnutrition by increasing fluid intake and continuing to feed the child are also important strategies for managing diarrhoea.

In the MICS, mothers or caretakers were asked whether their child under age five years had an episode of diarrhoea in the two weeks prior to the survey. In cases where mothers reported that the child had diarrhoea, a series of questions were asked about the treatment of the illness, including what the child had been given to drink and eat during the episode and whether this was more or less than what was usually given to the child.

The overall period-prevalence of diarrhoea in children under 5 years of age is 3.9 per cent (Table CH.2) and ranges from 3.3 per cent in Khulna division to 6.3 per cent in Barisal division. The highest period-prevalence is seen among children age 12-23 months which grossly corresponds to the weaning period. The spatial distribution of prevalence of diarrhoea in different districts is presented in Map CH.1.

Map CH.1: Children age 0-59 months with diarrhoea in the last two weeks by district, Bangladesh, 2012-2013

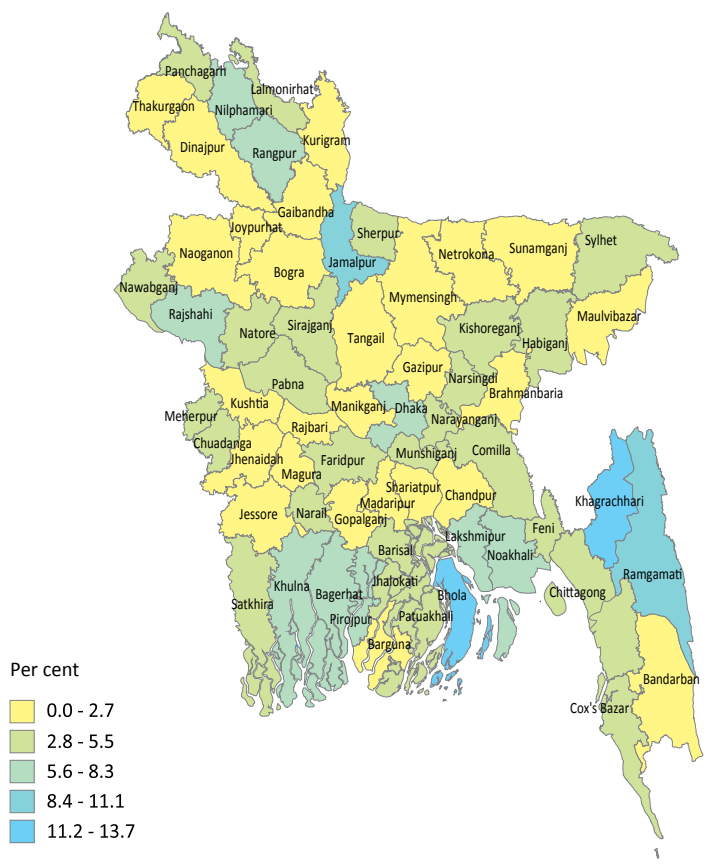


Table CH.3: Feeding practices during diarrhoea

Per cent distribution of children age 0-59 months with diarrhoea in the last two weeks by amount of liquids and food given during episode of diarrhoea, Bangladesh, 2012-2013

		Had diarrhoea in last two weeks	Number of children age 0-59 months	Drinking practices during diarrhoea:							Eating practices during diarrhoea:								Number of children aged 0-59 months with diarrhoea
				Given much less to drink	Given somewhat less to drink	Given about the same to drink	Given more to drink	Given nothing to drink	Missing/ DK	Total	Given much less to eat	Given somewhat less to eat	Given about the same to eat	Given more to eat	Stopped food	Had never been given food	Missing /DK	Total	
Total		**3.9**	**20,903**	**15.4**	**26.8**	**32.6**	**23.0**	**1.2**	**1.1**	**100.0**	**17.4**	**38.4**	**34.6**	**6.1**	**1.4**	**0.5**	**1.7**	**100.0**	**825**
Sex	Male	3.9	10,694	12.8	29.1	32.0	23.9	1.7	0.5	100.0	15.6	40.8	34.2	6.3	1.6	0.4	1.0	100.0	421
	Female	4.0	10,209	18.1	24.5	33.1	22.0	0.6	1.7	100.0	19.3	35.9	35.0	5.8	1.2	0.5	2.4	100.0	404
Division	Barisal	6.3	1,270	13.2	22.3	34.4	28.8	0.8	0.4	100.0	24.9	34.3	33.4	6.4	0.5	0.0	0.4	100.0	80
	Chittagong	4.5	4,792	17.8	32.2	38.0	11.4	0.1	0.5	100.0	8.2	46.4	37.7	3.0	4.0	0.1	0.5	100.0	218
	Dhaka	3.5	6,456	16.3	22.5	29.7	28.1	1.9	1.6	100.0	21.0	34.4	35.3	6.5	0.4	0.4	2.0	100.0	224
	Khulna	3.3	2,014	18.9	30.4	24.0	20.7	3.9	2.0	100.0	22.0	50.0	21.5	5.1	0.0	0.0	1.4	100.0	67
	Rajshahi	3.5	2,405	10.8	23.3	29.3	35.4	0.0	1.3	100.0	20.3	27.1	39.2	10.6	0.0	0.0	2.9	100.0	85
	Rangpur	3.8	2,372	12.2	24.5	35.3	27.6	0.5	0.0	100.0	12.9	32.1	36.2	12.9	1.2	1.4	3.3	100.0	90
	Sylhet	3.8	1,595	13.3	34.0	31.3	16.5	2.5	2.4	100.0	24.3	41.6	28.1	0.0	0.9	2.1	3.0	100.0	61
Area	Urban	4.6	4,268	23.2	23.4	34.6	18.5	0.0	0.3	100.0	16.0	42.1	37.1	4.6	0.0	0.0	0.2	100.0	198
	Rural	3.8	16,635	12.9	27.9	31.9	24.4	1.5	1.3	100.0	17.8	37.2	33.8	6.5	1.9	0.6	2.2	100.0	627
Age	0-11	5.4	3,983	20.8	31.1	32.2	14.7	0.8	0.4	100.0	22.1	34.0	33.6	5.7	2.4	0.7	1.3	100.0	213
	12-23	7.7	4,093	14.4	26.8	34.9	20.6	1.6	1.6	100.0	15.9	41.6	33.6	5.6	1.0	0.4	1.9	100.0	315
	24-35	3.3	4,189	12.6	21.3	30.7	33.4	1.1	0.8	100.0	17.8	34.5	36.1	7.7	2.2	0.0	1.6	100.0	140
	36-47	2.2	4,332	12.5	26.7	27.5	31.9	0.0	1.4	100.0	10.3	41.5	39.4	6.2	0.3	1.0	1.4	100.0	97
	48-59	1.4	4,306	12.6	24.7	33.9	26.4	2.0	0.5	100.0	18.6	40.5	32.3	5.9	0.0	0.0	2.8	100.0	61
Mother's education	None	3.8	4,700	15.6	25.6	30.4	22.3	3.5	2.6	100.0	18.0	32.9	39.3	4.4	1.5	0.9	2.9	100.0	180
	Primary incomplete	4.7	2,944	14.5	31.0	32.9	17.6	2.1	2.0	100.0	17.3	46.3	25.6	3.8	3.3	0.4	3.3	100.0	139
	Primary complete	3.6	3,256	13.4	27.8	31.6	27.2	0.0	0.0	100.0	21.0	33.5	33.1	11.2	1.1	0.0	0.2	100.0	118
	Secondary incomplete	3.9	7,291	19.4	24.5	30.5	25.0	0.2	0.5	100.0	19.2	39.2	33.0	5.8	1.1	0.2	1.4	100.0	282
	Secondary complete or higher	3.9	2,711	7.8	28.6	42.5	21.2	0.0	0.0	100.0	7.6	40.4	44.3	6.8	0.0	0.9	0.0	100.0	106
Wealth index quintile	Poorest	4.8	5,105	13.1	33.1	24.0	26.8	1.1	2.0	100.0	16.0	39.0	33.3	6.3	1.6	0.6	3.1	100.0	246
	Second	3.6	4,285	14.8	22.9	36.8	22.0	1.6	1.9	100.0	24.0	32.0	35.8	3.2	0.7	0.8	3.5	100.0	155
	Middle	3.4	3,886	13.3	24.1	42.2	19.5	0.9	0.0	100.0	14.6	31.4	42.2	5.9	5.2	0.7	0.0	100.0	130
	Fourth	3.7	3,750	13.6	26.0	33.0	25.0	2.3	0.0	100.0	20.0	43.2	26.8	9.9	0.0	0.0	0.0	100.0	139
	Richest	4.0	3,877	23.0	23.8	33.5	19.0	0.0	0.7	100.0	12.9	45.1	36.1	5.3	0.0	0.0	0.7	100.0	155

Table CH.3 provides statistics on drinking and feeding practices during diarrhoea. Less than one quarter (23 per cent) of children under age 5 with diarrhoea were given more than the usual amount to drink, while about one in every three children (32.6 per cent) was given the same amount. Resulting that four in every 10 children were given less than usual amount to drink during the episode. Among children of different ages, the youngest, of age 0-11 months, were least likely to be given more than usual amount to drink (14.7 per cent).

Nearly four in every ten (38.4 per cent) with diarrhoea were given somewhat less to eat than normal with another 2 in 10 (19.3 per cent) given much less or nothing to eat. More than every 1 in two children under 5, suffering from diarrhoea were given less to eat than normal during the latest episode.

Table CH.4: Oral rehydration solutions and recommended homemade fluids

Percentage of children age 0-59 months with diarrhoea in the last two weeks, and treatment with oral rehydration solutions and recommended homemade fluids, Bangladesh, 2012-2013

		Had diarrhoea in last two weeks	Number of children age 0-59 months	Children with diarrhoea who received:							Number of children aged 0-59 months with diarrhoea
				Recommended homemade fluids					Any recommended homemade fluid	ORS or any recommended homemade fluid	
				ORS (Fluid from ORS packet or pre-packaged ORS fluid)	Sugar and salt solution	Green coconut water	Rice water	Boiled rice water			
Total		**3.9**	**20,903**	**73.0**	**14.5**	**10.2**	**11.4**	**9.8**	**29.4**	**78.8**	**825**
Sex	Male	3.9	10,694	72.2	17.1	9.4	12.0	10.5	29.8	78.7	421
	Female	4.0	10,209	73.7	11.8	11.0	10.7	9.0	29.0	78.9	404
Division	Barisal	6.3	1,270	64.6	16.9	16.7	7.1	12.6	31.1	69.5	80
	Chittagong	4.5	4,792	70.5	20.3	19.0	12.1	11.9	38.9	79.8	218
	Dhaka	3.5	6,456	81.5	10.7	7.4	9.7	9.0	23.3	84.4	224
	Khulna	3.3	2,014	79.7	9.1	3.6	17.9	6.0	27.1	81.8	67
	Rajshahi	3.5	2,405	67.1	9.9	4.5	5.6	9.9	25.3	73.5	85
	Rangpur	3.8	2,372	69.3	21.5	4.6	22.4	10.3	34.7	76.0	90
	Sylhet	3.8	1,595	67.8	6.7	3.9	4.7	5.0	16.6	74.8	61
Area	Urban	4.6	4,268	77.5	8.7	6.2	9.5	3.0	20.9	81.5	198
	Rural	3.8	16,635	71.5	16.4	11.5	12.0	11.9	32.1	77.9	627
Age	0-11 months	5.4	3,983	71.1	6.8	2.3	8.1	3.9	15.0	73.8	213
	12-23 months	7.7	4,093	73.6	18.4	11.8	14.5	11.3	35.6	80.1	315
	24-35 months	3.3	4,189	69.5	16.7	17.7	13.2	15.8	38.7	78.9	140
	36-47 months	2.2	4,332	77.9	16.3	10.6	7.4	6.9	26.7	82.9	97
	48-59 months	1.4	4,306	76.1	13.8	11.9	8.5	13.5	30.6	82.4	61
Mother's education	None	3.8	4,700	65.2	11.5	10.8	7.3	12.8	27.2	73.7	180
	Primary incomplete	4.7	2,944	73.5	12.1	10.4	9.1	11.1	28.1	78.3	139
	Primary complete	3.6	3,256	80.5	13.1	14.4	10.9	9.9	27.9	81.5	118
	Secondary incomplete	3.9	7,291	76.4	17.6	10.5	16.5	10.1	33.3	81.0	282
	Secondary complete or higher	3.9	2,711	68.0	16.1	3.4	8.2	2.1	26.1	79.0	106
Wealth index quintile	Poorest	4.8	5,105	67.8	14.8	10.9	9.5	12.6	31.9	76.7	246
	Second	3.6	4,285	68.3	15.7	10.8	14.9	15.5	35.5	72.8	155
	Middle	3.4	3,886	71.4	10.4	6.9	8.0	8.4	22.6	76.9	130
	Fourth	3.7	3,750	84.8	18.7	15.8	11.7	8.8	31.1	88.8	139
	Richest	4.0	3,877	76.5	12.6	6.1	13.3	1.7	23.5	80.7	155

Table CH.4 shows the percentage of children receiving various types of recommended liquids during the episode of diarrhoea. Since mothers were able to name more than one type of liquid, the percentages do not necessarily add to 100. As high as 73 per cent received fluids from ORS packets or pre-packaged ORS fluids and 29.4 per cent received recommended homemade fluids. Approximately 79 per cent of children with diarrhoea received ORS or any recommended homemade fluid.

The influence of wealth and education is not clear but urban children were more likely to receive ORS or any recommended homemade fluid (81.5 per cent in urban areas versus 77.9 per cent in rural areas). Divisions vary significantly (see Figure CH.2 below); Dhaka division had very high proportion of children under 5 receiving ORS or any recommended fluid (84.4 per cent), whereas Barisal had much smaller percentages (69.5 per cent).

Figure CH.2: Children under-5 with diarrhoea who received ORS or recommended homemade liquids, Bangladesh, 2012-2013

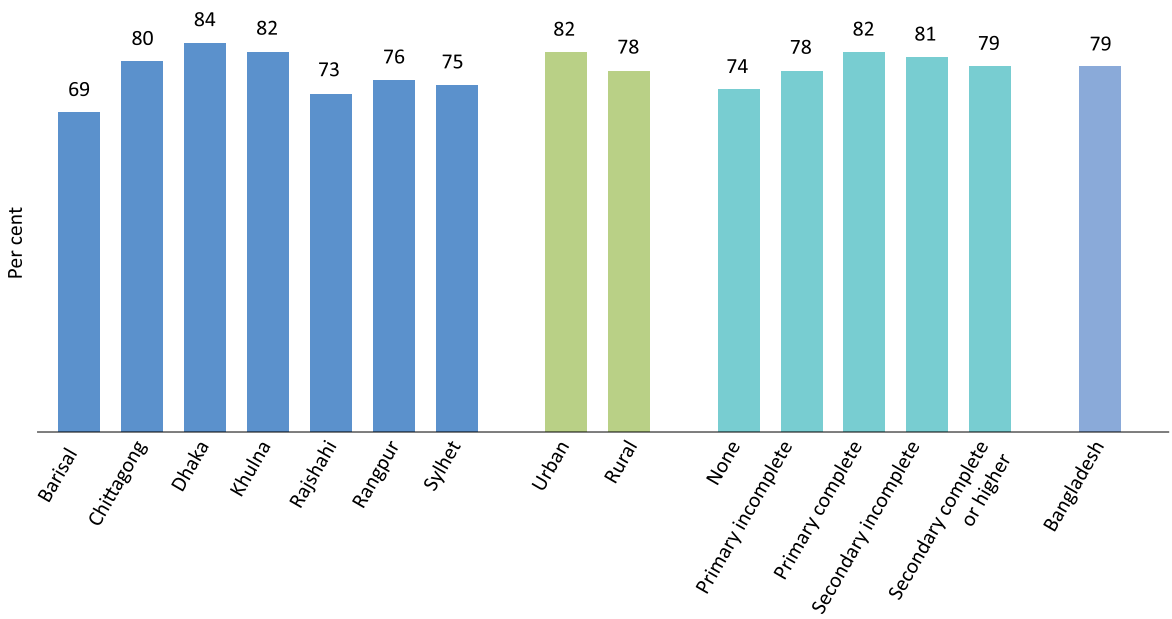


Table CH.5: Oral rehydration therapy with continued feeding and other treatments

Percentage of children age 0-59 months with diarrhoea in the last two weeks who were given oral rehydration therapy with continued feeding and percentage who were given other treatments, Bangladesh, 2012-2013

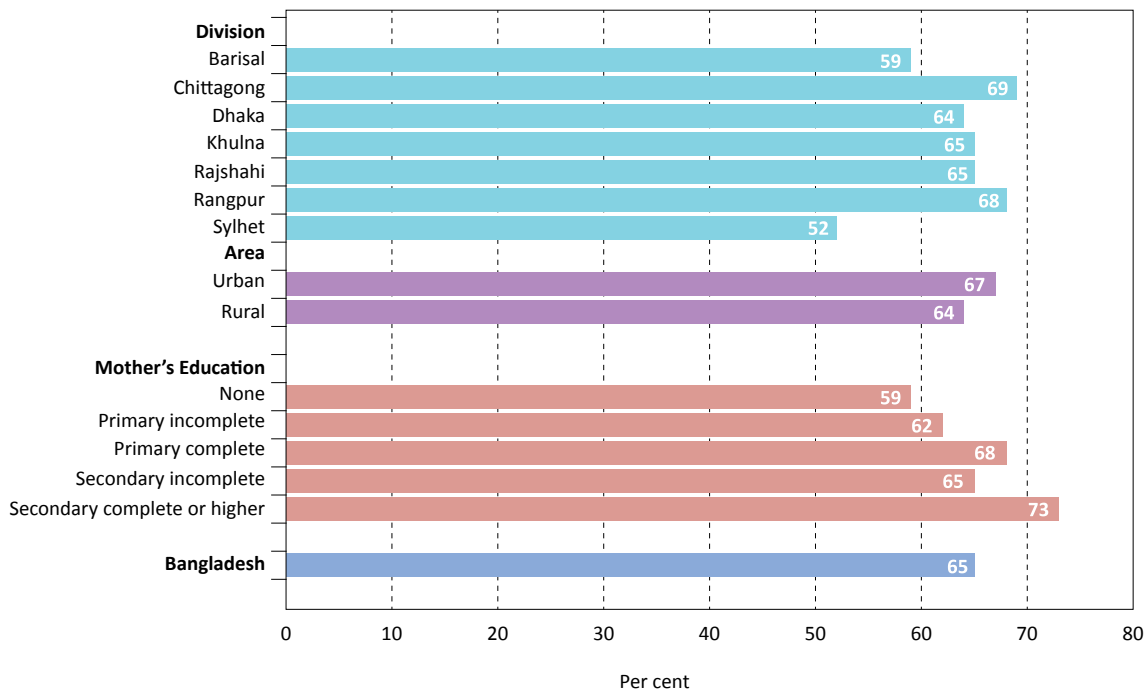
		Children with diarrhoea who were given:													Not given any treatment or drug	Number of children aged 0-59 months with diarrhoea
		ORS or increased fluids	ORT (ORS or recommended homemade fluids or increased fluids)	ORT with continued feeding [1]	Other treatments											
					Pill or syrup					Injection			Intravenous	Home remedy Herbal medicine	Other	
					Antibiotic	Antimotility	Zinc	Other	Unknown	Antibiotic	Non-antibiotic	Unknown				
Total		**77.1**	**81.5**	**64.6**	**18.8**	**2.4**	**11.8**	**1.4**	**17.6**	**1.4**	**0.4**	**0.5**	**0.1**	**1.7**	**5.1**	**11.0**	**825**
Sex	Male	77.0	82.4	66.3	19.9	2.7	10.8	2.0	20.4	1.9	0.0	0.7	0.0	1.6	5.1	11.5	421
	Female	77.2	80.7	62.7	17.6	2.1	12.8	0.8	14.7	0.9	0.7	0.3	0.2	1.8	5.0	10.4	404
Division	Barisal	72.4	76.4	59.5	12.9	0.0	5.5	0.7	27.1	0.0	0.0	0.0	0.0	0.0	4.4	16.4	80
	Chittagong	71.5	79.9	68.7	24.2	4.5	10.8	0.5	9.8	3.1	0.0	0.4	0.0	0.1	5.5	10.0	218
	Dhaka	85.6	86.2	64.2	14.0	1.5	18.1	1.5	19.0	0.9	0.0	0.7	0.0	3.3	2.5	8.9	224
	Khulna	81.5	83.6	65.1	17.9	1.2	3.7	0.0	18.2	0.6	1.0	1.7	0.0	2.5	8.4	6.9	67
	Rajshahi	77.1	81.8	65.2	24.4	1.7	10.5	1.5	13.2	1.5	2.7	0.0	0.0	3.0	3.2	12.1	85
	Rangpur	75.2	81.2	67.6	10.9	1.4	8.9	0.7	28.2	0.8	0.0	0.3	0.0	0.4	10.0	14.2	90
	Sylhet	70.1	74.8	51.6	29.3	5.6	15.7	7.7	17.8	1.2	0.0	0.0	1.2	3.0	5.2	12.8	61
Area	Urban	79.2	81.7	67.1	16.0	0.4	20.5	0.5	10.0	0.7	0.0	1.2	0.0	2.2	6.9	12.3	198
	Rural	76.4	81.5	63.7	19.7	3.1	9.1	1.7	20.0	1.7	0.5	0.3	0.1	1.5	4.5	10.6	627
Age	0-11 months	72.9	75.6	55.2	21.3	4.6	17.5	0.6	17.9	0.3	0.0	0.3	0.0	2.2	5.6	12.5	213
	12-23 months	77.2	81.6	65.8	20.2	1.9	14.4	1.5	18.0	2.7	0.9	0.6	0.2	2.3	5.6	10.9	315
	24-35 months	76.2	84.3	66.9	19.6	1.1	5.7	1.1	16.2	1.4	0.0	0.3	0.0	0.1	2.3	10.8	140
	36-47 months	82.7	86.8	76.6	14.0	0.0	6.5	3.6	16.3	0.0	0.0	0.9	0.0	0.3	5.1	9.4	97
	48-59 months	84.2	87.3	66.5	8.4	4.5	1.1	1.1	19.9	1.1	0.0	0.0	0.0	2.8	6.7	9.0	61
Mother's education	None	70.9	76.4	59.3	13.9	4.5	7.1	1.3	17.1	0.0	0.4	0.8	0.0	2.0	6.9	16.3	180
	Primary incomplete	76.8	80.5	61.6	16.9	0.0	3.2	0.9	17.5	1.0	1.7	0.1	0.0	2.2	7.1	10.6	139
	Primary complete	85.1	86.1	67.5	17.9	4.7	11.2	1.1	20.6	2.2	0.0	0.6	0.6	0.2	2.1	8.1	118
	Secondary incomplete	80.8	83.9	65.0	19.3	2.2	16.1	1.8	16.2	2.5	0.0	0.6	0.0	1.5	4.1	8.7	282
	Secondary complete or higher	69.3	80.3	72.9	29.2	0.0	20.4	1.5	18.8	0.7	0.0	0.0	0.0	2.7	5.2	11.5	106
Wealth index quintile	Poorest	74.5	80.1	63.1	17.7	5.1	6.7	1.7	19.5	0.3	1.2	0.5	0.0	0.6	7.4	12.8	246
	Second	71.6	76.2	56.1	13.6	1.6	11.6	1.7	16.3	1.3	0.0	0.6	0.0	3.8	3.2	15.6	155
	Middle	76.2	81.0	61.9	20.3	2.2	6.8	2.3	21.5	1.9	0.0	0.3	0.6	2.7	5.6	8.0	130
	Fourth	88.1	91.5	74.6	25.1	0.6	12.8	0.5	20.9	1.9	0.0	1.1	0.0	0.5	3.7	3.2	139
	Richest	77.6	80.7	68.5	18.7	1.0	23.5	0.7	9.7	2.7	0.0	0.0	0.0	1.7	4.0	12.8	155

[1] MICS indicator 3.12-Diarrhoea treatment with oral rehydration therapy (ORT) and continued feeding

Table CH.5 provides the proportion of children aged 0-59 months with diarrhoea in the last two weeks who received oral rehydration therapy with continued feeding, and percentage of children with diarrhoea who received other treatments. Overall, 77.1 per cent of children with diarrhoea received ORS or increased fluids, 81.5 per cent received ORT (ORS or recommended homemade fluids or increased fluids). Use of ORS and ORT increased with the age of the child and was also higher among those living in the Dhaka division (86.2 per cent) as compared to other divisions, with Sylhet having the lowest levels of ORT use at 75.4 per cent.

As is reflected from the table, 64.6 per cent of children received both oral rehydration therapy (ORT) and continued feeding, as per the recommendation. There were some differences in the home management of diarrhoea by background characteristics. Boys, as compared to girls, and children living in urban areas were more likely to receive ORT together with continued feeding. Geographical variation also existed with children in Sylhet division much less likely to receive such treatment (51.6 per cent) as compared to other areas (60 per cent or more).

Figure CH.3: Children under-5 with diarrhoea who received oral rehydration therapy (ORT) and continued feeding, Bangladesh, 2012-2013



Acute Respiratory Infections

Symptoms of ARI are collected during the Bangladesh MICS 2012-2013 to capture pneumonia disease, the leading cause of death in children under five. Once diagnosed, pneumonia is treated effectively with antibiotics. Studies have shown a limitation in the survey approach of measuring pneumonia because many of the suspected cases identified through surveys are in fact, not true pneumonia.[22] While this limitation does not affect the level and patterns of care-seeking for suspected pneumonia, it limits the validity of the level of treatment of pneumonia with antibiotics, as reported through household surveys. The treatment indicator described in this report must therefore be taken with caution, keeping in mind that the accurate level is likely higher.

[22] *Campbell H, el Arifeen S, Hazir T, O'Kelly J, Bryce J, et al. (2013) Measuring Coverage in MNCH: Challenges in Monitoring the Proportion of Young Children with Pneumonia Who Receive Antibiotic Treatment. PLoS Med 10(5): e1001421. doi:10.1371/journal.pmed.1001421*

Table CH.6: Care-seeking for and antibiotic treatment of symptoms of acute respiratory infection (ARI)

Percentage of children age 0-59 months with symptoms of ARI in the last two weeks who were taken to a health provider and percentage of children who were given antibiotics, Bangladesh, 2012-2013

		Had suspected pneumonia in the last two weeks	Number of children age 0-59 months	Children with suspected pneumonia who were taken to:															Any appropriate provider [1]	Percentage of children with suspected pneumonia who received antibiotics in the last two weeks [2]	Number of children age 0-59 months with suspected pneumonia in the last two weeks
			Public sector: Government hospital	Public sector: Government hospital	Public sector: Government health center	Public sector: Government health post	Public sector: Village health worker	Public sector: Mobile / Outreach clinic	Other public	Private hospital / clinic	Private physician	Private pharmacy	Mobile clinic	Other private medical	Relative / Friend	Shop	Traditional practitioner	Other			
Total		**3.2**	**20,903**	**13.2**	**2.8**	**0.7**	**3.4**	**0.0**	**0.5**	**5.6**	**9.1**	**15.9**	**0.5**	**0.9**	**0.5**	**6.8**	**23.0**	**3.7**	**35.8**	**74.3**	**670**
Sex	Male	3.5	10,694	13.6	2.8	1.3	3.7	0.0	0.3	6.6	10.0	14.7	0.1	1.6	0.6	5.9	21.8	3.3	38.8	76.1	375
	Female	2.9	10,209	12.6	2.8	0.0	3.1	0.0	0.7	4.3	8.1	17.5	1.1	0.0	0.4	8.0	24.4	4.2	31.9	71.9	295
Division	Barisal	4.1	1,270	12.2	5.5	0.0	3.8	0.0	0.0	3.8	0.8	25.3	0.0	0.0	0.0	6.1	28.0	2.3	26.1	78.4	51
	Chittagong	3.6	4,792	8.1	1.1	2.5	2.2	0.0	0.7	3.0	8.5	15.6	2.1	2.2	0.2	9.2	24.1	2.9	30.0	66.8	173
	Dhaka	2.1	6,456	17.3	3.7	0.5	4.2	0.0	0.8	6.3	7.7	17.4	0.0	0.0	0.0	7.5	18.8	1.4	37.8	82.3	133
	Khulna	4.3	2,014	17.1	3.8	0.0	3.7	0.0	0.0	16.2	5.5	7.8	0.0	0.0	1.0	0.0	24.5	1.9	46.2	76.4	86
	Rajshahi	3.1	2,405	16.8	3.1	0.0	1.6	0.0	0.0	5.8	6.6	17.8	0.0	1.1	0.0	0.0	31.7	8.5	35.0	69.4	75
	Rangpur	3.2	2,372	11.8	0.9	0.0	6.1	0.0	0.0	3.5	15.0	8.4	0.0	1.6	3.2	10.0	24.1	3.3	37.7	72.8	76
	Sylhet	4.7	1,595	11.4	3.7	0.0	3.5	0.0	1.2	1.1	19.7	22.8	0.0	0.0	0.0	11.9	12.6	8.1	39.2	78.6	75
Area	Urban	2.4	4,268	7.2	5.0	0.0	1.3	0.0	3.1	4.8	17.6	21.6	3.1	3.1	0.3	6.2	12.4	1.7	44.1	81.5	101
	Rural	3.4	16,635	14.2	2.4	0.9	3.8	0.0	0.0	5.7	7.6	14.9	0.1	0.5	0.6	6.9	24.8	4.0	34.3	73.0	569
Age	0-11	4.5	3,983	16.2	2.2	0.4	6.0	0.0	0.6	5.5	13.3	15.2	0.0	1.7	1.6	7.1	23.3	4.6	44.0	74.9	178
	12-23	4.1	4,093	9.2	3.5	0.0	2.9	0.0	0.5	6.5	6.8	10.9	2.0	0.4	0.4	6.9	22.9	6.5	31.4	74.1	170
	24-35	3.0	4,189	14.8	2.1	0.0	1.1	0.0	0.9	4.7	8.1	19.5	0.1	0.0	0.0	8.6	27.8	1.4	30.8	79.5	126
	36-47	2.5	4,332	14.7	3.0	4.1	3.3	0.0	0.0	3.7	6.4	13.2	0.0	1.9	0.0	6.6	23.5	2.1	37.1	71.7	107
	48-59	2.1	4,306	10.4	3.4	0.0	2.9	0.0	0.0	7.6	10.0	25.0	0.0	0.0	0.0	3.7	15.0	1.8	33.2	69.1	90
Mother's education	None	2.9	4,700	12.0	3.2	3.2	4.4	0.0	0.9	2.9	9.5	16.0	0.0	0.9	0.2	5.4	20.1	1.5	35.9	75.6	135
	Primary incomplete	3.8	2,944	17.6	2.9	0.6	3.9	0.0	0.8	2.4	4.6	16.5	0.0	0.6	0.0	7.0	24.7	1.8	32.5	67.4	111
	Primary complete	3.2	3,256	7.2	3.0	0.0	3.1	0.0	0.0	2.9	4.9	21.3	0.3	0.0	0.0	10.9	29.1	3.6	20.7	76.7	103
	Secondary incomplete	3.5	7,291	15.6	2.8	0.0	2.3	0.0	0.4	8.0	10.4	15.5	0.0	1.5	1.3	6.2	22.0	5.9	40.0	75.0	257
	Secondary complete or higher	2.3	2,711	7.6	1.5	0.0	5.6	0.0	0.0	11.4	17.8	7.7	4.9	0.0	0.0	5.0	20.0	2.9	48.7	76.7	64
Wealth index quintile	Poorest	3.8	5,105	15.3	4.0	0.3	2.1	0.0	0.6	3.0	6.9	16.2	0.0	1.0	0.8	3.6	27.3	3.0	32.3	68.3	196
	Second	4.1	4,285	12.5	2.8	2.5	5.2	0.0	0.0	5.4	7.1	14.0	0.2	0.0	0.5	8.1	23.0	2.7	34.0	70.7	175
	Middle	3.0	3,886	15.0	3.2	0.0	3.9	0.0	0.0	3.3	11.8	15.3	0.1	0.0	0.0	8.7	23.5	6.4	37.3	80.1	117
	Fourth	2.8	3,750	12.6	1.3	0.0	1.1	0.0	0.0	6.5	10.2	21.2	3.0	3.8	1.0	8.0	16.8	3.9	37.9	82.9	105
	Richest	2.0	3,877	7.2	1.3	0.0	5.3	0.0	2.5	14.6	14.1	13.3	0.0	0.0	0.0	7.5	19.5	3.3	43.6	77.0	77

[1] MICS indicator 3.13 - Care-seeking for children with acute respiratory infection (ARI) symptoms
[2] MICS indicator 3.14 - Antibiotic treatment for children with ARI symptoms

Table CH.6 presents the percentage of children with symptoms of ARI in the two weeks preceding the survey for whom care was sought, by source of care and the percentage who received antibiotics. Nationally, 3.2 per cent of children age 0-59 months were suspected to have had symptoms of pneumonia during the two weeks preceding the survey. Of these children, only 35.8 per cent were taken to an appropriate provider and 23 per cent were taken to traditional practitioners and another 15.9 per cent to the private pharmacy. Boys were more likely to be taken to an appropriate provider than girls (38.8 per cent against 31.9 per cent).

Table CH.6 also shows the point of treatment among children with symptoms of ARI who were treated with antibiotics. About 3 in every 4 under 5 year old children with symptoms of ARI received antibiotics in the two weeks prior to the survey. Taking antibiotic treatment differed between rural and urban areas – 73 per cent as compared to 81.5 per cent. Children in Dhaka, Sylhet and Barisal divisions were more likely to receive antibiotic treatment as compared to the remaining four divisions.

Table CH.7: Knowledge of the two danger signs of pneumonia

Percentage of women age 15-49 years who are mothers or caretakers of children under age 5 by symptoms that would cause to take a child child under age 5 immediately to a health facility, and percentage of mothers who recognize fast or difficult breathing as signs for seeking care immediately, Bangladesh, 2012-2013

		Percentage of mothers / caretakers who think that a child should be taken immediately to a health facility if the child:								Mothers/caretakers who recognize at least one of the two danger signs of pneumonia (fast and/or difficult breathing)	Number of mothers / caretakers of children age 0-59 months
		Is not able to drink or breastfeed	Becomes sicker	Develops a fever	Has fast breathing	Has difficulty breathing	Has blood in stool	Is drinking poorly	Has other symptoms		
Total		**8.1**	**28.1**	**79.3**	**24.8**	**32.9**	**7.8**	**5.2**	**21.9**	**46.9**	**17,782**
Division	Barisal	4.8	21.2	79.7	29.3	25.1	3.9	1.5	19.3	41.2	1,091
	Chittagong	3.8	28.0	63.8	27.8	32.0	7.0	4.0	7.3	49.8	3,904
	Dhaka	11.9	30.1	83.3	20.9	27.8	5.0	7.1	25.9	39.0	5,535
	Khulna	9.6	24.0	86.7	27.7	43.8	13.5	2.3	19.3	55.8	1,807
	Rajshahi	4.3	23.0	86.3	14.9	34.0	3.9	1.8	42.8	44.6	2,104
	Rangpur	10.4	21.6	84.5	23.2	41.0	13.3	8.1	22.5	53.7	2,089
	Sylhet	7.2	51.3	79.2	43.5	34.5	15.0	9.4	20.0	57.4	1,250
Area	Urban	11.1	31.1	79.0	25.4	31.4	8.1	7.7	18.8	46.7	3,639
	Rural	7.3	27.4	79.4	24.6	33.3	7.7	4.6	22.7	46.9	14,142
Education	None	6.4	28.9	77.9	23.5	30.4	8.3	4.9	20.7	43.3	3,791
	Primary incomplete	7.2	25.1	79.6	23.7	31.1	6.2	4.3	24.4	45.3	2,524
	Primary complete	8.3	30.4	79.7	24.4	32.3	8.2	4.5	19.1	45.7	2,752
	Secondary incomplete	7.8	27.6	80.3	25.0	33.4	7.5	5.2	22.8	47.9	6,320
	Secondary complete or higher	12.0	28.9	78.4	27.6	38.4	8.6	7.6	22.0	52.8	2,394
Wealth index quintile	Poorest	6.0	26.1	78.7	21.9	31.1	6.4	3.0	24.4	44.3	4,148
	Second	7.1	26.6	80.4	23.7	33.5	7.9	4.6	23.4	46.7	3,637
	Middle	7.6	27.2	81.0	25.7	34.1	9.2	4.8	21.2	47.7	3,383
	Fourth	8.1	30.4	79.3	25.8	32.2	6.9	6.0	19.6	46.8	3,249
	Richest	12.0	31.1	77.4	27.6	34.1	8.7	8.5	20.2	49.5	3,365

Mothers' knowledge of danger signs is an important determinant of care-seeking behaviour. In the MICS, mothers or caretakers were asked to report symptoms that would cause them to take a child under-five for care immediately at a health facility. Issues related to knowledge of danger signs of pneumonia are presented in Table CH.7. Overall, 46.9 per cent of women of age 15-49 years knew of at least one of the two danger signs of pneumonia – fast breathing and difficulty in breathing. The most commonly identified symptom for taking a child to a health facility was fever (79.3 per cent). About a quarter (24.8 per cent) of mothers identified fast breathing and 32.9 per cent identified difficult breathing as symptoms for taking children immediately to a health care provider. Wide variations are observed on knowledge levels among the divisions. It ranged from 39 per cent in Dhaka to 57.4 per cent in Sylhet. Mothers from the richer households and those with higher education level showed, in general, higher levels of knowledge in this regard.

Solid Fuel Use

More than 3 billion people around the world rely on solid fuels for their basic energy needs, including cooking and heating. Solid fuels include biomass fuels, such as wood, charcoal, crops or other agricultural waste, dung, shrubs and straw, and coal. Cooking and heating with solid fuels leads to high levels of indoor smoke which contains a complex mix of health-damaging pollutants. The main problem with the use of solid fuels is their incomplete combustion, which produces toxic elements such as carbon monoxide, polyaromatic hydrocarbons, and sulphur dioxide (SO_2), among others. Use of solid fuels increases the risks of incurring acute respiratory illness, pneumonia, chronic obstructive lung disease, cancer, and possibly tuberculosis, asthma, or cataracts, and may contribute to low birth weight of babies born to pregnant women exposed to smoke. The primary indicator for monitoring use of solid fuels is the proportion of the population using solid fuels as the primary source of domestic energy for cooking, shown in Table CH.8.

Table CH.8: Solid fuel use

Per cent distribution of household members according to type of cooking fuel used by the household, and percentage of household members living in households using solid fuels for cooking, Bangladesh, 2012-2013

		Percentage of household members in households using:															Solid fuels for cooking [1]	Number of household members
		Electricity	Liquefied Petroleum Gas (LPG)	Natural gas	Biogas	Kerosene	Coal / Lignite	Charcoal	Wood	Straw / Shrubs / Grass	Animal dung	Agricultural crop residue	No food cooked in household	Other	Missing	Total		
Total		**0.1**	**0.8**	**8.8**	**0.1**	**0.1**	**0.0**	**0.2**	**67.6**	**1.8**	**4.9**	**13.6**	**0.1**	**1.7**	**0.1**	**100.0**	**88.2**	**237,396**
Division	Barisal	0.2	0.7	0.0	0.0	0.0	0.0	0.1	92.2	3.0	0.4	2.6	0.0	0.8	0.1	100.0	98.3	15,028
	Chittagong	0.0	0.8	7.9	0.0	0.1	0.0	0.2	89.1	0.1	0.1	1.6	0.0	0.0	0.0	100.0	91.1	47,725
	Dhaka	0.1	0.7	21.2	0.1	0.1	0.0	0.1	60.0	1.1	3.5	11.3	0.1	1.8	0.1	100.0	75.9	72,991
	Khulna	0.2	1.0	0.2	0.2	0.0	0.0	0.6	65.2	7.3	13.9	8.8	0.1	2.3	0.0	100.0	95.9	26,508
	Rajshahi	0.3	1.3	1.1	0.1	0.2	0.0	0.1	32.6	2.9	13.9	43.3	0.1	4.0	0.1	100.0	92.9	30,923
	Rangpur	0.2	0.8	0.0	0.2	0.0	0.0	0.1	73.7	0.4	1.1	20.5	0.3	2.4	0.0	100.0	95.9	28,234
	Sylhet	0.1	0.1	8.5	0.1	0.0	0.2	0.1	76.1	0.8	5.0	8.9	0.0	0.0	0.1	100.0	91.1	15,987
Area	Urban	0.5	3.0	36.6	0.3	0.3	0.0	0.3	50.5	1.2	2.3	4.0	0.0	0.9	0.0	100.0	58.3	49,249
	Rural	0.0	0.2	1.6	0.0	0.1	0.0	0.2	72.1	2.0	5.6	16.1	0.1	1.9	0.1	100.0	96.0	188,147
Education of household head	None	0.0	0.1	3.5	0.0	0.0	0.0	0.1	68.0	2.3	5.8	17.8	0.1	2.1	0.0	100.0	94.1	100,957
	Primary incomplete	0.1	0.0	5.9	0.0	0.1	0.0	0.2	69.1	2.0	5.9	14.6	0.1	2.0	0.0	100.0	91.8	31,273
	Primary complete	0.0	0.3	8.5	0.0	0.0	0.0	0.1	70.1	1.7	4.5	12.8	0.2	1.6	0.2	100.0	89.2	27,398
	Secondary incomplete	0.2	0.7	10.2	0.1	0.2	0.0	0.3	70.3	1.5	4.9	10.1	0.0	1.4	0.0	100.0	87.1	40,319
	Secondary complete or higher	0.6	3.9	24.6	0.4	0.2	0.0	0.2	60.5	1.0	2.1	5.7	0.0	0.6	0.0	100.0	69.6	37,261
	Missing/DK	0.0	0.0	6.1	0.0	0.0	0.0	0.0	71.5	0.0	3.5	18.9	0.0	0.0	0.0	100.0	93.9	187
Wealth index quintile	Poorest	0.0	0.0	0.0	0.0	0.0	0.1	0.1	59.7	2.9	5.8	27.8	0.2	3.3	0.0	100.0	96.5	47,480
	Second	0.0	0.0	0.1	0.0	0.0	0.0	0.1	71.2	2.2	5.8	18.0	0.1	2.2	0.1	100.0	97.4	47,482
	Middle	0.0	0.0	0.5	0.0	0.0	0.0	0.2	76.0	1.8	6.6	13.2	0.1	1.6	0.0	100.0	97.8	47,479
	Fourth	0.0	0.1	7.3	0.1	0.1	0.0	0.2	77.6	1.5	4.8	7.1	0.1	1.0	0.0	100.0	91.3	47,478
	Richest	0.6	3.9	36.4	0.3	0.3	0.0	0.2	53.4	0.7	1.7	2.0	0.0	0.3	0.1	100.0	58.0	47,478

[1] MICS indicator 3.15 - Use of solid fuels for cooking

Overall, a majority of households in Bangladesh were using solid fuels for cooking (88.2 per cent), use of wood playing a major role (67.6 per cent). Use of solid fuels was much lower in urban areas (58.3 per cent) than in rural areas, where almost all households (96 per cent) use solid fuels. Dhaka division shows much lower use of solid fuels for cooking by households, 75.9 per cent, which may be due to a bigger proportion of richer class in the urban population as it covers Dhaka city, and availability of other fuels in this division. Almost all households in Barisal division (98.3 per cent) use solid fuel for cooking.

Solid fuel use alone is a poor proxy for indoor air pollution, since the concentration of the pollutants is different when the same fuel is burnt in different stoves or fires. Use of closed stoves with chimneys minimizes indoor pollution, while open stove or fire with no chimney or hood means that there is no protection from the harmful effects of solid fuels.

Table CH.9: Solid fuel use by place of cooking

Per cent distribution of household members in households using solid fuels by place of cooking, Bangladesh, 2012-2013

		Place of cooking:							Number of household members in households using solid fuels for cooking
		In a separate room used as kitchen	Elsewhere in the house	In a separate building	Outdoors	Other	Missing	Total	
Total		**16.7**	**3.9**	**57.8**	**21.2**	**0.3**	**0.1**	**100.0**	**209,384**
Division	Barisal	16.8	6.1	63.7	13.2	0.1	0.0	100.0	14,769
	Chittagong	31.5	4.6	43.4	19.1	1.2	0.1	100.0	43,465
	Dhaka	22.5	1.5	56.5	19.4	0.1	0.1	100.0	55,390
	Khulna	5.7	4.1	83.3	6.8	0.1	0.0	100.0	25,419
	Rajshahi	0.9	1.5	53.6	43.8	0.1	0.0	100.0	28,714
	Rangpur	3.0	1.2	70.1	25.6	0.0	0.0	100.0	27,070
	Sylhet	26.7	18.6	39.8	14.4	0.4	0.0	100.0	14,557
Area	Urban	20.6	7.0	53.4	18.0	0.9	0.1	100.0	28,726
	Rural	16.1	3.4	58.5	21.7	0.3	0.0	100.0	180,659
Education of household head	None	16.4	3.9	53.4	26.0	0.3	0.1	100.0	95,026
	Primary incomplete	16.0	4.5	57.5	21.7	0.2	0.0	100.0	28,706
	Primary complete	16.9	4.5	59.0	18.8	0.8	0.0	100.0	24,437
	Secondary incomplete	17.5	3.5	62.5	16.2	0.3	0.0	100.0	35,112
	Secondary complete or higher	17.7	3.6	66.6	11.6	0.4	0.1	100.0	25,928
	Missing/DK	10.7	0.0	57.3	32.1	0.0	0.0	100.0	176
Wealth index quintile	Poorest	14.7	5.7	44.6	34.4	0.5	0.0	100.0	45,809
	Second	14.2	3.6	58.1	24.0	0.2	0.0	100.0	46,263
	Middle	16.1	2.6	61.5	19.6	0.2	0.1	100.0	46,453
	Fourth	18.3	3.0	64.6	13.6	0.4	0.1	100.0	43,330
	Richest	23.2	5.3	62.1	8.9	0.5	0.0	100.0	27,530

Use of solid fuel by place of cooking is depicted in Table CH.9. The presence and extent of indoor pollution are dependent on cooking practices, places used for cooking, as well as types of fuel used. According to the Bangladesh MICS 2012-2013, among those using solid fuels, about 3 in every 5 households (57.8 per cent) used a separate building as place for cooking, and 16.7 per cent used a separate room as kitchen. Another 1 in every 5 (21.2 per cent) households cooked outdoors.

The divisions vary substantially in use of a separate kitchen with Rajshahi having only 0.9 per cent of households using solid fuels and having a separate kitchen and Chittagong having 31.5 per cent households in this category.

VII. Water and Sanitation

Safe drinking water is a basic necessity for good health. Unsafe drinking water can be a significant carrier of diseases such as cholera, typhoid, and schistosomiasis. Drinking water can also be tainted with chemical, and physical contaminants with harmful effects on human health. In addition to its association with disease, access to drinking water may be particularly important for women and children, especially in rural areas, who bear the primary responsibility for carrying water, often for long distances[23].

Inadequate disposal of human excreta and personal hygiene is associated with a range of diseases including diarrhoeal diseases and polio and is an important determinant for stunting. Improved sanitation can reduce diarrheal disease by more than a third[24], and can significantly lessen the adverse health impacts of other disorders responsible for death and disease among millions of children in developing countries.

The MDG target(7, C) is to reduce by half, between 1990 and 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation. The indicators currently used to monitor progress are the population using an improved source of drinking water and the population using an improved sanitation facility.

For more details on water and sanitation and to access some reference documents, please visit the UNICEF childinfo website[25] or the website of the WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation[26].

Use of Improved Water Sources

The distribution of the population by main source of drinking water is shown in Table WS.1. The population using *improved sources* of drinking water are those using any of the following types of supply: piped water (into dwelling, compound, yard or plot, to neighbour, public tap/standpipe), tubewell/borehole, protected well, protected spring, and rainwater collection. Bottled water is considered as an improved water source only if the household is using an improved water source for handwashing and cooking.

[23] *WHO/UNICEF 2012 Progress on Drinking water and Sanitation: 2012 update*
[24] *Cairncross S., Hunt C., Boisson S., et al. 2010. Water, sanitation and hygiene for the prevention of diarrhoea. International Journal of Epidemiology. 39: i193-i205.*
[25] *http://www.childinfo.org/wes.html*
[26] *http://www.wssinfo.org*

Table WS.1: Use of improved water sources

Per cent distribution of household population according to main source of drinking water and percentage of household population using improved drinking water sources, Bangladesh, 2012-2013

		Main source of drinking water																			
		Improved sources									Unimproved sources								Total	Percentage using improved sources of drinking water [1]	Number of household members
		Piped water				Tube well, Borehole	Protected well	Protected spring	Rainwater collection	Bottled water [a]	Unprotected well	Unprotected spring	Tanker-truck	Cart with small tank / drum	Surface water (river, stream, dam, lake, pond, canal, irrigation channel)	Bottled water [a]	Other	Missing			
		Piped into dwelling	Piped into compound, yard or plot	Piped to neighbour	Public tap / standpipe																
Total		**3.1**	**2.5**	**0.2**	**1.2**	**90.6**	**0.3**	**0.0**	**0.1**	**0.0**	**0.3**	**0.1**	**0.0**	**0.0**	**1.4**	**0.0**	**0.3**	**0.0**	**100.0**	**97.9**	**237,396**
Division	Barisal	0.3	0.0	0.0	0.4	94.4	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	3.4	0.0	1.3	0.0	100.0	95.3	15,028
	Chittagong	1.2	0.6	0.3	1.5	92.5	0.8	0.1	0.1	0.0	1.1	0.4	0.0	0.0	1.4	0.0	0.0	0.0	100.0	97.0	47,725
	Dhaka	8.4	6.8	0.2	1.1	83.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	99.9	72,991
	Khulna	0.1	0.3	0.3	1.6	91.8	0.0	0.0	0.3	0.1	0.0	0.0	0.0	0.0	4.4	0.0	1.0	0.0	100.0	94.4	26,508
	Rajshahi	0.6	1.5	0.1	2.0	94.7	0.3	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.4	0.0	100.0	99.3	30,923
	Rangpur	0.3	0.0	0.0	0.4	99.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	100.0	99.9	28,234
	Sylhet	1.8	0.7	0.2	0.8	89.9	0.4	0.0	0.0	0.0	0.7	0.0	0.0	0.0	5.5	0.0	0.0	0.0	100.0	93.8	15,987
Area	Urban	14.0	9.7	0.6	4.4	70.1	0.2	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.6	0.0	0.1	0.0	100.0	99.1	49,249
	Rural	0.2	0.6	0.1	0.4	96.0	0.3	0.0	0.1	0.0	0.4	0.1	0.0	0.0	1.6	0.0	0.3	0.0	100.0	97.6	188,147
Education of household head	None	0.5	1.8	0.2	0.5	94.3	0.3	0.0	0.0	0.0	0.4	0.2	0.0	0.0	1.4	0.0	0.2	0.0	100.0	97.7	100,957
	Primary incomplete	1.0	2.9	0.2	1.2	91.3	0.4	0.0	0.1	0.0	0.7	0.1	0.0	0.0	1.8	0.0	0.4	0.0	100.0	97.1	31,273
	Primary complete	1.5	3.6	0.3	0.9	91.5	0.2	0.0	0.0	0.0	0.3	0.0	0.0	0.0	1.5	0.0	0.2	0.0	100.0	98.0	27,398
	Secondary incomplete	3.3	2.8	0.2	1.7	89.7	0.3	0.0	0.1	0.1	0.2	0.0	0.0	0.0	1.4	0.1	0.3	0.0	100.0	98.0	40,319
	Secondary complete or higher	12.7	2.9	0.0	2.8	80.3	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.7	0.0	0.2	0.0	100.0	99.0	37,261
	Missing/DK	2.8	0.0	0.0	0.0	95.1	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	100.0	187
Wealth index quintile	Poorest	0.0	0.0	0.0	0.6	93.0	0.7	0.0	0.0	0.0	1.1	0.4	0.0	0.0	3.6	0.0	0.5	0.0	100.0	94.4	47,480
	Second	0.0	0.2	0.1	0.4	96.8	0.3	0.0	0.1	0.0	0.3	0.0	0.0	0.0	1.4	0.0	0.3	0.0	100.0	97.9	47,482
	Middle	0.0	0.4	0.1	0.5	97.4	0.2	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.8	0.0	0.2	0.0	100.0	98.7	47,479
	Fourth	0.1	3.4	0.3	0.9	94.4	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.5	0.0	0.2	0.0	100.0	99.3	47,478
	Richest	15.2	8.5	0.3	3.6	71.4	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.5	0.0	0.1	0.0	100.0	99.3	47,478

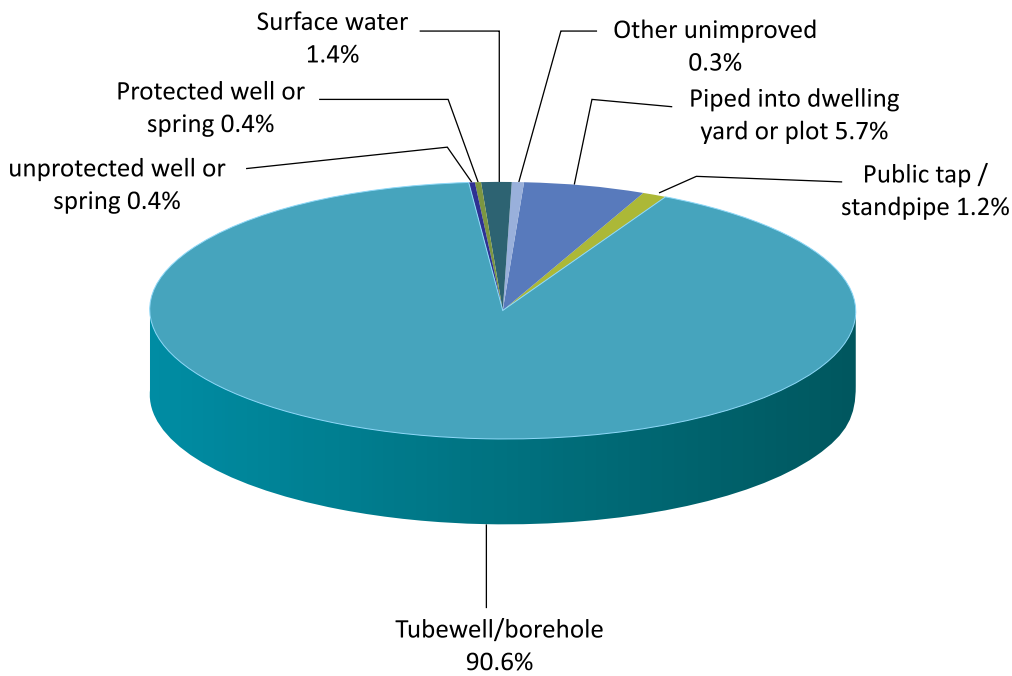
[1] MICS indicator 4.1; MDG indicator 7.8 - Use of improved drinking water sources

[a] Households using bottled water as the main source of drinking water are classified into improved or unimproved drinking water users according to the water source used for other purposes such as cooking and handwashing.

Overall, 97.9 per cent, a majority of Bangladeshi population, were using an improved source of drinking water – 99.1 per cent in urban areas and 97.6 per cent in rural areas. Differences between divisions were not pronounced and the percentage also varied little between different household characteristics.

The prime source of drinking water for the population in Bangladesh as a whole was tube well/ borehole (90.6 per cent). Only 7 per cent of the population was using piped drinking water. There is, however, a large difference between urban and rural areas when we consider the source of water. Over one quarter of the population in urban areas, 28.7 per cent, had drinking water piped-into their dwelling, into their yard or plot, to their neighbour or via a public tap/standpipe, but in rural areas only 1.3 per cent used piped water for drinking. Additionally, a higher proportion of richer households (27.6 per cent) used piped drinking water. Only 0.6 per cent of people living in the poorest households did so.

Figure WS.1: Per cent distribution of household members by source of drinking water, Bangladesh, 2012-2013



Use of household water treatment is presented in Table WS.2. Households were asked about the ways they treat water at home to make it safer to drink. Boiling water, adding bleach or chlorine, using a water filter, and using solar disinfection are considered appropriate methods for improving drinking water quality. The table shows water treatment by all household members and the percentage of household members living in households using unimproved water sources but using appropriate water treatment methods.

In the population that were using unimproved drinking water sources, only 25.6 per cent were using an appropriate water treatment method. Treatment of water by boiling was found to be the most common method. Variations were significant between different divisions (45.1 per cent in Barisal, versus none in Rajshahi and Rangpur), but virtually non-existent between urban and rural Bangladesh. About 45 to 55 per cent of the population with higher education levels of household head or from the richest households used appropriate water treatment methods compared with only 18 to19 per cent in those with the least education level or from poorest households.

Table WS.2: Household water treatment

Percentage of household population by drinking water treatment method used in the household, and for household members living in households where an unimproved drinking water source is used, the percentage who are using an appropriate treatment method, Bangladesh, 2012-2013

		Water treatment method used in the household									Number of household members	Percentage of household members in households using unimproved drinking water sources and using an appropriate water treatment method [1]	Number of household members in households using unimproved drinking water sources
		None	Boil	Add bleach / chlorine	Strain through a cloth	Use water filter	Solar disinfection	Let it stand and settle	Other	Don't know			
Total		**92.0**	**4.8**	**0.1**	**0.8**	**3.1**	**0.0**	**0.6**	**0.5**	**0.0**	**237,396**	**25.60**	**4,934**
Division	Barisal	96.4	2.1	0.2	0.3	0.4	0.0	0.1	1.8	0.0	15,028	45.1	704
	Chittagong	93.2	3.7	0.1	0.9	2.9	0.0	0.0	0.7	0.1	47,725	5.1	1,431
	Dhaka	85.7	11.9	0.0	1.5	3.7	0.0	1.5	0.1	0.0	72,991	16.6	89
	Khulna	92.6	0.4	0.1	0.3	4.7	0.0	0.4	1.5	0.1	26,508	40.7	1,475
	Rajshahi	97.4	0.5	0.0	0.2	1.6	0.0	0.4	0.0	0.0	30,923	0.0	207
	Rangpur	99.0	0.4	0.0	0.0	0.5	0.0	0.1	0.0	0.0	28,234	0.0	37
	Sylhet	89.4	2.0	0.4	1.2	7.7	0.0	0.1	0.3	0.0	15,987	26.2	992
Area	Urban	73.1	20.8	0.1	2.6	8.6	0.0	2.4	0.6	0.1	49,249	26.2	439
	Rural	97.0	0.7	0.1	0.4	1.6	0.0	0.1	0.5	0.0	188,147	25.6	4,495
Main source of drinking water	Improved	92.7	4.7	0.0	0.8	2.8	0.0	0.6	0.2	0.0	232,462	na	na
	Unimproved	58.8	10.1	1.9	4.1	14.5	0.1	0.9	15.7	0.4	4,934	25.6	4,934
Education of household head	None	97.3	1.4	0.0	0.3	0.8	0.0	0.1	0.3	0.0	100,957	17.6	2,276
	Primary incomplete	94.0	2.8	0.0	0.3	2.4	0.0	0.2	0.6	0.0	31,273	23.3	919
	Primary complete	93.5	3.9	0.1	1.0	2.1	0.0	0.5	0.3	0.0	27,398	33.2	543
	Secondary incomplete	90.3	5.3	0.1	1.1	3.6	0.0	0.6	0.8	0.0	40,319	36.7	806
	Secondary complete or higher	76.9	15.9	0.2	2.4	9.9	0.1	2.4	0.7	0.1	37,261	44.6	389
	Missing/DK	91.0	2.8	0.0	0.0	9.0	0.0	0.0	0.0	0.0	187	.	.
Wealth index quintile	Poorest	97.4	0.8	0.1	0.3	0.7	0.0	0.1	0.9	0.0	47,480	19.0	2,669
	Second	98.6	0.4	0.0	0.2	0.5	0.0	0.0	0.4	0.0	47,482	27.9	977
	Middle	98.3	0.5	0.0	0.2	0.8	0.0	0.1	0.3	0.0	47,479	30.6	619
	Fourth	96.4	1.7	0.0	0.4	1.3	0.0	0.1	0.3	0.0	47,478	34.1	348
	Richest	69.5	20.8	0.2	3.0	12.0	0.0	2.6	0.5	0.0	47,478	55.1	321

[1] MICS indicator 4.2 - Water treatment

The amount of time it takes to obtain water is presented in Table WS.3 and the person who usually collected the water in Table WS.4. Note that for Table WS.3, household members using water on premises are also shown in this table and for others, the results refer to one roundtrip from home to drinking water source. Information on the number of trips made in one day was not collected.

Table WS.3: Time to source of drinking water

Per cent distribution of household population according to time to go to source of drinking water, get water and return, for users of improved and unimproved drinking water sources, Bangladesh, 2012-2013

		Time to source of drinking water							Total	Number of household members
		Users of improved drinking water sources				Users of unimproved drinking water sources				
		Water on premises	Less than 30 minutes	30 minutes or more	Missing/DK	Water on premises	Less than 30 minutes	30 minutes or more		
Total		**74.2**	**20.4**	**3.1**	**0.3**	**0.5**	**1.1**	**0.5**	**100.0**	**237,396**
Division	Barisal	29.9	57.0	8.4	0.1	2.3	2.1	0.3	100.0	15,028
	Chittagong	66.2	25.2	5.5	0.2	0.3	1.9	0.8	100.0	47,725
	Dhaka	85.4	13.0	1.0	0.5	0.1	0.0	0.0	100.0	72,991
	Khulna	62.1	27.6	4.7	0.1	0.2	3.1	2.3	100.0	26,508
	Rajshahi	75.6	22.1	1.5	0.1	0.1	0.5	0.0	100.0	30,923
	Rangur	97.0	2.4	0.1	0.4	0.0	0.1	0.0	100.0	28,234
	Sylhet	65.9	21.7	5.9	0.2	3.6	2.1	0.4	100.0	15,987
Area	Urban	83.0	14.4	1.6	0.2	0.3	0.5	0.1	100.0	49,249
	Rural	71.9	22.0	3.4	0.3	0.6	1.3	0.5	100.0	188,147
Education of household head	None	69.8	23.4	4.2	0.3	0.5	1.2	0.6	100.0	100,957
	Primary incomplete	67.8	24.7	4.3	0.3	0.5	1.5	0.9	100.0	31,273
	Primary complete	75.0	20.8	1.9	0.3	0.6	1.1	0.2	100.0	27,398
	Secondary incomplete	78.1	17.6	2.1	0.1	0.6	1.0	0.3	100.0	40,319
	Secondary complete or higher	86.6	11.3	0.9	0.1	0.4	0.5	0.1	100.0	37,261
	Missing/DK	78.7	20.8	0.5	0.0	0.0	0.0	0.0	100.0	187
Wealth index quintile	Poorest	45.0	40.0	8.7	0.7	0.6	3.4	1.6	100.0	47,480
	Second	68.7	25.6	3.4	0.2	0.5	1.1	0.4	100.0	47,482
	Middle	78.6	18.2	1.6	0.2	0.5	0.6	0.2	100.0	47,479
	Fourth	86.4	11.8	0.9	0.1	0.4	0.3	0.1	100.0	47,478
	Richest	92.3	6.4	0.6	0.1	0.5	0.1	0.1	100.0	47,478

Table WS.3 shows that for 74.7 per cent of households, the drinking water source is on the premises, most of which are improved. The availability of water on premises is associated with higher use, better family hygiene and better health outcomes. For a water collection round trip of 30 minutes or more it has been observed that households carry progressively less water and are likely to compromise on the basic drinking water needs of the household[27]. Of those households who do not have the water source on premises, 1 in 5 (21.5%) take less than 30 minutes to get to the water source and collect water, while just 3.6 per cent spend 30 minutes or more for this purpose. About 94 per cent of the rural household members have water in the premises or within 30 minutes from their household. Similarly, as high as 85 per cent of people in the poorest quintile have water on premises or within 30 minutes from their households.

The amount of time taken varies significantly by divisions. In Barisal, some 91.3 per cent of the population have either the source of water on premises or within 30 minutes, while in Rangpur, almost the entire population has water on premises or within 30 minutes distance.

[27] *Cairncross, S. & Cliff, J. L. 1987. Water use and Health in Mueda, Mozambique. Transactions of the Royal Society of Tropical Medicine and Hygiene, 81, 51-4.*

Information about the person who usually collects water in Bangladesh is shown in Table WS.4. For a majority of households (88.8 per cent), an adult female is the person usually collecting water, when the source of drinking water is not on the premises. Adult men collect water in only 5.4 per cent of cases, while for the rest of the households, about 5 per cent of children under age 15 collect water - girls being more likely to collect than boys (3.7 and 0.9 per cent, respectively). In the richest households and households with secondary or higher educated head, there is a higher than average percentage of male adults who collect water - 12 and 11.6 per cent, respectively.

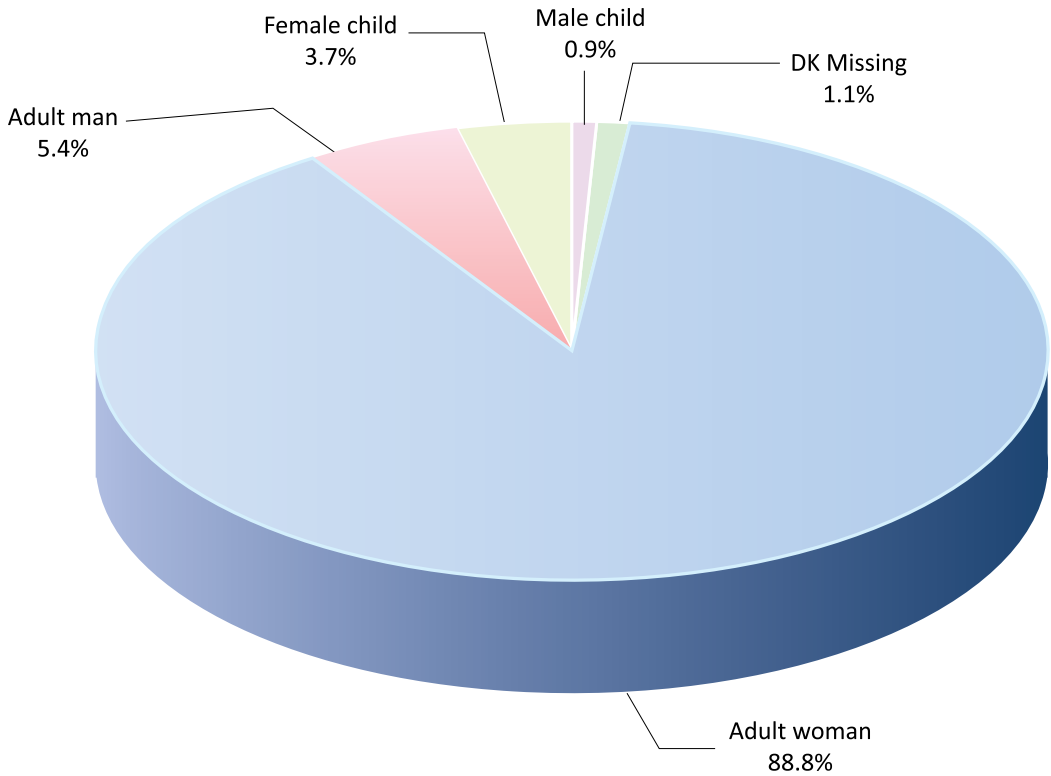
Table WS.4: Person collecting water

Percentage of households without drinking water on premises, and per cent distribution of households without drinking water on premises according to the person usually collecting drinking water used in the household, Bangladesh, 2012-2013

		Percentage of households without drinking water on premises	Number of households Adult woman (age 15+ years)	Person usually collecting drinking water						Number of households without drinking water on premises
				Adult woman (age 15+ years)	Adult man (age 15+ years)	Female child (under 15)	Male child (under 15)	DK and missing	Total	
Total		**25.1**	**51,895**	**88.8**	**5.4**	**3.7**	**0.9**	**1.1**	**100.0**	**13,040**
Division	Barisal	67.9	3,155	86.7	7.5	4.3	1.4	0.1	100.0	2,143
	Chittagong	34.0	9,278	86.4	4.5	6.3	2.0	0.8	100.0	3,153
	Dhaka	14.4	16,556	90.9	4.1	2.7	0.5	1.8	100.0	2,389
	Khulna	37.8	6,167	88.3	7.2	2.7	0.4	1.4	100.0	2,330
	Rajshahi	25.3	n7,449	92.5	3.8	2.0	0.2	1.4	100.0	1,885
	Rangpur	3.5	6,454	90.3	5.0	0.9	1.4	2.4	100.0	226
	Sylhet	32.2	2,836	89.9	5.3	3.2	0.3	1.3	100.0	914
Area	Urban	16.3	11,144	85.6	7.1	4.1	1.6	1.6	100.0	1,816
	Rural	27.5	40,751	89.3	5.1	3.7	0.8	1.0	100.0	11,224
Education of household head	None	29.6	21,823	89.3	4.2	4.2	0.9	1.3	100.0	6,450
	Primary incomplete	31.9	6,776	89.9	4.5	4.2	0.7	0.7	100.0	2,164
	Primary complete	23.9	6,053	90.7	4.4	2.9	0.8	1.1	100.0	1,447
	Secondary incomplete	21.0	8,938	87.9	7.4	2.9	1.1	0.7	100.0	1,879
	Secondary complete or higher	13.2	8,271	82.7	11.6	2.7	1.7	1.2	100.0	1,093
	Missing/DK	(19.3)	34	(*)	(*)	(*)	(*)	(*)	100.0	7
Wealth index quintile	Poorest	52.7	11,195	89.6	4.6	3.8	0.9	1.1	100.0	5,899
	Second	29.4	10,510	89.4	4.4	4.2	0.8	1.2	100.0	3,086
	Middle	20.1	10,163	89.1	4.9	4.0	1.0	1.0	100.0	2,043
	Fourth	13.0	9,950	87.2	8.5	2.5	1.0	0.9	100.0	1,289
	Richest	7.2	10,078	82.0	12.0	2.4	2.0	1.6	100.0	723

( ) Figures that are based on 25-49 unweighted cases
(*) Figures that are based on less than 25 unweighted cases

Figure WS.2: Person usually collecting drinking water when the water source is not within household premises, Bangladesh MICS, 2012-2013



Use of Improved Sanitation

An improved sanitation facility is defined as one that hygienically separates human excreta from human contact. Improved sanitation facilities for excreta disposal include flush or pour flush to a piped sewer system, septic tank, or pit latrine; ventilated improved pit latrine, pit latrine with slab, and use of a composting toilet. The data on the use of improved sanitation facilities in Bangladesh are provided in this report in Table WS.5.

Seventy seven per cent of the population of Bangladesh is living in households using improved sanitation facilities (Table WS.5). This percentage is 86.3 per cent in urban areas and 74.4 per cent in rural areas. Residents of Barisal division are particularly less likely than others to use improved facilities (58.8 per cent). The table indicates that use of improved sanitation facilities is strongly correlated with wealth, 95.8 per cent in the richest households use improved sanitation facilities whereas only half of 45.6 per cent, use in the poorest households.

The type of facilities being used by households varies widely. In rural areas, 47.3 use pit latrine with slab, while in urban areas 42 per cent use flush toilets with connection to a sewage system or septic tank. The percentage of population without any toilet facility, though overall low at 3.9 per cent, is still significant among the poorest households (13.5 per cent), and in Rangpur division (15.5 per cent) among others. Pit latrine without slab/open pit is the most prevalent (11.6 per cent) among the unimproved facility.

Table WS.5: Types of sanitation facilities

Per cent distribution of household population according to type of toilet facility used by the household, Bangladesh, 2012-2013

		Type of toilet facility used by household														Total	Number of household members
		Improved sanitation facility							Unimproved sanitation facility						No facility, Bush, Field		
		Flush / Pour flush				Ventilated Improved Pit latrine (VIP)	Pit latrine with slab	Composting toilet	Flush to somewhere else	Pit latrine without slab / Open pit	Bucket	Hanging toilet, Hanging latrine	Other	Missing			
		Flush to piped sewer system	Flush to septic tank	Flush to pit (latrine)	Flush to unknown place / Not sure / DK where												
Total		**3.2**	**14.9**	**11.2**	**0.5**	**3.5**	**43.5**	**0.1**	**1.5**	**11.6**	**0.0**	**5.8**	**0.3**	**0.1**	**3.9**	**100.0**	**237,396**
Division	Barisal	0.1	4.7	3.5	0.1	0.5	49.9	0.0	0.1	26.8	0.0	12.9	0.1	0.0	1.3	100.0	15,028
	Chittagong	0.6	13.9	15.9	0.2	4.9	39.4	0.1	1.8	14.2	0.0	6.0	0.6	0.1	2.3	100.0	47,725
	Dhaka	9.8	18.3	9.0	1.3	1.7	40.0	0.0	2.3	9.7	0.0	5.8	0.3	0.0	1.8	100.0	72,991
	Khulna	0.3	14.2	7.1	0.1	8.6	51.7	0.1	1.6	13.8	0.0	1.3	0.4	0.1	0.8	100.0	26,508
	Rajshahi	0.2	16.3	8.7	0.0	7.5	47.4	0.0	0.4	7.7	0.0	4.7	0.4	0.1	6.4	100.0	30,923
	Rangpur	0.0	4.9	14.8	0.0	0.4	54.3	0.2	0.2	8.1	0.0	1.4	0.2	0.0	15.5	100.0	28,234
	Sylhet	0.2	27.4	20.0	0.1	0.0	25.1	0.1	3.0	7.6	0.1	15.6	0.0	0.0	0.8	100.0	15,987
Area	Urban	15.2	26.8	10.3	1.8	3.4	28.7	0.1	3.5	6.1	0.0	2.1	0.5	0.1	1.4	100.0	49,249
	Rural	0.1	11.7	11.5	0.1	3.6	47.3	0.1	1.0	13.0	0.0	6.7	0.3	0.0	4.6	100.0	188,147
Education of household head	None	1.0	7.3	9.7	0.3	2.0	48.0	0.1	1.5	14.5	0.0	8.9	0.3	0.0	6.2	100.0	100,957
	Primary incomplete	2.1	11.2	10.2	0.5	3.8	46.4	0.1	1.5	14.0	0.1	6.4	0.4	0.1	3.3	100.0	31,273
	Primary complete	2.8	14.0	12.3	0.4	4.3	44.4	0.0	1.8	11.5	0.0	4.9	0.3	0.1	3.2	100.0	27,398
	Secondary incomplete	3.4	20.3	13.5	0.4	4.8	41.5	0.0	1.4	9.3	0.0	2.6	0.3	0.0	2.3	100.0	40,319
	Secondary complete or higher	10.2	33.2	13.0	1.1	5.3	30.1	0.0	1.5	4.1	0.0	0.8	0.2	0.1	0.5	100.0	37,261
	Missing/DK	0.0	20.0	6.8	0.0	3.5	39.0	0.0	0.0	15.0	0.0	13.5	0.0	0.0	2.2	100.0	187
Wealth index quintile	Poorest	0.0	0.9	3.9	0.0	0.7	40.0	0.1	0.6	22.4	0.1	17.3	0.4	0.0	13.5	100.0	47,480
	Second	0.0	2.9	8.8	0.1	1.6	56.6	0.1	0.9	16.9	0.0	7.2	0.3	0.1	4.5	100.0	47,482
	Middle	0.1	6.1	13.7	0.1	3.0	58.8	0.1	1.2	11.9	0.0	3.5	0.2	0.0	1.2	100.0	47,479
	Fourth	1.4	19.3	18.3	0.6	6.1	44.9	0.1	2.2	5.7	0.0	0.7	0.4	0.1	0.3	100.0	47,478
	Richest	14.5	45.2	11.3	1.6	6.2	17.0	0.0	2.7	1.0	0.0	0.1	0.3	0.1	0.0	100.0	47,478

The WHO / UNICEF Joint Monitoring Programme (JMP) for Water Supply and Sanitation which is responsible for monitoring MDG targets classify otherwise acceptable sanitation facilities which are public or shared between two or more households as unimproved. Therefore, "use of improved sanitation" is used both in the context of this report and as an MDG indicator to refer to improved sanitation facilities, which are not public or shared. Data on the use of improved sanitation are presented in Tables WS.6 and WS.7.

As shown in Table WS.6, 76.8 per cent of the household population is using an improved sanitation facility. About 21 per cent use an improved toilet facility that is public or shared with other households. Urban households are more likely than rural households to use a shared a toilet facility of an improved type (27.8 per cent and 19.1 per cent, respectively). Only 26.2 per cent of the poorest households use an improved latrine which is not shared compared to the 55.9 per cent overall and 80 per cent of the richest households. Of the 19.3 per cent households using unimproved sanitation facility, about 6 per cent use a public or a shared facility.

The table indicates that use of improved sanitation facility that are not shared is strongly correlated to wealth level of the household. 80 per cent of the population in the richest households had access to such improved sanitation facilities, whereas only 26.2 per cent in the poorest households had this access.

Figure WS.3: Per cent distribution of household members by use and sharing of sanitation facilities, Bangladesh, 2012-2013

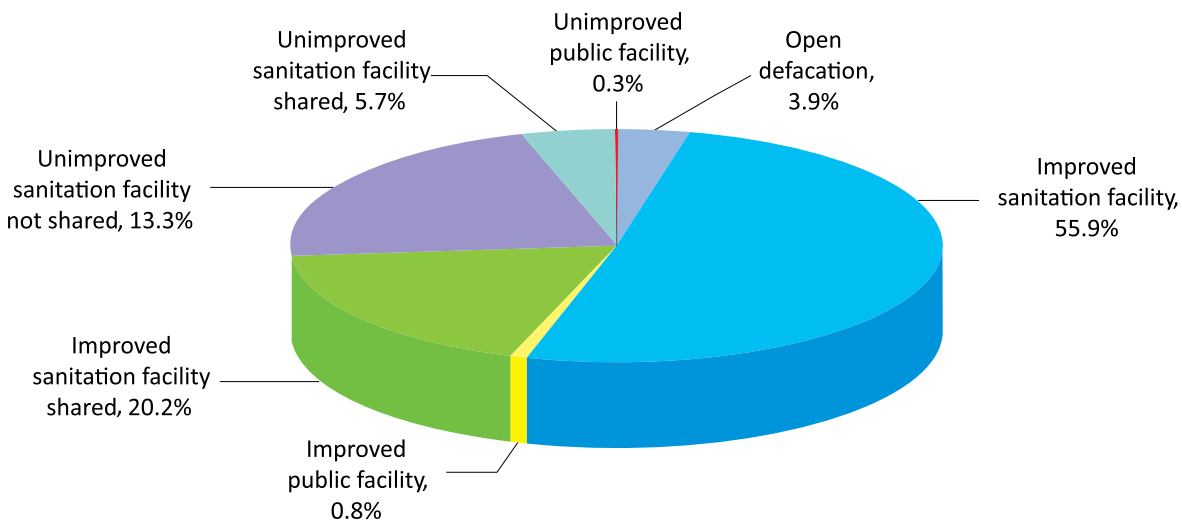


Table WS.6: Use and sharing of sanitation facilities

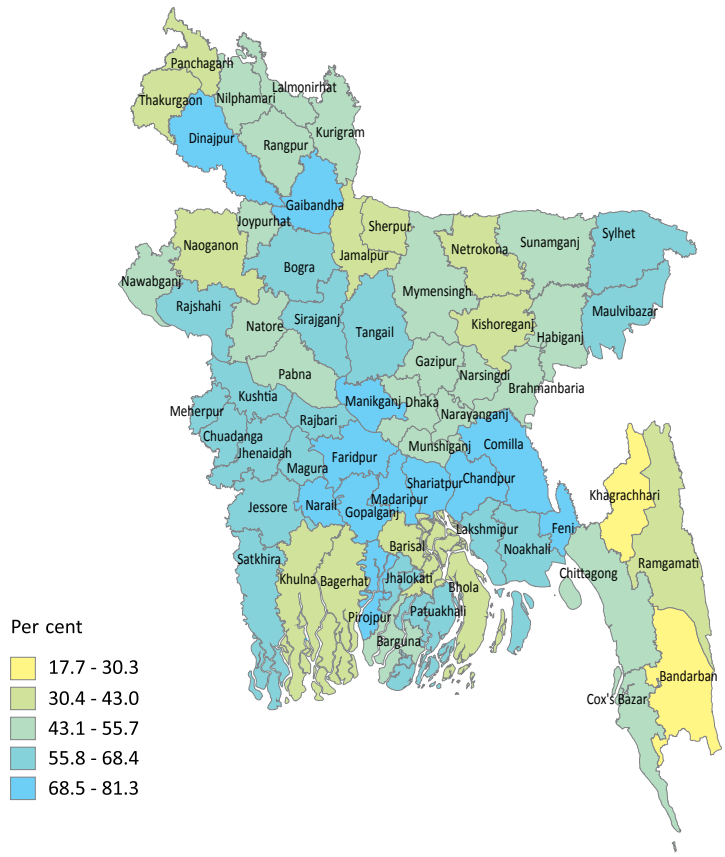
Per cent distribution of household population by use of private and public sanitation facilities and use of shared facilities, by users of improved and unimproved sanitation facilities, Bangladesh, 2012-2013

		Users of improved sanitation facilities					Users of unimproved sanitation facilities					Open defecation (no facility, bush field)	Total	Number of household members
		Not shared [1]	Public facility	Shared by: 5 households or less	Shared by: More than 5 households	Missing/DK	Not shared	Public facility	Shared by: 5 households or less	Shared by: More than 5 households	Missing/DK			
Total		**55.9**	**0.8**	**18.2**	**2.0**	**0.0**	**13.3**	**0.3**	**5.1**	**0.6**	**0.0**	**3.9**	**100.0**	**237,396**
Division	Barisal	52.0	0.1	6.5	0.2	0.0	34.0	0.1	5.6	0.2	0.0	1.3	100.0	15,028
	Chittagong	59.4	0.6	13.3	1.6	0.0	16.6	0.2	4.8	1.1	0.0	2.3	100.0	47,725
	Dhaka	54.0	1.4	20.5	4.2	0.0	11.3	0.5	5.5	0.8	0.0	1.8	100.0	72,991
	Khulna	58.0	0.2	22.5	1.3	0.0	12.6	0.0	4.3	0.3	0.0	0.8	100.0	26,508
	Rajshahi	52.0	0.7	27.0	0.5	0.0	7.3	0.0	5.8	0.1	0.0	6.4	100.0	30,923
	Rangpur	57.4	0.3	16.5	0.3	0.1	6.3	0.0	3.5	0.1	0.0	15.5	100.0	28,234
	Sylhet	58.6	0.6	12.3	1.3	0.1	17.9	0.7	6.6	1.0	0.0	0.8	100.0	15,987
Area	Urban	58.6	2.1	19.6	6.1	0.0	7.0	0.6	3.3	1.3	0.0	1.4	100.0	49,249
	Rural	55.2	0.4	17.8	0.9	0.0	14.9	0.2	5.6	0.4	0.0	4.6	100.0	188,147
Education of household head	None	47.9	0.7	18.2	1.7	0.0	17.3	0.4	6.8	0.8	0.0	6.2	100.0	100,957
	Primary incomplete	50.2	1.0	20.7	2.3	0.0	15.5	0.4	5.8	0.7	0.0	3.3	100.0	31,273
	Primary complete	53.3	0.9	21.3	2.6	0.0	12.8	0.1	5.1	0.6	0.0	3.2	100.0	27,398
	Secondary incomplete	61.2	0.9	19.1	2.8	0.0	9.5	0.1	3.6	0.5	0.0	2.3	100.0	40,319
	Secondary complete or higher	78.4	0.5	13.0	1.0	0.0	4.8	0.1	1.5	0.3	0.0	0.5	100.0	37,261
	Missing/DK	43.9	0.0	25.5	0.0	0.0	25.3	0.0	3.2	0.0	0.0	2.2	100.0	187
Wealth index quintile	Poorest	26.2	0.5	18.2	0.7	0.1	28.8	0.3	11.0	0.8	0.0	13.5	100.0	47,480
	Second	47.3	0.6	21.0	1.2	0.0	17.7	0.2	6.9	0.6	0.0	4.5	100.0	47,482
	Middle	58.5	0.5	21.6	1.2	0.0	11.4	0.4	4.7	0.4	0.0	1.2	100.0	47,479
	Fourth	67.4	1.1	18.7	3.4	0.0	5.7	0.4	2.0	1.0	0.0	0.3	100.0	47,478
	Richest	80.0	1.1	11.5	3.2	0.0	2.8	0.1	0.9	0.3	0.0	0.0	100.0	47,478

[1] MICS indicator 4.3; MDG indicator 7.9 - Use of improved sanitation

Map WS.1 gives a spatial distribution of availability of improved sanitation facilities to households in the districts of Bangladesh. Khagrachari and Bandarban performed worst among the districts of Bangladesh.

Map WS.1: Percentage of households with improved sanitation facility by district, Bangladesh, 2012-2013



In its 2008 report[28], the JMP developed a new way of presenting the access figures, by disaggregating and refining the data on drinking-water and sanitation and reflecting them in "ladder" format. This ladder allows a disaggregated analysis of trends in a three rung ladder for drinking-water and a four-rung ladder for sanitation. For sanitation, this gives an understanding of the proportion of population with no sanitation facilities at all – who revert to open defecation, of those reliant on technologies defined by JMP as "unimproved," of those sharing sanitation facilities of otherwise acceptable technology, and those using "improved" sanitation facilities.

Having access to both an improved drinking water source and an improved sanitation facility brings the largest public health benefits to a household[29,30]. Table WS.7 presents the percentages of household population by drinking water and sanitation ladder. The table also shows the percentage of household members using both improved sources of drinking water[31] and an improved sanitary means of excreta disposal.

Overall, 55.1 per cent household population of Bangladesh have improved drinking water sources and improved sanitation (Table WS.7). The percentages are a little higher in urban areas than in rural areas (58.2 versus 54.3 per cent) and the differential are also limited between divisions. Table shows that there is a positive correlation with the education of household head, as well as with the wealth status of household. Some 79.4 per cent population living in the richest households use drinking water from improved sources and also use improved sanitation facilities, whereas in the poorest households, the percentage using both is reduced to only 25.3 per cent.

[28] *WHO/UNICEF JMP (2008), MDG assessment report - http://www.wssinfo.org/fileadmin/user_upload/resources/1251794333-JMP_08_en.pdf*
[29] *Wolf, J, Prüss-Ustün, A, Cumming, O, et al. Systematic review: Assessing the impact of drinking water and sanitation on diarrhoeal disease in low- and middle-income settings: systematic review and meta-regression. 2014. Tropical Medicine and International Health.*
[30] *DfID Water, Sanitation and Hygiene: Evidence Paper. 2013. http://r4d.dfid.gov.uk/pdf/outputs/sanitation/WASH-evidence-paper-april2013.pdf*
[31] *Those indicating bottled water as the main source of drinking water are distributed according to the water source used for other purposes such as cooking and handwashing.*

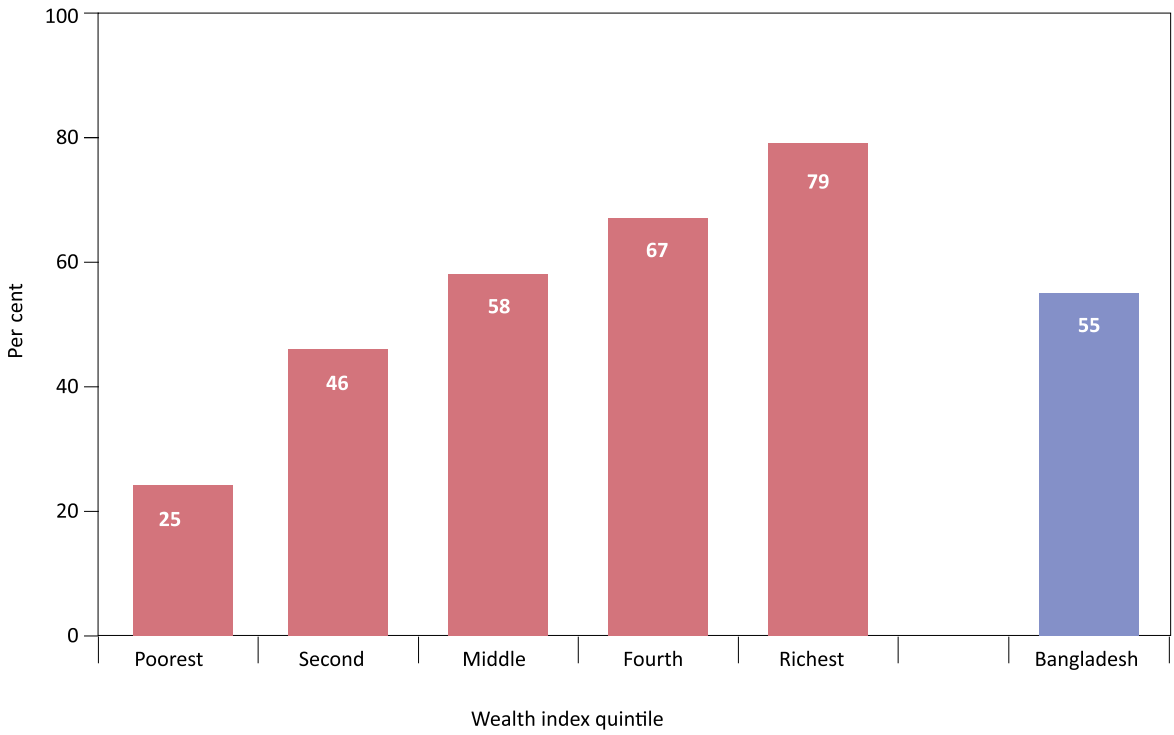
Table WS.7: Drinking water and sanitation ladders

Percentage of household population by drinking water and sanitation ladders, Bangladesh, 2012-2013

		Percentage of household population using:										Number of household members
		Improved drinking water [1]		Unimproved drinking water	Total	Improved sanitation [2]	Unimproved sanitation			Total	Improved drinking water sources and improved sanitation	
		Piped into dwelling, plot or yard	Other improved				Shared improved facilities	Unimproved facilities	Open defecation			
Total		**5.6**	**92.4**	**2.1**	**100.0**	**55.9**	**21.0**	**19.2**	**3.9**	**100.0**	**55.1**	**237,396**
Division	Barisal	0.3	95.0	4.7	100.0	52.0	6.8	39.9	1.3	100.0	49.0	15,028
	Chittagong	1.8	95.2	3.0	100.0	59.4	15.6	22.7	2.3	100.0	59.0	47,725
	Dhaka	15.1	84.8	0.1	100.0	54.0	26.1	18.1	1.8	100.0	53.9	72,991
	Khulna	0.4	94.0	5.6	100.0	58.0	24.0	17.2	0.8	100.0	55.9	26,508
	Rajshahi	2.1	97.2	0.7	100.0	52.0	28.2	13.3	6.4	100.0	51.7	30,923
	Rangpur	0.3	99.6	0.1	100.0	57.4	17.2	9.8	15.5	100.0	57.4	28,234
	Sylhet	2.5	91.3	6.2	100.0	58.6	14.4	26.3	0.8	100.0	55.8	15,987
Area	Urban	23.7	75.4	0.9	100.0	58.6	27.8	12.2	1.4	100.0	58.2	49,249
	Rural	0.8	96.8	2.4	100.0	55.2	19.2	21.1	4.6	100.0	54.3	188,147
Education of household head	None	2.3	95.4	2.3	100.0	47.9	20.6	25.3	6.2	100.0	47.3	100,957
	Primary incomplete	3.8	93.2	2.9	100.0	50.2	24.0	22.4	3.3	100.0	49.2	31,273
	Primary complete	5.1	92.9	2.0	100.0	53.3	24.8	18.6	3.2	100.0	52.4	27,398
	Secondary incomplete	6.0	92.0	2.0	100.0	61.2	22.9	13.7	2.3	100.0	60.3	40,319
	Secondary complete or higher	15.6	83.3	1.0	100.0	78.4	14.5	6.6	0.5	100.0	77.7	37,261
	Missing/DK	2.8	97.2	0.0	100.0	43.9	25.5	28.4	2.2	100.0	43.9	187
Wealth index quintile	Poorest	0.0	94.4	5.6	100.0	26.2	19.4	40.8	13.5	100.0	25.3	47,480
	Second	0.2	97.8	2.1	100.0	47.3	22.9	25.4	4.5	100.0	46.3	47,482
	Middle	0.4	98.3	1.3	100.0	58.5	23.4	16.9	1.2	100.0	57.8	47,479
	Fourth	3.5	95.8	0.7	100.0	67.4	23.3	9.0	0.3	100.0	66.8	47,478
	Richest	23.7	75.6	0.7	100.0	80.0	15.9	4.1	0.0	100.0	79.4	47,478

[1] MICS indicator 4.1; MDG indicator 7.8 - Use of improved drinking water sources
[2] MICS indicator 4.3; MDG indicator 7.9 - Use of improved sanitation

Figure WS.4: Use of improved drinking water sources and improved sanitation facilities, by wealth, Bangladesh, 2012-2013



Safe disposal of a child's faeces is disposing of the stool, by the child using a toilet or by rinsing the stool into a toilet or latrine. Putting disposable diapers with solid waste, a very common practice in some parts of the world, has thus far been classified as an inadequate means of disposal of child faeces for concerns about unsafe disposal of solid waste itself. This classification is currently under review. Disposal of faeces of children 0-2 years of age is presented in Table WS.8.

In Bangladesh, for 38.7 per cent children of age 0-2 years, the stools were disposed of safely the last time they passed stools. The percentage was much higher in urban areas than in rural areas (60.2 versus 33.1 per cent), and significant differences were observed in the practice in different divisions (lowest in Rangpur 21.4 per cent and highest in Dhaka 46 per cent). The percentage of safe disposal of stools progressively improves with the education level for mothers and wealth status of the household - from 24.2 per cent when mothers have no education to 66 per cent for mothers with secondary or higher education. Safe disposal of stools is as low as 19.6 per cent in the poorest households as compared to 73.1 per cent households in the richest wealth quintile.

By place of disposal, the most common practice in Bangladesh was to put/rinse a child's faeces into a toilet or latrine. This practice, considered to be safe, was observed for 33.3 per cent of children aged 0–2 years. The other disposal method of child using the toilet/latrine, had limited practice in, at only 5.4 per cent.

Table WS.8: Disposal of child's faeces

Per cent distribution of children age 0-2 years according to place of disposal of child's faeces, and the percentage of children age 0-2 years whose stools were disposed of safely the last time the child passed stools, Bangladesh, 2012-2013

		Place of disposal of child's faeces								Total	Percentage of children whose last stools were disposed of safely [1]	Number of childre age 0-2 years
		Child used toilet / latrine	Put / Rinsed into drain or ditch	Thrown into garbage (solid waste)	Thrown into garbage (solid waste)	Buried	Left in the open	Other	Missing /DK			
Total		**5.4**	**33.3**	**19.8**	**13.8**	**0.6**	**19.1**	**7.1**	**1.0**	**100.0**	**38.7**	**12,251**
Type of sanitation facility used by household members	Improved	5.9	38.0	20.0	12.4	0.5	15.3	6.8	1.1	100.0	43.9	9,160
	Unimproved	4.2	22.5	20.2	16.3	0.5	27.0	8.4	0.8	100.0	26.8	2,604
	Open defecation	0.7	2.1	15.3	27.0	1.3	46.7	6.7	0.1	100.0	2.9	487
Division	Barisal	7.5	31.8	11.8	6.6	0.7	35.4	5.4	0.8	100.0	39.3	728
	Chittagong	6.4	31.2	21.3	16.7	0.3	13.0	9.6	1.4	100.0	37.6	2,862
	Dhaka	4.7	41.2	18.8	6.5	0.4	19.6	7.8	0.9	100.0	46.0	3,838
	Khulna	8.4	35.4	24.7	17.1	1.0	10.7	2.2	0.5	100.0	43.8	1,170
	Rajshahi	5.1	29.6	24.8	16.9	0.4	14.1	7.8	1.2	100.0	34.6	1,384
	Rangpur	1.8	19.6	13.7	19.5	1.1	38.9	4.9	0.5	100.0	21.4	1,334
	Sylhet	4.6	31.0	21.0	23.3	0.6	12.1	6.6	0.8	100.0	35.5	935
Area	Urban	7.4	52.9	14.1	7.0	0.3	9.1	8.2	1.0	100.0	60.2	2,529
	Rural	4.8	28.2	21.3	15.6	0.6	21.6	6.8	1.0	100.0	33.1	9,722
Mother's education	None	4.3	19.9	22.6	17.0	0.4	28.7	6.3	0.8	100.0	24.2	2,428
	Primary incomplete	4.1	24.0	21.9	15.0	0.6	22.4	10.2	1.8	100.0	28.1	1,660
	Primary complete	4.0	29.5	22.3	15.7	0.8	21.3	5.9	0.4	100.0	33.5	1,911
	Secondary incomplete	5.9	36.2	19.4	13.2	0.6	16.4	7.4	0.9	100.0	42.1	4,536
	Secondary complete or higher	8.0	57.9	12.3	7.3	0.5	6.9	5.9	1.2	100.0	66.0	1,716
Wealth index quintile	Poorest	3.3	16.3	19.8	18.1	0.7	33.0	8.1	0.7	100.0	19.6	2,876
	Second	3.5	20.6	23.1	17.3	0.8	26.5	7.0	1.3	100.0	24.1	2,471
	Middle	5.1	26.6	25.7	15.7	0.7	18.8	6.4	1.0	100.0	31.7	2,289
	Fourth	6.6	43.2	20.6	11.3	0.4	10.7	6.2	1.1	100.0	49.8	2,238
	Richest	8.8	64.3	10.1	5.5	0.2	2.8	7.5	0.8	100.0	73.1	2,377

[1] MICS indicator 4.4 - Safe disposal of child's faeces

Handwashing

Handwashing with water and soap is the most cost effective health intervention to reduce both the incidence of diarrhoea and pneumonia in children under five[32]. It is most effective when done using water and soap after visiting a toilet or cleaning a child, before eating or handling food and, before feeding a child. Monitoring correct handwashing behaviour at these critical times is challenging. A reliable alternative to observations or self-reported behaviour is assessing the likelihood that correct handwashing behaviour takes place by observing if a household has a specific place where people most often wash their hands and observing if water and soap (or other local cleansing materials) are present at a specific place for handwashing[33].

[32] *Cairncross, S. Valdmanis V. 2006. Water supply, sanitation and hygiene promotion. Chapter 41. In 'Disease Control Priorities in Developing Countries'. Second Edition. Edt. Jameson et al 2006. The World Bank. Washington DC: National Institutes of Health.*

[33] *Ram P, Halder A, Granger S, Hall P, Jones T, Hitchcock D, Nygren B, Islam M, Molyneaux J, Luby S, editors. Use of a novel method to detect reactivity to structured observation for measurement of handwashing behavior. American Society of Tropical Medicine and Hygiene; 2008; New Orleans, LA.*

Table WS.9: Water and soap at place for handwashing

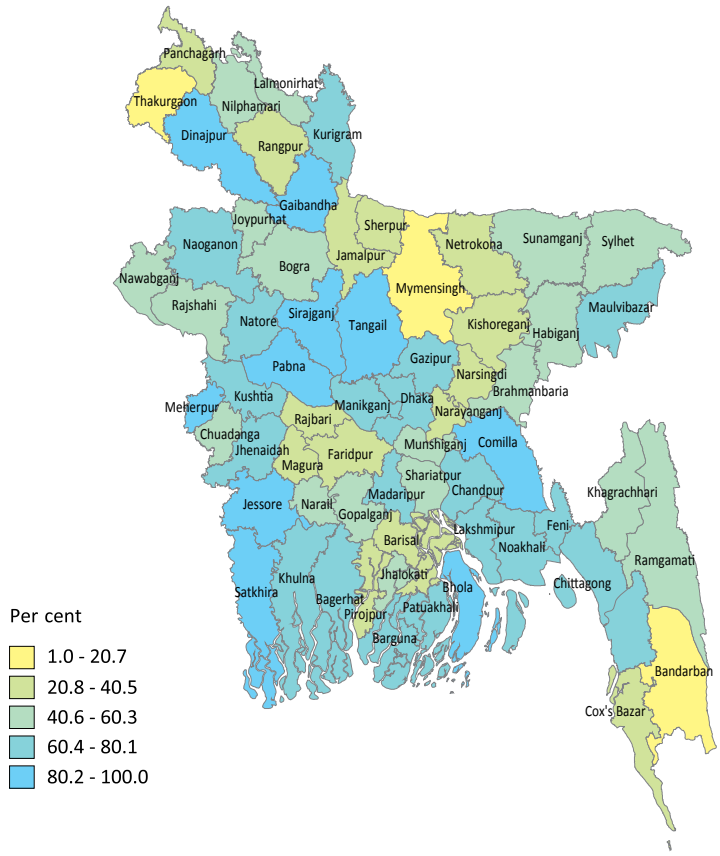
Percentage of households where place for handwashing was observed and per cent distribution of households by availability of water and soap at place for handwashing, Bangladesh, 2012-2013

		Percentage of households: where place for handwashing was observed	Percentage of households: With no specific place for handwashing in the dwelling, yard, or plot	Number of households	Percentage of households where place for handwashing was not observed				Total	Per cent distribution of households where place for handwashing was observed, where:					Total	Number of households where place for handwashing was observed
					Not in dwelling/ plot/yard	No permission to see	Other reasons	Missing		Water and soap are available [1]	Water is available, soap is not available	Water is not available, soap is available	Water and soap are not available	Missing		
Total		**82.0**	**17.0**	**51,895**	**17.0**	**0.3**	**0.6**	**0.0**	**100.0**	**59.1**	**35.0**	**1.5**	**4.3**	**0.1**	**100.0**	**42,572**
Division	Barisal	95.5	3.9	3,155	3.9	0.0	0.6	0.0	100.0	50.0	41.8	2.8	5.3	0.1	100.0	3,013
	Chittagong	65.7	32.1	9,278	32.1	0.6	1.6	0.0	100.0	71.4	24.1	1.4	2.9	0.2	100.0	6,097
	Dhaka	90.5	8.2	16,556	8.2	0.6	0.7	0.0	100.0	50.1	47.7	0.3	1.9	0.0	100.0	14,985
	Khulna	65.5	34.4	6,167	34.4	0.1	0.0	0.0	100.0	66.5	28.9	4.1	0.5	0.1	100.0	4,040
	Rajshahi	80.0	19.7	7,449	19.7	0.0	0.2	0.0	100.0	67.9	25.7	3.6	2.7	0.1	100.0	5,961
	Rangpur	98.0	1.7	6,454	1.7	0.0	0.4	0.0	100.0	61.5	25.1	0.8	12.6	0.0	100.0	6,322
	Sylhet	75.9	23.3	2,836	23.3	0.2	0.5	0.1	100.0	54.2	34.6	0.6	10.6	0.0	100.0	2,153
Area	Urban	86.1	12.5	11,144	12.5	1.2	0.3	0.0	100.0	70.3	26.4	0.8	2.3	0.1	100.0	9,591
	Rural	80.9	18.2	40,751	18.2	0.1	0.7	0.0	100.0	55.8	37.5	1.7	4.8	0.1	100.0	32,981
Education of ousehold head	None	79.1	19.9	21,823	19.9	0.2	0.7	0.0	100.0	50.5	42.4	1.7	5.4	0.1	100.0	17,267
	Primary incomplete	76.7	22.2	6,776	22.2	0.2	0.9	0.0	100.0	55.5	38.6	1.6	4.2	0.1	100.0	5,199
	Primary complete	85.3	14.0	6,053	14.0	0.1	0.7	0.0	100.0	56.1	38.0	1.3	4.6	0.1	100.0	5,163
	Secondary incomplete	84.2	15.0	8,938	15.0	0.3	0.5	0.0	100.0	63.0	31.4	1.7	3.8	0.1	100.0	7,529
	Secondary complete or higher	89.3	9.3	8,271	9.3	1.1	0.3	0.0	100.0	80.1	16.8	1.1	2.0	0.1	100.0	7,382
	Missing/DK	(91.6)	(6.8)	34	(6.8)	(0.0)	(1.6)	(0.0)	100.0	(32.5)	(60.1)	(0.0)	(7.4)	(0.0)	(100.0)	31
Wealth index quintile	Poorest	70.8	28.1	11,195	28.1	0.1	1.0	0.0	100.0	38.9	46.3	3.4	11.3	0.1	100.0	7,923
	Second	79.7	19.3	10,510	19.3	0.1	0.9	0.0	100.0	49.8	43.4	1.7	5.0	0.0	100.0	8,381
	Middle	83.6	15.7	10,163	15.7	0.1	0.6	0.0	100.0	54.7	40.6	1.5	3.2	0.1	100.0	8,492
	Fourth	86.4	12.8	9,950	12.8	0.3	0.5	0.0	100.0	64.2	33.0	0.9	1.9	0.1	100.0	8,599
	Richest	91.1	7.7	10,078	7.7	1.0	0.2	0.0	100.0	84.3	14.5	0.4	0.7	0.0	100.0	9,177

[1] MICS indicator 4.5 - Place for handwashing

( ) Figures that are based on 25-49 unweighted cases

Map WS.2: Water and soap at place for handwashing by district, Bangladesh, 2012-2013



In Bangladesh, in 82 per cent of the households a specific place for handwashing was observed while 17 per cent households could not indicate a specific place where household members usually wash their hands and 1 per cent of the households either did not give a permission to see the place used for handwashing or it could not be observed for other reasons (Table WS.9). Among household where a place for handwashing was observed almost three in five (59.1 per cent) had both water and soap (or other cleansing agent) present at the specific place and another 35 per cent had only water available. In 35 per cent of the households only water was available at the specific place, while in about 2 per cent of the households the place only had soap but no water. The remaining about 4 per cent of households had neither water nor soap available at the specific place for handwashing

The observation of place of handwashing varies greatly by divisions; some are high - 98 and 95.5 per cent in Rangpur and Barisal, but others are low - 65.7 and 65.5 per cent in Chittagong and Khulna. The availability of proper handwashing facility (water and soap) is correlated with living standard of the household and education of the household head: the richest household are more than twice as likely to have handwashing facility as the poorest household. This is largely attributable to the lack of availability of soap in the poorer households. There are also difference in the availability of soap between urban and rural areas (26.4 versus 37.5 per cent) as also by different divisions – ranging from 24.1 per cent in Chittagong to 47.7 per cent in Dhaka.

Overall, 94 per cent of households in Bangladesh had soap available somewhere in the dwelling (Table WS.10). Among the households where the place of handwashing could be observed, soap was either observed or shown in about 96 per cent cases. In such cases, about 4 per cent were not able or refused to show any soap present in the household. Among the households where the place of handwashing could not be observed, 14.7 per cent were not able or refused to show any soap present in the household. A household belonging to the poorest wealth class was less likely to have soap anywhere in the household (85.7 per cent).

Table WS.10: Availability of soap

Per cent distribution of households by availability of soap in the dwelling, Bangladesh, 2012-2013

		Place for handwashing observed						Place for handwashing not observed					Percentage of households with soap anywhere in the dwelling [1]	Number of households
		Soap observed	Soap shown	No soap in household	Not able/ Does not want to show soap	Missing	Total	Soap shown	No soap in household	Not able/Does not want to show soap	Missing	Total		
Total		**60.6**	**35.3**	**3.6**	**0.3**	**0.1**	**100.0**	**85.2**	**14.3**	**0.4**	**0.1**	**100.0**	**94.0**	**51,895**
Division	Barisal	52.8	42.4	4.5	0.2	0.1	100.0	88.2	11.8	0.0	0.0	100.0	94.9	3,155
	Chittagong	72.9	23.8	3.0	0.1	0.2	100.0	86.2	13.5	0.2	0.0	100.0	93.1	9,278
	Dhaka	50.4	44.8	4.4	0.3	0.1	100.0	80.4	19.3	0.4	0.0	100.0	93.8	16,556
	Khulna	70.6	27.7	1.5	0.1	0.1	100.0	89.5	10.0	0.3	0.1	100.0	95.3	6,167
	Rajshahi	71.5	25.0	3.2	0.1	0.1	100.0	81.5	17.3	0.9	0.3	100.0	93.5	7,449
	Rangpur	62.3	34.1	3.0	0.5	0.1	100.0	60.0	35.2	4.8	0.0	100.0	95.6	6,454
	Sylhet	54.8	38.6	6.0	0.6	0.0	100.0	89.9	10.1	0.0	0.0	100.0	92.5	2,836
Area	Urban	71.2	26.0	2.5	0.2	0.2	100.0	84.7	14.9	0.4	0.0	100.0	95.4	11,144
	Rural	57.6	38.1	4.0	0.3	0.1	100.0	85.3	14.2	0.4	0.1	100.0	93.7	40,751
Education of household head	None	52.1	41.4	5.9	0.4	0.1	100.0	80.6	18.8	0.5	0.1	100.0	90.8	21,823
	Primary incomplete	57.1	39.4	2.9	0.4	0.1	100.0	85.4	14.3	0.2	0.1	100.0	93.9	6,776
	Primary complete	57.4	39.1	3.2	0.2	0.1	100.0	89.8	9.5	0.7	0.0	100.0	95.4	6,053
	Secondary incomplete	64.7	33.1	1.8	0.2	0.2	100.0	90.8	8.8	0.3	0.1	100.0	96.7	8,938
	Secondary complete or higher	81.2	17.9	0.8	0.1	0.1	100.0	94.5	5.2	0.3	0.0	100.0	98.6	8,271
	Missing/DK	(32.5)	(63.6)	(3.8)	(0.0)	(0.0)	100.0	(100.0)	(0.0)	(0.0)	(0.0)	100.0	(96.5)	34
Wealth index quintile	Poorest	42.3	46.7	10.3	0.6	0.1	100.0	77.5	21.9	0.6	0.0	100.0	85.7	11,195
	Second	51.5	43.8	4.1	0.4	0.2	100.0	85.9	13.6	0.3	0.2	100.0	93.4	10,510
	Middle	56.1	40.5	3.0	0.3	0.1	100.0	89.0	10.2	0.7	0.1	100.0	95.4	10,163
	Fourth	65.0	33.5	1.2	0.1	0.1	100.0	91.6	8.3	0.1	0.1	100.0	97.6	9,950
	Richest	84.7	14.8	0.3	0.0	0.1	100.0	94.7	4.9	0.4	0.0	100.0	99.1	10,078

[1] MICS indicator 4.6 - Availability of soap or other cleansing agent

( ) Figures that are based on 25-49 unweighted cases

Drinking Water Quality

Safe drinking water is a human right and a basic requirement for good health. Microbiological contamination of drinking water can lead to diarrhoeal diseases including shigellosis and cholera. Other pathogens in drinking water can cause hepatitis, typhoid, and polio myelitis. Drinking water can also be contaminated with chemicals with harmful effects on human health. Naturally occurring chemicals, especially arsenic and fluoride, have the potential to affect large numbers of people.

The MDG Target 7C is to reduce by half, between 1990 and 2015, the proportion of the population without sustainable access to safe drinking water and basic sanitation. *A World Fit for Children* calls for a reduction in the proportion of households without access to hygienic sanitation facilities and affordable and safe drinking water by at least one-third.

The global indicator for tracking progress towards the MDG drinking water target is use of an 'improved source' of drinking water. However, improved sources may be contaminated and provide unsafe water, or safe water may be contaminated during collection, transport and storage at the household. The Bangladesh MICS 2012-2013 is the first nationally representative survey to include measurement of microbiological and chemical quality of drinking water at both the source and the household level.

Arsenic

Arsenic is a known human carcinogen, which was discovered in groundwater in Bangladesh in the 1990s. The WHO provisional guideline value for arsenic since 1993 is 10 parts per billion (ppb), and the same value has been adopted as a standard by the United States Environment Protection Agency (EPA) and the European Union amongst others. The Bangladesh standard for arsenic in drinking water is 50 ppb. The same value applies in India and some other severely arsenic affected countries; 50 ppb was the WHO provisional guideline value for drinking water up to 1993. Some groundwater in Bangladesh is highly contaminated. A non-statutory level of 200 ppb is used in this report to characterize high levels of health risk. Reference table WQ.A provides the critical water quality definitions and references to arsenic concentration in ppb.

Arsenic was measured in the MICS 2012-2013 using the Arsenic Econo-Quick™ Test Kit (Industrial Test Systems, USA), which yields a semi-quantitative measure of arsenic in drinking water. Test chemicals are added to a 50 ml water sample, results are estimated after 12 minutes by comparing the colour on the test strip to a reference chart, and recorded as 0, 10, 25, 50, 100, 200, 300, 500 or 1000 ppb arsenic. During the survey, a subset of five households was randomly chosen to test household drinking water from among the 20 households that were randomly selected from each selected cluster. Household respondents were asked to provide "a glass of water which you would give a child to drink" for testing. Water was also tested at the source for one out of five of the households selected for water quality testing.

During field work, mobile teams of laboratory technicians visited all of the MICS field teams to monitor testing procedures, and to validate field test kit results. A subset of field samples from 438 households were cross-checked in a laboratory using atomic absorption spectrophotometry, and a larger subset of duplicate samples[34] were collected and used for further analysis and comparison with the field test results. With few exceptions, the correlation between field and laboratory results was good, and field test results were slightly adjusted to match laboratory measurements.

Table WQ.A: Description of reference arsenic concentrations

Arsenic Concentration In ppb	Description of significance
<=10	WHO provisional guideline value for arsenic in drinking water since 1993. The same value has been adopted as a standard by the US EPA and the European Union amongst others
<=50	The Bangladesh Standard for arsenic in drinking water. The same value applies in India and some other severely arsenic affected countries. This was the WHO guideline value for arsenic in drinking water up to 1993.
>=200	A non-statutory descriptive statistic, used here to characterize high levels of health risk.

[34] *At each household and source where both arsenic and E. coli testing were done using field test kits, a 125 ml bottle was filled with sample water, acidified, labelled, and stored at UNICEF for future laboratory analysis as and when needed.*

The distribution of the households by arsenic level in source water is shown in Table WQ.1. The corresponding arsenic levels in household drinking water for the survey population are shown in Table WQ.2. Maps giving the spatial distribution of the level of arsenic in source and household water are shown in Map WQ.1 and Map WQ.2.

As shown in Table WQ.2, overall, 24.8 per cent of the population had drinking water in the household with arsenic above the WHO provisional guideline value of <= 10 ppb, and 12.4 per cent of the population exceeded the Bangladesh Standard of <= 50 ppb while 2.8 per cent of the population was exposed to 200 ppb or more. Arsenic contamination was slightly greater at the source (Table WQ.1), with 25.5 per cent exceeding 10 ppb and 12.5 per cent above 50 ppb.

Table WQ.1: Source water quality: Arsenic

Proportion of households by arsenic concentration in source water, Bangladesh 2012-2013

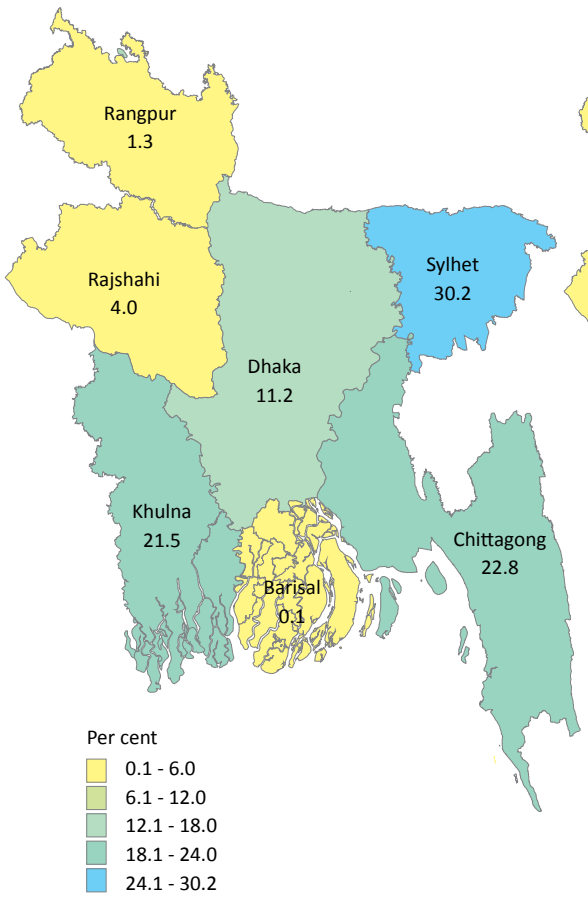
		Proportion of households				Total	Proportion of households using source water containing over 10 ppb Arsenic concentration [2]	Proportion of households using source water containing over 50 ppb Arsenic concentration [1]	Number of households
		Arsenic concentration in source water							
		<=10 ppb (1)	>10 - 50 ppb	>50 - <200 ppb	>=200 ppb				
Total		**74.5**	**13.0**	**10.1**	**2.5**	**100.0**	**25.5**	**12.5**	**2,558**
Division	Barisal	97.2	2.7	0.1	0.0	100.0	2.8	0.1	160
	Chittagong	65.2	12.1	13.9	8.8	100.0	34.8	22.8	457
	Dhaka	70.0	18.8	9.7	1.5	100.0	30.0	11.2	788
	Khulna	60.4	18.0	18.6	3.0	100.0	39.6	21.5	308
	Rajshahi	88.0	7.9	3.9	0.1	100.0	12.0	4.0	376
	Rangpur	92.0	6.8	1.3	0.0	100.0	8.0	1.3	329
	Sylhet	57.5	12.3	29.0	1.2	100.0	42.5	30.2	140
Area	Urban	80.5	12.7	5.5	1.2	100.0	19.5	6.8	531
	Rural	72.9	13.1	11.2	2.8	100.0	27.1	14.0	2,027
Source of drinking water for WQ sample	Unimproved water source	86.1	9.6	3.3	1.0	100.0	13.9	4.3	48
	Improved water source	74.2	13.1	10.2	2.5	100.0	25.8	12.7	2,506
Source of drinking water	Piped water								
	Piped into dwelling	(89.3)	(10.1)	(0.7)	(0.0)	100.0	(10.7)	(0.7)	87
	Piped into compound, yard or plot	89.5	9.8	0.7	0.0	100.0	10.5	0.7	119
	Public tap / standpipe	(88.6)	(7.8)	(3.5)	(0.0)	100.0	(11.4)	(3.5)	31
	Tube well, Borehole	72.6	13.4	11.2	2.8	100.0	27.4	14.0	2,264
	Dug well (protected or unprotected)	(84.7)	(15.4)	(0.0)	(0.0)	100.0	(15.3)	(0.0)	11
	Surface water (river, stream, dam, lake, pond, canal, irrigation channel)	(90.6)	(5.1)	(2.2)	(2.2)	100.0	(9.4)	(4.4)	22
	Other	(83.5)	(11.0)	(5.5)	(0.0)	100.0	(16.5)	(5.5)	20
Education of household head	None	73.6	13.7	10.0	2.7	100.0	26.4	12.7	1,108
	Primary incomplete	75.2	11.8	11.2	1.8	100.0	24.8	13.0	315
	Primary complete	76.7	12.5	9.1	1.7	100.0	23.3	10.8	313
	Secondary incomplete	73.9	12.6	10.9	2.7	100.0	26.1	13.6	454
	Secondary complete or higher	75.4	13.0	8.9	2.7	100.0	24.6	11.6	367
Wealth index quintile	Poorest	75.7	11.9	10.3	2.2	100.0	24.3	12.4	541
	Second	77.4	11.1	9.6	1.8	100.0	22.6	11.4	535
	Middle	71.4	13.7	12.1	2.8	100.0	28.6	14.9	472
	Fourth	71.8	15.2	10.3	2.7	100.0	28.2	13.0	512
	Richest	75.6	13.3	8.2	2.9	100.0	24.4	11.1	499

[1] Country-specific indicator 4.S1a – Arsenic concentration of source water >50 ppb
[2] Country-specific indicator 4.S1b – Arsenic concentration of source water >10 ppb

( ) Figures that are based on 25-49 unweighted cases

Considering the Bangladesh standard, with respect to arsenic found in household water, non-compliance varied regionally from 0.1 per cent in Barisal division to 24.9 per cent in Sylhet division. People living in rural areas are nearly twice as likely to use drinking water containing arsenic above 50 ppb compared to people in urban areas. Improved water sources are much more likely to have arsenic contamination than non-improved sources, since arsenic is mainly found in groundwater and most unimproved sources are surface water. Arsenic contamination did not follow any clear trend with wealth. Tubewells were the most contaminated source (13.8 per cent), just under 2 per cent of households with piped water supplies which are inferred to derive from groundwater, also contained arsenic above the Bangladesh standard. No arsenic contamination was found in protected or unprotected dug wells.

Map WQ.1: Proportion of households by arsenic concentration >50 ppb in source water for drinking by division, Bangladesh, 2012-2013



Map WQ.2: Proportion of population by arsenic concentration >50 ppb in household drinking water by division, Bangladesh, 2012-2013

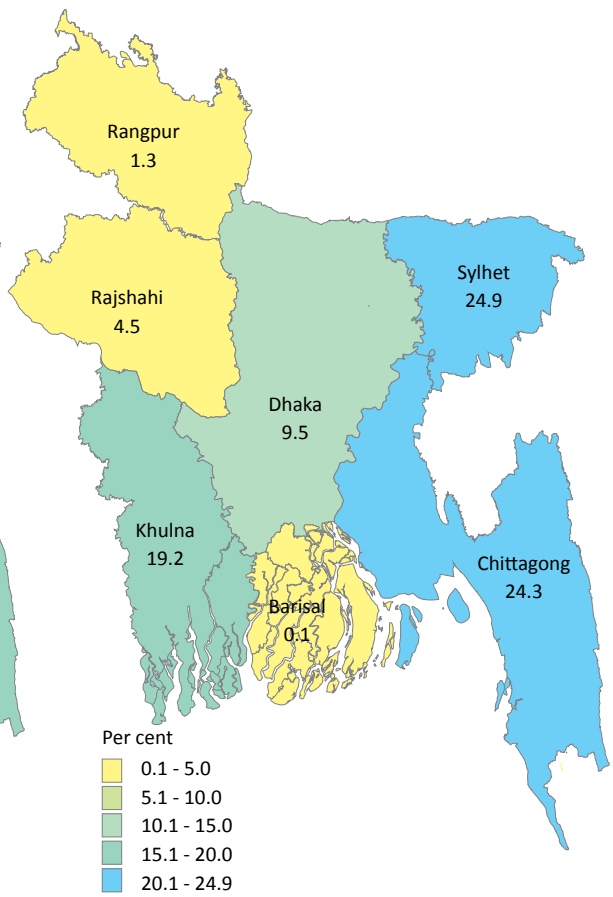


Table WQ.2: Household water quality: Arsenic

Proportion of population by arsenic concentration in drinking water, Bangladesh 2012-2013

		Proportion of population				Total	Proportion of population using drinking water with over 10 ppb Arsenic concentration [2]	Proportion of population using drinking water with over 50 ppb Arsenic concentration [1]	Number of household members
		Arsenic concentration in household drinking water							
		<=10 ppb	>10 - 50 ppb	>50 - <200 ppb	>=200 ppb				
Total		**75.3**	**12.4**	**9.6**	**2.8**	**100.0**	**24.8**	**12.4**	**59,718**
Division	Barisal	94.5	5.4	0.1	0.0	100.0	5.6	0.1	3,787
	Chittagong	63.5	12.3	14.6	9.7	100.0	36.5	24.3	11,942
	Dhaka	74.1	16.4	8.2	1.3	100.0	25.9	9.5	18,439
	Khulna	62.6	18.2	16.6	2.7	100.0	37.4	19.2	6,703
	Rajshahi	88.6	7.0	3.8	0.7	100.0	11.4	4.5	7,787
	Rangpur	92.7	6.0	1.3	0.0	100.0	7.3	1.3	6,994
	Sylhet	62.3	12.8	24.0	0.9	100.0	37.7	24.9	4,067
Area	Urban	80.6	12.2	5.7	1.5	100.0	19.4	7.2	12,230
	Rural	73.9	12.4	10.6	3.1	100.0	26.1	13.7	47,488
Source of drinking water for WQ sample	Unimproved water source	89.4	8.1	1.5	1.1	100.0	10.6	2.6	1,266
	Improved water source	75.0	12.5	9.8	2.8	100.0	25.1	12.6	58,340
Source of drinking water	Piped water								
	Piped into dwelling	91.3	7.1	0.8	0.9	100.0	8.8	1.7	2,229
	Piped into compound, yard or plot	90.1	9.0	0.7	0.2	100.0	9.9	0.9	2,483
	Public tap / standpipe	86.5	10.4	2.9	0.3	100.0	13.5	3.1	644
	Tube well, Borehole	73.4	12.9	10.7	3.1	100.0	26.6	13.8	52,875
	Dug well								
	Protected well	91.3	8.8	0.0	0.0	100.0	8.8	0.0	83
	Unprotected well	80.3	19.7	0.0	0.0	100.0	19.7	0.0	187
	Surface water (river, stream, dam, lake, pond, canal, irrigation channel)	93.0	4.2	1.2	1.7	100.0	7.0	2.9	822
	Other	85.5	11.3	3.2	0.0	100.0	14.5	3.2	283
Education of household head	None	74.2	12.8	10.1	2.9	100.0	25.8	13.0	25,778
	Primary incomplete	71.8	13.7	11.2	3.3	100.0	28.2	14.5	7,720
	Primary complete	78.0	11.2	8.8	2.0	100.0	22.0	10.8	7,056
	Secondary incomplete	75.5	12.0	9.4	3.0	100.0	24.5	12.5	10,151
	Secondary complete or higher	78.9	11.3	7.5	2.4	100.0	21.2	9.9	8,989
Wealth index quintile	Poorest	77.6	11.3	8.9	2.2	100.0	22.5	11.1	11,679
	Second	76.0	12.3	9.3	2.3	100.0	24.0	11.6	11,980
	Middle	72.9	12.8	10.9	3.5	100.0	27.2	14.4	12,161
	Fourth	72.0	13.4	11.3	3.3	100.0	28.0	14.6	12,032
	Richest	78.0	12.0	7.6	2.5	100.0	22.1	10.1	11,865

[1] Country-specific indicator 4.S2a – Arsenic concentration of household drinking water >50 ppb
[2] Country-specific indicator 4.S2b – Arsenic concentration of household drinking water >10 ppb

E. coli

Hundreds of species of protozoa, bacteria, and viruses can cause disease in humans; many of these are transmitted through the faecal-oral pathway. Rather than monitor the presence of individual pathogens, faecal indicators are used to identify contamination. The bacteria species *Escherichia coli (E. coli)* is the most commonly recommended faecal indicator, and many countries including Bangladesh have set a standard that no *E. coli* should be found in a 100 ml sample of drinking water.

E. coli was measured in the field by MICS teams, by filtering 100 ml of sample through a 0.45 micron filter (Millipore Microfil®) which was then placed onto Compact Dry EC growth media plates (Nissui, Japan). A 1 ml sample was also tested from the same source directly onto a second media plate. Incubation was done at ambient temperature, and field teams were given padded sacks for storing media plates close to their bodies in case of cold weather. After 24 hours, the number of blue colonies, signifying the presence of *E. coli* colony forming units (cfu), was recorded.

One household from among the 20 households interviewed per cluster was randomly selected for *E. coli* testing. One sample of household drinking water ("a glass of water that you would give a child to drink") was tested, and a second sample was tested directly at the collection point of the drinking water source used by that household, without sterilization. In the case of piped water, the source water sample was collected directly from the tap. A subset of field samples were cross-checked in a laboratory: within 24 hours of collection laboratory technicians filtered a 100 ml aliquot of the collected drinking water through a Millipore™ membrane filter, placed the filter papers on modified *Escherichia coli* agar media, and incubated the plates at 35°C for two hours and then at 44.5°C for another 22 hours. Laboratory technicians counted red or magenta colonies as *E. coli*. Correlation between field and lab results was good, and no adjustments were made to field test results.

The reference Table WQ.E below gives the critical water quality definitions and references to *E.coli* risk categories as cfu/100 ml.

Table WQ.E: Description of *E. coli* Risk Categories

E. coli [CFU/100 ml]	Risk Level	Priority for Action
<1	Low	None
1 – 10	Medium	Low
11-100	High	Higher
>100	Very High	Urgent

Adapted from WHO drinking water quality guidelines, 4th Ed. (2011), E. coli coliform counts are divided into risk categories based on probability of infection of diarrheal disease. Note, this classification does not take account of the sanitary inspection.

The distribution of the population by *E. coli* level in source waters is shown in Table WQ.3 and Figure WQ.1. The corresponding values for *E. coli* in household drinking water samples are shown in Table WQ.4 and Figure WQ.2. Overall, 41.7 per cent of the population had source water with detectable *E. coli* (Table WQ.3), while it was 61.7 per cent for household samples (Table WQ.4), reflecting contamination occurring between the point of collection and use. The proportion of the population having water containing very high levels of contamination (>100 cfu/100 ml) was 7.4 per cent at the source and 13.5 per cent at the household level.

Regionally, contamination at both the source and the household was highest in Sylhet division and lowest in Barisal, Rajshahi, and Rangpur divisions. People in rural areas were more likely to have source water at low risk of contamination from *E. coli*, but at the household level water was equally contaminated in urban and rural settings, at 62 per cent. Very high levels of *E. coli* (>100 cfu/100 ml) was more common in urban than in rural areas, in both source and household waters.

Table WQ.3: Source water quality: E. coli

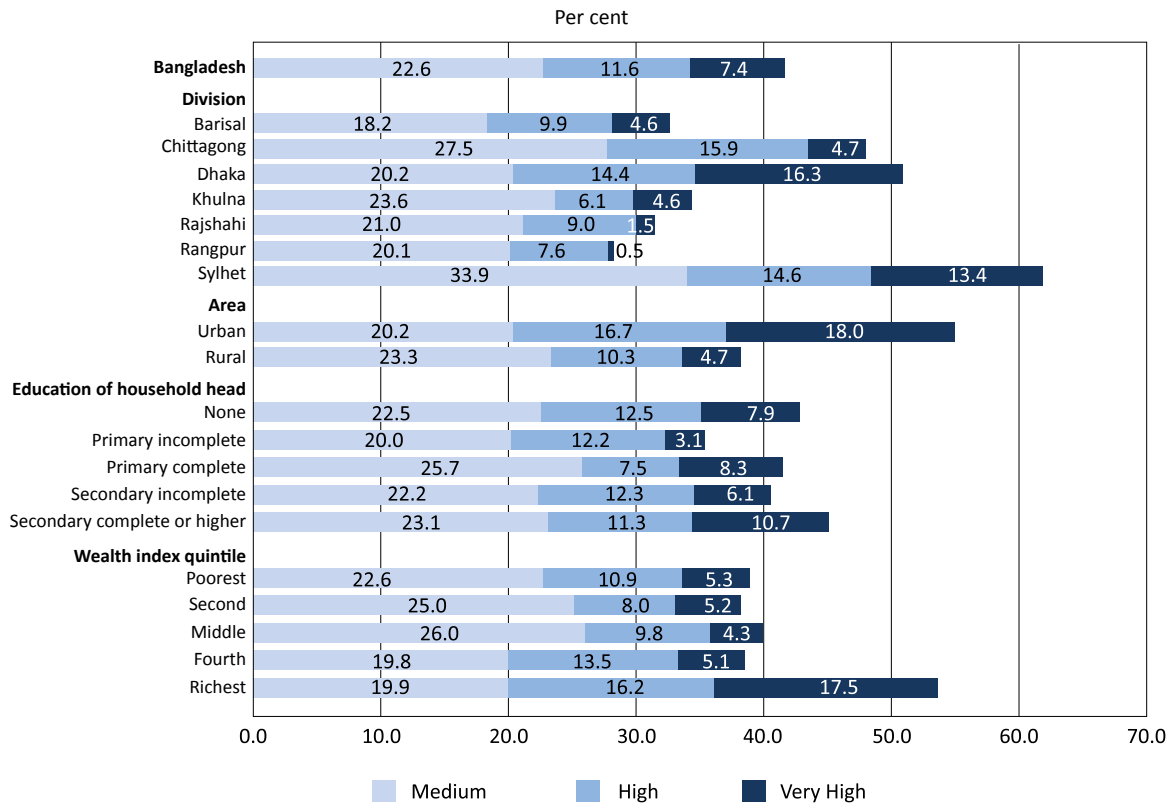
Proportion of households by E. coli risk level in source water, Bangladesh 2012-2013

		Proportion of households				Total	Percentage of households with *E.coli* risk level in source water over 1 cfu/100ml [1]	Number of households
		E. coli risk level in source water						
		Low	Medium	High	Very High			
Total		**58.3**	**22.6**	**11.6**	**7.4**	**100.0**	**41.7**	**2,543**
Division	Barisal	67.3	18.2	9.9	4.6	100.0	32.7	158
	Chittagong	51.9	27.5	15.9	4.7	100.0	48.1	449
	Dhaka	49.1	20.2	14.4	16.3	100.0	50.9	809
	Khulna	65.7	23.6	6.1	4.6	100.0	34.3	298
	Rajshahi	68.6	21.0	9.0	1.5	100.0	31.4	372
	Rangpur	71.8	20.1	7.6	0.5	100.0	28.2	320
	Sylhet	38.1	33.9	14.6	13.4	100.0	61.9	137
Area	Urban	45.0	20.2	16.7	18.0	100.0	55.0	552
	Rural	61.8	23.3	10.3	4.7	100.0	38.2	1,991
Source of drinking water for WQ sample	Unimproved water source	24.6	17.5	22.9	35.0	100.0	75.4	46
	Improved water source	58.9	22.8	11.4	6.9	100.0	41.2	2,492
Source of drinking water	Piped water							
	Piped into dwelling	(19.4)	(18.7)	(15.6)	(46.3)	100.0	(80.6)	100
	Piped into compound, yard or plot	21.5	16.9	21.7	39.9	100.0	78.5	137
	Public tap / standpipe	(71.8)	(9.2)	(15.5)	(3.6)	100.0	(28.2)	31
	Tube well, Borehole	62.3	23.5	10.6	3.6	100.0	37.7	2,219
	Dug well (protected or unprotected)	(8.0)	(23.3)	(36.4)	(32.3)	100.0	(92.0)	11
	Surface water (river, stream, dam, lake, pond, canal, irrigation channel)	(15.2)	(11.2)	(27.6)	(46.0)	100.0	(84.8)	24
	Other	(48.7)	(21.8)	(14.7)	(14.9)	100.0	(51.3)	16
Education of household head	None	57.1	22.5	12.5	7.9	100.0	42.9	1,088
	Primary incomplete	64.7	20.0	12.2	3.1	100.0	35.3	310
	Primary complete	58.4	25.7	7.5	8.3	100.0	41.6	316
	Secondary incomplete	59.4	22.2	12.3	6.1	100.0	40.6	454
	Secondary complete or higher	54.9	23.1	11.3	10.7	100.0	45.1	374
Wealth index quintile	Poorest	61.2	22.6	10.9	5.3	100.0	38.8	538
	Second	61.8	25.0	8.0	5.2	100.0	38.2	527
	Middle	60.0	26.0	9.8	4.3	100.0	40.0	460
	Fourth	61.6	19.8	13.5	5.1	100.0	38.4	501
	Richest	46.4	19.9	16.2	17.5	100.0	53.6	517

[1] Country-specific indicator 4.S3 – E.coli concentration in source water ≥1 cfu/100 ml

( ) Figures that are based on 25-49 unweighted cases

Figure WQ.1: Proportion of households by *E. coli* with medium, high and very high risk level in source water by background characteristics, Bangladesh, 2012-2013



E. coli levels were lower in improved sources than in unimproved sources, in both source and household samples. At the water source, no clear trends could be seen with either education level or wealth quintile, though the richest quintile did have markedly poorer water quality. This may reflect a greater reliance by the wealthy on piped water, which had significantly greater faecal contamination at the source than did tubewell water. Dug wells were the most frequently contaminated source, with only 8 per cent at low risk of *E. coli* at the source, followed by surface water at 15.2 per cent. The number of dug wells sampled was small, so protected and unprotected wells were combined for analysis.

At the household level, more educated or more wealthy people tend to have slightly better water quality. At the household level, water taken from surface water sources was most likely to have some level of contamination (95.8 per cent), but water collected from a compound, yard, or plot tap was most likely to result in very high levels of contamination (37.9 per cent with at least 100 cfu/100 ml).

Table WQ.4: Household water quality: E. coli

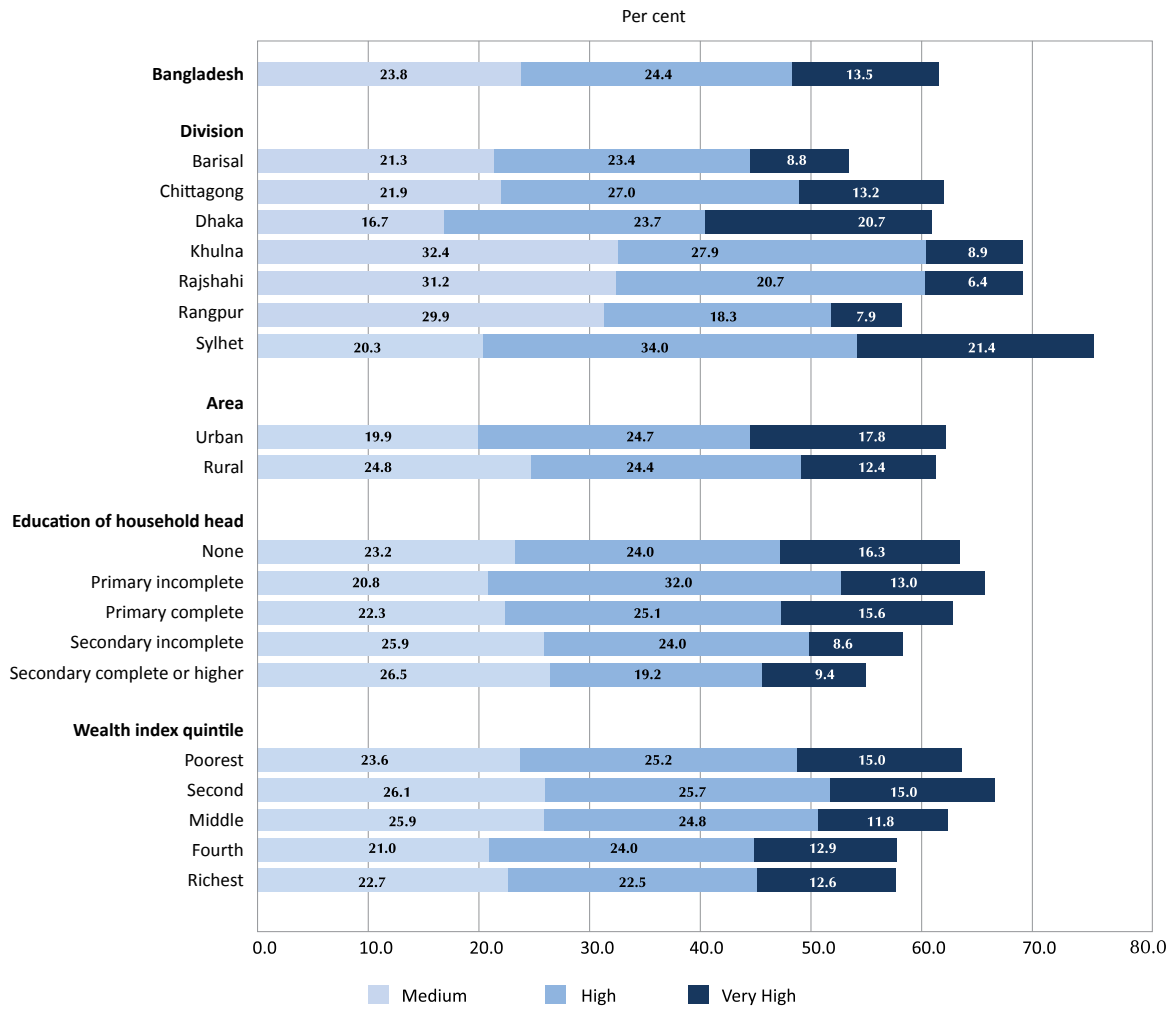
Proportion of population by E. coli risk level in drinking water, Bangladesh 2012-2013

		Proportion of population				Total	Percentage of households members with *E. coli* risk level in household water over 1 cfu/100ml [1]	Number of household members
		E. coli risk level in household drinking water						
		Low	Medium	High	Very High			
Total		**38.3**	**23.8**	**24.4**	**13.5**	**100.0**	**61.7**	**11,854**
Division	Barisal	46.5	21.3	23.4	8.8	100.0	53.5	747
	Chittagong	38.0	21.9	27.0	13.2	100.0	62.0	2,411
	Dhaka	39.0	16.7	23.7	20.7	100.0	61.0	3,570
	Khulna	30.7	32.4	27.9	8.9	100.0	69.3	1,348
	Rajshahi	41.7	31.2	20.7	6.4	100.0	58.3	1,548
	Rangpur	43.9	29.9	18.3	7.9	100.0	56.1	1,440
	Sylhet	24.3	20.3	34.0	21.4	100.0	75.7	790
Area	Urban	37.6	19.9	24.7	17.8	100.0	62.4	2,356
	Rural	38.5	24.8	24.4	12.4	100.0	61.5	9,498
Source of drinking water for WQ sample	Unimproved water source	11.4	25.6	39.0	24.1	100.0	88.7	252
	Improved water source	39.0	23.7	24.1	13.2	100.0	61.0	11,587
Source of drinking water	Piped water							
	Piped into dwelling	(41.3)	(4.3)	(43.3)	(11.1)	100.0	(58.7)	409
	Piped into compound, yard or plot	14.6	16.2	31.3	37.9	100.0	85.4	482
	Public tap / standpipe	(55.7)	(14.2)	(16.4)	(13.8)	100.0	(44.3)	140
	Tube well, Borehole	39.8	25.0	23.2	12.2	100.0	60.3	10,537
	Dug well (protected or unprotected)	(31.6)	(24.7)	(14.6)	(29.2)	100.0	(68.4)	54
	Surface water (river, stream, dam, lake, pond, canal, irrigation channel)	4.2	23.9	48.6	23.3	100.0	95.8	141
	Other	(22.9)	(30.0)	(28.8)	(18.4)	100.0	(77.1)	76
Education of household head	None	36.4	23.2	24.0	16.3	100.0	63.6	5,106
	Primary incomplete	34.2	20.8	32.0	13.0	100.0	65.8	1,414
	Primary complete	37.0	22.3	25.1	15.6	100.0	63.0	1,530
	Secondary incomplete	41.6	25.9	24.0	8.6	100.0	58.4	2,095
	Secondary complete or higher	44.9	26.5	19.2	9.4	100.0	55.1	1,705
Wealth index quintile	Poorest	36.2	23.6	25.2	15.0	100.0	63.8	2,345
	Second	33.3	26.1	25.7	15.0	100.0	66.7	2,424
	Middle	37.5	25.9	24.8	11.8	100.0	62.5	2,180
	Fourth	42.1	21.0	24.0	12.9	100.0	57.9	2,473
	Richest	42.3	22.7	22.5	12.6	100.0	57.7	2,432

[1] Country-specific indicator 4.S4 – E.coli concentration in household drinking water ≥1 cfu/100 ml

( ) Figures that are based on 25-49 unweighted cases

Figure WQ.2: Proportion of population by *E. coli* with medium, high and very high risk level in household drinking water by background characteristics, Bangladesh MICS, 2012-2013



Combined water quality

Arsenic and *E. coli* contamination were measured at the same households, which allows tabulation of the proportion of population having both arsenic and *E. coli* contaminated drinking water. Nationally, 52.3 per cent of households collect water from a source which meets the Bangladesh standard for both arsenic (<=50 ppb) and *E. coli* (<1 cfu/100 ml) (Table WQ.5), but by the point of consumption only 34.6 per cent of the population consumes water meeting both standards (Table WQ.6). The proportion of population with household water failing both standards was 9.1 per cent. The proportion of the population meeting both standards is nearly the same in urban (35.8 per cent) and rural areas (34.3 per cent), is much higher in improved than in unimproved sources, and shows no strong trends with education or wealth. When the stricter WHO guideline value for arsenic is considered, trends are very similar but the proportion of the population accessing water meeting both standards drops to 49.3 per cent and 33.5 per cent at the source and household level, respectively.

Table WQ.5: Source water quality: arsenic and *E. coli*

Proportion of households by levels of arsenic and *E. coli* found in household drinking water, Bangladesh, 2012-2013

		Percentage of households				Total	Number of households
		Arsenic <= 50 ppb and *E. coli* < 1 cfu/100ml	Arsenic <= 50 ppb and *E. coli* ≥ 1 cfu/100ml	Arsenic > 50 ppb and *E. coli* < 1 cfu/100ml	Arsenic > 50 ppb and *E. coli* ≥ 1 cfu/100ml		
Total		**52.3**	**35.0**	**6.0**	**6.7**	**100.0**	**2,365**
Division	Barisal	67.2	32.8	0.0	0.0	100.0	154
	Chittagong	41.7	33.4	10.2	14.8	100.0	425
	Dhaka	44.1	44.6	5.2	6.1	100.0	685
	Khulna	51.7	27.7	13.8	6.8	100.0	291
	Rajshahi	65.0	30.4	3.6	1.1	100.0	369
	Rangpur	71.2	28.3	0.5	0.0	100.0	316
	Sylhet	31.1	38.8	6.0	24.0	100.0	125
Area	Urban	42.1	50.0	3.0	4.9	100.0	489
	Rural	55.0	31.1	6.8	7.1	100.0	1,876
Source of drinking water for WQ sample	Unimproved water source	21.3	73.1	2.0	3.7	100.0	44
	Improved water source	52.8	34.4	6.1	6.8	100.0	2,316
Source of drinking water	Piped water						
	Piped into dwelling	(*)	(*)	(*)	(*)	100.0	83
	Piped into compound, yard or plot	(21.5)	(77.4)	(0.0)	(1.1)	100.0	108
	Public tap / standpipe	(71.8)	(23.0)	(0.0)	(5.3)	100.0	31
	Tube well, Borehole	55.5	30.4	6.7	7.4	100.0	2,090
	Dug well (protected or unprotected)	(5.7)	(94.3)	(0.0)	(0.0)	100.0	10
	Surface water (river, stream, dam, lake, pond, canal, irrigation channel)	(12.9)	(79.9)	(0.0)	(7.2)	100.0	22
	Other	(43.9)	(50.7)	(5.5)	(0.0)	100.0	16
Education of household head	None	51.4	36.1	5.6	6.9	100.0	1,013
	Primary incomplete	58.7	27.9	5.8	7.6	100.0	287
	Primary complete	54.6	33.9	3.6	7.8	100.0	293
	Secondary incomplete	52.6	33.5	6.7	7.2	100.0	427
	Secondary complete or higher	47.2	40.8	8.4	3.7	100.0	345
Wealth index quintile	Poorest	56.3	31.0	4.5	8.2	100.0	509
	Second	56.8	31.2	5.0	6.9	100.0	493
	Middle	52.5	34.0	7.5	6.0	100.0	434
	Fourth	54.4	31.6	7.1	6.9	100.0	470
	Richest	40.7	48.1	6.1	5.1	100.0	459

(*) Figures that are based on less than 25 unweighted cases
( ) Figures that are based on 25-49 unweighted cases

Table WQ.6: Household water quality: arsenic and *E. coli*

Proportion of population by levels of arsenic and *E. coli* found in household drinking water, Bangladesh, 2012-2013

		Percentage of population				Total	Number of household members
		Arsenic <= 50 ppb and *E. coli* < 1 cfu/100ml	Arsenic <= 50 ppb and *E. coli* ≥ 1 cfu/100ml	Arsenic > 50 ppb and *E. coli* < 1 cfu/100ml	Arsenic > 50 ppb and *E. coli* ≥ 1 cfu/100ml		
Total		**34.6**	**52.6**	**3.8**	**9.1**	**100.0**	**11,146**
Division	Barisal	46.5	53.5	0.0	0.0	100.0	738
	Chittagong	29.6	44.0	8.6	17.8	100.0	2,263
	Dhaka	36.3	53.9	2.7	7.2	100.0	3,171
	Khulna	25.4	56.1	5.4	13.2	100.0	1,314
	Rajshahi	38.0	56.7	3.7	1.6	100.0	1,526
	Rangpur	43.6	56.1	0.2	0.2	100.0	1,402
	Sylhet	23.0	50.4	1.3	25.3	100.0	732
Area	Urban	35.8	58.3	1.8	4.1	100.0	2,253
	Rural	34.3	51.1	4.3	10.4	100.0	8,892
Source of drinking water for WQ sample	Unimproved water source	10.0	86.0	1.4	2.6	100.0	250
	Improved water source	35.2	51.8	3.8	9.3	100.0	10,880
Source of drinking water	Piped water						
	Piped into dwelling	(41.3)	(58.7)	(0.0)	(0.0)	100.0	390
	Piped into compound, yard or plot	14.6	83.4	0.0	2.0	100.0	471
	Public tap / standpipe	(53.9)	(42.0)	(1.7)	(2.3)	100.0	139
	Tube well, Borehole	35.6	50.1	4.2	10.1	100.0	9,862
	Dug well (protected or unprotected)	(31.6)	(68.4)	(0.0)	(0.0)	100.0	53
	Surface water (river, stream, dam, lake, pond, canal, irrigation channel)	4.2	91.2	0.0	4.6	100.0	139
	Other	(18.3)	(77.1)	(4.5)	(0.0)	100.0	76
Education of household head	None	34.0	52.9	2.4	10.7	100.0	4,786
	Primary incomplete	29.7	55.0	4.6	10.7	100.0	1,355
	Primary complete	35.8	54.0	1.2	9.0	100.0	1,425
	Secondary incomplete	34.4	52.5	7.1	6.0	100.0	1,976
	Secondary complete or higher	39.7	48.0	5.2	7.1	100.0	1,601
Wealth index quintile	Poorest	33.5	54.2	2.7	9.6	100.0	2,232
	Second	31.1	56.5	2.3	10.1	100.0	2,250
	Middle	33.4	53.3	4.1	9.2	100.0	2,036
	Fourth	37.8	48.0	4.3	9.9	100.0	2,338
	Richest	36.8	51.1	5.4	6.7	100.0	2,289

( ) Figures that are based on 25-49 unweighted cases

VIII. Reproductive Health

Fertility

Measures of current fertility are presented in Table RH.1 for the one year period preceding the survey. In MICS, age specific and total fertility rates are calculated by using information on the date of last birth of each woman and are based on the one-year period (1-12 months) preceding the survey. Rates are underestimated by a very small margin due to absence of information on multiple births (twins, triplets, etc.) and on women who may have had multiple deliveries during the two years period preceding the survey. The total fertility rate (TFR) is a synthetic measure that denotes the number of live births a woman would have if she were subject to the current age-specific fertility rates throughout her reproductive years (15-49 years). It is calculated by summing the age-specific fertility rates (ASFR) calculated for each of the 5-year age groups of women, from age 15 through to age 49. The general fertility rate (GFR) is the number of live births occurring during the specified period per 1,000 women age 15-49. The crude birth rate (CBR) is the number of live births per 1,000 population during the specified period.

Table RH.1: Fertility rates

Adolescent birth rate, age-specific and total fertility rates, the general fertility rate and the crude birth rate for the one-year period preceding the survey, by area, Bangladesh, 2012-2013

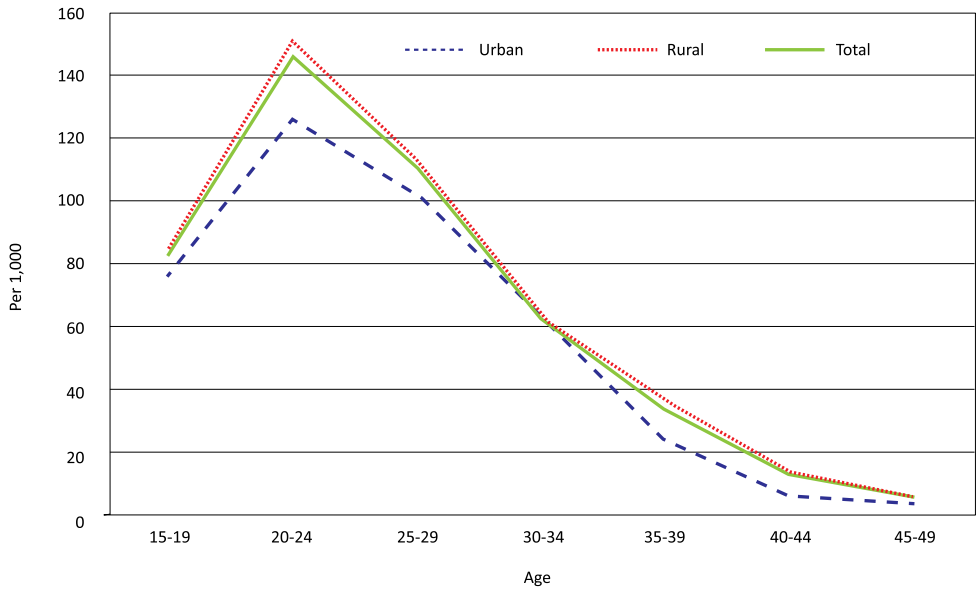
Age	Area		Total
	Urban	Rural	
15-19 [1]	76	85	83
20-24	126	152	146
25-29	102	113	111
30-34	63	64	63
35-39	24	37	34
40-44	6	14	13
45-49	4	6	6
TFR [a]	2.0	2.4	2.3
GFR [b]	72.5	81.2	79.2
CBR [c]	19.4	19.3	19.3

1 MICS indicator 5.1; MDG indicator 5.4 - Adolescent birth rate

[a] TFR: Total fertility rate expressed per woman age 15-49
[b] GFR: General fertility rate expressed per 1,000 women age 15-49
[c] CBR: Crude birth rate expressed per 1,000 population

Table RH.1 shows current fertility in Bangladesh at the national level and by urban-rural area. The TFR, for the one year preceding the Bangladesh MICS is 2.3 births per woman. Fertility is considerably higher in rural areas (2.4 births per woman) than in urban areas (2.0 births per woman) and varies between 1.9 each in Khulna and Rajshahi divisions and 2.9 in Sylhet division. As the ASFRs show, the pattern of higher rural fertility is prevalent in all age groups.

Figure RH.1: Age-specific fertility rates by area, Bangladesh, 2012-2013



Rates refer to the one year period preceding the survey.

The urban-rural difference in fertility is most pronounced for women in the 20-24 age group: 126 births per 1,000 women in urban areas versus 152 births per 1,000 women in rural areas. The overall age pattern of fertility, as reflected in the ASFRs, indicates that childbearing begins early. Fertility is low among adolescents, increases to a peak of 146 births per 1,000 among women age 20-24, and declines thereafter.

Table RH.2 shows adolescent birth rates and total fertility rates. The adolescent birth rate (age-specific fertility rate for women age 15-19) is defined as the number of births to women age 15-19 years during the one year period preceding the survey, divided by the average number of women age 15-19 (number of women-years lived between ages 15 through 19, inclusive) during the same period, expressed per 1,000 women.

Table RH.2: Adolescent birth rate and total fertility rate

Adolescent birth rates and total fertility rates, Bangladesh, 2012-2013

		Adolescent birth rate[a] [1] (Age-specific fertility rate for women age 15-19)	Total Fertility Rate
Total		**83**	**2.3**
Division	Barisal	75	2.3
	Chittagong	86	2.7
	Dhaka	82	2.3
	Khulna	84	1.9
	Rajshahi	99	1.9
	Rangpur	94	2.2
	Sylhet	45	2.9
Area	Urban	76	2.0
	Rural	85	2.4
Mother's education	None	126	2.6
	Primary incomplete	112	2.5
	Primary complete	114	2.4
	Secondary incomplete	92	2.3
	Secondary complete or higher	37	1.8

Table RH.2: continued

		Adolescent birth rate[a] [1] (Age-specific fertility rate for women age 15-19)	Total Fertility Rate
Wealth index quintile	Poorest	118	3.0
	Second	96	2.4
	Middle	82	2.2
	Fourth	74	2.0
	Richest	62	1.9

[1] MICS indicator 5.1; MDG indicator 5.4 - Adolescent birth rate

[a] Number of births to women 15 to 19 years of age per 1,000 women in that age group

The adolescent birth rate is 83 in Bangladesh. It is significantly lower in urban areas (76) as compared with rural areas (85), and the rate varies considerably between divisions - with a low rate of 45 in Sylhet and a high rate of 99 in Rajshahi. A strong inverse correlation is observed from the table between the adolescent birth rate and the women's education and wealth level; the adolescent birth rate peaks at 126 in women with no education, remains 114 for those with primary education, and 92 for secondary incomplete and then drops sharply to 37 among women who complete the level of secondary education(Table RH.2).

Sexual activity and childbearing early in life carry significant risks for young people all around the world. Table RH.3 presents some early childbearing indicators for women age 15-19 and 20-24 while Table RH.4 presents the trends for early childbearing.

Table RH.3: Early childbearing

Percentage of women age 15-19 years who have had a live birth, are pregnant with the first child, have begun childbearing, and who have had a live birth before age 15, and percentage of women age 20-24 who have had a live birth before age 18, Bangladesh, 2012-2013

		Percentage of women age 15-19 who:				Number of women age 15-19	Percentage of women age 20-24 who have had a live birth before age 18 [1]	Number of women age 20-24
		Have had a live birth	Are pregnant with first child	Have begun childbearing	Have had a live birth before age 15			
Total		**14.1**	**4.6**	**18.7**	**1.0**	**9,071**	**24.4**	**8,831**
Division	Barisal	9.7	3.4	13.1	0.5	552	21.3	483
	Chittagong	13.0	5.3	18.2	0.3	1,919	19.7	1,832
	Dhaka	13.3	4.2	17.5	1.1	2,877	23.3	2,926
	Khulna	15.8	6.0	21.8	1.0	960	27.1	952
	Rajshahi	19.2	4.6	23.8	1.9	1,086	34.0	1,120
	Rangpur	19.7	5.9	25.6	2.2	988	30.5	947
	Sylhet	5.5	2.0	7.4	0.1	689	14.8	571
Area	Urban	12.4	3.5	15.9	0.2	2,082	21.8	2,219
	Rural	14.6	5.0	19.6	1.3	6,989	25.3	6,612
Education	None	26.4	5.5	32.0	3.3	402	31.0	787
	Primary incomplete	21.3	6.8	28.1	1.9	797	33.6	1,014
	Primary complete	22.1	6.3	28.4	1.7	890	30.6	1,280
	Secondary incomplete	13.5	4.7	18.2	0.9	4,881	27.4	3,725
	Secondary complete or higher	7.0	2.8	9.7	0.3	2,101	7.9	2,024
Wealth index quintile	Poorest	22.0	4.7	26.7	2.0	1,302	32.6	1,401
	Second	16.0	5.1	21.1	1.4	1,690	30.6	1,605
	Middle	14.4	5.4	19.8	0.8	1,864	25.2	1,665
	Fourth	12.1	5.4	17.5	0.7	2,090	21.1	1,975
	Richest	9.5	2.7	12.2	0.5	2,125	17.1	2,185

[1] MICS indicator 5.2 - Early childbearing

Figure RH.2: Early childbearing among women age 15-19 years, Bangladesh, 2012-2013

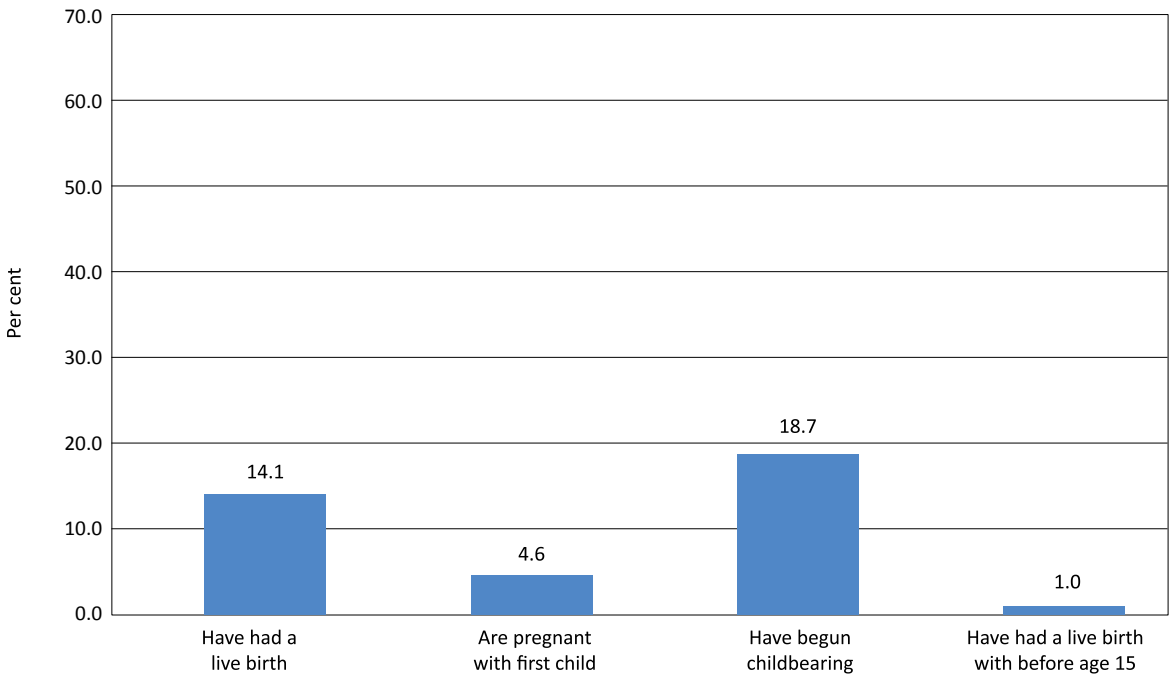


Table RH.4: Trends in early childbearing

Percentage of women who have had a live birth, by age 15 and 18, by area and age group, Bangladesh, 2012-2013

		Urban				Rural				All			
		Percentage of women with a live birth before age 15	Number of women age 15-49 years	Percentage of women with a live birth before age 18	Number of women age 20-49 years	Percentage of women with a live birth before age 15	Number of women age 15-49 years	Percentage of women with a live birth before age 18	Number of women age 20-49 years	Percentage of women with a live birth before age 15	Number of women age 15-49 years	Percentage of women with a live birth before age 18	Number of women age 20-49 years
Total		**5.4**	**11,856**	**27.3**	**9,774**	**5.7**	**39,935**	**31.0**	**32,946**	**5.6**	**51,791**	**30.2**	**42,720**
Age	15-19	0.2	2,082	na	na	1.3	6,989	na	na	1.0	9,071	na	na
	20-24	5.1	2,219	21.8	2,219	4.3	6,612	25.3	6,612	4.5	8,831	24.4	8,831
	25-29	5.7	2,199	26.4	2,199	7.3	7,155	34.8	7,155	6.9	9,354	32.8	9,354
	30-34	6.8	1,741	29.9	1,741	7.4	5,691	33.9	5,691	7.3	7,432	33.0	7,432
	35-39	6.7	1,454	29.0	1,454	7.6	5,496	32.4	5,496	7.5	6,950	31.7	6,950
	40-44	10.0	1,174	33.0	1,174	7.2	4,524	32.0	4,524	7.8	5,697	32.2	5,697
	45-49	5.9	987	27.4	987	6.2	3,469	26.2	3,469	6.1	4,456	26.5	4,456

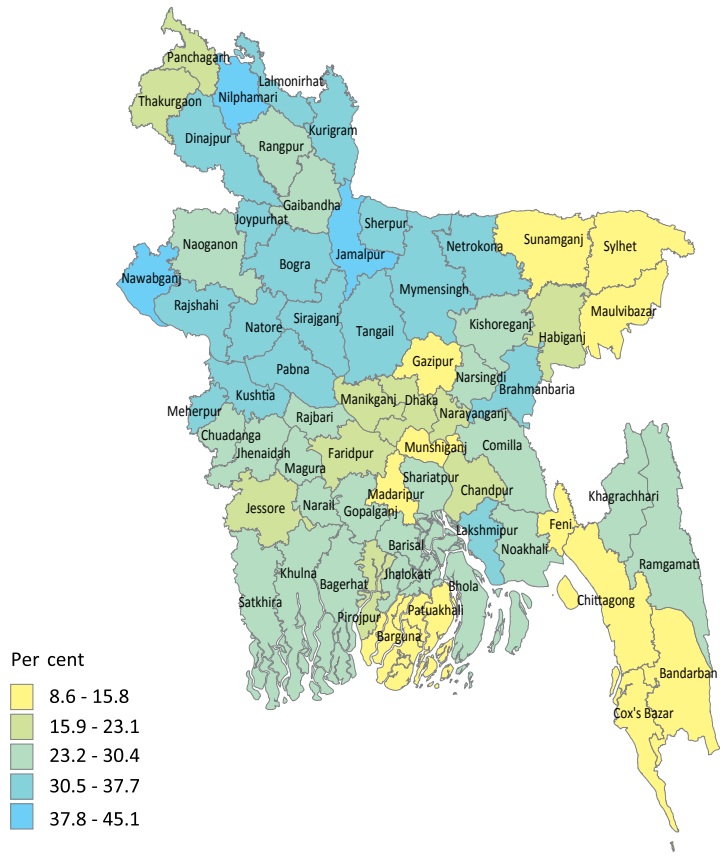
na= not applicable

As shown in Table RH.3, 14.1 per cent of women age 15-19 have already had a birth, 4.6 per cent are pregnant with their first child, 18.7 per cent have begun childbearing, and 1 per cent have had a live birth before age 15. The percentage of women aged 20–24 years who have had a live birth before age 18 is 24.4.

Education and wealth seem to have strong influence on early child bearing; women with less education and women from poorer households are much more likely to bear a child early. The prevalence of early childbearing also varies between divisions with Sylhet showing lower level of early childbearing (14.8 per cent), while in Rajshahi it was much more common to have children early (34 per cent).

Table RH.4 suggests that early childbearing has gradually declined over the last 10 years, particularly in urban areas. The percentage of women with a live birth before age 15 has dropped from 5.7 (for age 25-29) to 0.2 (for age 15-19) during the last 10 years in urban areas. Similarly, percentage of women with a live birth before age 18 has dropped from 29.9 (for age 30-34) to 21.8 (for age 20-24) during the same period.

Map RH.1: Percentage of women age 20-24 who have had a live birth before 18 by district, Bangladesh, 2012-2013



Contraception

Appropriate family planning is important to the health of women and children by: 1) preventing pregnancies that are too early or too late; 2) extending the period between births; and 3) limiting the total number of children. Access by all couples to information and services to prevent pregnancies that are too early, too closely spaced, too late or too many is critical.

Current use of contraception was reported by 61.8 per cent of women currently married (Table RH.5). The most popular method of contraception is the pill, which is used by one in every three married women in Bangladesh (33.9 per cent). The next most popular method is injectable which accounts for 14.7 per cent. About 4.2 per cent of all women rely on their sexual partner using male condom, while 4 per cent carry out female sterilization. Less than 1 per cent go for male sterilization, IUD, implants, female condom, diaphragm, lactational amenorrhea method(LAM), withdrawal, or other methods.

Urban women are less likely to use contraceptive method (59.7 per cent) compared to rural women (62.4 per cent) though the difference is not significant. Contraceptive prevalence is highest in Rangpur (72.9 per cent) and lowest in Sylhet (46.5 per cent) divisions. Adolescents are less likely to use contraception than older women. Contraceptive prevalence is highest in women with two living children (70.1 per cent) and lowest in women with no children at all (27.3 per cent).

Use of any contraceptive method by women of age 15-49 years over different age groups show that the contraceptive usage increases with age and peaks in the age bracket of 30-39 years at about 70 per cent, before declining sharply, with usage in age 45-49 almost dipping to its lowest at around 40 per cent. Use of traditional methods remains at very low level for all age groups and is a little higher for the upper age groups.

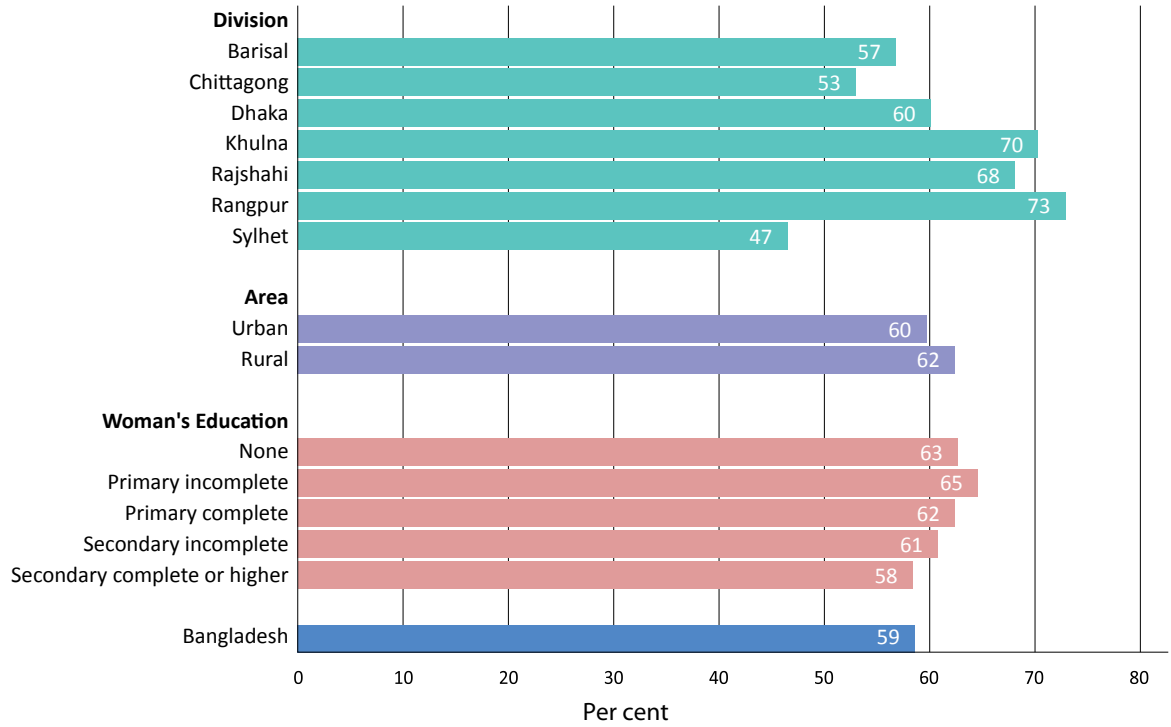
Table RH.5: Use of contraception

Percentage of women age 15-49 years currently married or in union who are using (or whose partner is using) a contraceptive method, Bangladesh, 2012-2013

		Per cent of women currently married or in union who are using (or whose partner is using):															Any modern method	Any traditional method	Any method [1]	Number of women currently married or in union
		No method	Female sterilization	Male sterilization	IUD	Injectables	Implants	Pill	Male condom	Female condom	Diaphragm/ foam/jelly	Lactational amenorrhoea method (LAM)	Periodic abstinence/ Rhythm	Withdrawal	Other	Missing				
Total		**38.2**	**4.0**	**0.6**	**0.6**	**14.7**	**0.9**	**33.9**	**4.2**	**0.2**	**0.0**	**0.1**	**1.8**	**0.3**	**0.3**	**0.1**	**59.3**	**2.6**	**61.8**	**42,263**
Division	Barisal	43.2	1.1	0.3	0.2	20.0	1.3	29.8	1.8	0.1	0.1	0.1	1.1	0.5	0.2	0.2	54.9	1.9	56.8	2,540
	Chittagong	47.0	2.9	0.4	0.7	14.8	0.4	29.6	2.3	0.3	0.1	0.5	0.3	0.1	0.4	0.1	52.0	1.0	53.0	7,634
	Dhaka	39.9	3.1	0.3	0.2	11.3	0.6	35.6	6.2	0.2	0.0	0.0	1.4	0.3	0.6	0.0	57.7	2.4	60.1	13,402
	Khulna	29.7	6.0	0.5	0.8	16.0	1.7	32.9	4.6	0.1	0.0	0.2	7.0	0.3	0.1	0.1	62.8	7.5	70.3	5,110
	Rajshahi	31.9	5.7	1.0	1.0	15.8	1.4	36.6	5.3	0.1	0.0	0.0	0.4	0.6	0.1	0.1	67.0	1.1	68.1	6,078
	Rangpur	27.1	5.5	1.2	0.6	20.3	1.0	39.7	1.9	0.0	0.0	0.1	2.1	0.3	0.1	0.1	70.3	2.6	72.9	5,230
	Sylhet	53.5	4.5	1.0	0.7	9.3	0.6	25.0	3.0	0.0	0.0	0.0	1.3	0.6	0.5	0.1	44.1	2.4	46.5	2,269
Area	Urban	40.3	3.5	0.5	0.4	11.2	0.6	31.7	8.9	0.4	0.0	0.2	1.4	0.4	0.3	0.2	57.5	2.2	59.7	9,290
	Rural	37.6	4.2	0.6	0.6	15.7	1.0	34.5	2.9	0.1	0.1	0.1	1.9	0.3	0.3	0.0	59.8	2.6	62.4	32,973
Age	15-19	51.5	0.0	0.0	0.1	6.2	0.3	33.4	6.3	0.1	0.0	0.0	1.3	0.4	0.2	0.0	46.6	1.9	48.5	3,108
	20-24	40.2	0.6	0.2	0.4	13.7	1.0	37.7	4.4	0.2	0.0	0.2	0.8	0.3	0.2	0.1	58.5	1.3	59.8	7,294
	25-29	33.2	2.1	0.4	0.6	17.0	0.9	38.7	4.8	0.2	0.1	0.1	1.2	0.3	0.3	0.1	64.8	2.0	66.8	8,836
	30-34	30.3	5.1	0.8	0.6	17.3	1.2	37.2	4.7	0.2	0.0	0.1	1.5	0.4	0.4	0.1	67.3	2.4	69.7	7,116
	35-39	30.6	5.7	1.2	0.7	18.8	1.1	34.9	3.8	0.2	0.1	0.1	2.0	0.3	0.5	0.0	66.6	2.8	69.4	6,665
	40-44	41.1	7.1	0.7	0.6	13.5	0.8	28.1	3.2	0.1	0.1	0.2	3.8	0.4	0.5	0.1	54.2	4.8	58.9	5,278
	45-49	58.0	9.2	0.7	0.7	8.1	0.4	17.1	1.8	0.2	0.1	0.1	2.8	0.4	0.2	0.0	38.5	3.5	42.0	3,965
Number of living children	0	72.7	0.2	0.2	0.0	0.3	0.0	19.2	5.8	0.1	0.0	0.0	1.0	0.5	0.1	0.0	25.8	1.5	27.3	4,109
	1	40.5	0.6	0.2	0.4	12.1	0.7	37.7	5.7	0.3	0.0	0.1	1.2	0.3	0.1	0.1	57.8	1.7	59.5	9,278
	2	29.9	3.5	0.6	0.6	17.7	1.2	38.8	4.8	0.2	0.0	0.1	1.8	0.3	0.3	0.1	67.5	2.6	70.1	12,735
	3	30.8	7.6	0.8	0.8	17.7	1.1	34.4	3.2	0.1	0.1	0.2	2.2	0.4	0.6	0.1	66.0	3.2	69.2	8,621
	4+	38.9	7.3	1.2	0.7	17.2	0.9	28.5	1.6	0.1	0.1	0.1	2.4	0.4	0.6	0.1	57.7	3.4	61.1	7,519
Education	None	37.3	7.2	1.1	0.7	18.4	1.0	30.1	1.1	0.0	0.0	0.2	2.0	0.3	0.5	0.1	59.9	2.9	62.7	12,252
	Primary incomplete	35.4	4.7	1.0	0.6	18.4	1.4	33.1	2.2	0.1	0.1	0.2	2.1	0.3	0.4	0.1	61.7	2.9	64.6	5,904
	Primary complete	37.6	2.8	0.4	0.5	16.2	1.0	36.8	2.4	0.2	0.0	0.1	1.3	0.3	0.4	0.1	60.3	2.1	62.4	6,100
	Secondary ncomplete	39.2	2.2	0.2	0.5	12.6	0.8	37.3	4.8	0.2	0.0	0.1	1.6	0.4	0.3	0.0	58.6	2.2	60.8	12,515
	Secondary complete or higher	41.6	1.8	0.1	0.5	5.5	0.5	32.6	14.0	0.6	0.0	0.1	1.9	0.5	0.1	0.2	55.7	2.7	58.4	5,491
Wealth index quintile	Poorest	34.1	5.2	1.4	0.8	20.2	1.4	33.1	1.0	0.0	0.1	0.1	1.7	0.4	0.4	0.1	63.3	2.5	65.9	8,060
	Second	33.4	4.4	0.8	0.6	18.4	1.2	35.9	2.0	0.1	0.0	0.2	2.2	0.3	0.4	0.1	63.7	3.0	66.6	8,259
	Middle	36.0	4.3	0.4	0.6	16.3	1.0	36.1	2.5	0.1	0.0	0.1	1.9	0.3	0.4	0.0	61.4	2.6	64.0	8,468
	Fourth	41.7	3.3	0.3	0.4	12.3	0.7	34.9	4.1	0.2	0.0	0.2	1.4	0.3	0.3	0.0	56.2	2.1	58.3	8,551
	Richest	44.9	3.2	0.2	0.5	7.0	0.4	29.8	10.8	0.5	0.0	0.0	1.8	0.5	0.2	0.1	52.5	2.6	55.1	8,925

[1] MICS indicator 5.3; MDG indicator 5.3 - Contraceptive prevalence rate

Figure RH.3: Differentials in contraceptive use, Bangladesh, 2012-2013



Unmet Need

Unmet need for contraception refers to fecund women who are married or in union and are not using any method of contraception, but who wish to postpone the next birth (spacing) or who wish to stop childbearing altogether (limiting). Unmet need is identified in MICS by using a set of questions eliciting current behaviours and preferences pertaining to contraceptive use, fecundity, and fertility preferences.

Table RH.6 shows the levels of met need for contraception, unmet need, and the demand for contraception satisfied.

Unmet need for spacing is defined as the percentage of women who are married or in union and are not using a method of contraception AND

- are not pregnant, and not postpartum amenorrheic[35], and are fecund[36], and say they want to wait two or more years for their next birth OR
- are not pregnant, and not postpartum amenorrheic, and are fecund, and unsure whether they want another child OR
- are pregnant, and say that pregnancy was mistimed: would have wanted to wait OR
- are postpartum amenorrheic, and say that the birth was mistimed: would have wanted to wait.

[35] *A women is postpartum amenorrheic if she had a birth in last two years and is not currently pregnant, and her menstrual period has not returned since the birth of the last child*

[36] *A women is considered infecund if she is neither pregnant nor postpartum amenorrheic, and*

(1a) has not had menstruation for at least six months, or (1b) never menstruated, or (1c) her last menstruation occurred before her last birth, or (1d) in menopause/has had hysterectomy OR

(2) She declares that she has had hysterectomy, or that she has never menstruated, or that she is menopausal, or that she has been trying to get pregnant for 2 or more years without result in response to questions on why she thinks she is not physically able to get pregnant at the time of survey OR

(3) She declares she cannot get pregnant when asked about desire for future birth OR

(4) She has not had a birth in the preceding 5 years, is currently not using contraception and is currently married and was continuously married during the last 5 years preceding the survey.

Unmet need for limiting is defined as percentage of women who are married or in union and are not using a method of contraception AND

- are not pregnant, and not postpartum amenorrheic, and are fecund, and say they do not want any more children OR
- are pregnant, and say they did not want to have a child OR
- are postpartum amenorrheic, and say that they did not want the birth.

Total unmet need for contraception is the sum of unmet need for spacing and unmet need for limiting.

Some 5.5 per cent of 15–49 year old women who are married have an unmet need for contraception for spacing and 8.4 per cent for limiting children. The total unmet need for contraception is 13.9 per cent. As expected, the unmet need for spacing is higher among younger women and for limiting among the women of older age. It is notable that young women aged 15–19 years with lower rates of contraceptive use report the highest rate of unmet need for contraception (17.4 per cent).

This indicator is also known as unmet need for family planning and is one of the indicators used to track progress toward the Millennium Development Goal 5 of improving maternal health.

Table RH.6: Unmet need for contraception

Percentage of women age 15-49 years currently married or in union with an unmet need for family planning and percentage of demand for contraception satisfied, Bangladesh, 2012-2013

		Met need for contraception			Unmet need for contraception			Number of women currently married or in union	Percentage of demand for contraception satisfied	Number of women currently married or in union with need for contraception
		For spacing	For limiting	Total	For spacing	For limiting	Total [1]			
Total		**19.3**	**42.5**	**61.8**	**5.5**	**8.4**	**13.9**	**42,263**	**81.7**	**32,004**
Division	Barisal	18.9	37.9	56.8	6.3	12.7	19.0	2,540	75.0	1,925
	Chittagong	19.9	33.1	53.0	9.2	9.7	18.9	7,634	73.7	5,487
	Dhaka	20.1	40.0	60.1	5.0	9.9	15.0	13,402	80.1	10,055
	Khulna	19.7	50.6	70.3	3.3	6.0	9.3	5,110	88.3	4,068
	Rajshahi	19.4	48.7	68.1	3.2	7.0	10.2	6,078	87.0	4,760
	Rangpur	18.8	54.0	72.9	4.0	5.1	9.1	5,230	88.9	4,285
	Sylhet	13.6	32.8	46.5	8.9	7.4	16.3	2,269	74.0	1,424
Area	Urban	21.6	38.1	59.7	5.3	9.6	14.9	9,290	80.0	6,939
	Rural	18.7	43.7	62.4	5.5	8.1	13.6	32,973	82.1	25,065
Age	15-19	45.5	3.0	48.5	16.7	0.7	17.4	3,108	73.6	2,047
	20-24	44.5	15.3	59.8	11.7	2.9	14.6	7,294	80.4	5,426
	25-29	26.2	40.6	66.8	6.3	6.6	12.9	8,836	83.8	7,039
	30-34	11.0	58.7	69.7	3.2	9.5	12.6	7,116	84.7	5,858
	35-39	4.6	64.8	69.4	1.7	11.4	13.1	6,665	84.2	5,495
	40-44	1.4	57.6	58.9	0.7	14.6	15.3	5,278	79.4	3,918
	45-49	0.8	41.2	42.0	0.2	13.7	13.9	3,965	75.1	2,219
Education	None	8.1	54.6	62.7	2.4	9.7	12.1	12,252	83.8	9,174
	Primary incomplete	16.8	47.9	64.6	3.8	8.6	12.4	5,904	83.9	4,546
	Primary complete	19.7	42.8	62.4	5.4	9.0	14.3	6,100	81.3	4,683
	Secondary incomplete	27.6	33.2	60.8	7.8	6.9	14.7	12,515	80.6	9,450
	Secondary complete or higher	27.7	30.7	58.4	9.0	8.2	17.2	5,491	77.3	4,151
Wealth index quintile	Poorest	18.1	47.8	65.9	4.6	7.4	12.0	8,060	84.5	6,279
	Second	19.1	47.5	66.6	4.3	7.1	11.3	8,259	85.5	6,436
	Middle	19.1	44.9	64.0	4.9	8.1	13.0	8,468	83.1	6,522
	Fourth	20.5	37.9	58.3	6.6	8.4	15.1	8,551	79.5	6,276
	Richest	19.8	35.3	55.1	6.8	10.9	17.7	8,925	75.7	6,491

[1] MICS indicator 5.4; MDG indicator 5.6 - Unmet need

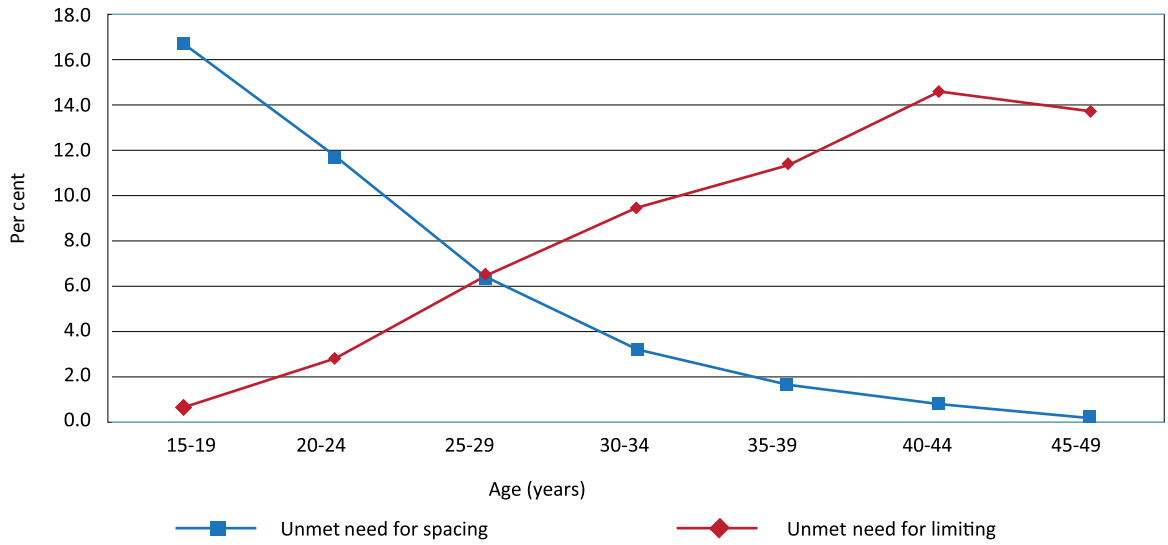
Met need for limiting includes women married or in union who are using (or whose partner is using) a contraceptive method[37], and who want no more children, are using male or female sterilization, or declare themselves as infecund. Met need for spacing includes women who are using (or whose partner is using) a contraceptive method, and who want to have another child, or are undecided whether to have another child. The total of met need for 'spacing' and 'limiting' adds up to the total met need for contraception. In Bangladesh the total percentage of women whose contraceptive needs are met is 61.8, of which 19.3 per cent have a met need for spacing and 42.5 for limiting. The met need for contraception for spacing is higher among younger women, particularly those aged 15-24 years (about 45 per cent), while the met need for limiting is higher among women aged 35-39 years (around 65 per cent).

Using information on contraception and unmet need, the percentage of demand for contraception satisfied is also estimated from the MICS data. The percentage of demand satisfied is defined as the proportion of women currently married or in union who are currently using contraception, over the total demand for contraception. The total demand for contraception includes women who currently have an unmet need (for spacing or limiting), plus those who are currently using contraception. The percentage of demand for contraception that is satisfied is 81.7 on an average in Bangladesh and is above 70 per cent for all division and different age, education and wealth groups.

Table RH.6 shows that the total met need is higher than the total unmet need for family planning. Unmet need is also higher among urban women and women with higher education. Unmet need is strongly associated as well with wealth, with the more wealthy women having the higher level of unmet need and the poorest women the lowest. The table also highlights that the total demand for family planning satisfied is high at 81.7 per cent, though the demand satisfied in urban areas is still relatively low.

Figure RH.4 shows the levels of unmet need for women of age 15-49 years across different age groups.

Figure RH.4: Women age 15-49 years currently married or in union with an unmet need for contraception by age, Bangladesh, 2012-2013



[37] *In this chapter, whenever reference is made to the use of a contraceptive by a woman, this may refer to her partner using a contraceptive method (such as male condom).*

Antenatal Care

The antenatal period presents important opportunities for reaching pregnant women with a number of interventions that may be vital to their health and well-being and that of their infants. Better understanding of foetal growth and development and its relationship to the mother's health has resulted in increased attention to the potential of antenatal care as an intervention to improve both maternal and newborn health. For example, antenatal care can be used to inform women and families about risks and symptoms in pregnancy and about the risks of labour and delivery, and therefore it may provide the route for ensuring that pregnant women do, in practice, deliver with the assistance of a skilled health care provider. Antenatal visits also provide an opportunity to supply information on birth spacing, which is recognized as an important factor in improving infant survival. Tetanus immunization during pregnancy can be life-saving for both the mother and the infant. The prevention and treatment of malaria among pregnant women, management of anaemia during pregnancy and treatment of sexually transmitted infections (STIs) can significantly improve foetal outcomes and improve maternal health. Adverse outcomes such as low birth weight can be reduced through a combination of interventions to improve women's nutritional status and prevent infections (e.g., malaria and STIs) during pregnancy. More recently, the potential of the antenatal care as an entry point for HIV prevention and care, in particular for the prevention of HIV transmission from mother to child, has led to renewed interest in access to and use of antenatal services.

WHO recommends a minimum of four antenatal visits based on a review of the effectiveness of different models of antenatal care. WHO guidelines are specific on the content on antenatal care visits, which include:

- Blood pressure measurement
- Urine testing for bateriuria and proteinuria
- Blood testing to detect syphilis and severe anaemia
- Weight/height measurement (optional).

Antenatal care coverage indicators (at least one visit with a skilled provider and 4 or more visits with any providers) are used to track progress toward the Millennium Development Goal 5 of improving maternal health.

Table RH.7: Antenatal care coverage

Per cent distribution of women age 15-49 years with a live birth in the last two years by antenatal care provider during the pregnancy for the last birth, Bangladesh, 2012-2013

		Provider of antenatal care [a]							Total	Any skilled provider [1]	Number of women with a live birth in the last two years
		Medical doctor	Nurse / Midwife	Auxiliary midwife	Traditional birth attendant	Community health worker	Other/ missing	No antenatal care			
Total		**54.9**	**3.5**	**0.3**	**0.2**	**5.8**	**1.7**	**33.6**	**100.0**	**58.7**	**7,950**
Division	Barisal	34.8	5.4	0.1	0.3	7.2	0.4	51.8	100.0	40.3	475
	Chittagong	54.1	4.0	0.0	0.3	5.0	1.5	35.0	100.0	58.1	1,851
	Dhaka	60.7	1.1	0.1	0.2	4.1	0.4	33.4	100.0	61.9	2,503
	Khulna	70.7	3.3	0.7	0.2	4.6	0.6	19.9	100.0	74.6	760
	Rajshahi	59.6	3.9	0.1	0.2	6.7	0.5	28.9	100.0	63.6	850
	Rangpur	36.2	8.5	1.9	0.0	14.5	9.2	29.6	100.0	46.6	886
	Sylhet	49.6	2.4	0.2	0.0	2.2	0.4	45.3	100.0	52.1	625
Area	Urban	69.9	2.1	0.1	0.4	5.3	1.1	21.1	100.0	72.1	1,681
	Rural	50.8	3.8	0.4	0.1	6.0	1.8	37.0	100.0	55.1	6,268
Mother's age at birth	Less than 20	57.0	4.3	0.3	0.2	6.9	2.5	28.7	100.0	61.6	1,555
	20-34	55.8	3.3	0.4	0.2	5.7	1.6	33.1	100.0	59.4	5,809
	35-49	40.3	2.5	0.2	0.0	4.5	0.7	51.7	100.0	43.0	586

Table RH.7: continued

		Provider of antenatal care [a]							Total	Any skilled provider [1]	Number of women with a live birth in the last two years
		Medical doctor	Nurse / Midwife	Auxiliary midwife	Traditional birth attendant	Community health worker	Other/ missing	No antenatal care			
Education	None	30.1	3.6	0.3	0.2	7.6	1.5	56.7	100.0	34.0	1,460
	Primary incomplete	38.8	3.3	0.3	0.1	7.3	2.4	47.8	100.0	42.4	1,056
	Secondary incomplete	64.2	3.4	0.6	0.2	5.4	2.0	24.3	100.0	68.1	3,043
	Secondary complete or higher	84.7	1.9	0.0	0.1	2.6	0.8	10.0	100.0	86.5	1,160
Wealth index quintile	Poorest	28.8	5.2	0.4	0.2	8.2	2.6	54.6	100.0	34.4	1,828
	Second	38.3	4.1	0.7	0.1	8.3	2.0	46.3	100.0	43.1	1,607
	Middle	56.0	3.1	0.2	0.2	6.0	2.2	32.2	100.0	59.4	1,524
	Fourth	69.3	2.5	0.2	0.3	5.4	0.8	21.6	100.0	71.9	1,415
	Richest	88.0	1.9	0.1	0.1	0.8	0.6	8.4	100.0	90.0	1,575

[1] MICS indicator 5.5a; MDG indicator 5.5 - Antenatal care coverage

[a] Only the most qualified provider is considered in cases where more than one provider was reported.

The type of personnel providing antenatal care to women aged 15-49 years who gave birth in the two years preceding the survey is presented in Table RH.7. Coverage of antenatal care (by a doctor, nurse, or midwife) is low in Bangladesh, with only 58.7 per cent of women receiving antenatal care from any skilled provider during the pregnancy. The corresponding coverage was 47.7 per cent in 2006[38]. Urban areas have much better antenatal care coverage than rural areas (72.1 versus 55.1 per cent), and divisions vary significantly with lowest coverage in Barisal, 40.3 per cent, while the highest coverage level is in the Khulna division, 74.6 per cent. Women from the richest households and those with the highest education are over twice more likely to receive antenatal care than those from the poorest households or have no education at all. Additionally, younger women are also more likely to receive antenatal care provided by skilled providers.

In Bangladesh, the majority of antenatal care is provided by medical doctors while a minority of women receive care from a traditional birth attendant, mostly in rural areas. About one in every two women in Bangladesh received antenatal care from a doctor (54.9 per cent). A small proportion received from community health worker (5.8 per cent) or nurse midwife (3.5 per cent).

UNICEF and WHO recommend a minimum of four antenatal care visits during pregnancy. It is of crucial importance for pregnant women to start attending antenatal care visits as early in pregnancy as possible in order to prevent and detect pregnancy conditions that could affect both the woman and her baby. Antenatal care should continue throughout the entire pregnancy.

Table RH.8: Number of antenatal care visits

Per cent distribution of women age 15-49 years with a live birth in the last two years by number of antenatal care visits by any provider and by the timing of first antenatal care visits, Bangladesh, 2012-2013

		Per cent distribution of women who had:						Total	Number of women with a live birth in the last two years
		No antenatal care visits	One visit	Two visits	Three visits	4 or more visits [1]	Missing/ DK		
Total		**33.6**	**12.5**	**15.6**	**12.9**	**24.7**	**0.7**	**100.0**	**7,950**
Division	Barisal	51.8	14.0	9.6	10.3	14.0	0.2	100.0	475
	Chittagong	35.0	10.7	17.1	14.4	21.7	1.1	100.0	1,851
	Dhaka	33.4	14.1	15.2	10.4	26.3	0.6	100.0	2,503
	Khulna	19.9	14.2	21.5	16.1	27.1	1.2	100.0	760
	Rajshahi	28.9	13.7	16.7	14.7	25.6	0.3	100.0	850
	Rangpur	29.6	8.7	10.0	15.4	35.8	0.5	100.0	886
	Sylhet	45.6	11.7	16.5	10.1	16.0	0.1	100.0	625

[38] *Progotir Pothey, Bangladesh MICS, 2006*

Table RH.8: continued

		Per cent distribution of women who had:						Total	Number of women with a live birth in the last two years
		No antenatal care visits	One visit	Two visits	Three visits	4 or more visits [1]	Missing/ DK		
Area	Urban	21.1	8.9	11.9	13.2	43.3	1.6	100.0	1,681
	Rural	37.0	13.5	16.6	12.8	19.7	0.4	100.0	6,268
Mother's age at birth	Less than 20	28.7	14.9	17.2	13.8	24.7	0.8	100.0	1,555
	20-34	33.1	11.9	15.5	12.7	26.2	0.6	100.0	5,809
	35-49	51.9	12.5	12.2	12.1	10.7	0.7	100.0	586
Education	None	56.8	12.1	11.5	9.4	9.7	0.5	100.0	1,460
	Primary incomplete	47.9	14.0	11.8	9.9	16.1	0.3	100.0	1,056
	Primary complete	39.3	14.9	16.7	12.7	15.7	0.6	100.0	1,231
	Secondary incomplete	24.3	13.1	18.8	15.2	27.8	0.9	100.0	3,043
	Secondary complete or higher	10.0	7.5	14.7	14.0	53.0	0.8	100.0	1,160
Wealth index quintile	Poorest	54.6	12.1	11.4	8.8	12.8	0.3	100.0	1,828
	Second	46.4	13.0	15.2	11.1	13.9	0.5	100.0	1,607
	Middle	32.2	17.1	18.9	12.5	18.4	0.8	100.0	1,524
	Fourth	21.6	14.5	20.2	17.1	25.3	1.3	100.0	1,415
	Richest	8.4	6.2	13.6	16.1	55.2	0.5	100.0	1,575

[1] MICS indicator 5.5b; MDG indicator 5.5 - Antenatal care coverage

Table RH.8 shows the number of antenatal care visits during the latest pregnancy that took place within the two years preceding the survey, regardless of provider, by selected characteristics. About two-third of the mothers (65.7 per cent) received antenatal care at least once, and a quarter received antenatal care at least four times (24.7 per cent). Also see Figure RH.5. Urban women were much more likely to receive 4 or more visits, and the percentage receiving 4 or more visits varied among divisions with the lowest of 14 per cent in Barisal and the highest of 35.8 per cent in Rangpur. Mothers from the poorest households and those with primary or no education are less likely than more advantaged mothers to receive antenatal care four or more times. For example, 12.8 per cent of the women living in poorest households reported four or more antenatal care visits compared with 55.2 per cent among those living in richest households.

Figure RH.5: Women age 15-49 years with a live birth in the last two years by number of antenatal care visits by any provider, Bangladesh, 2012-2013

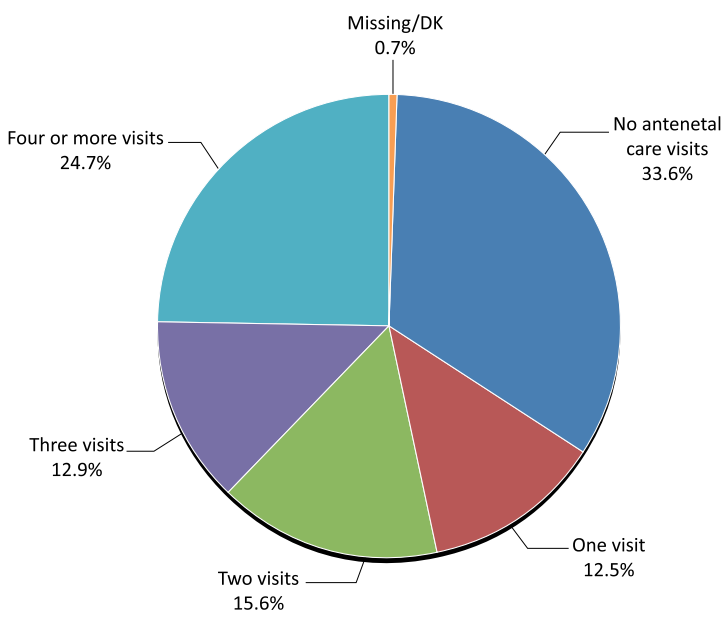


Table RH.9: Content of antenatal care

Percentage of women age 15-49 years with a live birth in the last two years who, at least once, had their blood pressure measured, urine sample taken, and blood sample taken as part of antenatal care, during the pregnancy for the last birth, Bangladesh, 2012-2013

		Percentage of women who, during the pregnancy of their last birth, had:				Number of women with a live birth in the last two years
		Blood pressure measured	Urine sample taken	Blood sample taken	Blood pressure measured, urine and blood sample taken [1]	
Total		**57.1**	**46.0**	**41.8**	**38.0**	**7,950**
Division	Barisal	41.6	35.0	31.5	28.4	475
	Chittagong	57.1	41.7	43.0	36.7	1,851
	Dhaka	55.5	50.6	47.1	44.3	2,503
	Khulna	72.7	55.8	50.1	45.5	760
	Rajshahi	58.6	44.7	35.2	31.3	850
	Rangpur	62.9	43.0	31.1	28.2	886
	Sylhet	46.0	42.6	38.7	37.6	625
Area	Urban	69.7	61.0	58.5	55.6	1,681
	Rural	53.7	41.9	37.3	33.3	6,268
Mother's age at birth	Less than 20	60.1	46.8	41.0	36.5	1,555
	20-34	58.2	47.3	43.4	39.7	5,809
	35-49	38.6	30.6	28.1	25.4	586
Education	None	34.2	25.1	21.6	19.3	1,460
	Primary incomplete	40.9	32.6	25.8	22.6	1,056
	Primary complete	48.2	35.5	32.4	28.5	1,231
	Secondary incomplete	66.9	53.3	48.2	43.4	3,043
	Secondary complete or higher	84.5	76.5	75.0	71.3	1,160
Wealth index quintile	Poorest	35.4	24.7	17.8	15.1	1,828
	Second	44.1	32.1	27.4	24.1	1,607
	Middle	56.6	42.8	38.2	33.3	1,524
	Fourth	69.1	56.7	53.4	48.4	1,415
	Richest	85.3	78.3	77.3	73.8	1,575

[1] MICS indicator 5.6 - Content of antenatal care

The coverage of key services that pregnant women are expected to receive during antenatal care are shown in Table RH.9. Among those who gave birth to a child during the two years preceding the survey, 57.1 per cent reported their blood pressure was checked, 46 per cent reported urine specimen taken, and 41.8 per cent reported a blood sample was taken. The proportion of women who had all three measured/tested was 38 per cent.

Only 15.1 per cent women living in the poorest households compared to 73.8 per cent living in the richest households, had all three components measured/tested. Women, who are 35 years or older were less likely to have all three components measured/tested when compared with younger women.

Assistance at Delivery

Three quarters of all maternal deaths occur during delivery or the immediate post-partum period. The single most critical intervention for safe motherhood is to ensure that a competent health worker with midwifery skills is present at every birth, and in case of emergency that transport is available to a referral facility for obstetric care. The skilled attendant at delivery indicator is used to track progress toward the Millennium Development Goal 5 of improving maternal health.

The MICS included a number of questions to assess the proportion of births attended by a skilled attendant. A *skilled attendant* includes a doctor, nurse, or midwife.

Table RH.10: Assistance during delivery and caesarian section

Per cent distribution of women age 15-49 with a live birth in the last two years by person providing assistance at delivery, and percentage of births delivered by C-section, Bangladesh, 2012-2013

		Person assisting at delivery								Total	Delivery assisted by any skilled attendant [1]	Per cent delivered by C-section [2]	Number of women who had a live birth in the last two years
		Medical doctor	Nurse / Midwife	Auxiliary midwife	Traditional birth attendant	Community health worker	Relative / Friend	Other/ missing	No attendant				
Total		**29.6**	**6.9**	**7.0**	**24.3**	**1.2**	**28.1**	**2.4**	**0.5**	**100.0**	**43.5**	**19.1**	**7,950**
Division	Barisal	16.8	11.7	10.0	23.4	1.2	34.6	1.6	0.8	100.0	38.4	10.5	475
	Chittagong	24.2	8.0	9.4	27.8	0.6	26.0	4.0	0.0	100.0	41.5	14.5	1,851
	Dhaka	35.3	4.2	5.4	24.4	1.3	27.6	1.6	0.3	100.0	44.8	24.4	2,503
	Khulna	41.9	11.3	3.5	13.2	1.4	27.0	0.9	0.8	100.0	56.7	30.5	760
	Rajshahi	34.2	8.1	9.5	18.0	1.2	27.5	1.1	0.4	100.0	51.8	22.4	850
	Rangpur	22.7	7.6	9.1	21.5	2.4	30.8	4.4	1.6	100.0	39.4	11.7	886
	Sylhet	21.5	3.3	1.8	40.5	1.1	29.3	2.0	0.5	100.0	26.7	10.8	625
Area	Urban	47.6	7.3	4.1	19.4	0.9	18.6	1.7	0.3	100.0	59.1	33.1	1,681
	Rural	24.8	6.8	7.7	25.7	1.3	30.6	2.6	0.5	100.0	39.3	15.4	6,268
Mother's age at birth	Less than 20	30.1	7.4	8.6	23.4	0.8	27.4	2.2	0.2	100.0	46.1	18.8	1,555
	20-34	30.5	7.1	6.8	24.2	1.4	27.0	2.5	0.6	100.0	44.3	20.0	5,809
	35-49	19.7	4.0	4.9	27.7	0.9	40.3	2.2	0.4	100.0	28.6	11.7	586
Place of delivery	Public sector health facility	75.5	21.5	1.0	0.6	1.3	0.2	0.0	0.0	100.0	98.0	38.7	1,040
	Private sector health facility	94.2	4.3	0.0	0.8	0.4	0.1	0.1	0.0	100.0	98.6	78.7	1,421
	Home	4.0	4.8	10.1	35.7	1.4	41.6	1.7	0.7	100.0	18.9	0.0	5,346
	Other	(22.5)	(21.3)	(4.0)	(24.3)	(3.5)	(6.5)	(13.2)	(4.6)	100.0	(47.9)	(0.0)	45
	Missing/DK	4.5	0.4	0.0	0.0	0.0	2.0	92.9	0.2	100.0	4.9	0.7	98
Education	None	11.7	4.6	7.6	32.3	1.3	39.7	2.1	0.8	100.0	23.9	5.5	1,460
	Primary incomplete	16.5	7.6	9.0	30.0	0.7	32.4	3.4	0.5	100.0	33.1	7.5	1,056
	Primary complete	20.6	5.4	7.3	29.3	1.6	33.5	1.6	0.6	100.0	33.3	11.5	1,231
	Secondary incomplete	33.2	8.0	6.8	22.1	1.3	25.3	2.7	0.5	100.0	48.1	21.9	3,043
	Secondary complete or higher	64.2	8.0	4.4	9.6	1.0	11.0	1.9	0.0	100.0	76.6	47.6	1,160
Wealth index quintile	Poorest	11.8	5.9	8.8	26.8	1.1	41.2	3.5	0.9	100.0	26.5	5.4	1,828
	Second	17.1	7.0	9.4	28.5	1.4	34.1	1.8	0.7	100.0	33.4	8.7	1,607
	Middle	21.7	8.8	7.5	29.5	1.8	28.3	2.2	0.2	100.0	38.0	12.8	1,524
	Fourth	37.8	6.8	5.6	23.8	1.3	21.9	2.4	0.3	100.0	50.2	25.1	1,415
	Richest	63.3	6.4	3.1	12.6	0.4	12.2	1.8	0.1	100.0	72.8	46.5	1,575

[1] MICS indicator 5.7; MDG indicator 5.2 - Skilled attendant at delivery
[2] MICS indicator 5.9 - Caesarean section

() figures that are based one 25-49 unweighted cases

About 43.5 per cent of births occurring in the two years preceding the survey were delivered by skilled personnel in Bangladesh (Table RH.10). This percentage ranges from 26.7 in Sylhet division to 56.7 per cent in in Khulna division. The more educated a woman is, the more likely she is to have delivered with the assistance of a skilled attendant. The range is from 23.9 per cent for women with no education, to 76.6 per cent for woman with secondary complete or higher education. Women living in the poorest households are far less likely (26.6 per cent) to be assisted by a skilled attendant during birth than those living in the richest households (72.8 per cent). Only 18.9 per cent of the deliveries at home were attended by skilled health personnel. In 2006, only 20.1 per cent births were delivered by skilled personnel[39].

About 29.6 per cent of the births in the two years preceding the survey were delivered with assistance by a doctor, 6.9 per cent by a nurse or midwife and another 7 per cent by auxiliary midwife. A quarter of births were assisted by Traditional Birth Attendants and 28.1 per cent by relatives or friends. Women in richer households and those with higher levels of education were much more likely to have been assisted by doctors at delivery. Doctors' assistance is clearly more available in urban areas, but it varied in divisions: in Barisal only 16.8 per cent of deliveries were assisted by doctors, as compared to 41.9 per cent in Khulna.

Figure RH.6: Person assisting at delivery, Bangladesh, 2012-2013

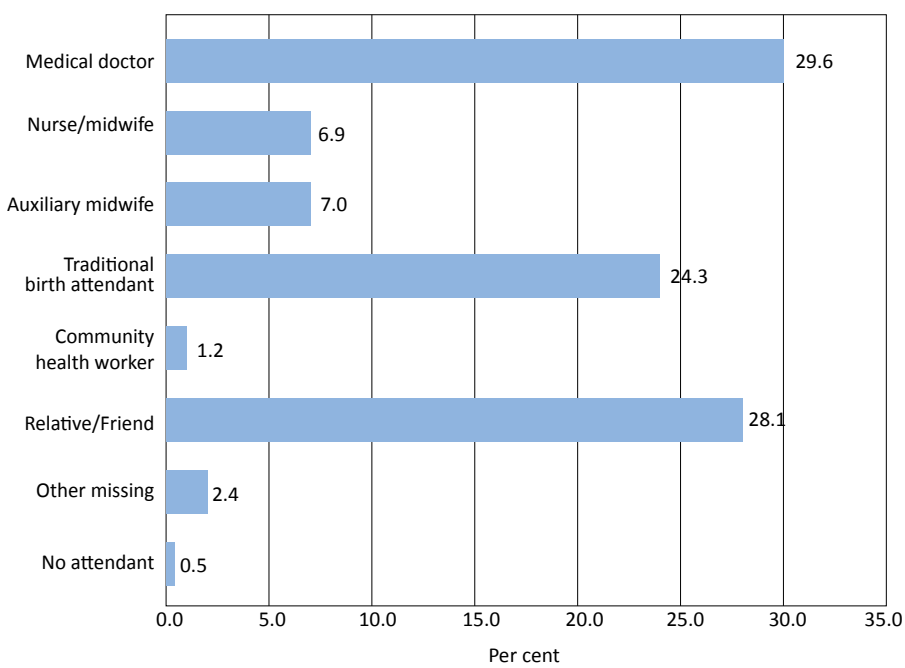


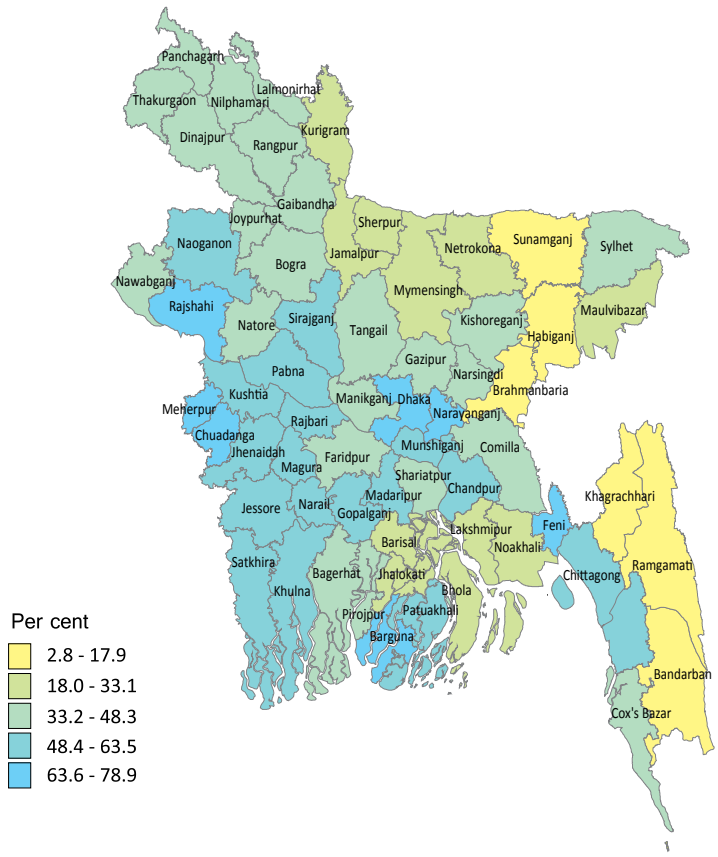
Table RH.10 also shows information on women who delivered by caesarean section (C-section).

Overall, 19.1 per cent of women who delivered in the last two years had a C-section; the percentage varies between divisions. In births given by women up to the age of 34 (less than 20 and 20-34), about 20 per cent were delivered by C-section, while among older women it was done only in 11.7 per cent cases. Delivery by C-section is more prevalent among women belonging to richer groups and women with higher levels of education with almost half of the women in the best education and richest households having C-section delivery. Also, delivery rate of C-section is more than double in private than in public facilities.

Births attendant by skilled health personnel varies between different divisions as well different districts. Map RH.2 shows a wide variation in proportions of births attended by skilled health personnel ranging from about 3 to 79 per cent. Those located in the eastern, north-eastern and south-eastern coastal districts show very low levels of coverage.

[39] *Progotir Pothey, Bangladesh MICS, 2006*

Map RH.2: Percentage of births attended by skilled health personnel by district, Bangladesh, 2012-2013



Place of Delivery

Increasing the proportion of births that are delivered in health facilities is an important factor in reducing the health risks to both the mother and the baby. Proper medical attention and hygienic conditions during delivery can reduce the risks of complications and infection that can cause morbidity and mortality to either the mother or the baby. Table RH.11 presents the per cent distribution of women age 15-49, who had a live birth in the two years preceding the survey by place of delivery, and the percentage of births delivered in a health facility, according to background characteristics.

Table RH.11: Place of delivery

Per cent distribution of women age 15-49 with a live birth in the last two years by place of delivery of their last birth, Bangladesh, 2012-2013

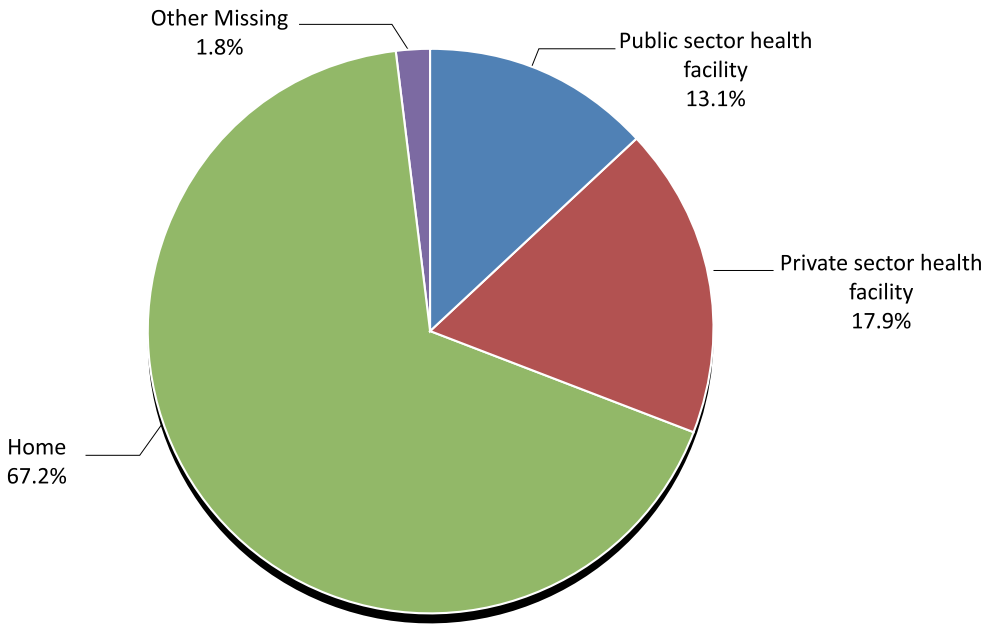
		Place of delivery						Delivered in health facility [1]	Number of women with a live birth in the last two years
		Public sector health facility	Private sector health facility	Home	Other	Missing/ DK	Total		
Total		**13.1**	**17.9**	**67.2**	**0.6**	**1.2**	**100.0**	**31.0**	**7,950**
Division	Barisal	7.9	9.3	81.0	0.1	1.8	100.0	17.1	475
	Chittagong	12.2	14.9	68.1	1.1	3.7	100.0	27.1	1,851
	Dhaka	12.7	22.2	64.3	0.4	0.4	100.0	34.9	2,503
	Khulna	17.4	28.2	53.5	0.6	0.3	100.0	45.6	760
	Rajshahi	17.2	20.9	61.6	0.2	0.2	100.0	38.1	850
	Rangpur	12.2	10.8	75.6	0.8	0.6	100.0	23.0	886
	Sylhet	11.4	9.5	78.7	0.3	0.2	100.0	20.8	625
Area	Urban	19.3	30.5	48.1	1.0	1.1	100.0	49.8	1,681
	Rural	11.4	14.5	72.4	0.5	1.3	100.0	25.9	6,268
Mother's age at birth	Less than 20	13.2	18.6	66.6	0.6	1.0	100.0	31.8	1,555
	20-34	13.6	18.2	66.3	0.6	1.3	100.0	31.8	5,809
	35-49	7.6	13.0	78.1	0.4	0.9	100.0	20.7	586
Per cent of women who had:	None	4.4	3.8	87.9	0.4	3.5	100.0	8.2	2,674
	1-3 visits	14.9	16.9	67.6	0.7	0.0	100.0	31.8	3,257
	4+ visits	22.1	38.6	38.6	0.5	0.2	100.0	60.7	1,966
	Missing/DK	7.5	20.5	69.8	2.3	0.0	100.0	27.9	53
Education	None	7.4	4.6	87.1	0.4	0.4	100.0	12.1	1,460
	Primary incomplete	10.5	7.4	78.9	1.2	2.0	100.0	17.9	1,056
	Primary complete	11.2	9.3	78.2	0.8	0.4	100.0	20.6	1,231
	Secondary incomplete	14.7	20.5	62.8	0.5	1.6	100.0	35.2	3,043
	Secondary complete or higher	20.3	46.3	31.7	0.2	1.6	100.0	66.6	1,160
Wealth index quintile	Poorest	8.2	4.8	85.5	0.4	1.2	100.0	12.9	1,828
	Second	9.5	8.0	80.9	0.7	0.9	100.0	17.5	1,607
	Middle	12.2	11.6	74.3	0.8	1.1	100.0	23.7	1,524
	Fourth	17.0	22.7	57.8	0.8	1.7	100.0	39.7	1,415
	Richest	19.8	45.0	33.7	0.2	1.3	100.0	64.7	1,575

[1] MICS indicator 5.8 - Institutional deliveries

About 31 per cent of births in Bangladesh are delivered in a health facility; 13.1 per cent occur in public sector facilities, 17.9 per cent in private sector facilities. Over two in three births (67.2 per cent) take place at home (also see Figure RH.7). Women up to age 34 years are the more likely to deliver in a health facility (31.8 per cent). Women in urban areas are twice as likely to give birth in a health facility as their rural counterparts (49.8 versus 25.9 per cent). The proportion of institutional deliveries varies from 17.1 per cent in Barisal division to 45.6 per cent in Khulna division. Women with higher levels of educational attainment are more likely to deliver in a health facility than women with less education or no education. The proportion of births occurring in a health facility increases steadily with wealth, from 12.9 per cent in the lowest wealth quintile to 64.7 per cent in the highest. The majority of women who received no antenatal care services delivered at home (87.9 per cent). Only 16 per cent of births were delivered in a health facility in Bangladesh in 2006[40] .

[40] *Progotir Pothey, Bangladesh MICS, 2006*

Figure RH.7: Per cent distribution of women age 15-49 with a live birth in the last two years by place of delivery of their last birth, Bangladesh, 2012-2013



Post-natal Health Checks

The time of birth and immediately after is a critical window of opportunity to deliver lifesaving interventions for both the mother and newborn. Across the world, approximately 3 million newborns annually die in the first month of life[41] and the majority of these deaths occur within a day or two of birth[42], which is also the time when the majority of maternal deaths occur[43]. In Bangladesh 73 per cent of mothers die during post natal period[44].

Despite the importance of the first few days following birth, large-scale, nationally representative household survey programmes have not systematically included questions on the post-natal period and care for the mother and newborn. In 2008, the Countdown to 2015 initiative, which monitors progress on maternal, newborn and child health interventions, highlighted this data gap, and called not only for post-natal care (PNC) programmes to be strengthened, but also for better data availability and quality[45].

Following the establishment and discussions of an Inter-Agency Group on PNC and drawing on lessons learned from earlier attempts of collecting PNC data, a new questionnaire module for MICS was developed and validated. Named the Post-natal Health Checks (PNHC) module, the objective is to collect information on newborns' and mothers' contact with a provider, not content of care. The rationale for this is that as PNC programmes scale up, it is important to measure the coverage of that scale up and ensure that the platform for providing essential services is in place. Content is considered more difficult to measure, particularly because the respondent is asked to recall services delivered up to two years preceding the interview.

Both mother and newborn are vulnerable during postnatal period, particularly during the first 24 hours of following the birth. In Bangladesh, most of maternal deaths occur during post natal period. Therefore, early postnatal visits have been recommended to save mother and newborn. Postnatal care package includes interventions for both mothers and neonate to promote healthy practices,

[41] *UN Interagency Group for Child Mortality Estimation, 2013. Levels and Trends in Child Mortality: Report 2013*
[42] *Lawn JE, Cousens S, Zupan J. 4 million neonatal deaths: When? Where? Why? Lancet 2005; 365:891–900.*
[43] *WHO, UNICEF, UNFPA, The World Bank. Trends in Maternal Mortality: 1990-2010. Geneva: World Health Organization 2012.*
[44] *Bangladesh Maternal Mortality and Health Care Survey, 2010.*
[45] *Countdown to 2015: Tracking Progress in Maternal, Newborn & Child Survival, The 2008 Report. New York: UNICEF 2008.*

identify complications and facilitate early referral. A pre-discharge postnatal care become an obligatory for women who deliver at facility, while all women must receive an early post natal visit within 24 hours of birth at either home or facility irrespective of birth place or birth attendant. The national neonatal health strategy envisage notification of each delivery, including home delivery, so that health system can plan and ensure full coverage of postnatal check-up within 24 hours (1st visit, no more than 48 hours), within 2-3 days (2nd visit), within 7-14 days (3rd visit) and by 42 days (4th visit) of birth.

Table RH.12 presents the per cent distribution of women age 15-49, who gave birth in a health facility in the two years preceding the survey by duration of stay in the facility following the delivery, according to background characteristics.

Table RH.12: Post-partum stay in health facility

Per cent distribution of women age 15-49 years with a live birth in the last two years who had their last birth delivered in a health facility by duration of stay in health facility, Bangladesh, 2012-2013

		Duration of stay in health facility:							12 hours or more [1]	Number of women who had their last birth delivered in a health facility in the last 2 years
		Less than 6 hours	6-11 hours	12-23 hours	1-2 days	3 days or more	Missing/ DK	Total		
Total		**12.3**	**4.5**	**2.7**	**16.7**	**63.4**	**0.5**	**100.0**	**82.8**	**2,461**
Division	Barisal	10.0	3.9	8.4	14.8	62.7	0.3	100.0	85.9	81
	Chittagong	15.0	4.6	2.3	25.8	52.2	0.1	100.0	80.4	501
	Dhaka	8.8	3.7	1.3	14.1	71.4	0.7	100.0	86.8	875
	Khulna	12.3	3.5	2.3	12.0	69.3	0.7	100.0	83.5	347
	Rajshahi	15.0	4.2	6.7	13.8	59.9	0.4	100.0	80.4	323
	Rangpur	17.6	8.1	2.5	14.0	57.7	0.0	100.0	74.2	204
	Sylhet	11.4	7.4	1.4	25.1	54.5	0.3	100.0	81.0	130
Area	Urban	9.7	4.6	1.7	16.6	66.6	0.7	100.0	85.0	838
	Rural	13.6	4.4	3.2	16.8	61.7	0.3	100.0	81.7	1,623
Mother's age at birth	Less than 20	11.0	6.3	6.3	15.9	60.3	0.2	100.0	82.5	495
	20-34	12.3	3.9	1.7	17.2	64.4	0.5	100.0	83.3	1,845
	35-49	16.8	6.5	2.6	13.3	60.5	0.3	100.0	76.3	121
Type of health facility	Public	22.4	7.2	4.9	23.3	41.4	0.9	100.0	69.5	1,040
	Private	4.8	2.5	1.1	12.0	79.5	0.1	100.0	92.6	1,421
Type of delivery	Vaginal birth	29.2	11.3	7.0	36.7	15.3	0.5	100.0	59.0	940
	C-section	1.8	0.2	0.1	4.4	93.1	0.4	100.0	97.5	1,521
Education	None	19.6	8.1	5.3	17.1	49.9	0.0	100.0	72.2	176
	Primary incomplete	22.0	8.8	3.7	19.3	43.4	2.8	100.0	66.4	190
	Primary complete	13.8	5.3	2.4	21.1	57.5	0.0	100.0	80.9	253
	Secondary incomplete	12.9	4.6	2.9	15.7	63.5	0.4	100.0	82.1	1,070
	Secondary complete or higher	6.8	2.1	1.7	16.0	73.1	0.2	100.0	90.8	772
Wealth index quintile	Poorest	16.7	8.1	7.9	17.8	49.4	0.2	100.0	75.1	237
	Second	16.7	6.3	3.8	15.0	56.7	1.3	100.0	75.6	281
	Middle	19.2	4.9	4.4	18.6	52.8	0.2	100.0	75.7	362
	Fourth	13.7	2.4	1.7	17.5	63.5	1.1	100.0	82.7	562
	Richest	6.7	4.1	1.1	15.9	72.1	0.0	100.0	89.2	1,020

[1] MICS indicator 5.10 - Post-partum stay in health facility

Overall, 82.8 per cent of women who gave birth in a health facility stay 12 hours or more in the facility after delivery. Across the country, the percentage of women who stay 12 hours or more varies from 74.2 per cent in Rangpur to 86.8 per cent in Dhaka division. A much higher proportion (92.6 per cent) of women, delivering in private facilities, stay for 12 hours or more than those delivering in public facilities (69.5 per cent). Some disparity exists between urban (85 per cent) and rural women (81.7 per cent). As expected, the duration of stay in a health facility after delivery is much longer in women who had C-section. There are no clear patterns with regards to background characteristics of woman's age at delivery and her education.

Safe motherhood programmes have recently increased emphasis on the importance of post-natal care, recommending that all women and newborns receive a health check within two days

of delivery (Joint WHO-UNICEF Statement on Early PNC). To assess the extent of post-natal care utilization, women were asked whether they and their newborn received a health check after the delivery, the timing of the first check, and the type of health provider for the woman's last birth in the two years preceding the survey.

Table RH.13 shows the percentage of newborns born in the last two years who received health checks and post-natal care visits from any health provider after birth. Please note that *health checks following birth* while in facility or at home refer to checks provided by any health provider regardless of timing (column 1), whereas post-natal care visits refer to a separate visit to check on the health of the newborn and provide preventive care services and therefore do not include *health checks following birth* while in facility or at home. The indicator Post-natal health checks includes any health check after birth received while in the health facility and at home (column 1), regardless of timing, as well as PNC visits within two days of delivery (columns 2, 3, and 4).

Table RH.13: Post-natal health checks for newborns

Percentage of women age 15-49 years with a live birth in the last two years whose last live birth received health checks while in facility or at home following birth, per cent distribution whose last live birth received post-natal care (PNC) visits from any health provider after birth, by timing of visit, and percentage who received post natal health checks, Bangladesh, 2012-2013

		Health check following birth while in facility or at home [a]	PNC visit for newborns [b]								Post-natal health check for the newborn [1], [c]	Number of last live births in the last two years
			Same day	1 day following birth	2 days following birth	3-6 days following birth	After the first week following birth	No post-natal care visit	Missing/ DK	Total		
Total		**39.1**	**5.1**	**2.3**	**1.2**	**2.6**	**3.8**	**84.1**	**0.7**	**100.0**	**41.2**	**7,950**
Division	Barisal	19.4	4.6	0.8	1.1	1.5	2.9	88.9	0.1	100.0	22.0	475
	Chittagong	32.9	2.0	1.9	1.1	1.5	3.3	89.8	0.4	100.0	33.6	1,851
	Dhaka	42.3	4.4	1.9	1.3	4.4	5.3	81.9	0.9	100.0	43.9	2,503
	Khulna	49.9	8.5	1.0	0.4	1.3	3.5	84.3	1.1	100.0	52.0	760
	Rajshahi	39.0	5.2	2.6	0.8	2.2	4.9	83.1	1.2	100.0	41.9	850
	Rangpur	40.7	13.3	6.6	2.1	1.7	2.1	73.6	0.6	100.0	46.8	886
	Sylhet	44.4	2.1	1.8	1.7	3.2	1.9	88.9	0.4	100.0	45.3	625
Area	Urban	51.6	5.3	3.2	1.3	5.2	6.9	77.4	0.8	100.0	53.4	1,681
	Rural	35.7	5.1	2.1	1.2	1.9	3.0	85.9	0.7	100.0	37.9	6,268
Mother's age at birth	Less than 20	36.8	4.8	2.3	0.9	2.4	3.8	85.3	0.5	100.0	39.7	1,555
	20-34	40.6	5.4	2.4	1.4	2.8	4.0	83.1	0.8	100.0	42.5	5,809
	35-49	30.4	3.3	1.9	0.1	1.2	2.4	90.8	0.2	100.0	32.3	586
Place of birth	Home	20.9	4.9	2.3	1.1	1.5	1.1	88.7	0.4	100.0	23.8	5,346
	Health facility	80.5	5.9	2.6	1.5	5.2	10.0	73.4	1.4	100.0	80.9	2,461
	Public	74.5	5.4	2.6	2.2	3.3	7.4	78.3	0.7	100.0	75.2	1,040
	Private	84.9	6.2	2.6	1.0	6.6	11.9	69.8	2.0	100.0	85.0	1,421
	Other/DK/ Missing	5.3	2.4	1.3	0.0	0.0	0.0	96.2	0.0	100.0	6.3	143
Education	None	26.0	2.9	1.9	1.0	1.1	1.3	91.4	0.4	100.0	27.5	1,460
	Primary incomplete	30.1	4.0	1.8	0.4	1.9	1.6	89.8	0.5	100.0	31.8	1,056
	Primary complete	32.5	5.3	2.4	0.7	2.3	2.1	86.6	0.6	100.0	34.3	1,231
	Secondary incomplete	41.3	5.8	2.4	1.5	2.4	4.4	82.5	0.9	100.0	43.8	3,043
	Secondary complete or higher	64.8	7.1	3.1	2.0	6.1	9.4	71.5	0.8	100.0	67.4	1,160
Wealth index quintile	Poorest	24.6	4.1	2.1	0.5	1.4	1.6	89.9	0.4	100.0	26.4	1,828
	Second	31.0	4.5	2.1	1.3	1.6	2.0	87.8	0.7	100.0	33.0	1,607
	Middle	35.3	6.3	1.5	1.3	2.1	2.7	85.5	0.6	100.0	37.9	1,524
	Fourth	44.0	5.7	2.6	0.7	1.7	4.5	84.1	0.7	100.0	46.0	1,415
	Richest	63.3	5.3	3.5	2.5	6.5	8.9	72.4	1.1	100.0	65.4	1,575

[1] MICS indicator 5.11 - Post-natal health check for the newborn

[a] Health checks by any health provider following facility births (before discharge from facility) or following home births (before departure of provider from home).

[b] Post-natal care visits (PNC) refer to a separate visit to check on the health of the newborn and provide preventive care services. PNC visits do not include health checks following birth while in facility or at home (see note a above).

[c] Post-natal health checks include any health check performed while in the health facility or at home following birth (see note a above), as well as PNC visits (see note b above) within two days of delivery.

Overall, 39.1 per cent of newborns receive a health check following birth while in a facility or at home. With regard to PNC visits, these are infrequent and predominantly occur either on the same day or after one week following the delivery (5.1 per cent and 3.8 per cent, respectively). As a result, a total of 41.2 per cent of all newborns receive a post-natal health check. Newborns whose birth was given in a health facility, particularly in a private health facility, were most likely to have had the check within 2 days of birth (80.9 versus 23.8 per cent in women giving birth at home).

Urban newborns are much more likely to receive a health check, both following birth (51.6 per cent) and in total including PNC visits (53.4 per cent), than their rural counterparts (35.7 per cent and 37.9 per cent, respectively). There is a very clear correlation to both education and household wealth, with the percentage of post-natal health checks of newborns increasing with education and wealth.

Mothers aged 20-34 are more likely to have the post-natal check on their newborns in time, as compared with both younger and older women. Health checks following birth occur mainly in health facility deliveries (74.5 per cent public, 84.9 per cent private), whereas for newborns delivered at home the figure is very low (20.9 per cent).

Table RH.14: Post-natal care visits for newborns within one week of birth

Per cent distribution of women age 15-49 years with a live birth in the last two years whose last live birth received a post-natal care (PNC) visit within one week of birth, by location and provider of the first PNC visit, Bangladesh, 2012-2013

		Location of first PNC visit for newborns						Provider of first PNC visit for newborns					Number of last live births in the last two years with a PNC visit within the first week of life
		Home	Public sector	Private sector	Other location	Missing	Total	Doctor/ nurse/ midwife	Auxiliary midwife	Community health worker	Traditional birth attendant	Total	
Total		**59.0**	**15.2**	**23.0**	**2.7**	**0.1**	**100.0**	**58.8**	**6.0**	**17.1**	**18.1**	**100.0**	**901**
Division	Barisal	60.4	14.7	19.8	5.1	0.0	100.0	63.6	3.2	17.0	16.2	100.0	38
	Chittagong	28.5	37.8	27.7	5.9	0.0	100.0	76.1	0.4	11.5	12.0	100.0	121
	Dhaka	56.7	9.8	31.6	2.0	0.0	100.0	65.4	8.0	12.7	14.0	100.0	300
	Khulna	34.5	24.2	39.6	1.7	0.0	100.0	85.5	5.5	4.5	4.5	100.0	85
	Rajshahi	61.8	17.0	18.0	1.7	1.4	100.0	68.9	6.9	5.6	18.6	100.0	92
	Rangpur	84.3	8.0	6.7	0.9	0.0	100.0	29.8	7.6	39.1	23.5	100.0	211
	Sylhet	74.2	5.5	13.3	7.0	0.0	100.0	34.9	2.8	7.8	54.4	100.0	55
Area	Urban	38.1	19.0	39.4	3.6	0.0	100.0	79.1	2.4	5.3	13.2	100.0	251
	Rural	67.1	13.7	16.7	2.3	0.2	100.0	50.9	7.4	21.7	20.0	100.0	650
Mother's age at birth	Less than 20	66.0	18.0	14.7	1.3	0.0	100.0	56.6	4.8	20.8	17.9	100.0	162
	20-34	56.2	14.9	25.8	2.9	0.2	100.0	59.9	6.2	15.4	18.5	100.0	700
	35-49	(81.7)	(6.7)	(8.2)	(3.4)	(0.0)	100.0	(48.6)	(8.0)	(32.9)	(10.5)	100.0	39
Place of birth	Home	88.4	5.4	4.7	1.5	0.0	100.0	36.0	9.7	25.6	28.8	100.0	523
	Health facility	18.2	28.9	48.7	3.8	0.3	100.0	91.2	0.6	4.9	3.3	100.0	373
	Public	24.0	65.3	1.8	7.9	0.9	100.0	85.7	1.0	9.2	4.0	100.0	141
	Private	14.7	6.8	77.1	1.4	0.0	100.0	94.5	0.4	2.3	2.9	100.0	232
Education	None	78.9	8.5	11.8	0.9	0.0	100.0	33.4	12.8	28.0	25.8	100.0	101
	Primary incomplete	81.1	10.9	5.4	1.1	1.5	100.0	38.2	5.3	17.6	38.9	100.0	86
	Primary complete	66.8	14.3	17.9	1.0	0.0	100.0	47.8	5.2	18.0	29.0	100.0	131
	Secondary incomplete	59.2	17.5	20.3	3.0	0.0	100.0	62.7	6.2	16.5	14.5	100.0	371
	Secondary complete or higher	35.6	16.5	43.4	4.6	0.0	100.0	79.1	3.2	12.2	5.4	100.0	212
Wealth index quintile	Poorest	83.2	9.8	6.5	0.6	0.0	100.0	31.7	11.4	26.9	29.9	100.0	148
	Second	74.4	10.0	14.6	1.0	0.0	100.0	43.6	12.1	23.7	20.5	100.0	151
	Middle	64.3	22.0	11.2	1.7	0.7	100.0	55.3	4.9	21.7	18.1	100.0	171
	Fourth	53.0	17.8	28.6	0.7	0.0	100.0	60.8	2.8	16.7	19.7	100.0	152
	Richest	38.0	15.2	40.5	6.3	0.0	100.0	82.5	2.2	5.8	9.6	100.0	279

Note: Due to 6 unweighted cases, 'Other/DK/missing' category under 'education' is not shown.
() figures that are based one 25-49 unweighted cases.

In Table RH.14, the percentage of newborns who received the first PNC visit within one week of birth is shown by location and type of provider of service. As defined above, a visit does not include a check in the facility or at home following birth. Overall, 59 per cent of the newborns receive their first post-natal care visit at home, 15.2 per cent at a public sector facility, while 23 per cent at a private sector facility. Two thirds of newborns in rural areas have their first PNC visit at home, as compared to 38.1 per cent in urban areas. Newborns in poorer households and by women with less education are more likely to have had their first post-natal care visit at home (83.2 per cent in the poorest households versus 38 per cent in the richest households).

Around three in five of the first PNC visits (64.8 per cent) for newborns are provided by either a doctor/nurse/midwife or an auxiliary midwife in Bangladesh. This however masks the differences across population groups. For example, the urban/rural distribution shows that about four out of five first visits (79.1 per cent) among urban newborns are attended by a doctor, nurse, or midwife, whereas for the rural newborns, one in two newborns are attended by a doctor, nurse, or midwife (50.9 per cent). It is interesting to observe that attendance by a traditional birth attendant is much more prevalent in Sylhet division (54.4 per cent) and Rangpur division (23.5 per cent) than anywhere else.

Private facility visits are predominantly with women in the wealthiest households as well as with mothers with high education. Divisions vary with regard to PNC visits by doctor/nurse/midwife; for example, it ranges from 29.8 per cent in Rangpur to 85.5 in Khulna division.

Table RH.15: Post-natal health checks for mothers

Percentage of women age 15-49 years with a live birth in the last two years who received health checks while in facility or at home following birth, per cent distribution who received post-natal care (PNC) visits from any health provider after birth at the time of last birth, by timing of visit, and percentage who received post natal health checks, Bangladesh, 2012-2013

		Health check following birth while in facility or at home [a]	PNC visit for mothers [b]								Post-natal health check for the mother [1], [c]	Number of women who gave birth in the two years preceding the survey
			Same day	1 day following birth	2 days following birth	3-6 days following birth	After the first week following birth	No post-natal care visit	Missing/ DK	Total		
Total		**38.7**	**3.7**	**1.6**	**0.8**	**1.5**	**3.2**	**88.6**	**0.7**	**100.0**	**40.4**	**7,950**
Division	Barisal	21.3	3.1	0.8	0.6	1.3	2.6	91.5	0.1	100.0	23.3	475
	Chittagong	33.1	2.3	1.6	0.7	1.1	3.4	90.5	0.3	100.0	34.3	1,851
	Dhaka	42.3	2.6	0.9	0.7	2.2	3.5	89.6	0.6	100.0	43.3	2,503
	Khulna	49.2	5.1	0.4	0.4	0.8	2.8	90.1	0.4	100.0	50.4	760
	Rajshahi	36.5	4.1	1.7	1.2	1.0	4.1	86.6	1.3	100.0	39.3	850
	Rangpur	38.0	10.0	5.2	1.0	1.6	2.8	78.3	1.0	100.0	43.2	886
	Sylhet	45.3	1.0	1.1	0.7	1.6	1.6	92.6	1.2	100.0	45.3	625
Area	Urban	51.7	3.7	1.7	0.6	2.7	6.1	84.2	1.0	100.0	52.8	1,681
	Rural	35.2	3.7	1.5	0.8	1.2	2.4	89.8	0.6	100.0	37.1	6,268
Mother's age at birth	Less than 20	37.9	4.3	1.6	1.1	1.3	3.1	88.0	0.6	100.0	40.4	1,555
	20-34	40.0	3.6	1.6	0.6	1.6	3.4	88.3	0.7	100.0	41.5	5,809
	35-49	28.1	2.1	1.4	1.3	1.3	0.9	92.8	0.2	100.0	29.4	586
Place of birth	Home	22.2	3.7	1.8	0.9	0.9	1.0	91.3	0.4	100.0	24.6	5,346
	Health facility	76.4	3.8	1.2	0.4	2.8	8.2	82.2	1.3	100.0	76.9	2,461
	Public	68.6	4.7	1.1	0.6	1.9	5.9	85.4	0.4	100.0	69.2	1,040
	Private	82.2	3.2	1.3	0.2	3.5	10.0	79.9	1.9	100.0	82.5	1,421
	Other/DK/ Missing	4.8	0.9	0.5	0.0	0.6	0.2	97.8	0.0	100.0	4.8	143
Type of delivery	Vaginal birth	27.9	3.5	1.6	0.9	0.9	1.3	91.2	0.5	100.0	30.0	6,428
	C-section	84.1	4.2	1.4	0.2	4.0	11.1	77.8	1.3	100.0	84.4	1,522

Table RH.15: continued

		Health check following birth while in facility or at home [a]	PNC visit for mothers [b]								Post-natal health check for the mother [1], [c]	Number of women who gave birth in the two years preceding the survey
			Same day	1 day following birth	2 days following birth	3-6 days following birth	After the first week following birth	No post-natal care visit	Missing/ DK	Total		
Education	None	25.3	1.9	1.0	0.7	1.2	1.2	93.5	0.6	100.0	26.1	1,460
	Primary incomplete	29.6	3.2	1.2	0.6	1.6	1.0	92.0	0.4	100.0	31.0	1,056
	Primary complete	32.3	3.0	1.5	1.0	0.7	1.9	91.8	0.2	100.0	33.7	1,231
	Secondary incomplete	41.6	4.4	2.0	0.9	1.9	3.5	86.9	0.5	100.0	43.6	3,043
	Secondary complete or higher	62.9	5.2	1.8	0.4	1.7	8.3	80.6	1.9	100.0	65.8	1,160
Wealth index quintile	Poorest	24.3	2.8	1.4	0.5	1.0	1.1	92.6	0.5	100.0	25.7	1,828
	Second	30.2	3.9	1.4	1.2	1.0	1.9	90.0	0.7	100.0	32.1	1,607
	Middle	35.7	3.9	1.2	1.0	1.8	1.6	90.0	0.5	100.0	37.8	1,524
	Fourth	42.4	4.5	2.0	0.7	0.6	3.8	87.7	0.6	100.0	43.8	1,415
	Richest	63.7	3.4	2.0	0.4	3.3	7.9	82.0	1.0	100.0	65.5	1,575

[1] MICS indicator 5.12 - Post-natal health check for the mother

[a] Health checks by any health provider following facility births (before discharge from facility) or following home births (before departure of provider from home).

[b] Post-natal care visits (PNC) refer to a separate visit to check on the health of the mother and provide preventive care services. PNC visits do not include health checks following birth while in facility or at home (see note a above).

[c] Post-natal health checks include any health check performed while in the health facility or at home following birth (see note a above), as well as PNC visits (see note b above) within two days of delivery.

Tables RH.15 and RH.16 present information collected on post-natal health checks and visits of the mother, and are identical to Tables RH.13 and RH.14, except that Tables RH.15 and 16 are for mothers but Tables RH.13 and 14 are for newborns.

The Bangladesh MICS survey shows that, overall, 40.4 per cent of women aged 15-49 years received a post natal health checkup within 2 days of delivery which were either a health check while in a facility or at home following delivery, or a post-natal care visit within 2 days after delivery (Table RH.15).

Table RH.15 presents a pattern somewhat similar to Table RH.13. Overall, 38.7 per cent of mothers receive a health check following birth while in a facility or at home. With regards to PNC visits, the majority take place on the same day or the first week after the delivery (3.7 per cent and 3.2 per cent, respectively). A total of 40.4 per cent of all mothers receive a post-natal health check. This percentage varies from 23.3 per cent in Barisal division to 50.4 per cent in Khulna division. Urban mothers are much more likely to receive a health check, both following birth (51.7 per cent) and in total including PNC visits (52.8 per cent), than their rural counterparts (35.2 per cent and 37.1 per cent, respectively). There is again a very clear correlation to both education and household wealth, with the percentage of post-natal health checks of mothers increasing with education and wealth. Health checks following birth occur mainly in health facility deliveries (68.6 per cent public, 82.2 per cent private), whereas for mothers delivering at home the figure is very low (22.2 per cent). The main difference between the table for newborns and the table for mothers is that the percentage with health checks, both following the birth and through a visit, is somewhat lower for mothers than for newborns. This is associated with lower rates of timely PNC visits.

Table RH.16: Post-natal care visits for mothers within one week of birth

Per cent distribution of women age 15-49 years with a live birth in the last two years who received a post-natal care (PNC) visit within one week of birth, by location and provider of the first PNC visit, Bangladesh, 2012-2013

		Location of first PNC visit					Provider of first PNC visit					Number of women who gave birth in the two years preceding survey and received a PNC visit within one week of delivery
		Home	Public Sector	Private Sector	Other location	Total	Doctor/ nurse/ midwife	Auxiliary midwife	Community health worker	Traditional birth attendant	Total	
Total		**66.2**	**13.5**	**19.4**	**0.9**	**100.0**	**58.3**	**8.4**	**18.2**	**15.0**	**100.0**	**598**
Division	Barisal	(61.80	(8.9)	(24.0)	(5.3)	100.0	(87.1)	(0.0)	(12.9)	(0.0)	100.0	28
	Chittagong	46.3	24.5	29.0	0.2	100.0	79.3	2.0	11.8	6.9	100.0	107
	Dhaka	70.4	11.5	18.1	0.0	100.0	54.2	15.2	16.0	14.5	100.0	157
	Khulna	35.4	26.4	35.7	2.6	100.0	88.3	8.2	0.9	2.6	100.0	51
	Rajshahi	69.7	8.0	22.4	0.0	100.0	73.6	7.0	9.5	9.9	100.0	68
	Rangpur	82.9	9.1	7.5	0.4	100.0	31.8	9.7	38.1	20.3	100.0	158
	Sylhet	(76.2)	(2.2)	(15.4)	(6.2)	100.0	(31.3)	(0.0)	(0.0)	(68.7)	100.0	28
Area	Urban	46.7	20.7	31.2	1.4	100.0	74.8	3.6	5.3	16.3	100.0	146
	Rural	72.5	11.2	15.5	0.8	100.0	53.0	10.0	22.3	14.6	100.0	451
Mother's age at birth	Less than 20	75.7	9.1	14.9	0.4	100.0	58.0	6.4	17.9	17.7	100.0	128
	20-34	61.5	15.5	21.8	1.1	100.0	59.0	9.0	16.9	15.1	100.0	434
	35-49	(89.5)	(4.7)	(5.8)	(0.0)	100.0	(51.5)	(8.9)	(34.8)	(4.7)	100.0	36
Place of birth	Home	89.7	5.3	4.3	0.7	100.0	43.1	12.4	24.7	19.8	100.0	391
	Health facility	21.5	29.2	48.0	1.3	100.0	87.4	0.7	5.8	6.1	100.0	203
	Public	26.7	68.6	3.6	1.1	100.0	80.3	1.7	11.5	6.6	100.0	87
	Private	17.7	0.0	80.8	1.4	100.0	92.7	0.0	1.6	5.7	100.0	117
Type of delivery	Vaginal birth	81.8	11.2	6.2	0.8	100.0	48.5	11.3	23.0	17.3	100.0	449
	C-section	19.1	20.6	59.2	1.1	100.0	87.9	0.0	3.7	8.3	100.0	149
Education	None	80.6	10.6	7.5	1.3	100.0	32.8	16.4	27.5	23.2	100.0	69
	Primary incomplete	77.7	19.9	2.4	0.0	100.0	43.3	8.5	15.3	32.9	100.0	70
	Primary complete	72.7	12.1	13.5	1.8	100.0	52.1	12.2	19.7	16.0	100.0	76
	Secondary incomplete	64.3	10.6	24.8	0.3	100.0	63.5	7.9	16.5	12.1	100.0	277
	Secondary complete or higher	49.7	19.8	28.4	2.1	100.0	75.9	2.0	17.3	4.8	100.0	106
Wealth index quintile	Poorest	86.0	10.9	2.2	0.9	100.0	35.0	16.1	28.4	20.5	100.0	105
	Second	83.5	6.3	10.1	0.0	100.0	47.4	17.4	16.9	18.3	100.0	120
	Middle	67.7	11.1	20.1	1.1	100.0	59.7	4.9	22.7	12.7	100.0	120
	Fourth	49.9	23.8	25.2	1.1	100.0	65.2	3.9	16.7	14.2	100.0	110
	Richest	48.5	15.5	34.7	1.4	100.0	78.3	1.8	9.0	10.9	100.0	143

( ) Figures that are based on 25-49 unweighted cases
Note: Due to 3 unweighted cases 'other/DK/missing' under 'place of birth' is not shown

Table RH.16 matches Table RH.14, but now deals with PNC visits for mothers by location and type of provider. As defined above, a visit does not include a check in the facility or at home following birth.

Overall, 66.2 per cent of the first PNC visits occur at home and 13.5 per cent occur in a public facility. The proportion occurring at home varies across background characteristics. The largest variation is found according to household wealth, where only 48.5 per cent of the women of the wealthiest households have their first PNC visit in home as compared to women of the poorest household (86 per cent). About half of the women of the wealthiest household have their first PNC visit either in a public or a private facility (50.2 per cent). A similar pattern is also found according to education of the women.

With regards to provider of the first PNC visit for mothers, the variations across background characteristics are large with regard to the location of the facility, division and place of delivery. For example, there is a higher prevalence among urban women of doctor/nurse/midwife at 74.8 per cent against their rural counterparts at 53 per cent. Similarly the prevalence of PNC by doctor/nurse/midwife varies from 31.3 per cent in Sylhet to 88.3 per cent in Khulna division

It displays the percentage of women aged 15-49 years with a live birth in the last two years who received a post-natal care (PNC) visit within one week of birth, by location and provider of the first PNC visit. Overall, 66.2 per cent.

Table RH.17: Post-natal health checks for mothers and newborns

Per cent distribution of women age 15-49 years with a live birth in the last two years by post-natal health checks for the mother and newborn, within two days of the most recent birth, Bangladesh, 2012-2013

		Health checks or PNC visits within 2 days of birth for:						Number of women age 15-49 years who gave birth in the 2 years preceding the survey
		Both mothers and newborns	Mothers only	Newborns only	Neither mother nor newborn	Missing	Total	
Total		**36.8**	**3.5**	**4.2**	**55.3**	**0.2**	**100.0**	**7,950**
Division	Barisal	18.2	5.0	3.7	73.0	0.0	100.0	475
	Chittagong	29.2	5.1	4.4	61.3	0.1	100.0	1,851
	Dhaka	39.9	3.2	3.7	52.8	0.3	100.0	2,503
	Khulna	48.1	2.0	3.6	46.0	0.2	100.0	760
	Rajshahi	35.9	3.2	5.8	54.9	0.1	100.0	850
	Rangpur	40.7	2.4	6.0	50.7	0.3	100.0	886
	Sylhet	43.2	1.9	1.8	52.8	0.3	100.0	625
Area	Urban	48.9	3.7	4.2	43.0	0.4	100.0	1,681
	Rural	33.6	3.4	4.2	58.7	0.2	100.0	6,268
Mother's age at birth	Less than 20	35.8	4.5	3.8	55.8	0.1	100.0	1,555
	20-34	38.0	3.4	4.3	54.1	0.3	100.0	5,809
	35-49	27.9	1.5	4.4	66.2	0.0	100.0	586
Place of birth	Home	21.4	3.1	2.4	73.1	0.1	100.0	5,346
	Health facility	72.1	4.5	8.3	14.6	0.5	100.0	2,461
	Public	63.9	5.2	11.1	19.6	0.1	100.0	1,040
	Private	78.1	3.9	6.3	11.0	0.7	100.0	1,421
	Other/DK/Missing	4.8	0.0	1.5	93.7	0.0	100.0	143
Type of delivery	Vaginal birth	26.7	3.2	3.8	66.2	0.1	100.0	6,428
	C-section	79.5	4.5	5.9	9.5	0.7	100.0	1,522

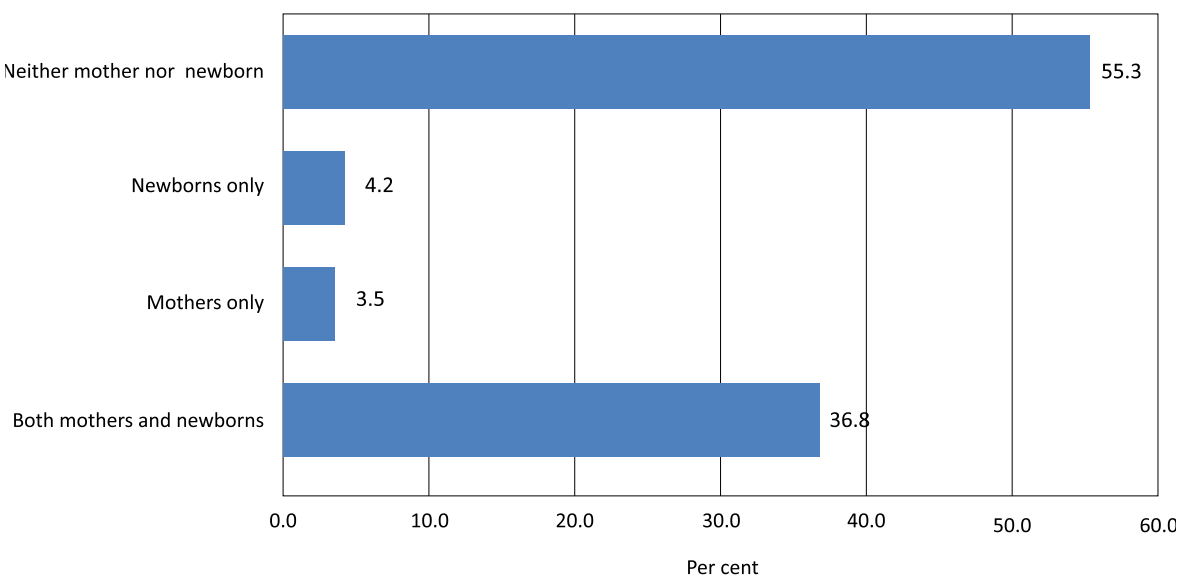
Table RH.17: continued

		Health checks or PNC visits within 2 days of birth for:						Number of women age 15-49 years who gave birth in the 2 years preceding the survey
		Both mothers and newborns	Mothers only	Newborns only	Neither mother nor newborn	Missing	Total	
Education	None	24.1	2.0	3.2	70.5	0.2	100.0	1,460
	Primary incomplete	28.0	2.9	3.8	65.3	0.1	100.0	1,056
	Primary complete	31.2	2.5	3.1	63.2	0.0	100.0	1,231
	Secondary incomplete	39.1	4.4	4.6	51.8	0.2	100.0	3,043
	Secondary complete or higher	61.0	4.3	5.9	28.3	0.5	100.0	1,160
Wealth index quintile	Poorest	23.1	2.5	3.2	71.0	0.1	100.0	1,828
	Second	29.5	2.6	3.4	64.3	0.3	100.0	1,607
	Middle	33.4	4.3	4.5	57.8	0.1	100.0	1,524
	Fourth	39.8	3.9	6.1	50.1	0.1	100.0	1,415
	Richest	60.8	4.3	4.2	30.3	0.4	100.0	1,575

Table RH.17 presents the distribution of women with a live birth in the two years preceding the survey by receipt of health checks or PNC visits within 2 days of birth for the mother and the newborn, thus combining the indicators presented in Tables RH.13 and RH.15.

The Bangladesh MICS shows that for 36.8 per cent of live births, both the mothers and their newborns receive either a health check following birth or a timely PNC visit, whereas 55.3 per cent of births neither receive health checks or timely visits. There are quite large discrepancies across the background characteristics. Urban births (48.9 per cent) are better served with health checks or timely visits for both mothers and their newborns as compared to rural births (33.6 per cent). The figures between the regions vary from 18.2 per cent in Barisal to 48.1 per cent in Khulna division. There are also very clear correlations to household wealth and the education of the woman, where increasing wealth and education tends to equate with better coverage of post-natal health checks. As expected, the opposite is true for births without health checks or timely visits. The picture is less clear when it comes to patterns on health checks or timely visits for either the mother or the newborn alone, although generally a slightly higher level of coverage for newborns is seen.

Figure RH.8: Post-natal health checks for mothers and newborns within 2 days of birth, Bangladesh, 2012-2013



IX. Early Childhood Development

Early Childhood Care and Education

Research show that early stimulation, care giving, attachment, bonding and creating safe contexts for children have a positive influence on their brains and can help children grow, learn and thrive. Yet, all around the world, young children are growing up in contexts of poverty, conflict, and food insecurity that is threatening this process. Since the foundation of the brain's architecture is put in place during the first 5 years of life, experience during this period leaves one of the strongest influences on its development[46].

Evidence from research also show that with investment in the early years of a child's life, children perform better in schools, are more socially aware, grow into balanced individuals and as adults, participate productively in the economy and live more fulfilling lives[47]. Readiness of children for primary school can be improved through attendance to early childhood education programmes or through pre-school attendance. Early childhood education programmes include programmes for children that have organised learning components as opposed to baby-sitting and day-care which do not typically have organised education and learning.

In Bangladesh good Early Childhood Care and Education (ECCE) models have been developed, piloted, enriched with field knowledge and undergoing wider replication at the national level. The Pre-school framework 2008, New Education Policy 2010, Children's Policy 2011 and the Comprehensive Early Childhood Care and Development Policy 2013, are milestones demonstrating the commitment by the government to young early childhood development. Curriculum and learning materials developed by NGOs are being acknowledged by the government and used in the national curriculum for pre-primary education. There is significant allocation of human and financial resources under Third Primary Education Development Programme (PEDP3) to attach Pre-Primary Education (PPE) into all public primary schools. The PPE expansion plan, the setting up of the minimum service standards, adoption of the government – nongovernmental organization (GO-NGO) collaboration guidelines, as well as the PPE teaching learning package are practical instruments to ensure early preparedness for schooling.

However, while the Education Policy of the Government recognizes two years of early education, children below five years are yet to be fully and effectively covered programmatically with appropriate early childhood learning services. Pre-Primary Education is offered to five to six years old children officially.

As shown in table CD.1, 13.4 per cent of children aged 36-59 months in Bangladesh are attending pre-school as part of organized early childhood education programme. There are little differences between urban and rural areas. The attendance rates, however, vary between divisions, with Barisal showing high rate at 18.4 per cent and Rajshahi at the lowest at 10.2 per cent. No gender differential exists, but differentials by socioeconomic status seem to be significant. Mother's education shows a strong association with the attendance rate; children of women who completed secondary or higher education are twice as likely to attend early childhood education as those of women with no education. Older children attend pre-school more; only 5.6 per cent children age 36-47 months attend pre-school compared to 21.2 per cent children of age 48-59 months. 17.5 per cent of children living in the richest households attend such programmes, while the figure drops to 11.7 per cent among children in the poorest households. A spatial distribution of percentage of children 36-59 months attending early childhood education in different districts is presented in Map CD.1.

[46] *UNICEF Connect, Brain development in children: the impact of adversity, April 2014. Available at http://blogs.unicef.org/2014/04/15/brain-development-in-children-the-impact-of-adversity/*

[47] *UNICEF, Why Early Childhood Development, July 2013, at: http://www.unicef.org/earlychildhood/index_40748.html*

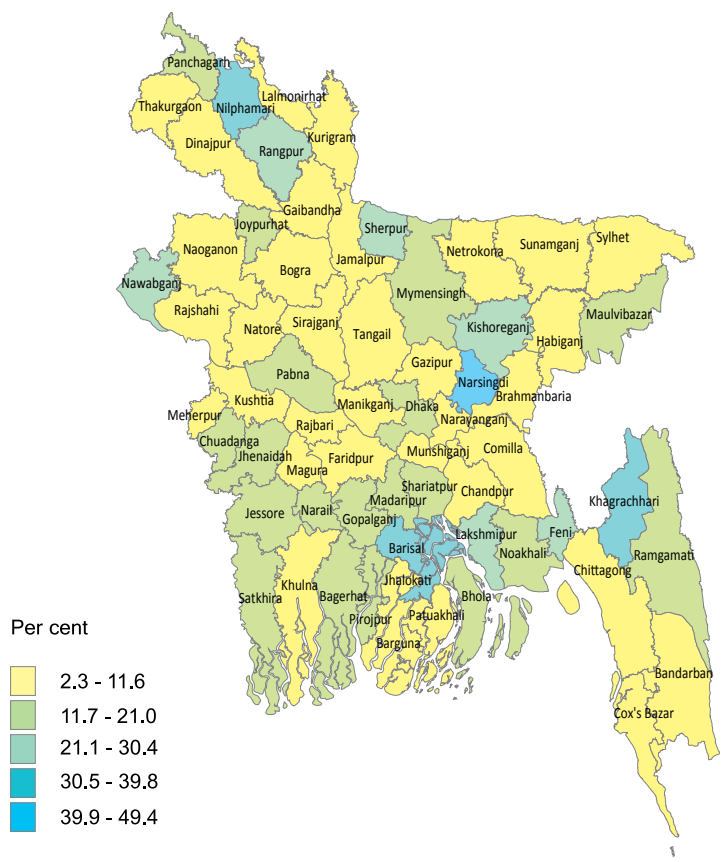
Table CD.1: Early childhood education

Percentage of children age 36-59 months who are attending an organized early childhood education programme, Bangladesh, 2012-2013

		Percentage of children age 36-59 months attending early childhood education [1]	Number of children age 36-59 months
Total		**13.4**	**8,638**
Sex	Male	13.0	4,475
	Female	13.8	4,163
Division	Barisal	18.4	541
	Chittagong	11.7	1,926
	Dhaka	15.6	2,612
	Khulna	13.6	844
	Rajshahi	10.2	1,021
	Rangpur	13.2	1,035
	Sylhet	10.5	659
Area	Urban	14.2	1,733
	Rural	13.2	6,905
Age of child	36-47 months	5.6	4,332
	48-59 months	21.2	4,306
Mother's education	None	9.5	2,269
	Primary incomplete	12.4	1,279
	Primary complete	12.7	1,343
	Secondary incomplete	15.7	2,753
	Secondary complete or higher	18.3	995
Wealth index quintile	Poorest	11.7	2,228
	Second	13.5	1,807
	Middle	12.5	1,594
	Fourth	12.6	1,512
	Richest	17.5	1,495

[1] MICS indicator 6.1 - Attendance to early childhood education

Map CD.1: Children age 36-59 months attending early childhood education by district, Bangladesh, 2012-2013



Quality of Care

It is well recognized that a period of rapid brain development occurs in the first 3-4 years of life, and the quality of home care is a major determinant of the child's development during this period. In this context, engagement of adults in activities with children, presence of books in the home for the child, and the conditions of care are important indicators of quality of home care. As set out in *A World Fit for Children*, "children should be physically healthy, mentally alert, emotionally secure, socially competent and ready to learn."[48]

Information on a number of activities that support early learning was collected in the survey. These included the involvement of adults with children in the following activities: reading books or looking at picture books, telling stories, singing songs, taking children outside the home, compound or yard, playing with children, and spending time with children naming, counting, or drawing things.

For about three-fourths (78 per cent) of children age 36-59 months, an adult household member engaged in four or more activities that promote learning and school readiness during the 3 days preceding the survey (Table CD.2). The mean number of activities that adults engaged with children was 4.6. The table also indicates that the father's involvement in such activities was somewhat limited. Father's involvement in four or more activities was only 10.1 per cent. There is a significant variation between divisions; in Khulna, some 5.7 per cent children were not living with their natural father, but in Chittagong, this figure was 14.7 per cent. Mother's involvement in four or more activities was 40.8 per cent. The mean number of activities that mothers engaged with children was 2.9.

Age of children made little difference in adults' involvement in children's activities, and there were virtually no gender differentials. Urban areas show a higher percentage of adults' involvement than rural areas, and divisions vary greatly in the level of involvement of both fathers and mothers; in Rangpur 20.6 per cent of fathers of the children were involved in four or more activities but in Barisal it was only 4 per cent.

[48] *UNICEF, A World Fit For Children,Adopted by the UN General Assembly at the 27th Special Session, 10 May 2002, p. 2.*

Table CD.2: Support for learning

Percentage of children age 36-59 months with whom adult household members engaged in activities that promote learning and school readiness during the last three days, and engagement in such activities by biological fathers and mothers, Bangladesh, 2012-2013

		Percentage of children with whom adult household members have engaged in four or more activities [1]	Mean number of activities with adult household members	Percentage of children living with their:		Number of children age 36-59 months	Percentage of children with whom biological fathers have engaged in four or more activities [2]	Mean number of activities with biological fathers	Number of children age 36-59 months living with their biological fathers	Percentage of children with whom biological mothers have engaged in four or more activities [3]	Mean number of activities with biological mothers	Number of children age 36-59 months living with their biological mothers
				Biological mother	Biological father							
Total		**78.0**	**4.6**	**97.1**	**89.6**	**8,638**	**10.1**	**1.2**	**7,742**	**40.8**	**2.9**	**8,387**
Sex	Male	77.9	4.6	97.4	89.9	4,475	10.5	1.3	4,022	40.7	2.9	4,357
	Female	78.1	4.6	96.8	89.3	4,163	9.7	1.2	3,720	40.8	2.9	4,030
Division	Barisal	80.4	4.8	95.7	88.6	541	4.0	0.7	479	28.5	2.5	517
	Chittagong	76.5	4.5	98.9	85.3	1,926	9.1	1.0	1,642	39.5	2.9	1,905
	Dhaka	78.9	4.6	96.2	89.5	2,612	10.2	1.3	2,337	44.1	2.9	2,513
	Khulna	85.9	4.9	99.0	94.3	844	8.7	1.3	795	41.5	3.0	835
	Rajshahi	75.1	4.5	96.6	93.6	1,021	6.3	1.1	956	41.9	2.9	987
	Rangpur	75.0	4.6	94.8	92.1	1,035	20.6	1.9	953	45.9	3.2	981
	Sylhet	76.4	4.6	98.2	87.9	659	9.0	1.2	580	30.7	2.6	648
Area	Urban	83.4	4.9	98.2	89.0	1,733	15.6	1.5	1,543	50.8	3.4	1,702
	Rural	76.7	4.6	96.8	89.8	6,905	8.7	1.2	6,199	38.3	2.8	6,685
Age of child	36-47 months	76.4	4.5	97.4	90.4	4,332	11.1	1.3	3,918	40.7	2.9	4,221
	48-59 months	79.7	4.7	96.7	88.8	4,306	9.1	1.2	3,824	40.9	2.9	4,166
Mother's education	None	64.0	4.0	92.7	88.5	2,269	5.8	1.0	2,007	18.6	1.8	2,104
	Primary incomplete	69.0	4.2	97.5	91.8	1,279	4.5	0.9	1,174	29.7	2.5	1,247
	Primary complete	80.8	4.7	98.1	90.8	1,343	10.0	1.3	1,219	42.4	3.0	1,317
	Secondary incomplete	86.5	5.0	99.2	89.9	2,753	11.6	1.3	2,475	53.6	3.5	2,732
	Secondary complete or higher	94.6	5.4	99.2	87.1	995	23.0	2.0	866	68.0	4.2	986

Table CD.2: continued

		Percentage of children with whom adult household members have engaged in four or more activities [1]	Mean number of activities with adult household members	Percentage of children living with their:		Number of children age 36-59 months	Percentage of children with whom biological fathers have engaged in four or more activities [2]	Mean number of activities with biological fathers	Number of children age 36-59 months living with their biological fathers	Percentage of children with whom biological mothers have engaged in four or more activities [3]	Mean number of activities with biological mothers	Number of children age 36-59 months living with their biological mothers
				Biological mother	Biological father							
Father's education	None	68.3	4.2	99.1	100.0	2,854	5.6	1.0	2,854	28.7	2.3	2,830
	Primary incomplete	74.6	4.4	99.6	100.0	1,101	6.2	1.1	1,101	35.3	2.6	1,097
	Primary complete	78.7	4.6	99.7	100.0	1,004	11.0	1.4	1,004	39.2	2.9	1,001
	Secondary incomplete	85.9	5.0	99.8	100.0	1,562	12.8	1.5	1,562	51.2	3.4	1,559
	Secondary complete or higher	92.9	5.3	99.8	100.0	1,218	26.2	2.2	1,218	63.4	4.0	1,216
	Father not in household	78.8	4.7	76.0	0.0	896	1.7	0.2	-	38.9	2.7	681
Wealth index quintile	Poorest	64.3	4.0	96.2	92.9	2,228	4.9	0.9	2,071	25.5	2.2	2,143
	Second	72.6	4.4	96.0	92.2	1,807	7.8	1.1	1,667	33.1	2.6	1,736
	Middle	82.1	4.8	96.8	90.4	1,594	8.3	1.2	1,442	42.5	2.9	1,544
	Fourth	84.7	4.9	98.2	86.1	1,512	10.9	1.3	1,302	47.6	3.3	1,486
	Richest	94.1	5.4	98.8	84.3	1,495	21.7	1.8	1,261	64.1	4.0	1,478

[1] MICS indicator 6.2 - Support for learning
[2] MICS Indicator 6.3 - Father's support for learning
[3] MICS Indicator 6.4 - Mother's support for learning

[a] The background characteristic "Mother's education" refers to the education level of the respondent to the Questionnaire for Children Under Five, and covers both mothers and primary caretakers, who are interviewed when the mother is not listed in the same household. Since indicator 6.4 reports on the biological mother's support for learning, this background characteristic refers to only the educational levels of biological mothers when calculated for the indicator in question.

na= not applicable

Note: 5 cases of missing/DK category under 'father's education' is not shown.

Mother's and father's education had a positive correlation with their engagement in activities with children. Similarly the wealth status of the household also had an influence on the adults' engagement.

Exposure to books in early years not only provides the child with greater understanding of the nature of print, but may also give the child opportunities to see others reading, such as, older siblings doing school work. Presence of books is important for later school performance. The mother/caretaker of all children under 5 were asked about number of children's books or picture books they have for the child, household objects or outside objects, and homemade toys or toys that came from a shop that are available at home.

In Bangladesh, only 8.8 per cent of children age 0-59 months are living in households where at least 3 children's books are present for the child (Table CD.3). The proportion of children with 10 or more books declines to 0.3 per cent. While virtually no gender differentials are observed, urban children clearly have more access to children's books (15.4 per cent) than those living in rural areas (7.2 per cent). Access to books to children varies by divisions with Sylhet showing access for only 3.8 per cent children, while Dhaka showing 11.5 per cent children having access.

The presence of children's books is positively correlated with mother's education, family wealth levels and child's age; in households with uneducated mothers and households of the poorest living standard, 2 to 3 per cent children have 3 or more children's books, while in households with mothers completing secondary or higher education, as well in the richest households, more than one in every five children have 3 or more children's books. The presence of children's books is positively correlated with the child's age; in the homes of 14 per cent of children age 24-59 months, there are 3 or more children's books, while the figure is 0.7per cent for children age 0-23 months.

Table CD.3: Learning materials

Percentage of children under age 5 by numbers of children's books present in the household, and by playthings that child plays with, Bangladesh, 2012-2013

		Percentage of children living in households that have for the child:		Percentage of children who play with:				Number of children under age 5
		3 or more children's books [1]	10 or more children's books	Homemade toys	Toys from a shop/ manufactured toys	Household objects/ objects found outside	Two or more types of playthings [2]	
Total		**8.8**	**0.3**	**37.6**	**74.0**	**60.0**	**60.3**	**20,903**
Sex	Male	9.0	0.2	37.3	75.3	59.8	60.8	10,694
	Female	8.7	0.3	38.0	72.7	60.1	59.8	10,209
Division	Barisal	9.6	0.2	56.9	62.1	59.9	60.9	1,270
	Chittagong	7.9	0.2	20.0	63.6	50.7	44.7	4,792
	Dhaka	11.5	0.3	32.4	78.2	55.3	57.6	6,456
	Khulna	10.3	0.7	65.3	81.4	67.5	72.8	2,014
	Rajshahi	8.7	0.3	42.9	75.6	64.8	69.8	2,405
	Rangpur	5.4	0.1	49.1	78.2	76.0	73.5	2,372
	Sylhet	3.8	0.1	36.2	80.3	66.6	68.1	1,595
Area	Urban	15.4	0.5	30.6	80.4	55.7	57.4	4,268
	Rural	7.2	0.2	39.4	72.4	61.1	61.1	16,635
Age of child	0-23 months	0.7	0.0	23.8	62.4	40.3	40.2	8,076
	24-59 months	14.0	0.4	46.3	81.4	72.4	73.0	12,827
Mother's education	None	2.9	0.0	38.9	63.7	63.7	57.3	4,700
	Primary incomplete	4.4	0.0	36.8	67.3	62.9	60.0	2,944
	Primary complete	5.7	0.1	40.5	73.2	59.8	60.8	3,256
	Secondary incomplete	10.0	0.2	37.6	79.4	58.9	62.4	7,291
	Secondary complete or higher	24.6	1.4	32.9	86.1	53.4	59.6	2,711

Table CD.3: continued

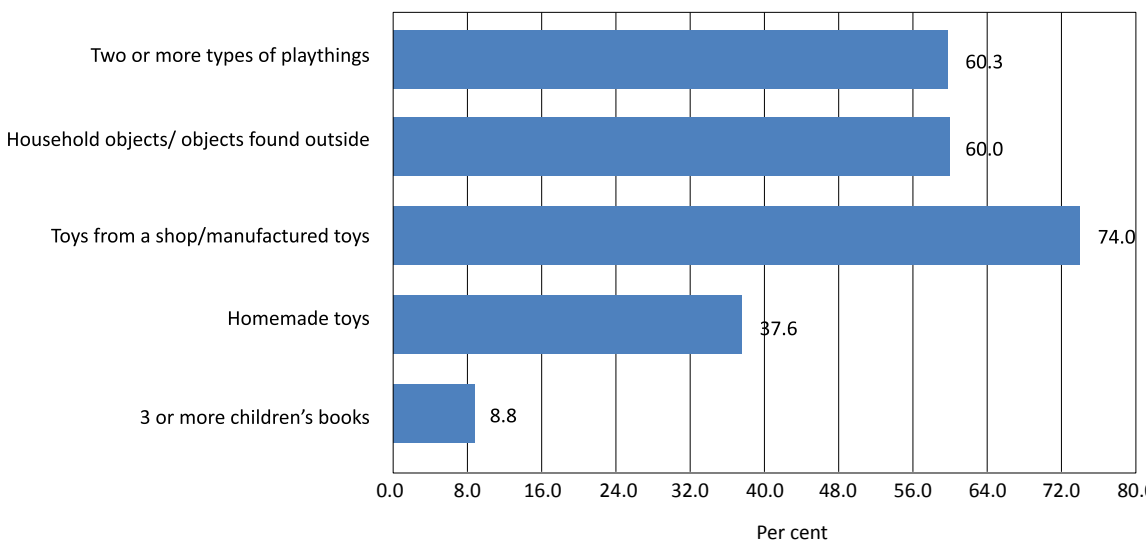
		Percentage of children living in households that have for the child:		Percentage of children who play with:				Number of children under age 5
		3 or more children's books [1]	10 or more children's books	Homemade toys	Toys from a shop/ manufactured toys	Household objects/ objects found outside	Two or more types of playthings [2]	
Wealth index quintile	Poorest	2.4	0.0	38.4	60.1	63.8	57.0	5,105
	Second	4.5	0.0	41.7	69.9	62.0	60.9	4,285
	Middle	6.7	0.2	38.8	76.5	59.2	61.1	3,886
	Fourth	10.5	0.2	38.8	81.9	58.3	63.7	3,750
	Richest	22.7	0.9	29.8	86.9	55.2	60.0	3,877

[1] MICS indicator 6.5 - Availability of children's books
[2] MICS indicator 6.6 - Availability of playthings

Table CD.3 also shows that 60.3 per cent of children aged 0-59 months had 2 or more types of playthings to play with in their homes. The playthings in MICS included homemade toys (such as dolls and cars, or other toys made at home), toys that came from a store, and household objects (such as pots and bowls) or objects and materials found outside the home (such as sticks, rocks, animal shells, or leaves). It is interesting to see that 74 per cent of children play with toys from a store; while only 60 per cent play with household objects or objects found outside and 37.6 per cent with home-made toys. Percentage of children playing with toys bought from store is positively correlated with mother's education and, more so, to household wealth level.

Proportion of children having two or more types of playthings varies considerably between divisions ranging from 44.7 per cent in Chittagong to 73.5 per cent in Rangpur. Gender or urban-rural differences are not very pronounced.

Figure CD.1: Children under age 5 by numbers of learning materials present in the household, Bangladesh, 2012-2013



Leaving children alone or in the presence of other young children is known to increase the risk of injuries. In MICS[49], two questions were asked to find out whether children age 0-59 months were left alone during the week preceding the interview, and whether children were left in the care of other children under 10 years of age.

Table CD.4 shows that 7.7 per cent of children aged 0-59 months were left in the care of other children, while 9.1 per cent were left alone during the week preceding the interview. Combining

[49] *Grossman, David C. (2000). The History of Injury Control and the Epidemiology of Child and Adolescent Injuries. The Future of Children, 10(1), 23-52.*

the two care indicators, it is calculated that 11.6 per cent of children were either left alone or in care of another child during the week preceding the survey. Understandably, a higher proportion of children who are relatively older (age 24-59 months) were left with inadequate care (14 per cent) compared to children age 0-23 months (7.7 per cent).

Only insignificant differences are observed by sex of child but gaps between urban and rural areas and between divisions were moderately large. Some 15.4 per cent of children in urban areas as compared to 10.6 per cent in rural areas were left with inadequate care. Among the divisions, the percentage was the lowest in Khulna (7.5 per cent) and the highest in Chittagong (15.7 per cent).

Table CD.4: Inadequate care

Percentage of children under age 5 left alone or left in the care of another child younger than 10 years of age for more than one hour at least once during the past week, Bangladesh, 2012-2013

		Percentage of children under age 5			Number of children under age 5
		Left alone in the past week	Left in the care of another child younger than 10 years of age in the past week	Left with inadequate care in the past week [1]	
Total		**9.1**	**7.7**	**11.6**	**20,903**
Sex	Male	8.7	7.4	11.0	10,694
	Female	9.5	8.0	12.2	10,209
Division	Barisal	8.4	5.8	10.3	1,270
	Chittagong	13.4	12.2	15.7	4,792
	Dhaka	7.9	6.2	10.2	6,456
	Khulna	6.2	3.9	7.5	2,014
	Rajshahi	9.4	4.7	10.7	2,405
	Rangpur	9.1	11.2	14.3	2,372
	Sylhet	4.7	6.3	8.3	1,595
Area	Urban	12.4	10.3	15.4	4,268
	Rural	8.2	7.1	10.6	16,635
Age	0-23	6.1	4.8	7.7	8,076
	24-59	11.0	9.6	14.0	12,827
Mother's education	None	10.4	10.0	13.5	4,700
	Primary incomplete	11.6	10.6	15.5	2,944
	Primary complete	7.4	7.2	10.2	3,256
	Secondary incomplete	7.8	6.1	9.5	7,291
	Secondary complete or higher	9.6	5.9	11.2	2,711
Wealth index quintile	Poorest	10.9	9.9	14.2	5,105
	Second	8.4	6.9	10.6	4,285
	Middle	7.6	6.9	9.8	3,886
	Fourth	8.6	7.3	10.9	3,750
	Richest	9.5	7.1	11.8	3,877

[1] MICS indicator 6.7 - Inadequate care

Developmental Status of Children

Early childhood development is defined as an orderly, predictable process along a continuous path, in which a child learns to handle more complicated levels of moving, thinking, speaking, feeling and relating to others. Physical growth, literacy and numeracy skills, socio-emotional development and readiness to learn are vital domains of a child's overall development, which is a basis for overall human development[50].

A 10-item module was used to calculate the Early Child Development Index (ECDI). The primary purpose of the ECDI is to inform public policy regarding the developmental status of children in Bangladesh. The index is based on selected milestones that children are expected to achieve by ages 3 and 4. The 10 items are used to determine if children are developmentally on track in four domains:

[50] *Shonkoff J, and Phillips D, (eds), From neurons to neighborhoods: the science of early childhood development, Committee on Integrating the Science of Early Childhood Development, National Research Council, 2000.*

- Literacy-numeracy: Children are identified as being developmentally on track based on whether they can identify/name at least ten letters of the alphabet, whether they can read at least four simple, popular words, and whether they know the name and recognize the symbols of all numbers from 1 to 10. If at least two of these are true, then the child is considered developmentally on track.
- Physical: If the child can pick up a small object with two fingers, like a stick or a rock from the ground and/or the mother/caretaker does not indicate that the child is sometimes too sick to play, then the child is regarded as being developmentally on track in the physical domain.
- Social-emotional: Children are considered to be developmentally on track if two of the following are true: If the child gets along well with other children, if the child does not kick, bite, or hit other children and if the child does not get distracted easily.
- Learning: If the child follows simple directions on how to do something correctly and/or when given something to do, is able to do it independently, then the child is considered to be developmentally on track in this domain.

ECDI is then calculated as the percentage of children who are developmentally on track in at least three of these four domains. The results are presented in Table CD.5.

Table CD.5: Early child development index

Percentage of children age 36-59 months who are developmentally on track in literacy-numeracy, physical, social-emotional, and learning domains, and the early child development index score, Bangladesh, 2012-2013

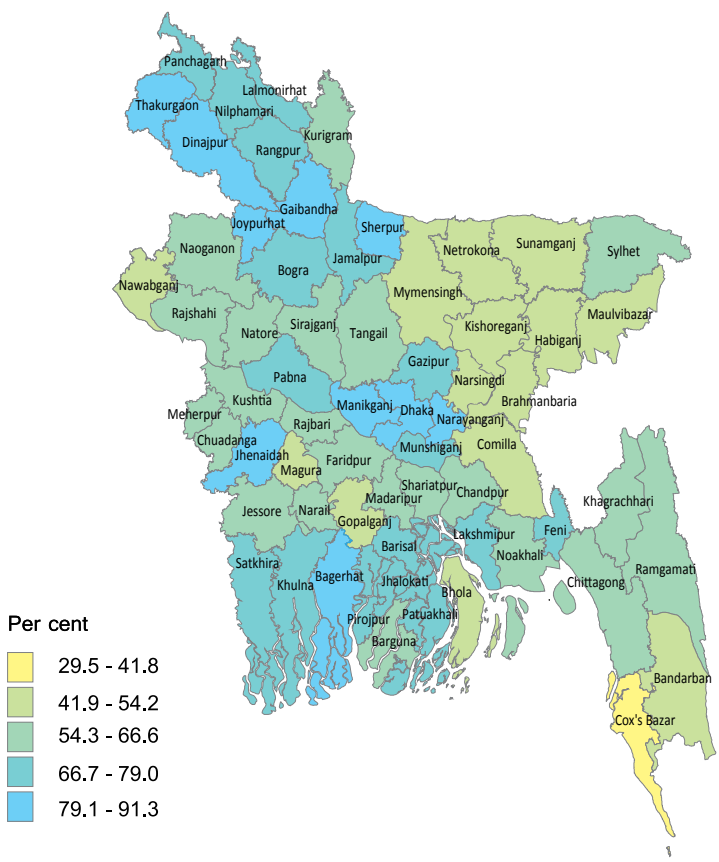
		Percentage of children age 36-59 months who are developmentally on track for indicated domains				Early child development index score [1]	Number of children age 36-59 months
		Literacy-numeracy	Physical	Social-Emotional	Learning		
Total		**21.2**	**92.2**	**68.4**	**87.5**	**63.9**	**8,638**
Sex	Male	20.7	92.8	65.5	87.7	61.8	4,475
	Female	21.8	91.7	71.5	87.2	66.1	4,163
Division	Barisal	23.3	97.0	75.4	84.3	67.3	541
	Chittagong	20.4	83.4	66.7	81.3	54.4	1,926
	Dhaka	25.2	95.6	68.7	86.7	65.1	2,612
	Khulna	27.2	91.3	66.6	92.9	69.0	844
	Rajshahi	15.0	92.9	68.2	90.8	65.2	1,021
	Rangpur	17.9	95.5	74.2	96.8	77.7	1,035
	Sylhet	13.0	95.6	59.9	84.4	54.0	659
Area	Urban	33.5	93.3	73.2	88.1	70.8	1,733
	Rural	18.1	92.0	67.2	87.3	62.2	6,905
Age	36-47 months	12.4	89.9	66.1	84.7	57.5	4,332
	48-59 months	30.1	94.6	70.8	90.3	70.3	4,306
Attendance to early childhood education	Attending	49.2	95.1	73.1	93.2	78.1	1,157
	Not attending	16.9	91.8	67.7	86.6	61.7	7,481
Mother's education	None	10.2	92.5	65.1	84.8	56.9	2,269
	Primary incomplete	11.1	91.1	67.8	87.3	57.7	1,279
	Primary complete	18.1	92.4	68.1	86.2	61.5	1,343
	Secondary incomplete	28.1	92.0	70.0	89.3	68.7	2,753
	Secondary complete or higher	44.3	93.2	72.7	90.6	77.7	995
Wealth index quintile	Poorest	11.0	92.5	64.1	87.0	56.7	2,228
	Second	15.0	92.2	66.5	87.2	60.7	1,807
	Middle	19.2	91.9	70.3	85.6	63.9	1,594
	Fourth	24.5	90.9	69.1	86.7	65.4	1,512
	Richest	42.8	93.5	74.5	91.4	77.1	1,495

[1] MICS indicator 6.8 - Early child development index

In Bangladesh, only 63.9 per cent of children age 36-59 months are developmentally on track. ECDI is slightly higher among girls (66.1 per cent) than boys (61.8 per cent). As expected, ECDI is much higher in older age group (70.3 per cent among 48-59 months old compared to 57.5 per cent among 36-47 months old), since children mature more skills with increasing age. Higher ECDI is seen in children attending to an early childhood education programme at 78.1 per cent compared to 61.7 per cent among those who are not attending. Children of mothers with no education have lower ECDI (56.9 per cent) compared to children of mothers who completed secondary or higher level of education (77.7 per cent).Children living in poorest households have lower ECDI (56.7 per cent) compared to children living in richest households (77.1 per cent of children developmentally on track).

The analysis of four domains of child development shows that only one in every five children (21.2 per cent) in Bangladesh are developmentally on track in the literacy-numeracy domain, but in the physical and learning domains, a majority of children age36-59 months are on track (92.2 and 87.5 per cent respectively). In social-emotional domain, 68.4 per cent are on track. In the domains of literacy-numeracy and social-emotional development where much fewer children are developmentally on track, the higher score is clearly associated with children living in urban areas, children from the richer households and more educated mothers, and those attending an early childhood development programme. The district level variations in ECDI is shown in Map CD.2.

Map CD.2: Early child development index by district, Bangladesh,2012-2013



X. Literacy and Education

Literacy among Young Women

The Youth Literacy Rate reflects the outcomes of primary education over the previous 10 years or so. As a measure of the effectiveness of the primary education system, it is often seen as a proxy measure of social progress and economic achievement. In MICS, since only a women's questionnaire was administered, the results are based only on females of age 15-24 years. Literacy is assessed on the ability of the respondent to read a short simple statement or based on school attendance.

Table ED.1 indicates that about 82 per cent of women aged 15–24 years are literate in Bangladesh. Literacy is only slightly higher among young woman in urban areas (83.5 per cent) compared to 81.6 per cent in rural areas, and it does not vary greatly by different divisions of the country (the highest 87.8 per cent in Khulna and the lowest 78.2 per cent in Sylhet).

Both education and wealth have strong impact on literacy of young women; just over half young women are literate among the poorest (56.9 per cent), whereas among the richest, nearly all are literate (93.4 per cent). Women of younger age also have better literacy. It is worth noting that a third of women (35.8 per cent) who have completed primary education are still illiterate.

Table ED.1: Literacy among young women

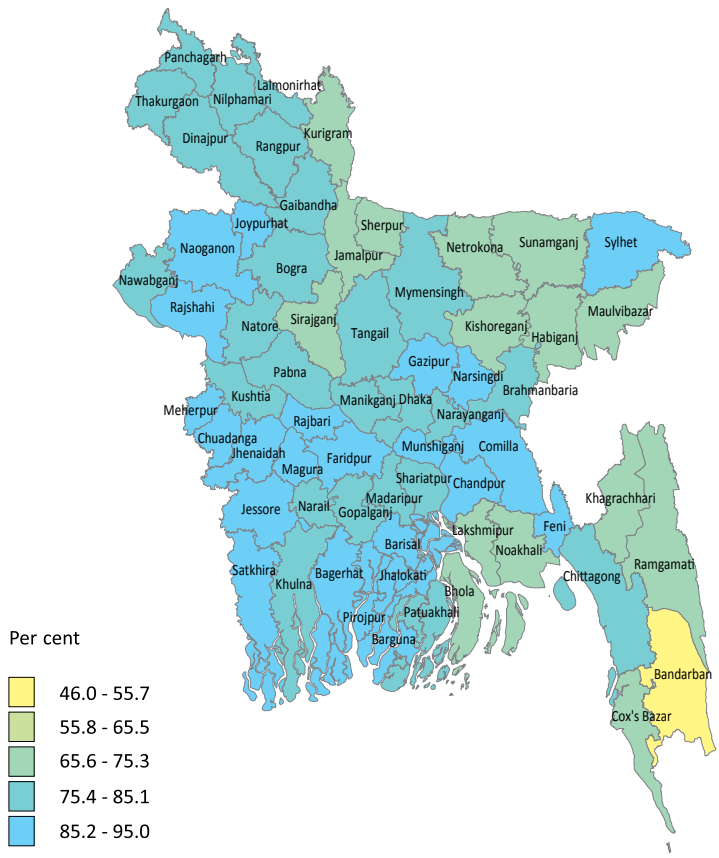
Percentage of women age 15-24 years who are literate, Bangladesh, 2012-2013

		Percentage literate [1]	Percentage not known	Number of women age 15-24 years
Total		**82.0**	**0.1**	**17,901**
Division	Barisal	86.1	0.1	1,035
	Chittagong	81.5	0.1	3,751
	Dhaka	80.9	0.1	5,803
	Khulna	87.8	0.2	1,911
	Rajshahi	83.0	0.0	2,206
	Rangpur	80.0	0.0	1,935
	Sylhet	78.2	0.1	1,260
Area	Urban	83.5	0.0	4,300
	Rural	81.6	0.1	13,601
Education	None	2.5	0.1	1,189
	Primary incomplete	29.4	0.3	1,811
	Primary complete	64.2	0.3	2,171
	Secondary incomplete	100.0	0.0	8,607
	Secondary complete or higher	100.0	0.0	4,124
Age	15-19	86.3	0.1	9,071
	20-24	77.7	0.1	8,831
Wealth index quintile	Poorest	56.9	0.0	2,703
	Second	75.1	0.2	3,295
	Middle	85.2	0.1	3,528
	Fourth	89.6	0.0	4,065
	Richest	93.4	0.1	4,310

[1] MICS indicator 7.1; MDG indicator 2.3 - Literacy rate among young women

Map ED.1 exhibits the status of literacy of young women in Bangladesh among districts. It indicates that while the overall literacy is poor in the eastern and north-eastern regions of the country, the situation is the worst in the hill district of Bandarban.

Map ED.1: Women age 15-24 years who are literate by district, Bangladesh, 2012-2013



Results on education

For the module on Education in Bangladesh MICS held during 2012-2013, the field data was collected over a period spanning two school years of 2012 and 2013. Though interviewers were instructed to retain the same reference period for education questions, different reference periods seem to have been used in some cases. The data here refers to the age at the beginning of the school year 2012 only. The estimates are therefore to be used keeping this in mind.

School Readiness

Attendance to pre-school education is important for the readiness of children to school. Table ED.2 shows the proportion of children in the first grade of primary school (regardless of age) who attended pre-school the previous year[51]. In Bangladesh, overall, only 43.5 per cent of children who are currently attending the first grade of primary school were attending pre-school the previous year. There is virtually no gender difference, although urban children are slightly more likely to have attended pre-school the previous year than rural children (50.2 per cent versus 42.8 per cent).

[51] *The computation of the indicator does not exclude repeaters, and therefore is inclusive of both children who are attending primary school for the first time, as well as those who were in the first grade of primary school the previous school year and are repeating. Children repeating may have attended pre-school prior to the school year during which they attended the first grade of primary school for the first time; these children are not captured in the numerator of the indicator*

Regional differences are significant; first graders in Barisal division attending pre-school was two-and-a-half times as likely (76.4 per cent) as their counterparts in Sylhet division (29.2 per cent). Education of the mother appears to have a positive correlation with the school readiness; 53.1 per cent of children with mothers of secondary or higher education had school readiness, as compared to 38.9 per cent with mothers with no education.

Table ED.2: School readiness

Percentage of children attending first grade of primary school who attended pre-school the previous year, Bangladesh, 2012-2013

		Percentage of children attending first grade who attended preschool in previous year [1]	Number of children attending first grade of primary school
Total		**43.5**	**6,244**
Sex	Male	43.4	3,143
	Female	43.6	3,101
Division	Barisal	76.4	353
	Chittagong	35.9	1,128
	Dhaka	49.9	2,183
	Khulna	52.2	623
	Rajshahi	30.2	678
	Rangpur	36.2	679
	Sylhet	29.2	600
Area	Urban	50.2	1,242
	Rural	41.8	5,002
Mother's education	None	38.9	2,322
	Primary incomplete	41.2	992
	Primary complete	44.8	907
	Secondary incomplete	48.3	1,427
	Secondary complete or higher	53.1	575
Wealth index quintile	Poorest	42.8	1,700
	Second	36.7	1,326
	Middle	42.8	1,199
	Fourth	45.0	942
	Richest	52.3	1,077

[1] MICS indicator 7.2 - School readiness

Note: 1 'missing' case for 'mother's education' is not shown

Primary and Secondary School Participation

Universal access to basic education and the achievement of primary education by the world's children is one of the Millennium Development Goals. Education is a vital prerequisite for combating poverty, empowering women, protecting children from hazardous and exploitative labour and sexual exploitation, promoting human rights and democracy, protecting the environment, and influencing population growth.

In Bangladesh, children enter primary school at age 6 and enter secondary school at age 11. There are 5 grades in primary school and 5 grades in secondary school. In primary school, grades are referred to as year 1 to year 5. For secondary school, grades are referred to as Form 6 to Form 10. The school year typically runs from January to December of a year.

Among children in Bangladesh who are of primary school entry age of six, 33.1 per cent were attending the first grade of primary school (Table ED.3). Sex differentials do not exist; however, significant differentials are present by division and urban-rural areas. Children in urban areas are

more likely to enter primary grade 1 at this age than those in rural areas (40.4 versus 31.5 per cent).

Divisions vary significantly; in Rangpur, some 41 per cent children who are attending primary grade 1 as compared to 23.1 per cent in Sylhet. A positive correlation with mother's education and wealth status is observed; almost half of the children whose mothers completed secondary education were attending the first grade, as compared to 28 per cent with mothers with no education. Similarly, in richest households, the proportion is around 44.3 per cent, while it is 26.2 per cent among children living in the poorest households.

Table ED.3: Primary school entry

Percentage of children of primary school entry age entering grade 1 (net intake rate), Bangladesh, 2012-2013

		Percentage of children of primary school entry age entering grade 1 [1]	Number of children of primary school entry age
Total		**33.1**	**5,673**
Sex	Male	32.1	2,894
	Female	34.2	2,779
Division	Barisal	32.3	343
	Chittagong	35.8	1,216
	Dhaka	33.1	1,768
	Khulna	27.5	581
	Rajshahi	32.3	651
	Rangpur	41.0	667
	Sylhet	23.1	447
Area	Urban	40.4	1,018
	Rural	31.5	4,655
Mother's education	None	28.0	1,925
	Primary incomplete	27.5	934
	Primary complete	35.4	787
	Secondary incomplete	36.4	1,438
	Secondary complete or higher	47.4	589
Wealth index quintile	Poorest	26.2	1,475
	Second	28.2	1,218
	Middle	33.6	1,077
	Fourth	38.3	961
	Richest	44.4	942

[1] MICS indicator 7.3 - Net intake rate in primary education

Table ED.4 provides the percentage of children of primary school age 6 to 10 years who are attending primary or secondary school[52] and those who are out of school. The majority of children of primary school age are attending school (73.2 per cent). However, 26.8 per cent of the children are out of school, though primarily due to a very low attendance rate (35.1 per cent) for children age 6, who appear to be starting late in school, as seen by a relatively higher percentage attending pre-school. Girls are more likely than boys to be attending school (75.7 versus 70.8 per cent), and so are urban children as compared with rural children (77.2 versus 72.3 per cent).

Mother's education as well as family wealth level have a positive correlation with school attendance rates; 81.4 per cent of children from the richest household as compared to 64.5 per cent from the poorest households attended school. Age plays a very important role in their school attendance rate. Among the youngest children aged 6, only 35.1 per cent were attending school. The attendance rate nearly doubles in age 7, continues to rise in subsequent ages and reaches the highest of 90.8 for those aged 10.

[52] *Ratios presented in this table are "adjusted" since they include not only primary school attendance, but also secondary school attendance in the numerator.*

Table ED.4: Primary school attendance and out of school children

Percentage of children of primary school age attending primary or secondary school (adjusted net attendance ratio), percentage attending preschool, and percentage out of school, Bangladesh, 2012-2013

		Male					Female					Total				
		Net attendance ratio (adjusted) [1]	Percentage of children:			Number of children	Net attendance ratio (adjusted) [1]	Percentage of children:			Numbe of children	Net attendance ratio (adjusted) [1]	Percentage of children:			Number of children
			Not attending school or preschool	Attending preschool	Out of school [a]			Not attending school or preschool	Attending preschool	Out of school [a]			Not attending school or preschool	Attending preschool	Out of school [a]	
Total		**70.8**	**22.0**	**7.2**	**29.2**	**14,660**	**75.7**	**17.7**	**6.6**	**24.4**	**14,142**	**73.2**	**19.9**	**6.9**	**26.8**	**28,802**
Division	Barisal	68.5	23.6	7.9	31.5	961	75.5	17.7	6.9	24.6	933	71.9	20.7	7.4	28.1	1,895
	Chittagong	69.9	20.7	9.5	30.1	3,225	75.1	16.6	8.3	24.9	2,943	72.4	18.7	8.9	27.6	6,168
	Dhaka	70.2	23.4	6.6	29.9	4,434	74.9	19.0	6.2	25.3	4,437	72.5	21.2	6.4	27.6	8,871
	Khulna	72.7	16.9	10.2	27.1	1,446	78.2	12.6	9.3	21.9	1,407	75.4	14.8	9.7	24.5	2,853
	Rajshahi	73.1	21.6	5.0	26.6	1,754	77.2	16.7	6.0	22.7	1,685	75.1	19.2	5.5	24.7	3,438
	Rangpur	74.3	21.0	4.9	25.9	1,754	77.3	18.4	4.2	22.7	1,613	75.7	19.8	4.6	24.3	3,367
	Sylhet	66.2	28.1	5.7	33.8	1,086	72.6	22.4	4.8	27.3	1,123	69.4	25.2	5.2	30.5	2,209
Area	Urban	75.4	17.7	6.7	24.5	2,690	79.0	13.7	7.2	21.0	2,653	77.2	15.7	7.0	22.7	5,343
	Rural	69.8	23.0	7.3	30.3	11,970	74.9	18.6	6.5	25.2	11,489	72.3	20.9	6.9	27.8	23,459
Age at beginning of school year	6	33.5	49.1	17.1	66.2	2,894	36.7	47.5	15.7	63.2	2,779	35.1	48.3	16.4	64.7	5,673
	7	62.8	25.5	11.7	37.2	2,769	68.1	21.2	10.6	31.8	3,032	65.6	23.2	11.1	34.3	5,801
	8	80.5	13.8	5.7	19.5	2,992	87.4	8.6	3.9	12.6	2,786	83.8	11.3	4.8	16.1	5,778
	9	88.1	10.3	1.6	11.9	2,901	91.9	5.8	2.2	8.0	2,685	90.0	8.1	1.9	10.0	5,586
	10	87.2	12.5	0.7	13.2	3,104	94.8	5.1	0.5	5.6	2,860	90.8	9.0	0.6	9.6	5,964
Mother's educa-tion	None	65.9	28.5	5.7	34.2	5,748	71.8	22.4	5.9	28.3	5,448	68.8	25.5	5.8	31.3	11,196
	Primary incomplete	68.6	23.0	8.4	31.4	2,305	73.4	19.6	6.8	26.5	2,237	70.9	21.3	7.6	29.0	4,543
	Primary complete	72.0	20.1	8.0	28.1	2,081	79.5	14.3	6.3	20.6	1,986	75.7	17.3	7.2	24.4	4,068
	Secondary incomplete	75.0	16.5	8.4	24.9	3,169	78.4	13.6	8.0	21.6	3,179	76.7	15.1	8.2	23.3	6,348
	Secondary complete or higher	83.6	8.4	7.7	16.2	1,356	83.1	10.0	6.9	16.9	1,289	83.4	9.2	7.3	16.5	2,645
Wealth index quintile	Poorest	61.8	30.9	7.4	38.3	3,767	67.3	25.8	7.0	32.8	3,613	64.5	28.4	7.2	35.6	7,380
	Second	67.2	25.4	7.4	32.8	3,128	76.0	18.0	6.1	24.0	3,053	71.5	21.7	6.7	28.5	6,182
	Middle	73.7	19.7	6.6	26.3	2,892	77.5	16.2	6.4	22.6	2,769	75.6	18.0	6.5	24.5	5,661
	Fourth	76.0	16.1	7.8	23.9	2,561	79.8	13.4	6.7	20.1	2,420	77.9	14.8	7.3	22.1	4,981
	Richest	81.0	12.5	6.5	19.0	2,312	81.9	11.0	7.1	18.1	2,286	81.4	11.8	6.8	18.6	4,598

[1] MICS indicator 7.4; MDG indicator 2.1 - Primary school net attendance ratio (adjusted)

[a] The percentage of children of primary school age out of school are those not attending school and those attending preschool

The secondary school adjusted net attendance ratio (NAR) is presented in Table ED.5[53]. Among children of secondary school age in Bangladesh, more dramatic than in primary school, only less than half (46.1 per cent) are attending secondary school or higher. Some 33.7 per cent are still attending primary school, and the percentage of out of school children is 21.1. Urban and rural areas differ much with children in NAR of 52.2 per cent of urban areas as compared to 44.7 per cent in rural areas. But divisions, except Sylhet where the ratio is particularly low (32.7 per cent), do not vary much.

As with children of primary school age, mother's education and family wealth level are strongly correlated with adjusted net school attendance rates.

Age continues to play an important role in the attendance rate in school of their corresponding age or higher. At the age of 11, 19.5 per cent are attending secondary school or higher, but at the age of 14, 61.8 per cent are doing so. Different from primary age children, however, the adjusted net attendance rate peaked in the age of 14 but slightly dropped at the age of 15 (60.8 per cent). The ratio of attendance rates between those from the richest to the poorest households is more than 2.5.

An interesting finding is the difference between male and female children of secondary school age attendance rate with that of attendance rate at primary education for that age; The male adjusted net attendance ratio is consistently much lower (40.1 per cent) than female ratio (52.3 per cent), though it is almost the same for primary attendance in that age (about 33 per cent). This not only indicates female children making better progress into education appropriate to their age, but also that much more male children are eventually out of school. The percentage of out of school children of secondary school age children for male was 27.4 per cent and for female only 14.4 per cent.

[53] *Ratios presented in this table are "adjusted" since they include not only secondary school attendance, but also attendance to higher levels in the numerator*

Table ED.5: Secondary school attendance and out of school children

Percentage of children of secondary school age attending secondary school or higher (adjusted net attendance ratio), percentage attending primary school, and percentage out of school, Bangladesh, 2012-2013

		Male				Female				Total			
		Net attendance ratio (adjusted) [1]	Per cent attending primary school	Percentage out of school [a]	Number of children	Net attendance ratio (adjusted) [1]	Per cent attending primary school	Percentage out of school [a]	Number of children	Net attendance ratio (adjusted) [1]	Per cent attending primary school	Percentage out of school [a]	Number of children
Total		**40.1**	**33.4**	**26.4**	**13,471**	**52.3**	**34.0**	**13.7**	**12,906**	**46.1**	**33.7**	**20.2**	**26,377**
Division	Barisal	40.9	31.4	27.7	902	55.4	33.1	11.5	821	47.8	32.2	20.0	1,723
	Chittagong	36.6	30.2	32.9	3,002	55.0	30.9	13.9	2,873	45.6	30.5	23.6	5,875
	Dhaka	40.7	33.9	25.4	3,971	50.5	34.3	15.2	3,937	45.6	34.1	20.3	7,908
	Khulna	45.1	34.6	20.3	1,352	56.9	33.9	9.1	1,289	50.9	34.3	14.8	2,641
	Rajshahi	41.5	35.7	23.0	1,632	51.1	38.7	10.3	1,461	46.1	37.1	17.0	3,093
	Rangpur	46.5	32.6	20.7	1,582	58.4	31.6	10.1	1,504	52.3	32.1	15.5	3,086
	Sylhet	29.2	38.7	31.8	1,030	36.3	38.9	24.8	1,021	32.7	38.8	28.3	2,051
Area	Urban	46.0	29.2	24.6	2,605	58.6	25.5	16.1	2,500	52.2	27.3	20.4	5,106
	Rural	38.7	34.4	26.8	10,865	50.8	36.0	13.1	10,406	44.7	35.2	20.1	21,271
Age at beginning of school year	11	16.4	69.1	14.2	2,664	22.7	71.1	6.2	2,605	19.5	70.1	10.2	5,268
	12	32.7	48.5	18.8	3,136	42.6	48.2	9.2	3,014	37.5	48.4	14.1	6,150
	13	47.2	28.0	24.6	2,501	61.5	25.4	13.1	2,845	54.8	26.6	18.5	5,346
	14	54.3	12.0	33.5	2,482	70.2	11.1	18.7	2,238	61.8	11.5	26.5	4,720
	15	52.7	5.3	42.3	2,688	70.8	4.9	24.4	2,204	60.8	5.1	34.2	4,893
Mother's education	None	29.9	33.8	36.2	6,399	41.8	39.7	18.4	5,853	35.6	36.6	27.7	12,253
	Primary incomplete	35.8	39.4	24.6	2,097	51.0	39.3	9.7	1,948	43.1	39.4	17.4	4,045
	Primary complete	48.5	34.8	16.5	1,810	59.7	32.6	7.8	1,745	54.0	33.7	12.2	3,555
	Secondary incomplete	56.2	33.2	10.7	2,001	69.6	27.0	3.4	2,017	62.9	30.1	7.0	4,018
	Secondary complete or higher	71.9	22.6	5.5	897	72.3	18.0	9.8	951	72.1	20.2	7.7	1,848
	Cannot be determined [b]	37.1	4.5	57.7	267	46.2	2.9	51.0	389	42.5	3.6	53.7	655
Wealth index quintile	Poorest	18.9	38.0	43.1	2,876	29.7	46.4	23.8	2,683	24.1	42.0	33.8	5,559
	Second	33.0	37.3	29.5	2,943	46.2	40.0	13.8	2,732	39.4	38.6	21.9	5,676
	Middle	42.4	34.3	23.3	2,888	56.3	33.9	9.8	2,626	49.0	34.1	16.9	5,514
	Fourth	49.7	28.9	21.0	2,528	62.6	28.1	9.3	2,544	56.2	28.5	15.1	5,072
	Richest	63.0	26.3	10.7	2,235	69.9	19.0	11.2	2,321	66.5	22.6	10.9	4,556

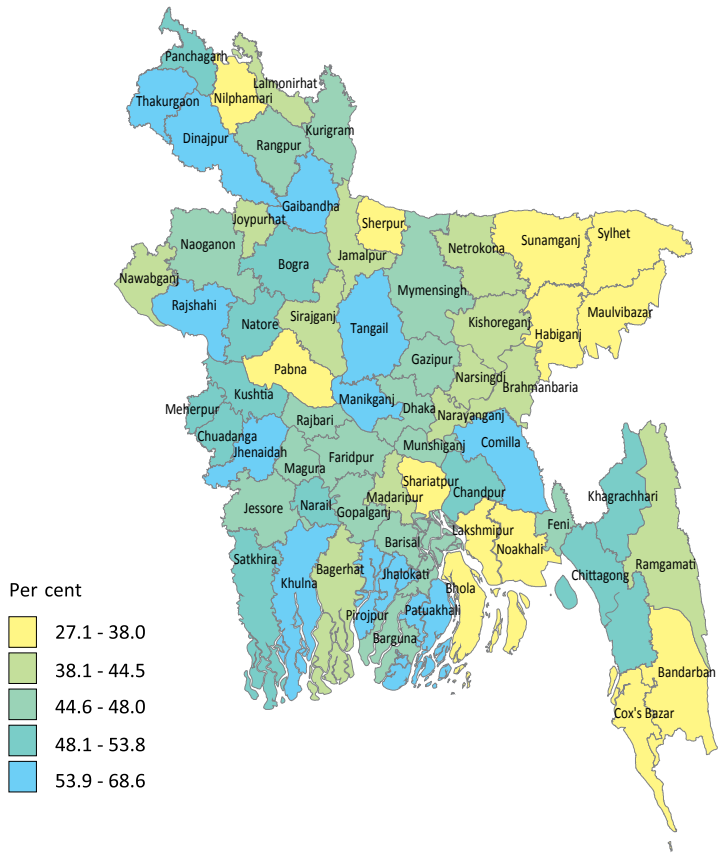
[1] MICS indicator 7.5 - Secondary school net attendance ratio (adjusted)

[a] The percentage of children of secondary school age out of school are those who are not attending primary, secondary, or higher education

[b] Children age 15 or higher at the time of the interview whose mothers were not living in the household

Note: Due to 6 unweighted cases 'missing/DK' category under 'mother's education' is not shown

Map ED.2: Children of secondary school age attending secondary school or higher (adjusted net attendance ratio) by district, Bangladesh, 2012-2013



The percentage of children entering first grade who eventually reach the last grade of primary school is presented in Table ED.6. In Bangladesh, of all children starting grade one, the majority (96.4 per cent) will eventually reach the last grade. The MICS included only questions on school attendance in the current and previous year. Thus, the indicator is calculated synthetically by computing the cumulative probability of survival from the first to the last grade of primary school, as opposed to calculating the indicator for a real cohort which would need to be followed from the time a cohort of children entered primary school, up to the time they reached the last grade of primary school. Repeaters are excluded from the calculation of the indicator, because it is not known whether they will eventually graduate. As an example, the probability that a child will move from the first grade to the second grade is computed by dividing the number of children who moved from the first grade to the second grade (during the two consecutive school years covered by the survey) by the number of children who have moved from the first to the second grade plus the number of children who were in the first grade the previous school year, but dropped out. Both the numerator and denominator excludes children who repeated during the two school years under consideration.

No large variations are observed among particular groups of children and background characteristics.

Table ED.6: Children reaching last grade of primary school

Percentage of children entering first grade of primary school who eventually reach the last grade of primary school (Survival rate to last grade of primary school), Bangladesh, 2012-2013

		Per cent attending grade 1 last school year who are in grade 2 this school year	Per cent attending grade 2 last school year who are attending grade 3 this school year	Per cent attending grade 3 last school year who are attending grade 4 this school year	Per cent attending grade 4 last school year who are attending grade 5 this school year	Per cent who reach grade 5 of those who enter grade 1 [1]
Total		**99.5**	**99.1**	**99.0**	**98.8**	**96.4**
Sex	Male	99.5	98.7	98.7	98.6	95.5
	Female	99.5	99.5	99.3	99.0	97.3
Division	Barisal	98.6	99.8	98.9	99.1	96.5
	Chittagong	99.3	99.4	99.0	99.0	96.9
	Dhaka	99.6	98.7	99.2	98.6	96.1
	Khulna	99.5	99.0	99.2	99.0	96.7
	Rajshahi	99.5	98.7	99.5	99.2	96.9
	Rangpur	99.9	99.6	99.0	99.0	97.5
	Sylhet	99.5	99.2	97.1	97.5	93.4
Area	Urban	99.1	98.6	98.8	99.4	96.1
	Rural	99.6	99.2	99.0	98.7	96.5
Mother's education	None	99.5	98.9	99.0	98.5	95.9
	Primary incomplete	99.4	99.0	98.8	98.7	95.9
	Primary complete	99.9	99.4	99.2	99.3	97.8
	Secondary incomplete	99.6	99.5	99.2	99.7	98.0
	Secondary complete or higher	99.9	99.8	99.3	100.0	99.0
Wealth index quintile	Poorest	99.3	98.6	98.4	97.6	94.1
	Second	99.7	98.9	98.8	98.6	96.1
	Middle	99.5	99.4	99.4	99.0	97.2
	Fourth	99.6	99.7	99.5	99.4	98.2
	Richest	99.5	99.1	99.0	99.3	96.9

[1] MICS indicator 7.6; MDG indicator 2.2 - Children reaching last grade of primary

The primary school completion rate and transition rate to secondary education are presented in Table ED.7. The primary completion rate is the ratio of the total number of students, regardless of age, entering the last grade of primary school for the first time, to the number of children of the primary graduation age at the beginning of the current (or most recent) school year.

Table ED.7 shows that the primary school completion rate is 79.5 per cent. As high as 94.7 per cent of the children who were attending the last grade of primary school in the previous school year were found to be attending the first grade of secondary school in the school year of the survey. The table also provides "effective" transition rate which takes account of the presence of repeaters in the final grade of primary school. This indicator better reflects situations in which pupils repeat the last grade of primary education but eventually make the transition to the secondary level. The simple transition rate tends to underestimate pupils' progression to secondary school as it assumes that the repeaters never reach secondary school. The table shows that in total 96.3 per cent of the children in the last grade of primary school are expected to move on to secondary school.

Large differences are however present in the primary completion rate across different background characteristics. The primary completion rate was considerably lower in male than female children

(73.7 versus 85.8 per cent), and in urban than rural areas (73.2 versus 81 per cent). Variations between the divisions are also significant, ranging from 71.2 per cent in Dhaka to 92.5 per cent in Rajshahi division. Both mother's education and household wealth level appear to be associated with primary school completion rate. In contrast, the effective transition rate to secondary school shows much less variation across all background parameters.

Table ED.7: Primary school completion and transition to secondary school

Primary school completion rates and transition and effective transition rates to secondary school, Bangladesh, 2012-2013

		Primary school completion rate [1]	Number of children of primary school completion age	Transition rate to secondary school [2]	Number of children who were in the last grade of primary school the previous year	Effective transition rate to secondary school	Number of children who were in the last grade of primary school the previous year and are not repeating that grade in the current school year
Total		**79.5**	**5,964**	**94.7**	**3,467**	**96.3**	**3,409**
Sex	Male	73.7	3,104	95.3	1,533	97.2	1,503
	Female	85.8	2,860	94.3	1,934	95.7	1,906
Division	Barisal	79.5	405	95.8	228	97.3	225
	Chittagong	80.8	1,240	94.7	737	97.4	716
	Dhaka	71.2	1,865	94.5	1,070	95.5	1,059
	Khulna	82.4	610	96.8	412	97.6	408
	Rajshahi	92.5	744	93.8	353	95.7	346
	Rangpur	87.4	650	94.4	432	96.5	423
	Sylhet	73.5	449	93.2	235	94.6	232
Area	Urban	73.2	1,128	94.7	682	96.3	671
	Rural	81.0	4,836	94.7	2,785	96.4	2,738
Mother's education	None	75.0	2,606	93.0	1,364	94.5	1,342
	Primary incomplete	75.2	995	95.6	511	96.8	505
	Primary complete	80.7	855	96.6	557	97.8	550
	Secondary incomplete	84.4	1,060	96.9	628	98.7	617
	Secondary complete or higher	92.3	448	98.3	294	99.1	292
Wealth index quintile	Poorest	57.1	1,486	92.0	567	93.7	556
	Second	87.4	1,243	93.3	707	95.4	692
	Middle	89.2	1,222	95.1	772	96.8	759
	Fourth	84.6	1,104	97.2	777	98.3	769
	Richest	86.0	909	95.2	644	96.7	633

[1] MICS indicator 7.7 - Primary completion rate
[2] MICS indicator 7.8 - Transition rate to secondary school

The ratio of girls to boys attending primary and secondary education is provided in Table ED.8. These ratios are better known as the Gender Parity Index (GPI). Notice that the ratios included here are obtained from net attendance ratios rather than gross attendance ratios. The latter provide an erroneous description of the GPI mainly because, in most cases, the majority of over-age children attending primary education tend to be boys.

The table shows that gender parity for primary school adjusted NAR is 1.07, indicating an advantage in the attendance of girls over boys in primary school or higher (75.7 versus 70.8 per cent). The Index

rises even higher, to 1.30 for secondary education adjusted to include higher levels. The advantage of girls is obvious in almost all categories of children, and is particularly pronounced in children with mothers of less education and children from the poorer households. Chittagong division also showed higher levels of GPI for secondary school level.

Table ED.8: Education gender parity

Ratio of adjusted net attendance ratios of girls to boys, in primary and secondary school, Bangladesh, 2012-2013

		Primary school adjusted net attendance ratio (NAR), girls	Primary school adjusted net attendance ratio (NAR), boys	Gender parity index (GPI) for primary school adjusted NAR [1]	Secondary school adjusted net attendance ratio (NAR), girls	Secondary school adjusted net attendance ratio (NAR), boys	Gender parity index (GPI) for secondary school adjusted NAR [2]
Total		**75.7**	**70.8**	**1.07**	**52.3**	**40.1**	**1.30**
Division	Barisal	75.5	68.5	1.10	55.4	40.9	1.35
	Chittagong	75.1	69.9	1.07	55.0	36.6	1.51
	Dhaka	74.9	70.2	1.07	50.5	40.7	1.24
	Khulna	78.2	72.7	1.08	56.9	45.1	1.26
	Rajshahi	77.2	73.1	1.06	51.1	41.5	1.23
	Rangpur	77.3	74.3	1.04	58.4	46.5	1.25
	Sylhet	72.6	66.2	1.10	36.3	29.2	1.25
Area	Urban	79.0	75.4	1.05	58.6	46.0	1.27
	Rural	74.9	69.8	1.07	50.8	38.7	1.31
Mother's education	None	71.8	65.9	1.09	41.8	29.9	1.40
	Primary incomplete	73.4	68.6	1.07	51.0	35.8	1.42
	Primary complete	79.5	72.0	1.10	59.7	48.5	1.23
	Secondary incomplete	78.4	75.0	1.05	69.6	56.2	1.24
	Secondary complete or higher	83.1	83.6	0.99	72.3	71.9	1.01
	Cannot be determined[a]	na	na	na	46.4	37.2	1.25
Wealth index quintile	Poorest	67.3	61.8	1.09	29.7	18.9	1.57
	Second	76.0	67.2	1.13	46.2	33.0	1.40
	Middle	77.5	73.7	1.05	56.3	42.4	1.33
	Fourth	79.8	76.0	1.05	62.6	49.7	1.26
	Richest	81.9	81.0	1.01	69.9	63.0	1.11

[1] MICS indicator 7.9; MDG indicator 3.1 - Gender parity index (primary school)
[2] MICS indicator 7.10; MDG indicator 3.1 - Gender parity index (secondary school)
[a] Information on education of the mother's/caretaker's education was not collected for all children age 15 and above
na=Not available

The percentage of girls in the total out of school population, in both primary and secondary school, are provided in Table ED.9. The table shows that at the primary level girls account for about half (44.6 per cent) of the out-of-school population. Girls' share decreased to 33.7 per cent, however, at the secondary level. Proportions for urban are slightly higher than rural areas for both primary and secondary education.

Table ED.9: Out of school gender parity

Percentage of girls in the total out o f school population, in primary and secondary school, Bangladesh, 2012-2013

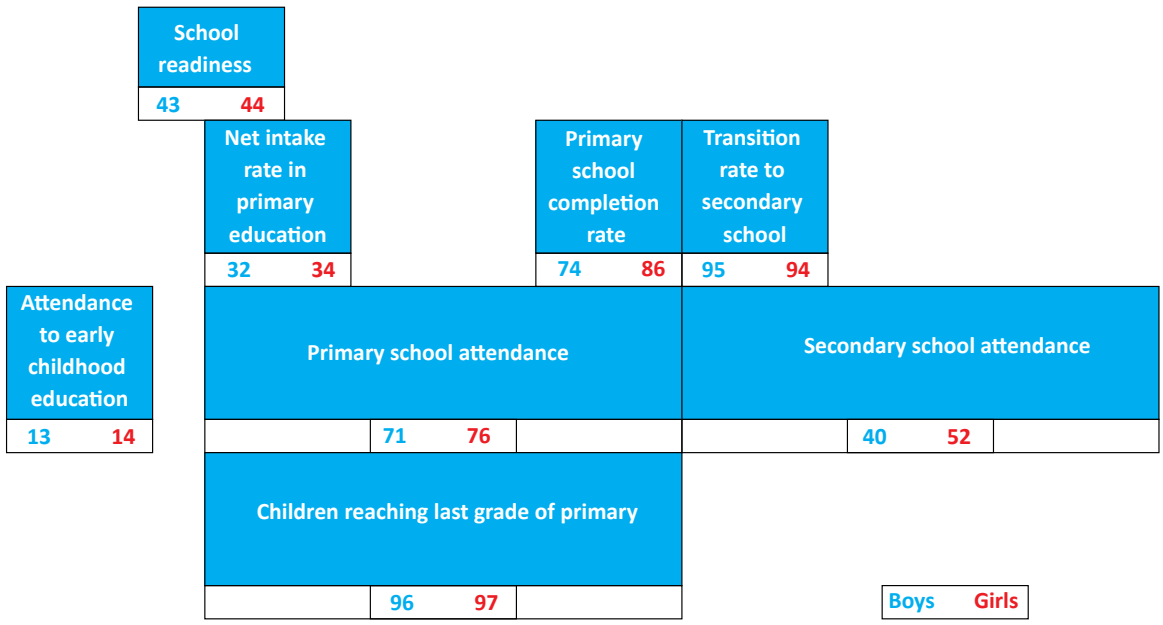
		Primary school				Secondary school			
		Percentage of out of school children	Number of children of primary school age	Percentage of girls in the total out of school population of primary school age	Number of children of primary school age out of school	Percentage of out of school children	Number of children of secondary school age	Percentage of girls in the total out of school population of secondary school age	Number of children of secondary school age out of school
Total		**26.8**	**28,802**	**44.6**	**7,705**	**21.1**	**26,377**	**33.7**	**5,560**
Division	Barisal	28.0	1,895	43.1	531	20.8	1,723	28.9	359
	Chittagong	27.6	6,168	43.1	1,700	24.8	5,875	29.6	1,458
	Dhaka	27.4	8,871	45.7	2,433	21.2	7,908	37.6	1,679
	Khulna	24.5	2,853	43.8	699	15.3	2,641	29.4	404
	Rajshahi	24.7	3,438	45.0	851	17.5	3,093	28.0	541
	Rangpur	24.3	3,367	44.8	817	16.5	3,086	32.7	509
	Sylhet	30.5	2,209	45.5	673	29.8	2,051	44.3	610
Area	Urban	22.7	5,343	45.8	1,213	21.0	5,106	38.3	1,073
	Rural	27.7	23,459	44.3	6,492	21.1	21,271	32.6	4,487
Mother's education	None	31.2	11,196	v43.9	3,491	29.0	12,253	32.4	3,559
	Primary incomplete	28.9	4,543	45.0	1,314	18.4	4,045	27.0	744
	Primary complete	24.3	4,068	41.2	989	12.7	3,555	32.2	453
	Secondary incomplete	23.2	6,348	46.5	1,473	7.3	4,018	25.0	293
	Secondary complete or higher	16.5	2,645	49.6	437	7.6	1,848	64.8	141
	Cannot be determined [a]	na	na	na	na	56.2	655	56.0	368
Wealth index quintile	Poorest	35.5	7,380	45.1	2,619	35.0	5,559	34.7	1,947
	Second	28.4	6,182	41.7	1,754	23.1	5,676	31.1	1,314
	Middle	24.4	5,661	45.1	1,382	17.8	5,514	28.4	982
	Fourth	22.0	4,981	44.2	1,097	15.9	5,072	31.2	806
	Richest	18.5	4,598	48.6	851	11.2	4,556	50.6	511

[a] Children age 15 or higher at the time of the interview whose mothers were not living in the household
na=Not available
Note: Due to 4 unweighted cases, 'missing/DK' category under 'mother's education' is not shown

Figure ED.1 brings together all of the attendance and progression related education indicators covered in this chapter, by sex. Information on attendance to early childhood education is also included, which was covered in Chapter IX, in Table CD.1.

In Bangladesh, attendance to early childhood education is at a very low level with nearly 1 in every 10 children attending. A little over 40 per cent of the children have the readiness to enter school (attended pre-primary school). Only one in every three children of primary school entry age has entered grade 1 (32 per cent boys and 34 per cent girls). About three-quarter of children attend primary school (71 – 76 per cent) and almost all reach the last grade of primary education (96-97 per cent). Though primary completion rate is more among girls (86 per cent) than boys (74 per cent), the transition rate to secondary level is almost the same for them at 94-95 per cent. A higher proportion of girls than boys, however, attend secondary level of education (52 per cent versus 40 per cent).

Figure ED.1: Education indicators by sex, Bangladesh, 2012-2013



Note: All indicator values are in per cent

XI. Child Protection

Birth Registration

A name and nationality is every child's right, enshrined in the Convention on the Rights of the Child (CRC) and other international treaties. Yet the births of one in four children under the age of five worldwide have never been recorded. This lack of formal recognition by the State usually means that a child is unable to obtain a birth certificate. As a result, he or she may be denied health care or education. Later in life, the lack of official identification documents can mean that a child may enter into marriage or the labour market, or be conscripted into the armed forces, before the legal age. In adulthood, birth certificates may be required to obtain social assistance or a job in the formal sector, to buy or prove the right to inherit property, to vote and to obtain a passport. Registering children at birth is the first step in securing their recognition before the law, safeguarding their rights, and ensuring that any violation of these rights does not go unnoticed.[54]

In Bangladesh, the Birth and Death Registration Act 2004 provides a legal basis for mandatory birth registration and the use of birth certificate as a proof of age to access services including, inter alia, issuance of passport, admission into school and marriage registration. It also mandates registration structure within the existing decentralized local government administration and obliges service providers particularly in health and education sectors to facilitate birth registration. An online Birth Registration Information System (BRIS) has been put in place since 2009. The system enables local registrars nationwide and in embassies aboard to register births and deaths and issue official certificates through a web-based application. All birth and death records are transmitted to and securely stored in the central database.

Table CP.1: Birth registration

Percentage of children under age 5 by whether birth is registered and percentage of children not registered whose mothers/caretakers know how to register birth, Bangladesh, 2012-2013

		Children under age 5 whose birth is registered with civil authorities				Number of children	Children under age 5 whose birth is not registered	
		Has birth certificate		No birth certificate	Total registered [1]		Per cent of children whose mother/ caretaker knows how to register birth	Number of children without birth registration
		Seen	Not seen					
Total		**21.3**	**10.4**	**5.3**	**37.0**	**20,903**	**60.5**	**13,174**
Sex	Male	21.7	10.8	5.2	37.7	10,694	59.9	6,663
	Female	20.9	9.9	5.4	36.2	10,209	61.1	6,511
Division	Barisal	19.6	8.1	4.6	32.3	1,270	49.8	860
	Chittagong	22.5	14.0	5.0	41.4	4,792	76.1	2,807
	Dhaka	18.8	9.3	6.3	34.3	6,456	50.0	4,240
	Khulna	22.2	8.3	1.6	32.1	2,014	65.5	1,367
	Rajshahi	20.7	6.8	5.1	32.6	2,405	54.7	1,620
	Rangpur	27.7	10.4	9.4	47.6	2,372	67.9	1,244
	Sylhet	19.3	13.9	1.8	35.0	1,595	63.6	1,036
Area	Urban	27.0	11.5	4.4	42.9	4,268	72.0	2,439
	Rural	19.8	10.1	5.5	35.5	16,635	57.9	10,735
Age	0-11 months	12.0	6.1	5.7	23.8	3,983	62.9	3,035
	12-23 months	18.5	8.3	4.8	31.6	4,093	60.7	2,798
	24-35 months	20.8	9.9	5.3	36.0	4,189	60.0	2,680
	36-47 months	23.3	12.5	5.8	41.6	4,332	59.7	2,529
	48-59 months	30.8	14.7	4.9	50.5	4,306	58.5	2,132

[54] *United Nations Children's Fund, Every Child's Birth Right: Inequities and trends in birth registration, UNICEF, New York, 2013.*

Table CP.1: continued

		Children under age 5 whose birth is registered with civil authorities				Number of children	Children under age 5 whose birth is not registered	
		Has birth certificate		No birth certificate	Total registered [1]		Per cent of children whose mother/ caretaker knows how to register birth	Number of children without birth registration
		Seen	Not seen					
Mother's education	None	18.5	9.6	6.1	34.2	4,700	45.5	3,094
	Primary incomplete	17.5	9.7	5.0	32.2	2,944	49.6	1,995
	Primary complete	20.7	9.6	5.6	35.9	3,256	58.0	2,088
	Secondary incomplete	22.7	9.7	4.8	37.3	7,291	68.7	4,574
	Secondary complete or higher	27.0	15.3	5.3	47.5	2,711	85.9	1,422
Wealth index quintile	Poorest	16.0	8.9	5.6	30.4	5,105	46.7	3,552
	Second	18.5	10.2	6.0	34.7	4,285	52.7	2,797
	Middle	21.3	9.4	6.0	36.7	3,886	62.4	2,461
	Fourth	22.5	11.8	4.7	38.9	3,750	69.6	2,290
	Richest	30.2	12.3	4.0	46.5	3,877	82.3	2,074

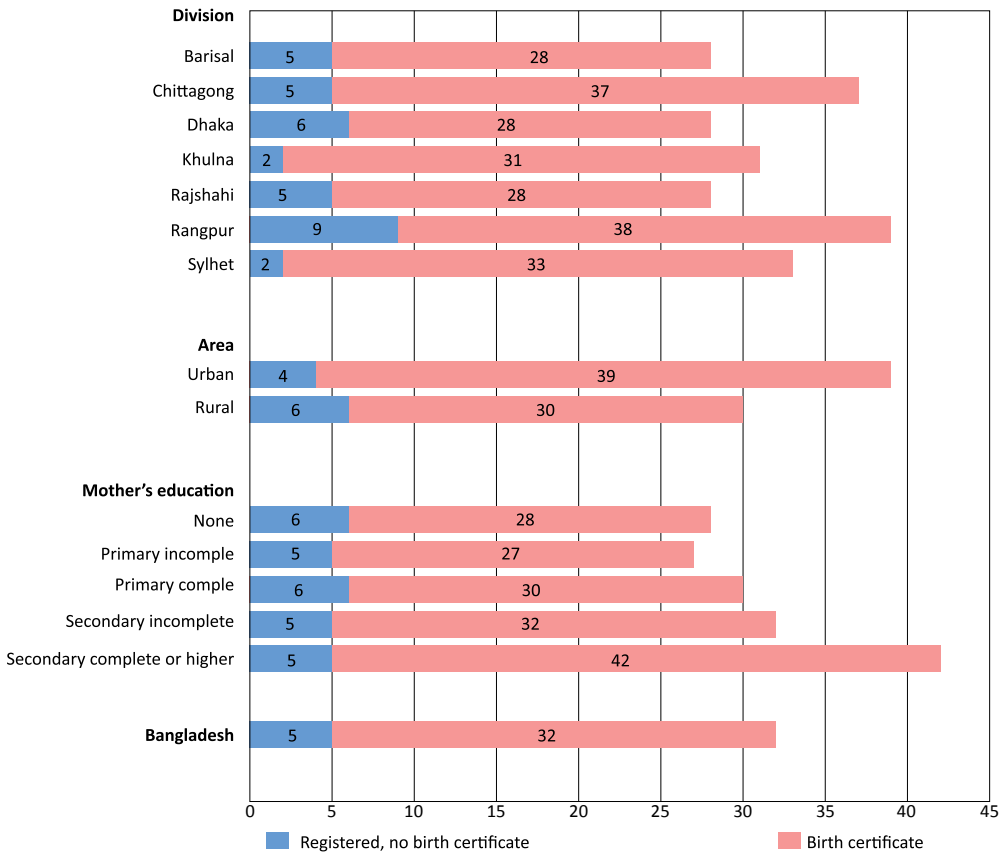
[1] MICS indicator 8.1 - Birth registration

A little over one in three births (37 per cent) of children under 5 years of age in Bangladesh MICS have been registered. Overall, 31.7 per cent of children possess a birth certificate, though the certificate could be seen for only 21.3 per cent of children. Registration of birth becomes more likely as a child grows older and peaks at the age 4 to 50.5 per cent. Registration levels differ by divisions; varying from 32.1 per cent in Khulna to 47.6 in Rangpur. There are no significant variations in birth registration depending on the sex of the child, but compared to rural areas, children of urban areas are more likely to have their births registered (42.9 per cent in urban areas versus 35.5 per cent in rural areas).

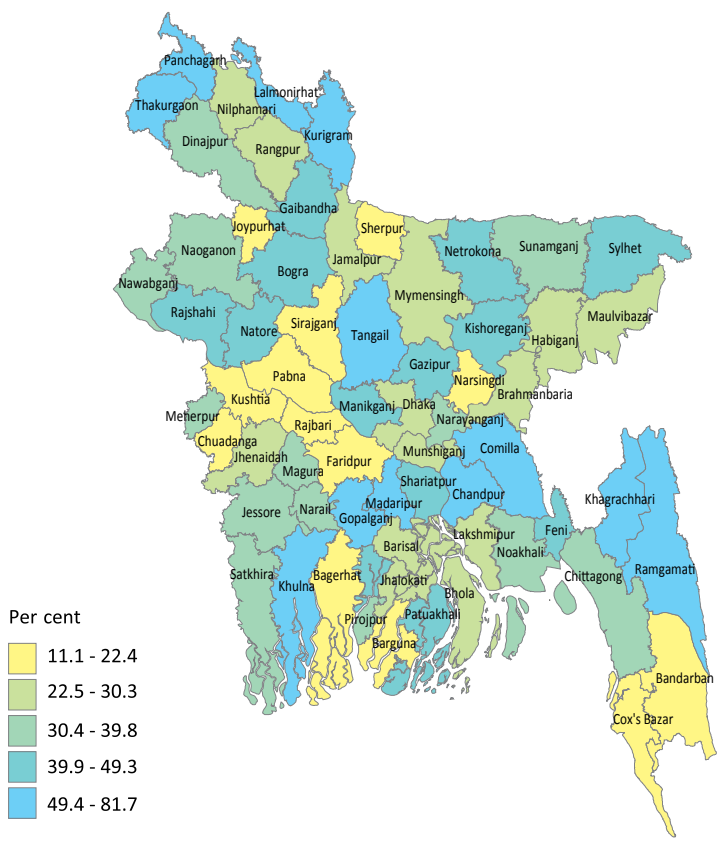
Registration of birth is strongly associated with household living standard and mother's education, although even for children living in the wealthiest households or with the most educated mother, less than 50 per cent had birth registration.

The lack of adequate knowledge of how to register a child can present another major obstacle to the fulfilment of a child's right to identity. Data show that 60.5 per cent of mothers of unregistered children report to be aware of the registration process, which points to other barriers to birth registration. The knowledge about registration varied significantly between urban (72.0 per cent) and rural areas (57.9 per cent) and also between the divisions.

Figure CP.1: Percentage of children under age five whose births are registered, Bangladesh, 2012-2013



Map CP.1: Children under age five whose births are registered by district, Bangladesh, 2012-2013



Child Discipline

Teaching children self-control and acceptable behavior is an integral part of child discipline in all cultures. Positive parenting practices involve providing guidance on how to handle emotions or conflicts in manners that encourage judgment and responsibility and preserve children's self-esteem, physical and psychological integrity and dignity. Too often however, children are raised through the use of punitive methods that rely on the use of physical force or verbal intimidation to obtain desired behaviors. Studies[55] have found that exposing children to violent discipline have harmful consequences, which range from immediate impacts to long-term harm that children carry forward into adult life. Violence hampers children's development, learning abilities and school performance; it inhibits positive relationships, provokes low self-esteem, emotional distress and depression; and, at times, it leads to risk taking and self-harm.

In the Bangladesh MICS, respondents to the household questionnaire were asked a series of questions on the methods adults in the household used to discipline a selected child during the past month.

Table CP. 2 Child discipline

Percentage of children age 1-14 years by child disciplining methods experienced during the last one month, Bangladesh, 2012-2013

		Percentage of children age 1-14 years who experienced:					Number of children age 1-14 years
		Only non-violent discipline	Psychological aggression	Physical punishment		Any violent discipline method [1]	
				Any	Severe		
Total		**12.2**	**74.4**	**65.9**	**24.6**	**82.3**	**75,907**
Sex	Male	11.9	74.7	67.6	26.2	82.9	38,619
	Female	12.5	74.1	64.1	23.0	81.6	37,288
Division	Barisal	8.6	84.2	67.8	16.8	88.6	4,822
	Chittagong	11.6	74.1	61.4	24.9	81.3	16,936
	Dhaka	12.6	72.9	66.0	28.8	81.3	23,021
	Khulna	8.6	78.1	72.6	26.6	86.9	7,467
	Rajshahi	15.4	70.0	64.9	19.6	80.2	8,981
	Rangpur	15.5	74.0	64.6	24.0	79.5	8,827
	Sylhet	10.2	75.2	71.6	19.9	85.3	5,853
Area	Urban	14.1	67.1	60.8	24.7	76.9	14,520
	Rural	11.8	76.1	67.1	24.6	83.5	61,387
Age	1-2 years	13.9	61.3	58.0	17.5	71.0	9,541
	3-4 years	10.5	77.3	73.6	27.0	85.2	9,886
	5-9 years	10.3	78.8	72.7	29.1	86.6	27,987
	10-14 years	14.2	73.4	59.2	21.7	80.7	28,494
Education of household head	None	11.4	76.3	68.7	27.4	83.5	34,032
	Primary incomplete	10.4	77.8	69.1	26.0	85.6	10,423
	Primary complete	11.8	74.9	66.4	23.3	82.8	8,955
	Secondary incomplete	12.5	74.1	64.1	22.3	82.1	12,299
	Secondary complete or higher	17.1	64.1	54.6	17.8	74.2	10,131
	Missing/DK	5.4	92.2	90.4	32.5	94.6	67

[55] *Straus, M.A., and M.J. Paschall, 'Corporal Punishment by Mothers and Development of Children's Cognitive Ability: A longitudinal study of two nationally representative age cohorts', Journal of Aggression, Maltreatment & Trauma, vol. 18, no. 5, 2009, pp. 459-483; Erickson, M.F., and B. Egeland, 'A Developmental View of the Psychological Consequences of Maltreatment', School Psychology Review, vol. 16, 1987, pp. 156-168; Schneider, M.W., A. Ross, J.C. Graham and A. Zielinski, 'Do Allegations of Emotional Maltreatment Predict Developmental Outcomes Beyond that of Other Forms of Maltreatment?', Child Abuse & Neglect, vol. 29, no. 5, 2005, pp. 513–532.*

Table CP. 2 : continued

		Percentage of children age 1-14 years who experienced:					Number of children age 1-14 years
		Only non-violent discipline	Psychological aggression	Physical punishment		Any violent discipline method [1]	
				Any	Severe		
Wealth index quintile	Poorest	9.5	79.7	74.1	29.7	86.9	18,492
	Second	11.1	77.8	68.7	25.6	85.0	16,054
	Middle	12.7	75.3	66.1	24.2	82.6	14,846
	Fourth	12.7	72.4	62.0	22.5	80.7	13,616
	Richest	16.5	63.4	54.6	18.9	73.3	12,899

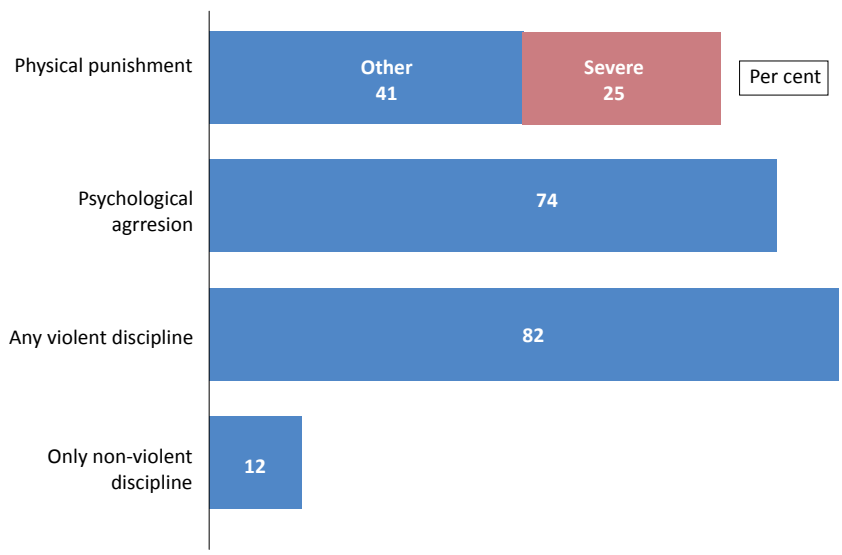
[1] MICS indicator 8.3 - Violent discipline

In Bangladesh MICS, 82.3 per cent of children age 1-14 years were subjected to at least one form of psychological or physical punishment by household members during the past month.

For the most part, households employ a combination of violent disciplinary practices, reflecting caregivers' motivation to control children's behaviour by any means possible. While 74.4 per cent of children experienced psychological aggression, about 66 per cent experienced physical punishment. The most severe forms of physical punishment (hitting the child on the head, ears or face or hitting the child hard and repeatedly) are overall less common: 24.6 per cent of children were subjected to severe punishment.

Boys and girls experienced virtually the same levels of violent discipline. Of the different age groups, children of 5-9 years old were most likely to be subject to violent disciplines though the difference with other age groups is not significant. The practice of violent discipline was found to be more common in rural areas than in urban areas (83.5 per cent against 76.9 per cent), and children living in the poorest households were also more likely to suffer from psychological aggression.

Figure CP.2: Child disciplining methods, children age 1-14 years, Bangladesh, 2012-2013



While violent methods are extremely common forms of discipline, Table CP.3 reveals that only 33.3 per cent of the respondents believe that a child need to be physically punished. This shows an interesting contrast between the actual prevalence of physical punishment (65.9 per cent) and parents' stated beliefs about physical punishment, indicating an important scenario where the practice did not match the belief at all. Overall, respondents with no educational attainment and those residing in poorer households are more likely to find physical punishment a necessary method of disciplining children, 35.1 and 41.7 per cent respectively.

Table CP.3 Attitudes toward physical punishment

Percentage of respondents to the child discipline module who believe that physical punishment is needed to bring up, raise, or educate a child properly, Bangladesh, 2012-2013

		Respondent believes that a child needs to be physically punished	Number of respondents to the child discipline module
Total		**33.3**	**38396**
Sex	Male	31.4	5,258
	Female	33.6	33,138
Division	Barisal	51.3	2,426
	Chittagong	35.2	7,401
	Dhaka	30.2	11,866
	Khulna	34.0	4,394
	Rajshahi	32.0	5,236
	Rangpur	27.7	4,786
	Sylhet	37.3	2,287
Area	Urban	29.6	7,892
	Rural	34.3	30,505
Age	<25	32.2	6,163
	25-39	34.2	20,097
	40-59	32.6	10,312
	60+	30.6	1,823
Respondent's relationship to selected child	Mother	34.6	27,545
	Father	32.1	3,825
	Other	29.1	7,026
Respondent's education	None	35.1	13,647
	Primary incomplete	39.0	5,466
	Primary complete	34.7	5,267
	Secondary incomplete	31.8	9,559
	Secondary complete or higher	22.4	4,455
Wealth index quintile	Poorest	41.7	8,419
	Second	35.7	7,991
	Middle	32.7	7,671
	Fourth	30.3	7,239
	Richest	24.4	7,076

[a] The question is asked to a single respondent in all households where at least one child age 1-14 years is living. The respondent is not necessarily a parent or caretaker of such a child and may not necessarily have responded to the child discipline module about his/her own child.
Note: Two missing cases of "respondent's education" are not included.

Early Marriage and Polygyny

Marriage before the age of 18 is a reality for many young girls. In many parts of the world parents encourage the marriage of their daughters while they are still children in hopes that the marriage will benefit them both financially and socially, while also relieving financial burdens on the family. In actual fact, child marriage is a violation of human rights, compromising the development of girls and often resulting in early pregnancy and social isolation, with little education and poor vocational training reinforcing the gendered nature of poverty. The right to 'free and full' consent to a marriage

is recognized in the Universal Declaration of Human Rights - with the recognition that consent cannot be 'free and full' when one of the parties involved is not sufficiently mature to make an informed decision about a life partner. Closely related to the issue of child marriage is the age at which girls become sexually active. Women who are married before the age of 18 tend to have more children than those who marry later in life. Pregnancy related deaths are known to be a leading cause of mortality for both married and unmarried girls between the ages of 15 and 19, particularly among the youngest of this cohort. There is evidence to suggest that girls who marry at young ages are more likely to marry older men which puts them at increased risk of HIV infection. The demand for this young wife to reproduce and the power imbalance resulting from the age differential lead to very low condom use by such couples.

Information about early marriage in Bangladesh is provided in Table CP.4. Among women age 15-49 years, close to one in four (23.8 per cent) were married before age 15 and, among women age 20-49 years, about six in ten (62.8 per cent) women were married before age 18.

Approximately one in three young women age 15-19 years is currently married (34.3 per cent). This proportion is lower in urban areas than in rural areas (28.1 per cent versus 36.1 per cent), and varies significantly between divisions, ranging from 13.7 per cent in Sylhet to 47.8 per cent in Rajshahi. Noticeably, Sylhet division stands out in this case, with all other divisions having at least a quarter of young women age 15-19 years currently married. The proportion of women aged 15-49 who were married before the age of 15 varies significantly between divisions with the lowest 9.2 per cent in Sylhet and the highest 33.3 per cent in Rajshahi division.

The table depicts a strong negative correlation between early marriage and the level of education. Women are much more likely to be subject to early marriage (marriage before 18 years) if they had no education (73.1 per cent) as compared to those having secondary or higher level of education (31.7 per cent). The disparity is even more pronounced when marriage happens before 15 years of age.

The Table CP.4 also shows that some 4.2 per cent of women aged 15-49 years in Bangladesh MICS are in polygynous marriage, with little difference between urban and rural areas. Women with 'no education' are seven times more likely to be in a polygynous marriage than those who completed higher education. It is more common in Sylhet division, where the prevalence is more than double (8.7 per cent) that of the national average.

Table CP.4: Early marriage and polygyny

Percentage of women age 15-49 years who first married before their 15th birthday, percentages of women age 20-49 years who first married before their 15th and 18th birthdays, percentage of women age 15-19 years currently married, and the percentage of women who are in a polygynous marriage, Bangladesh, 2012-2013

		Women age 15-49 years		Women age 20-49 years			Women age 15-19 years		Women age 15-49 years	
		Percentage married before age 15 [1]	Number of women age 15-49 years	Percentage married before age 15	Percentage married before age 18 [2]	Number of women age 20-49 years	Percentage currently married [3]	Women age 15-19 years	Percentage in polygynous marriage [4]	Number of women age 15-49 years currently married
Total		**23.8**	**51,791**	**27.2**	**62.8**	**42,720**	**34.3**	**9,071**	**4.2**	**42,263**
Division	Barisal	20.8	3,083	24.1	65.8	2,531	31.7	552	3.9	2,540
	Chittagong	14.5	9,794	17.2	50.5	7,875	27.7	1,919	2.9	7,634
	Dhaka	23.1	16,411	26.5	61.4	13,534	33.3	2,877	4.0	13,402
	Khulna	31.1	6,046	34.8	71.1	5,087	43.5	960	4.1	5,110
	Rajshahi	33.3	7,088	36.9	72.8	6,002	47.8	1,086	4.1	6,078
	Rangpur	31.5	6,156	35.2	75.9	5,168	41.9	988	5.0	5,230
	Sylhet	9.2	3,212	11.2	38.5	2,524	13.7	689	8.7	2,269
Area	Urban	20.1	11,856	23.4	54.4	9,774	28.1	2,082	4.3	9,290
	Rural	24.9	39,935	28.4	65.3	32,946	36.1	6,989	4.2	32,973

Table CP.4: continued

		Women age 15-49 years		Women age 20-49 years			Women age 15-19 years		Women age 15-49 years	
		Percentage married before age 15 [1]	Number of women age 15-49 years	Percentage married before age 15	Percentage married before age 18 [2]	Number of women age 20-49 years	Percentage currently married [3]	Women age 15-19 years	Percentage in polygynous marriage [4]	Number of women age 15-49 years currently married
Age	15-19	7.5	9,071	na	na	na	34.3	9,071	1.1	3,108
	20-24	18.1	8,831	18.1	52.3	8,831	na	na	2.6	7,294
	25-29	26.2	9,354	26.2	61.6	9,354	na	na	3.4	8,836
	30-34	28.5	7,432	28.5	64.9	7,432	na	na	4.0	7,116
	35-39	31.2	6,950	31.2	67.7	6,950	na	na	5.5	6,665
	40-44	31.4	5,697	31.4	69.0	5,697	na	na	6.0	5,278
	45-49	33.7	4,456	33.7	67.2	4,456	na	na	7.1	3,965
Education	None	34.6	13,544	35.2	73.1	13,142	44.7	402	7.8	12,252
	Primary incomplete	32.7	6,735	35.3	70.7	5,939	41.9	797	5.0	5,904
	Primary complete	27.1	6,882	29.4	67.3	5,991	47.9	890	3.6	6,100
	Secondary incomplete	18.1	16,420	22.8	61.3	11,539	34.0	4,881	2.0	12,515
	Secondary complete or higher	7.0	8,210	8.6	31.7	6,109	24.2	2,101	1.1	5,491
Wealth index quintile	Poorest	26.6	9,467	28.8	68.7	8,165	39.6	1,302	7.0	8,060
	Second	28.1	9,872	32.0	70.9	8,182	37.1	1,690	4.3	8,259
	Middle	25.5	10,264	29.6	66.0	8,400	35.6	1,864	3.5	8,468
	Fourth	22.6	10,699	26.3	61.0	8,609	34.1	2,090	3.8	8,551
	Richest	17.3	11,490	20.4	49.4	9,365	27.7	2,125	2.6	8,925

[1] MICS indicator 8.4 - Marriage before age 15
[2] MICS indicator 8.5 - Marriage before age 18
[3] MICS indicator 8.6 - Young women age 15-19 years currently married
[4] MICS indicator 8.7 – Polygyny

na= not applicable

Map CP.2: Women age 15-19 years currently married by district, Bangladesh, 2012-2013

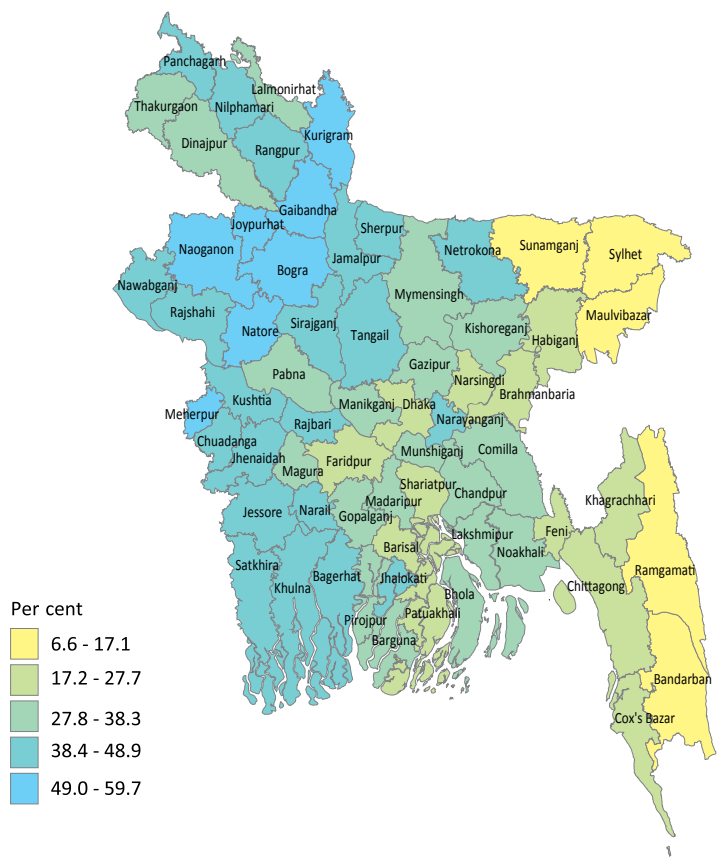


Table CP.5 presents the proportion of women who were first married or entered into a marital union before age 15 and 18 by area and age groups. Examining the percentages married before age 15 and 18 by different age groups allow us to see the trends in early marriage over time.

Data show that the prevalence of the proportion of women married or in union by age 15 and 18 has gradually declined over time: 67.2 per cent of women age 45-49 years were first married/in union by age 18 compared to 52.3 per cent of women age 20-24 years. Prevalence of child marriage dropped in recent years, mostly between age groups 25-29 and 20-24. Marriage before the age of 18 are in the same trend of decline as that of those before 15 albeit with much less rate of decline. Urban have lower rates of child marriage when compared with rural areas.

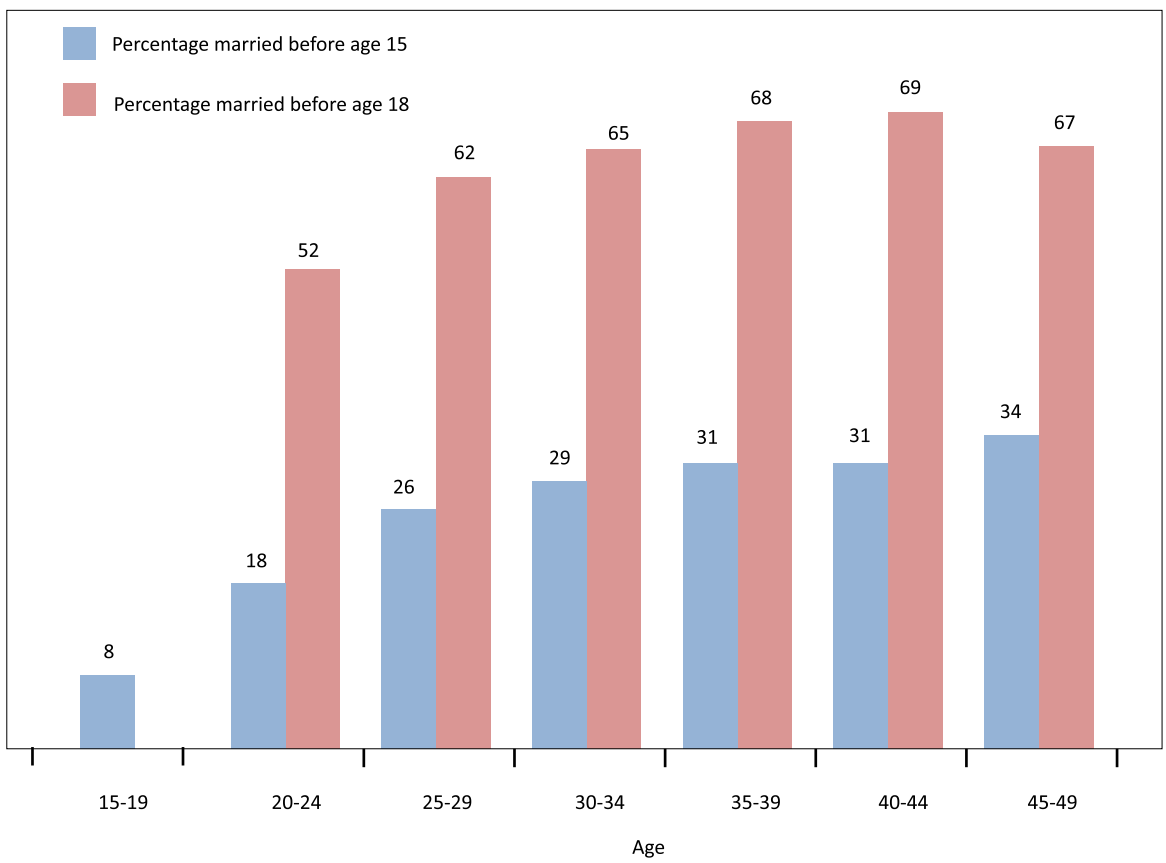
Table CP.5 Trends in early marriage (women)

Percentage of women who were first married before age 15 and 18, by area and age groups, Bangladesh, 2012-2013

		Urban				Rural				All			
		Percentage married before age 15	Number of women age 15-49 years	Percentage married before age 18	Number of women age 20-49 years	Percentage married before age 15	Number of women age 15 49 years	Percentage married before age 18	Number of women age 20-49 years	Percentage married before age 15	Number of women age 15-49 years	Percentage married before age 18	Number of women age 20-49 years
Total		**20.1**	**11,856**	**54.4**	**9,774**	**24.9**	**39,935**	**65.3**	**32,946**	**23.8**	**51,791**	**62.8**	**42,720**
Age	15-19	4.9	2,082	na	na	8.3	6,989	na	na	7.5	9,071	na	na
	20-24	15.5	2,219	44.7	2,219	19.0	6,612	54.9	6,612	18.1	8,831	52.3	8,831
	25-29	21.4	2,199	50.9	2,199	27.6	7,155	64.9	7,155	26.2	9,354	61.6	9,354
	30-34	26.4	1,741	57.9	1,741	29.2	5,691	67.0	5,691	28.5	7,432	64.9	7,432
	35-39	27.8	1,454	59.6	1,454	32.2	5,496	69.8	5,496	31.2	6,950	67.7	6,950
	40-44	27.6	1,174	64.0	1,174	32.4	4,524	70.3	4,524	31.4	5,697	69.0	5,697
	45-49	28.6	987	58.8	987	35.1	3,469	69.6	3,469	33.7	4,456	67.2	4,456

na= not applicable

Figure CP.3: Early marriage among women, Bangladesh, 2012-2013



Spousal age difference indicates the percentage of women in a marriage or union whose current spouse is ten or more years older. Table CP.6 presents the results of the age difference between husbands and wives in Bangladesh MICS. The results show that there are some important spousal age differences in Bangladesh. About one in five women age 20-24 is currently married to a man who is older by ten years or more (21.8 per cent), and equally about one in five women age 15-19 are currently married to men who are older by ten years or more (20.4 per cent). In both age groups, more than 40 per cent are married to or in union with spouse older by 5-9 years. In all, only about one in every three 15-24 year old married/in union women in Bangladesh MICS are with a spouse close to their own age (0-4 years older) and hardly any women marry spouse younger than themselves.

Marrying an older spouse is more widely practiced in urban areas, and divisions also differ, although the general pattern remains the same in all divisions. Interestingly, better educated and richer women are much more likely to have older spouses and they are also much less likely to be married to a spouse of their own age. Women aged 15-19 from the richest households, for example, are around three times as likely to be married to or in union with a spouse ten or more years older as women from the poorest households.

Table CP.6: Spousal age difference

Per cent distribution of women currently married age 15-19 and 20-24 years according to the age difference with their husband or partner, Bangladesh, 2012-2013

		Percentage of currently married women age 15-19 years whose husband or partner is:						Number of women age 15-19 years currently married	Percentage of currently married women age 20-24 years whose husband or partner is:						Number of women age 20-24 years currently married
		Younger	0-4 years older	5-9 years older	10+ years older [1]	Husband/ partner's age unknown	Total		Younger	0-4 years older	5-9 years older	10+ years older [2]	Husband/ partner's age unknown	Total	
Total		**0.3**	**31.2**	**46.5**	**20.4**	**1.5**	**100.0**	**3,108**	**0.6**	**34.7**	**41.5**	**21.8**	**1.4**	**100.0**	**7,294**
Division	Barisal	0.4	29.8	47.1	22.6	0.2	100.0	175	0.6	35.3	46.6	17.1	0.5	100.0	421
	Chittagong	0.2	22.7	50.2	24.7	2.2	100.0	532	0.3	29.1	40.8	27.7	2.1	100.0	1,450
	Dhaka	0.0	32.7	45.5	19.9	1.9	100.0	957	0.5	35.2	43.0	19.9	1.5	100.0	2,427
	Khulna	0.7	28.9	45.9	23.8	0.7	100.0	417	0.7	34.4	40.8	23.6	0.5	100.0	803
	Rajshahi	0.5	34.4	45.8	17.0	2.3	100.0	519	0.8	40.3	37.8	19.0	2.1	100.0	953
	Rangpur	0.7	37.9	45.8	15.4	0.2	100.0	414	1.6	41.9	40.7	15.3	0.6	100.0	841
	Sylhet	0.0	30.9	44.7	22.6	1.8	100.0	94	0.1	23.5	42.3	32.8	1.2	100.0	398
Area	Urban	0.2	28.4	45.7	23.7	2.0	100.0	585	0.7	33.0	40.7	24.4	1.2	100.0	1,712
	Rural	0.4	31.9	46.7	19.6	1.4	100.0	2,523	0.6	35.2	41.8	21.0	1.5	100.0	5,582
Age	15-19	0.3	31.2	46.5	20.4	1.5	100.0	3,108	na	na	na	na	na	na	na
	20-24	na	na	na	na	na	na	na	0.6	34.7	41.5	21.8	1.4	100.0	7,294
Education	None	0.6	46.9	37.6	11.4	3.4	100.0	179	0.6	37.7	39.8	18.9	3.0	100.0	696
	Primary incomplete	0.0	34.4	48.7	14.7	2.2	100.0	334	1.1	41.2	37.0	18.5	2.2	100.0	899
	Primary complete	0.4	41.7	43.9	13.1	0.9	100.0	427	0.5	41.0	42.9	15.0	0.7	100.0	1,146
	Secondary incomplete	0.3	29.9	47.1	21.4	1.2	100.0	1,659	0.5	33.2	42.9	22.3	1.2	100.0	3,335
	Secondary complete or higher	0.3	19.1	48.5	30.1	2.0	100.0	509	0.8	26.3	40.9	30.9	1.1	100.0	1,217
Wealth index quintile	Poorest	1.0	44.7	41.2	11.5	1.6	100.0	516	0.3	40.6	43.2	14.5	1.4	100.0	1,281
	Second	0.3	32.3	49.5	16.2	1.6	100.0	627	0.7	39.6	40.8	17.9	1.0	100.0	1,428
	Middle	0.0	37.3	45.5	15.5	1.7	100.0	663	1.0	40.0	39.1	18.4	1.5	100.0	1,391
	Fourth	0.3	27.7	46.1	24.5	1.3	100.0	713	0.6	33.4	41.1	23.4	1.5	100.0	1,568
	Richest	0.2	15.7	49.5	33.2	1.3	100.0	589	0.3	22.4	43.4	32.2	1.7	100.0	1,626

[1] MICS indicator 8.10a - Spousal age difference (among women age 15-19)
[2] MICS indicator 8.10b - Spousal age difference (among women age 20-24)

na = not applicable

Children's Living Arrangements

The CRC recognizes that "the child, for the full and harmonious development of his or her personality, should grow up in a family environment, in an atmosphere of happiness, love and understanding". Millions of children around the world grow up without the care of their parents for several reasons, including due to the premature death of the parents or their migration for work. In most cases, these children are cared for by members of their extended families, while in others, children may be living in households other than their own, as live-in domestic workers for instance. Understanding the children's living arrangements, including the composition of the households where they live and the relationships with their primary caregivers, is key to design targeted interventions aimed at promoting child's care and wellbeing.

Children's living arrangements (living with neither parent, living with mother only and living with father only) and orphanhood status of under-eighteen children are presented in Table CP.7. In Bangladesh MICS, 85.7 per cent of children aged 0–17 years live with both parents while 3.8 per cent live with neither of biological parents. 8.8 per cent live with mother only and 1.2 per cent live with father only. The percentage of children whose one or both parents are dead is 4.3.

The prevalence of children not living with a biological parent is higher in girls than in boys (5 per cent versus 2.7 per cent). The results vary by divisions. Sylhet has the highest percentage of children with one or both parent dead (6.2 per cent) and Rajshahi and Rangpur see a higher percentage of children not living with a biological parent at 5.3 and 5.1 per cent respectively.

Table CP.7: Children's living arrangements and orphanhood

Per cent distribution of children age 0-17 years according to living arrangements, percentage of children age 0-17 years not living with a biological parent and percentage of children who have one or both parents dead, Bangladesh, 2012-2013

		Living with both parents	Living with neither biological parent				Living with mother only		Living with father only		Missing information on father mother	Total	Not living with a biological parent [1]	One or both parents dead [2]	Number of children age 0-17 years
			Only father alive	Only mother alive	Both alive	Both dead	Father alive	Father dead	Mother alive	Mother dead					
Total		**85.7**	**0.3**	**0.3**	**2.9**	**0.4**	**6.2**	**2.6**	**0.4**	**0.8**	**0.5**	**100.0**	**3.8**	**4.3**	**92,546**
Sex	Male	86.9	0.2	0.2	1.9	0.3	6.1	2.7	0.4	0.8	0.4	100.0	2.7	4.3	47,526
	Female	84.3	0.3	0.3	4.0	0.4	6.3	2.5	0.4	0.8	0.6	100.0	5.0	4.3	45,020
Division	Barisal	87.2	0.3	0.4	3.5	0.3	3.9	2.6	0.4	1.2	0.2	100.0	4.5	4.9	5,896
	Chittagong	81.5	0.1	0.2	1.3	0.2	11.5	3.6	0.2	0.7	0.7	100.0	1.8	4.9	20,524
	Dhaka	85.7	0.2	0.3	3.2	0.4	6.0	2.4	0.5	0.7	0.5	100.0	4.2	4.1	28,090
	Khulna	87.7	0.3	0.4	3.5	0.3	4.3	1.9	0.5	0.7	0.4	100.0	4.5	3.6	9,153
	Rajshahi	88.4	0.4	0.3	4.4	0.3	3.0	1.7	0.5	0.6	0.5	100.0	5.3	3.2	10,992
	Rangpur	89.5	0.3	0.2	4.1	0.5	1.6	2.2	0.3	0.9	0.4	100.0	5.1	4.1	10,765
	Sylhet	83.8	0.4	0.3	1.3	0.4	7.7	4.0	0.3	1.1	0.7	100.0	2.4	6.2	7,127
Area	Urban	84.9	0.4	0.4	3.1	0.5	7.0	2.3	0.4	0.6	0.5	100.0	4.3	4.2	17,869
	Rural	85.8	0.2	0.3	2.9	0.3	6.0	2.7	0.4	0.8	0.5	100.0	3.7	4.4	74,677
Age	0-4	89.9	0.1	0.0	1.1	0.1	7.6	0.7	0.1	0.2	0.2	100.0	1.3	1.1	23,430
	5-9	87.3	0.2	0.2	2.3	0.1	6.8	1.8	0.5	0.5	0.2	100.0	2.8	2.9	27,574
	10-14	84.9	0.4	0.3	3.0	0.3	5.5	3.8	0.5	1.2	0.2	100.0	3.9	5.9	27,839
	15-17	76.7	0.5	0.6	7.5	1.4	3.7	5.4	0.4	1.7	2.2	100.0	10.0	9.5	13,705
Wealth index quintile	Poorest	88.8	0.2	0.3	2.7	0.2	2.4	3.7	0.4	1.0	0.3	100.0	3.3	5.4	21,350
	Second	88.5	0.3	0.3	3.0	0.4	2.7	2.9	0.4	1.1	0.5	100.0	3.9	4.9	19,479
	Middle	87.6	0.3	0.3	3.0	0.4	4.9	2.0	0.3	0.7	0.6	100.0	3.9	3.6	18,395
	Fourth	82.4	0.2	0.3	2.8	0.4	9.9	2.4	0.4	0.6	0.6	100.0	3.7	4.0	17,167
	Richest	79.5	0.4	0.3	3.3	0.4	12.8	1.8	0.5	0.4	0.6	100.0	4.5	3.3	16,156

[1] MICS indicator 8.13 - Children's living arrangements
[2] MICS indicator 8.14 - Prevalence of children with one or both parents dead

The Bangladesh MICS 2012-2013 included a simple measure of one particular aspect of migration related to what is termed children left behind, i.e. for whom one or both parents have moved abroad. While the amount of literature is growing, the long-term effects of the benefits of remittances versus the potential adverse psycho-social effects are not yet conclusive, as there is somewhat conflicting evidence available as to the effects on children.

Besides presenting simple prevalence rates, the results of the Bangladesh MICS presented in Table CP.8 will greatly help fill the data gap on the topic of migration.

As expected, only 4.8 per cent of children age 0-17 have one parent living abroad. It is mostly the father who is living abroad. There are notable differences between groups of children, as the percentage of at least one parent abroad is much higher in Chittagong division (9.9 per cent) and among children in the richest households (12 per cent).

Table CP.8: Children with parents living abroad

Per cent distribution of children age 0-17 years by residence of parents in another country, Bangladesh, 2012-2013

		Per cent distribution of children age 0-17 years:					Percentage of children age 0-17 years with at least one parent living abroad [1]	Number of children age 0-17 years
		With at least one parent living abroad: Only mother abroad	With at least one parent living abroad: Only father abroad	With at least one parent living abroad: Both mother and father abroad	With neither parent living abroad	Total		
Total		**0.1**	**4.7**	**0.0**	**95.2**	**100.0**	**4.8**	**92,546**
Sex	Male	0.1	4.5	0.0	95.4	100.0	4.6	47,526
	Female	0.1	4.9	0.0	95.0	100.0	5.0	45,020
Division	Barisal	0.1	2.3	0.0	97.7	100.0	2.3	5,896
	Chittagong	0.1	9.8	0.0	90.1	100.0	9.9	20,524
	Dhaka	0.3	4.7	0.0	95.0	100.0	5.0	28,090
	Khulna	0.2	2.6	0.1	97.2	100.0	2.8	9,153
	Rajshahi	0.1	1.4	0.0	98.5	100.0	1.5	10,992
	Rangpur	0.0	0.3	0.0	99.7	100.0	0.3	10,765
	Sylhet	0.1	6.2	0.0	93.7	100.0	6.3	7,127
Area	Urban	0.1	5.1	0.0	94.8	100.0	5.2	17,869
	Rural	0.1	4.6	0.0	95.3	100.0	4.7	74,677
Age	0-4	0.0	5.7	0.0	94.3	100.0	5.7	23,430
	5-9	0.2	5.3	0.0	94.5	100.0	5.5	27,574
	10-14	0.2	4.1	0.0	95.7	100.0	4.3	27,839
	15-17	0.2	2.9	0.1	96.9	100.0	3.1	13,705
Wealth index quintile	Poorest	0.1	0.5	0.0	99.4	100.0	0.6	21,350
	Second	0.1	1.4	0.0	98.5	100.0	1.5	19,479
	Middle	0.2	3.5	0.0	96.4	100.0	3.6	18,395
	Fourth	0.1	8.3	0.0	91.6	100.0	8.4	17,167
	Richest	0.2	11.7	0.0	88.0	100.0	12.0	16,156

[1] MICS indicator 8.15 - Children with at least one parent living abroad

XII. HIV/AIDS

Knowledge about HIV Transmission and Misconceptions about HIV

One of the most important prerequisites for reducing the rate of HIV infection is accurate knowledge of how HIV is transmitted and strategies for preventing transmission. Correct information is the first step towards raising awareness and giving adolescents and young people the tools to protect themselves from infection. Misconceptions about HIV are common and can confuse adolescents and young people and hinder prevention efforts. Different regions are likely to have variations in misconceptions although some appear universal (for example that sharing food or mosquito bites can transmit HIV). The UN General Assembly Special Session on HIV/AIDS (UNGASS) called on governments to improve the knowledge and skills of young people to protect themselves from HIV. The indicators to measure this goal as well as the MDG of reducing HIV infections by half include improving the level of knowledge of HIV and its prevention, and changing behaviours to prevent further spread of the disease. HIV module(s) were administered to women 15-49 years of age. Please note that the questions in this module often refer to "the AIDS virus". This terminology is used strictly as a method of data collection to aid respondents, preferred over the correct terminology of "HIV" that is used here in reporting the results, where appropriate.

Table HA.1: Knowledge about HIV transmission, misconceptions about HIV, and comprehensive knowledge about HIV transmission (women)

Percentage of women age 15-49 years who know the main ways of preventing HIV transmission, percentage who know that a healthy looking person can have the AIDS virus, percentage who reject common misconceptions, and percentage who have comprehensive knowledge about HIV transmission, Bangladesh, 2012-2013

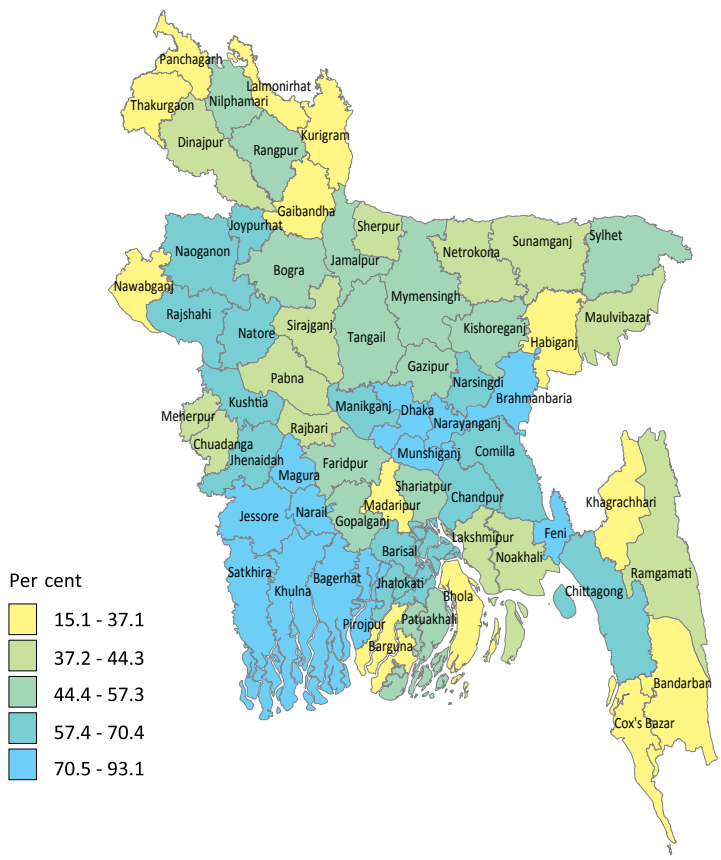
		Percentage who have heard of AIDS	Percentage who know transmission can be prevented by:			Percentage who know that a healthy looking person can be HIV-positive	Percentage who know that HIV cannot be transmitted by:			Percenage who reject the two most common misconceptions and know that a healthy looking person can have the AIDS virus	Percentage with comprehensive knowledge [1]	Number of women age 15-49
			Having only one faithful uninfected sex partner	Using a condom every time	Percentage of women who know both ways		Mosquito bites	Super natural means	Sharing food with some one with HIV			
Total		**55.8**	**32.3**	**29.3**	**23.2**	**31.9**	**25.7**	**40.7**	**31.0**	**11.1**	**6.6**	**51,791**
Division	Barisal	50.2	28.8	24.5	19.8	29.9	21.0	35.0	26.6	10.2	5.5	3,083
	Chittagong	58.1	25.4	26.2	18.2	31.8	26.6	43.7	32.4	11.1	4.3	9,794
	Dhaka	58.6	38.0	34.3	29.0	36.5	30.2	44.2	34.5	15.2	10.5	16,411
	Khulna	76.6	43.4	40.0	30.1	40.5	28.4	50.0	39.9	9.1	6.0	6,046
	Rajshahi	52.4	33.4	27.6	22.4	32.8	20.9	36.8	26.4	9.2	6.2	7,088
	Rangpur	38.3	25.6	20.6	16.7	19.2	21.4	30.7	22.1	7.0	3.2	6,156
	Sylhet	42.8	17.8	18.0	14.0	17.4	18.5	29.4	23.0	6.9	3.2	3,212
Area	Urban	72.7	46.2	43.2	35.5	45.2	38.0	57.1	46.4	19.0	12.4	11,856
	Rural	50.8	28.2	25.2	19.6	28.0	22.1	35.8	26.4	8.7	4.8	39,935
Age	15-24 [1]	69.4	40.8	37.1	29.5	41.1	35.2	53.5	42.6	16.1	9.1	17,901
	15-19	72.1	41.6	37.5	29.9	43.0	38.8	57.1	46.1	18.5	10.2	9,071
	20-24	66.6	40.0	36.7	29.2	39.2	31.5	49.8	38.9	13.6	7.9	8,831
	25-29	60.7	36.7	34.2	27.1	34.2	27.7	44.3	33.2	11.6	7.4	9,354
	30-39	48.9	28.0	24.8	19.8	27.5	20.6	34.2	24.7	8.3	5.1	14,382
	40-49	37.2	19.7	17.3	13.5	19.9	14.5	24.0	17.3	5.8	3.5	10,153
Marital status	Ever married	52.0	30.1	27.1	21.5	29.1	22.2	36.6	27.0	9.1	5.6	44,150
	Never married	78.0	45.3	41.9	33.4	48.1	46.0	64.1	53.8	22.8	12.3	7,641

Table HA.1: continued

		Percentage who have heard of AIDS	Percentage who know transmission can be prevented by:			Percentage who know that a healthy looking person can be HIV-positive	Percentage who know that HIV cannot be transmitted by:			Percenage who reject the two most common misconceptions and know that a healthy looking person can have the AIDS virus	Percentage with comprehensive knowledge [1]	Number of women age 15-49
			Having only one faithful uninfected sex partner	Using a condom every time	Percentage of women who know both ways		Mosquito bites	Super natural means	Sharing food with some one with HIV			
Education	None	20.9	8.4	6.9	4.6	9.2	5.7	10.7	7.1	1.5	0.6	13,544
	Primary incomplete	39.8	16.9	14.2	9.8	19.6	11.0	21.2	14.9	3.5	1.4	6,735
	Primary complete	46.3	22.8	19.6	14.6	23.2	15.9	28.7	19.5	5.3	2.3	6,882
	Secondary incomplete	75.3	44.3	39.5	31.4	43.1	34.7	56.6	42.0	13.6	7.5	16,420
	Secondary complete or higher	95.7	68.6	66.3	56.0	64.5	61.0	84.5	71.0	33.0	22.4	8,210
Wealth index quintile	Poorest	27.9	12.5	10.3	7.2	14.7	8.7	16.7	10.9	2.7	1.2	9,467
	Second	40.4	20.4	17.1	12.7	22.2	14.5	26.6	17.9	5.2	2.3	9,872
	Middle	53.9	29.5	25.2	19.6	28.8	22.3	37.0	25.6	8.4	4.5	10,264
	Fourth	66.3	38.7	35.6	27.7	37.3	30.6	48.7	37.1	12.7	6.8	10,699
	Richest	84.2	55.6	53.2	44.6	52.2	48.0	68.5	57.7	24.0	16.4	11,490

[1] MICS indicator 9.1; MDG indicator 6.3 - Knowledge about HIV prevention among young women

Map HA.1: Women age 15-49 who have heard of AIDS, Bangladesh, 2012-2013



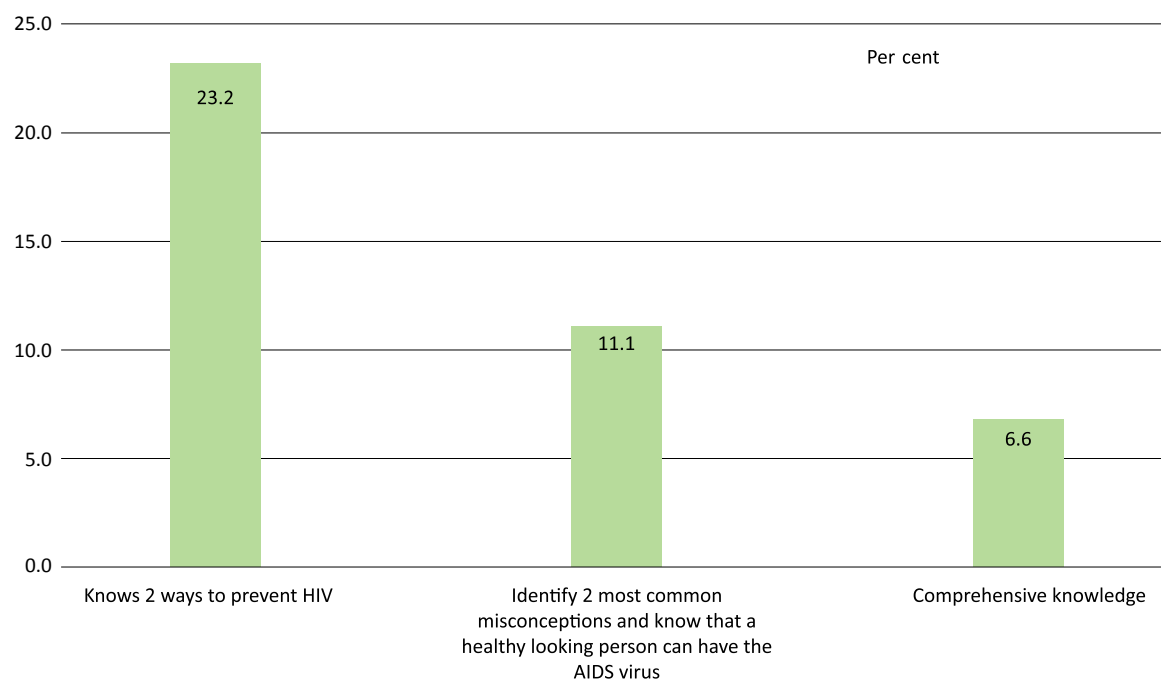
One indicator which is both an MDG and the Global AIDS Response Progress Reporting (GARPR; formerly UNGASS) indicator is the percentage of young people who have comprehensive and correct knowledge of HIV prevention and transmission. This is defined as 1) knowing that consistent use of a condom during sexual intercourse and having just one uninfected faithful partner can reduce the chance of getting HIV, 2) knowing that a healthy-looking person can have HIV, and 3) rejecting the two most common local misconceptions about transmission/prevention of HIV. In the Bangladesh MICS all women who have heard of AIDS were asked questions on all three components and the results are detailed in Tables HA.1.

In Bangladesh more than half of the interviewed women (55.8 per cent) have heard of AIDS. However, only 32.3 per cent know that HIV transmission can be prevented by having only one faithful uninfected sex partner, and 29.3 per cent know by using a condom every time, with only 23.2 per cent knowing both ways. Knowledge about prevention of HIV transmission is much higher in urban women, in younger women, and in never married women. Divisions vary considerably, from the lowest 14 per cent in Sylhet to the highest 30.1 per cent in Khulna.

Education and wealth have a decisively positive influence on knowledge about HIV prevention; 56 per cent of women with secondary complete or higher education know both ways, for example, contrasted with only 4.6 per cent of women with no education.

Table HA.1 also presents the percentage of women who can correctly identify misconceptions concerning HIV. This indicator is based on the two most common misconceptions in Bangladesh, that HIV can be transmitted through mosquito bites or by sharing food with someone with AIDS. The table also provides information on whether women know that HIV cannot be transmitted by supernatural means. Overall 11.1 per cent women reject the two most common misconceptions and know that a healthy-looking person can be infected. One in every four women knows that HIV cannot be transmitted by mosquito bites, and three in every ten know that HIV cannot be transmitted by sharing food with someone with AIDS. About the same proportion of women know that a healthy-looking person can be infected.

Figure HA.1: Women age 15-49 years with comprehensive knowledge of HIV transmission, Bangladesh, 2012-2013



People, who have comprehensive knowledge about HIV prevention, include those who know of the two main ways of HIV prevention (having only one faithful uninfected partner and using a condom every time), who know that a healthy looking person can be HIV-positive, and who reject the two most common misconceptions. Comprehensive knowledge of HIV prevention methods and transmission is fairly low although there are differences by area. Overall, 6.6 per cent of women were found to have comprehensive knowledge, which was almost three times higher in urban areas compared to rural areas (12.4 per cent and 4.8 per cent in rural, respectively). As with general awareness of HIV transmission described earlier, this comprehensive knowledge is positively correlated with women's education and wealth levels. Divisions also vary; Dhaka has higher percentage of women with comprehensive knowledge (10.5 per cent) than other divisions.

Table HA.2: Knowledge of mother-to-child HIV transmission (women)

Percentage of women age 15-49 years who correctly identify means of HIV transmission from mother to child, Bangladesh, 2012-2013

		Percentage of women age 15-49 who have heard of AIDS and:						Percentage who know HIV can be transmitted from mother to child	Number of women age 5-49
		Know HIV can be transmitted from mother to child:					Do not know any of the specific means of HIV transmission from mother to child		
		During pregnancy	During delivery	By breastfeeding	By at least one of the three means	By all three means [1]			
Total		**39.8**	**23.5**	**36.9**	**43.8**	**21.7**	**12.1**	**43.8**	**51,791**
Division	Barisal	40.0	27.3	35.0	41.0	26.1	9.2	41.0	3,083
	Chittagong	34.7	21.5	31.9	37.4	20.4	20.6	37.4	9,794
	Dhaka	43.8	21.5	37.4	46.5	19.8	12.1	46.5	16,411
	Khulna	57.1	34.8	59.8	67.0	32.9	9.6	67.0	6,046
	Rajshahi	39.8	28.4	36.6	44.1	25.2	8.2	44.1	7,088
	Rangpur	28.3	17.3	28.4	32.3	15.3	6.0	32.3	6,156
	Sylhet	24.8	15.5	25.0	28.9	14.0	13.9	28.9	3,212
Area	Urban	54.2	29.1	47.8	58.0	26.7	14.8	58.0	11,856
	Rural	35.5	21.8	33.7	39.5	20.1	11.3	39.5	39,935
Age group	15-24 [1]	49.2	29.2	46.3	54.7	27.1	14.7	54.7	17,901
	15-19	50.0	29.9	48.1	56.3	27.9	15.8	56.3	9,071
	20-24	48.4	28.5	44.3	53.0	26.2	13.6	53.0	8,831
	25-29	44.8	26.2	40.5	48.7	23.8	12.0	48.7	9,354
	30-39	35.2	20.6	32.5	38.3	19.1	10.7	38.3	14,382
	40-49	25.1	15.0	23.3	27.7	13.6	9.6	27.7	10,153
Marital status	Ever married	37.3	22.0	34.2	40.8	20.2	11.3	40.8	44,150
	Never married	54.3	31.7	52.6	61.0	29.8	16.9	61.0	7,641
Education	None	12.8	7.7	12.2	14.5	7.1	6.4	14.5	13,544
	Primary incomplete	24.5	15.4	23.7	28.3	14.0	11.5	28.3	6,735
	Primary complete	30.3	17.2	27.1	33.5	15.9	12.8	33.5	6,882
	Secondary incomplete	53.9	32.5	49.9	59.2	29.7	16.1	59.2	16,420
	Secondary complete or higher	76.7	43.4	70.8	82.4	40.5	13.3	82.4	8,210
Wealth index quintile	Poorest	18.6	11.8	18.2	21.4	10.8	6.5	21.4	9,467
	Second	28.0	17.6	27.3	31.5	16.2	8.9	31.5	9,872
	Middle	37.3	22.8	35.1	41.3	21.2	12.6	41.3	10,264
	Fourth	46.6	29.3	43.2	51.5	26.9	14.8	51.5	10,699
	Richest	63.3	33.4	56.3	67.7	30.7	16.5	67.7	11,490

[1] MICS indicator 9.2 - Knowledge of mother-to-child transmission of HIV

Knowledge of mother-to-child transmission of HIV is also an important first step for women to seek HIV testing when they are pregnant to avoid infection in the baby. Women and men should know that HIV can be transmitted during pregnancy, during delivery, and through breastfeeding. The level of knowledge among women age 15-49 years concerning mother-to-child transmission is presented in Table HA.2.

Overall, 43.8 per cent of women knew that HIV can be transmitted from mother to child. About one in every five women knew all three ways of mother-to-child transmission, with 39.8 per cent knowing that HIV can be transmitted during pregnancy, 23.5 per cent during delivery and 36.9 per cent by breastfeeding. Some12.1 per cent of women did not know of any specific way. The knowledge about all three ways of mother-to-child transmission is strongly associated with women's education and wealth level, and higher levels of knowledge is found in urban women, women of younger age, women who never married/in union. Divisions also vary; Khulna has the highest percentage at 32.9 per cent as compared to Sylhet at 14 per cent.

Accepting Attitudes toward People Living with HIV

The indicators on attitudes toward people living with HIV measure stigma and discrimination in the community. Stigma and discrimination are considered low if respondents report an accepting attitude on the following four questions: 1) would care for a family member with AIDS in own home; 2) would buy fresh vegetables from a vendor who is HIV-positive; 3) thinks that a female teacher who is HIV-positive should be allowed to teach in school; and 4) would not want to keep it a secret if a family member is HIV-positive.

Table HA.3: Accepting attitudes toward people living with HIV/AIDS (women)

Percentage of women age 15-49 years who have heard of AIDS who express an accepting attitude towards people living with HIV, Bangladesh, 2012-2013

		Per cent of women who:						Number of women who have heard of AIDS
		Are willing to care for a family member with AIDS in own home	Would buy fresh vegetables from a shopkeeper or vendor who is HIV-positive	Believe that a female teacher who is HIV-positive and is not sick should be allowed to continue teaching	Would not want to keep secret that a family member is HIV-positive	Agree with at least one accepting attitude	Express accepting attitudes on all four indicators [1]	
Total		**75.6**	**55.9**	**61.4**	**79.8**	**92.7**	**37.2**	**28,924**
Division	Barisal	76.2	49.6	55.4	84.6	90.4	39.9	1,548
	Chittagong	79.5	59.5	69.3	70.8	90.3	41.4	5,688
	Dhaka	69.2	61.5	65.1	83.8	91.5	40.2	9,614
	Khulna	74.7	46.0	46.3	86.5	96.6	29.8	4,629
	Rajshahi	82.8	54.5	65.1	84.5	97.1	37.1	3,711
	Rangpur	88.3	57.1	64.4	69.1	97.3	33.8	2,360
	Sylhet	65.0	43.7	45.7	68.0	81.5	28.1	1,374
Area	Urban	77.0	65.8	69.3	80.7	93.8	44.1	8,624
	Rural	74.9	51.7	58.1	79.5	92.2	34.3	20,300
Age	15-24 [1]	78.1	63.5	68.9	80.4	94.1	43.5	12,426
	15-19	79.1	67.1	72.1	80.8	94.5	46.5	6,544
	20-24	76.9	59.4	65.4	80.0	93.7	40.1	5,882
	25-29	74.0	52.6	58.5	80.0	92.1	34.3	5,680
	30-39	73.9	50.7	56.1	79.1	91.9	32.9	7,038
	40-49	72.9	45.5	51.4	79.1	90.6	29.3	3,781
Marital status	Ever married	74.1	51.6	57.5	79.4	92.0	33.6	22,965
	Never married	81.2	72.4	76.5	81.4	95.6	51.2	5,959

Table HA.3: continued

		Per cent of women who:						Number of women who have heard of AIDS
		Are willing to care for a family member with AIDS in own home	Would buy fresh vegetables from a shopkeeper or vendor who is HIV-positive	Believe that a female teacher who is HIV-positive and is not sick should be allowed to continue teaching	Would not want to keep secret that a family member is HIV-positive	Agree with at least one accepting attitude	Express accepting attitudes on all four indicators [1]	
Education	None	66.3	30.5	36.9	71.4	85.2	16.4	2,833
	Primary incomplete	64.6	29.6	35.2	74.5	84.5	17.2	2,680
	Primary complete	68.1	39.7	46.3	75.4	86.8	23.3	3,184
	Secondary incomplete	77.0	56.6	63.3	80.7	94.3	37.3	12,370
	Secondary complete or higher	83.4	79.3	82.5	85.1	98.2	57.1	7,858
Wealth index quintile	Poorest	74.0	33.8	42.8	79.2	92.4	21.4	2,645
	Second	74.0	40.8	48.7	79.3	91.8	26.1	3,985
	Middle	73.3	49.8	56.2	78.0	91.3	31.7	5,533
	Fourth	74.9	56.5	61.9	79.4	91.6	38.6	7,093
	Richest	78.4	71.1	74.4	81.6	94.8	48.4	9,669

[1] MICS indicator 9.3 - Accepting attitudes towards people living with HIV

Figure HA.2: Accepting attitudes of women towards people living with HIV/AIDS, Bangladesh, 2012-2013

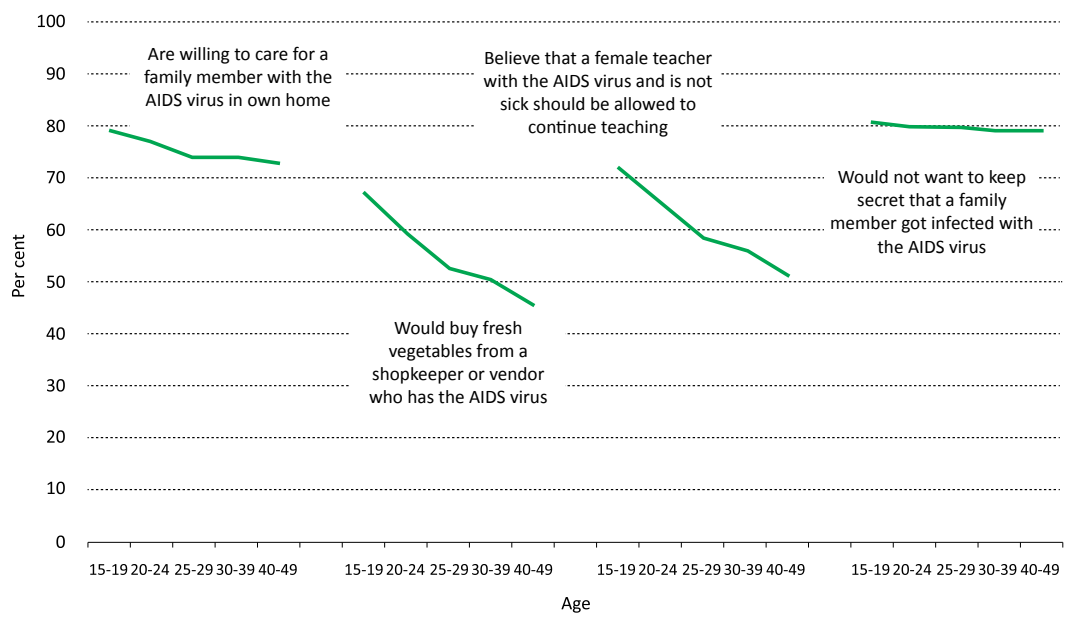


Table HA.3 presents the attitudes of women towards people living with HIV/AIDS. In Bangladesh, 92.7 per cent of women who have heard of AIDS agree with at least one discriminatory statement. The most accepting attitude is that they would not want to keep HIV status of a family member a secret (79.8 per cent) and 75.6 per cent expressed they would care for family member sick with AIDS. The most common discriminating attitude is buying fresh vegetables from a person who is HIV-positive - only 55.9 per cent would buy fresh vegetables from a person who has AIDS. Believing that a teacher living with HIV and who is not sick should be allowed to teach is accepted by 61.4 per cent. Overall, however, only 37.2 per cent of women who heard of AIDS expressed an accepting attitude for all four indicators.

Unmarried, younger, more educated, and richer women have more accepting attitudes. Urban women also have more accepting attitudes on all four indicators (44.1 per cent in urban areas against 34.3 per cent in rural areas). Divisions vary, with a range of 28.1 per cent in Sylhet to the highest 41.4 per cent in Chittagong.

Knowledge of a Place for HIV Testing, Counselling and Testing during Antenatal Care

Another important indicator is the knowledge of where to be tested for HIV and use of such services. In order to protect themselves and to prevent infecting others, it is important for individuals to know their HIV status. Knowledge of own status is also a critical factor in the decision to seek treatment.

Table HA.4: Knowledge of a place for HIV testing (women)

Percentage of women age 15-49 years who know where to get an HIV test, Bangladesh, 2012-2013

		Per cent of women who know a place to get tested [1]	Number of women
Total		**11.3**	**51,791**
Division	Barisal	8.2	3,083
	Chittagong	13.8	9,794
	Dhaka	11.0	16,411
	Khulna	16.4	6,046
	Rajshahi	10.5	7,088
	Rangpur	8.5	6,156
	Sylhet	6.2	3,212
Area	Urban	18.8	11,856
	Rural	9.1	39,935
Age	15-24	14.9	17,901
	15-19	15.1	9,071
	20-24	14.6	8,831
	25-29	12.1	9,354
	30-39	9.5	14,382
	40-49	6.9	10,153
Marital status	Ever married	9.8	44,150
	Never married	19.9	7,641
Education	None	2.2	13,544
	Primary incomplete	3.9	6,735
	Primary complete	5.1	6,882
	Secondary incomplete	13.4	16,420
	Secondary complete or higher	33.6	8,210
Wealth index quintile	Poorest	2.7	9,467
	Second	5.5	9,872
	Middle	8.8	10,264
	Fourth	12.5	10,699
	Richest	24.6	11,490

[1] MICS indicator 9.4 - Women who know where to be tested for HIV

Questions related to knowledge of a facility for HIV testing and whether a person has ever been tested is presented in Tables HA.4. Overall in Bangladesh, 11.3 per cent per cent of women knew where to be tested. Education and wealth has a strong positive correlation with the knowledge of HIV testing place; some 33.6 per cent of women with secondary or higher education knew of a place for HIV test, as compared with only 2.2 per cent of women with no education. Higher knowledge levels can be found among urban women, younger women, and never married women. Divisions vary considerably, from the lowest 6.2 per cent in Sylhet to the highest 16.4 per cent in Khulna.

Table HA.5: HIV counselling during antenatal care

Percentage of women age 15-49 with a live birth in the last 2 years who received antenatal care from a health professional during the last pregnancy, and percentage who received HIV counselling, Bangladesh, 2012-2013

		Percentage of women who:		Number of women age 15-49 with a live birth in the last 2 years
		Received antenatal care from a health care professional for last pregnancy	Received HIV counselling during antenatal care [1]	
Total		**58.7**	**2.5**	**7,950**
Division	Barisal	40.3	1.4	475
	Chittagong	58.1	2.8	1,851
	Dhaka	61.9	2.6	2,503
	Khulna	74.6	2.7	760
	Rajshahi	63.6	2.2	850
	Rangpur	46.6	1.9	886
	Sylhet	52.1	2.8	625
Area	Urban	72.1	5.4	1,681
	Rural	55.1	1.7	6,268
Age	15-24	62.5	2.8	3,695
	15-19	62.1	2.5	929
	20-24	62.7	2.9	2,766
	25-29	59.6	3.1	2,372
	30-39	52.7	1.3	1,661
	40-49	29.4	0.5	222
Marital status	Ever married	58.7	2.5	7,950
Education	None	34.0	0.2	1,460
	Primary incomplete	42.4	0.4	1,056
	Primary complete	52.2	1.0	1,231
	Secondary incomplete	68.1	2.5	3,043
	Secondary complete or higher	86.5	9.0	1,160
Wealth index quintile	Poorest	34.4	0.4	1,828
	Second	43.1	0.5	1,607
	Middle	59.4	1.8	1,524
	Fourth	71.9	2.4	1,415
	Richest	90.0	7.6	1,575

[1] MICS indicator 9.7 - HIV counselling during antenatal care

Among women who had given birth within the two years preceding the survey, the percentage who received HIV counselling during antenatal care is presented in Table HA.5. About 58.7 per cent of women aged 15-49 received antenatal care from a health care professional for the last pregnancy, of which only 2.5 per cent received HIV counselling during antenatal care. Higher percentage of women in urban areas, of younger age, and those with better education and from wealthier background had received HIV counselling during antenatal care. Women in Barisal division have lower percentage of HIV counselling during antenatal care (1.4 per cent).

HIV Indicators for Young Women

In many countries, over half of new adult HIV infections are among young people age 15-24 years thus a change in behaviour among members of this age group is especially important to reduce new infections. The next tables present specific information on this age group of women.

Table HA.6 Key HIV and AIDS indicators (young women)

Percentage of women age 15-24 years by key HIV and AIDS indicators, Bangladesh, 2012-2013

		Percentage of women age 15-24 years who:				Number of women age 15-24 years	Percentage who express accepting attitudes towards people living with HIV on all four indicators	Number of women age 15-24 years who have heard of AIDS
		Have comprehensive knowledge [1]	Know all three means of HIV transmission from mother to child	Percentage who know HIV can be transmitted from mother to child	Know a place to get tested			
Total		**9.1**	**27.1**	**54.7**	**14.9**	**17,901**	**43.5**	**12,426**
Division	Barisal	7.4	35.1	54.0	11.1	1,035	47.4	665
	Chittagong	5.5	22.3	42.1	18.7	3,751	47.3	2,532
	Dhaka	13.0	25.0	58.4	13.5	5,803	44.3	4,214
	Khulna	9.4	40.2	77.3	21.0	1,911	38.8	1,661
	Rajshahi	10.0	34.4	60.5	14.7	2,206	44.9	1,527
	Rangpur	5.9	22.8	49.2	11.8	1,935	39.9	1,132
	Sylhet	5.3	18.3	39.5	8.6	1,260	34.2	695
Area	Urban	13.7	30.5	63.6	20.2	4,300	47.4	3,417
	Rural	7.6	26.0	51.9	13.2	13,601	42.0	9,009
Age	15-19	10.2	27.9	56.3	15.1	9,071	46.5	6,544
	15-17	9.5	28.1	56.4	14.9	5,072	47.4	3,688
	18-19	11.1	27.7	56.2	15.3	3,999	45.3	2,856
	20-24	7.9	26.2	53.0	14.6	8,831	40.1	5,882
	20-22	7.6	26.2	51.6	14.4	5,546	41.7	3,640
	23-24	8.3	26.3	55.4	15.0	3,284	37.4	2,242
Marital status	Ever married	7.1	25.2	50.5	11.7	10,681	37.3	6,794
	Never married	11.9	29.8	60.9	19.5	7,220	50.9	5,632
Education	None	0.6	5.3	12.3	1.5	1,189	19.8	241
	Primary incomplete	1.1	11.2	23.1	2.5	1,811	17.3	645
	Primary complete	2.1	14.3	32.3	5.0	2,171	22.3	979
	Secondary incomplete	8.1	29.2	59.0	13.6	8,607	40.3	6,578
	Secondary complete or higher	20.7	42.7	83.4	31.9	4,124	59.6	3,982
Wealth index quintile	Poorest	2.0	14.4	29.4	4.4	2,703	29.1	1,060
	Second	4.0	22.8	45.1	8.8	3,295	33.8	1,854
	Middle	7.4	27.8	54.6	13.1	3,528	40.0	2,470
	Fourth	10.0	32.2	61.0	15.4	4,065	46.2	3,224
	Richest	17.7	32.9	71.9	27.0	4,310	52.1	3,817

[1] MICS indicator 9.1; MDG indicator 6.3 - Knowledge about HIV prevention among young women

The summary of key HIV/AIDS indicators is presented in Table HA.6 on young women age 15-24 years. Results with respect to comprehensive knowledge (9.1 per cent), knowledge of mother to child transmission (54.7 per cent), and knowledge of a place to get tested (14.9 per cent) of young women are generally better in this age group than the women of age 15-49 years as a whole. Accepting attitudes towards people living with HIV with respect to the same four indicators that were previously discussed are also more prevalent in this age group (43.5 per cent of young women). Urban women have almost two times more comprehensive knowledge about HIV and AIDS than their rural counterparts – 13.7 per cent against 7.6 per cent. Level of education had a strong influence with women of secondary or higher education almost 30 times more likely to have comprehensive knowledge than women with no education. Level of wealth also influences comprehensive knowledge levels.

Orphans

While the number of children orphaned due to AIDS has stabilized globally since 2009, efforts to mitigate the impact of AIDS on households, communities, and children continue to be intensified by national programmes and global partners. Children who are orphaned may be at increased risk of neglect or exploitation when the parents are not available to assist them. Monitoring the variations in different outcomes for orphans and comparing them to their peers gives us a measure of how well communities and governments are responding to their needs. Please refer to Table CP.7 for detailed information on living conditions of children and overall prevalence of orphanhood.

Table HA.7: School attendance of orphans and non-orphans

School attendance of children age 10-14 years by orphanhood, Bangladesh, 2012-2013

		Percentage of children who are orphans	Percentage of children who are non-orphans	Number of children age 10-14 years	Percentage of children who are orphans and are attending school	Total number of orphan children age 10-14 years	Percentage of children who are non-orphans and are attending school	Total number of non-orphan children age 10-14 years	Orphans to non-orphans school attendance ratio [1]
Total		**0.3**	**90.92**	**27,839**	**76.7**	**76**	**87.1**	**25,311**	**0.88**
Sex	Male	0.3	91.55	14,085	(64.7)	39	82.4	12,895	0.79
	Female	0.3	90.28	13,754	(89.2)	38	92.0	12,416	0.97
Area	Urban	0.3	89.87	5,211	(*)	18	88.0	4,683	0.97
	Rural	0.3	91.16	22,628	74.1	59	86.9	20,628	0.85

[1] MICS indicator 9.16; MDG indicator 6.4 - Ratio of school attendance of orphans to school attendance of non-orphans

See Table CP.7 for further overall results related to children's living arrangements and orphanhood

( ) Figures that are based on 25-49 unweighted cases

(*) Figures that are based on less than 25 unweighted cases

Table HA.7 presents information on the orphanhood status of children age 10-14 years, and their school attendanceIn Bangladesh, about 0.3 per cent of children aged 10-14 have lost both parents and among those some 76.7 per cent of the orphans are currently attending school. Considering that, among the children age 10-14 who have not lost a parent and who live with at least one parent, 87.1 per cent are attending school, this would suggest that double orphans are disadvantaged compared to the non-orphaned children in terms of school attendance and the orphans to non-orphans school attendance ratio is 0.88. Gender disparity is pronounced; 64.7 per cent of orphan boys, as compared to 89.2 per cent of orphan girls, attend school.

XIII. Access to Mass Media and Use of Information/Communication Technology

The Bangladesh MICS collected information on exposure to mass media and the use of computers and the internet. Information was collected one xposure to newspapers/magazines, radio and television among women and men age 15-49 years, while the questions on the use of computers and the use of the internet was asked to 15-24 year-olds.

Access to Mass Media

The proportion of women who read a newspaper or magazine, listen to the radio and watch television at least once a week is shown in table MT.1.

Table MT.1: Exposure to mass media (women)

Percentage of women age 15-49 years who are exposed to specific mass media on a weekly basis, Bangladesh, 2012-2013

		Percentage of women age 15-49 who:			All three media at least once a week [1]	Any media at least once a week	None of the media at least once a week	Number of women age 15-49 years
		Read a newspaper at least once a week	Listen to the radio at least once a week	Watch television at least once a week				
Total		**7.7**	**5.1**	**50.1**	**1.6**	**52.0**	**48.0**	**51,791**
Age	15-19	12.2	9.7	60.3	3.3	63.4	36.6	9,071
	20-24	9.4	7.3	56.2	2.7	58.5	41.5	8,831
	25-29	7.1	4.7	50.3	1.4	52.1	47.9	9,354
	30-34	6.9	3.5	47.4	1.0	49.0	51.0	7,432
	35-39	4.8	2.5	43.3	0.5	44.6	55.4	6,950
	40-44	5.2	2.4	42.9	0.3	44.2	55.8	5,697
	45-49	5.4	2.2	41.0	0.1	42.4	57.6	4,456
Division	Barisal	5.2	5.3	29.2	0.8	33.1	66.9	3,083
	Chittagong	6.0	3.2	49.6	0.6	51.1	48.9	9,794
	Dhaka	10.6	5.5	59.0	2.3	60.3	39.7	16,411
	Khulna	6.8	6.0	52.9	2.1	54.7	45.3	6,046
	Rajshahi	7.1	5.5	50.4	1.0	52.9	47.1	7,088
	Rangpur	5.6	3.6	39.0	0.9	41.0	59.0	6,156
	Sylhet	7.7	8.6	41.0	2.7	43.9	56.1	3,212
Area	Urban	19.3	7.1	78.1	3.7	79.2	20.8	11,856
	Rural	4.2	4.5	41.8	0.9	43.9	56.1	39,935
Education	None	0.0	1.4	28.2	0.0	29.0	71.0	13,544
	Primary incomplete	0.6	2.3	38.2	0.1	39.3	60.7	6,735
	Primary complete	1.1	3.1	46.2	0.1	47.5	52.5	6,882
	Secondary incomplete	6.7	6.4	60.1	1.5	62.6	37.4	16,420
	Secondary complete or higher	33.7	12.4	79.2	6.7	82.9	17.1	8,210
Wealth index quintile	Poorest	0.7	1.7	12.7	0.2	13.9	86.1	9,467
	Second	1.8	3.6	21.9	0.3	24.6	75.4	9,872
	Middle	3.0	4.2	45.5	0.6	48.0	52.0	10,264
	Fourth	5.5	5.4	70.7	1.0	72.6	27.4	10,699
	Richest	24.8	9.7	89.9	5.2	91.3	8.7	11,490

[1] MICS indicator 10.1 - Exposure to mass media

7.7 per cent of women age 15-49 years in Bangladesh read a newspaper or magazine, 5.1 per cent listen to the radio, and 50.1 per cent watch television at least once a week. Overall, 48 per cent do not have regular exposure to any of the three media, 1.6 per cent have access to all the three types of media on a weekly basis.

Women under age 25 are more likely than older women to report exposure to all three types of mass media. Differentials by area, education and socio-economic status are observed for exposure to all types of media, primarily due to differentials in exposure to print media and radio.

Women with higher education are more likely to have been exposed to all three types of media than women with primary education. Similarly, 5.2 per cent of women in the richest households have been exposed to all the three media forms, while the corresponding proportion of women in the poorest households is only 0.2 per cent. Larger proportions of women are exposed to all the media types in urban areas (3.7 per cent) than in rural areas (0.9 per cent). Exposure of women to all the three mass media is greatest in Sylhet division(2.7 per cent) and lowest in the Chittagong division (0.9 per cent).

Use of Information/Communication Technology

The questions on computer and internet use were asked only to 15-24 year old women.

As shown in Table MT.2, 9.6 per cent of 15-24 year-old women had ever used a computer, 6.1 per cent had used a computer during the last year and 3.8 per cent used at least once a week during the last month. Overall, 3.6 per cent of women of the same age ever used the Internet, while 3 per cent used during the last year. Only 1.8 per cent of young women used the Internet as frequently as once a week or more during the last month.

Use of a computer and the internet is also strongly associated with area, education and wealth. Only about 1 per cent of women with primary education reported to have ever used a computer, in contrast to about 30 per cent of women with higher education. Higher utilisation of the internet is observed among young women in urban areas (10 per cent) compared to those in rural areas (1.6 per cent). The use of the internet during the last year is greatest in the Dhaka division (5.3 per cent) and lowest in the Barisal division (0.9 per cent), while the proportion is 10.7 per cent for young women in the richest households, as opposed to those living in the poorest households 0.1 Per cent).

Table MT.2: Use of computers and internet (women)

Percentage of young women age 15-24 years who have ever used a computer and the internet, percentage who have used during the last 12 months, and percentage who have used at least once weekly during the last one month, Bangladesh, 2012-2013

		Percentage of women age 15-24 who have:						Number of women age 15-24 years
		Ever used a computer	Used a computer during the last 12 months [1]	Used a computer at least once a week during the last one month	Ever used the internet	Used the internet during the last 12 months [2]	Used the internet at least once a week during the last one month	
Total		**9.6**	**6.1**	**3.8**	**3.6**	**3.0**	**1.8**	**17,901**
Age	15-19	10.4	7.0	4.1	3.3	2.6	1.4	9,071
	20-24	8.8	5.3	3.4	4.0	3.4	2.3	8,831
Division	Barisal	6.3	3.4	2.0	1.3	0.9	0.7	1,035
	Chittagong	8.2	4.9	2.8	2.7	2.1	1.4	3,751
	Dhaka	12.1	8.8	5.9	6.2	5.3	3.3	5,803
	Khulna	10.4	6.8	3.6	2.2	2.0	1.2	1,911
	Rajshahi	9.9	5.4	3.0	2.2	1.7	1.0	2,206
	Rangpur	6.7	3.3	1.7	1.7	1.4	0.4	1,935
	Sylhet	7.5	4.5	3.1	3.8	3.3	2.0	1,260

Table MT.2: continued

		Percentage of women age 15-24 who have:						Number of women age 15-24 years
		Ever used a computer	Used a computer during the last 12 months [1]	Used a computer at least once a week during the last one month	Ever used the internet	Used the internet during the last 12 months [2]	Used the internet at least once a week during the last one month	
Area	Urban	19.8	13.8	9.7	10.0	8.8	5.9	4,300
	Rural	6.4	3.7	1.9	1.6	1.2	0.6	13,601
Education	None	1.6	0.0	0.0	0.2	0.0	0.0	1,189
	Primary incomplete	1.3	0.3	0.1	0.1	0.0	0.0	1,811
	Primary complete	0.9	0.1	0.1	0.1	0.0	0.0	2,171
	Secondary incomplete	5.5	3.4	1.9	1.4	1.1	0.6	8,607
	Secondary complete or higher	28.6	19.4	12.4	12.7	10.8	6.6	4,124
Wealth index quintile	Poorest	1.4	0.8	0.4	0.1	0.1	0.0	2,703
	Second	2.5	1.4	0.6	0.3	0.2	0.1	3,295
	Middle	5.0	2.1	1.1	1.2	0.8	0.2	3,528
	Fourth	7.8	4.7	2.4	1.5	1.1	0.6	4,065
	Richest	25.5	17.8	11.8	12.3	10.7	6.8	4,310

[1] MICS indicator 10.2 - Use of computers
[2] MICS indicator 10.3 - Use of internet

Appendix A. Sample Design

The major features of the sample design are described in this appendix. Sample design features include target sample size, sample allocation, sampling frame and listing, choice of domains, sampling stages, stratification, and the calculation of sample weights.

The primary objective of the sample design for the Multiple Indicator Cluster Survey (MICS) was to produce statistically reliable estimates of most indicators, at the national level, for urban and rural areas, for the seven divisions, and for the sixty four districts of the country. Districts of the country were defined as the sampling strata.

A two-stage, stratified cluster sampling approach was used for the selection of the survey sample.

Sample Size and Sample Allocation

The sample size for the Multiple Indicator Cluster Survey (MICS) was calculated as 55,200 households. For the calculation of the sample size, the key indicator used was the proportion of women with 4+ ANC visits. The following formula was used to estimate the required sample size for this indicator:

$$n = \frac{[4(r)(1-r)(deff)]}{[e^2(pb)(AveSize)(RR)]}$$

where

- *n* is the required sample size, expressed as number of households
- *4* is a factor to achieve the 95 per cent level of confidence
- *r* is the predicted or anticipated value of the indicator, expressed in the form of a proportion
- *deff* is the design effect for the indicator, estimated from a previous survey or using a default value of 1.5
- *e* is the margin of error to be tolerated at the 95 per cent level of confidence
- *pb* is the proportion of the total population upon which the indicator *r*, is based
- *AveSize* is the average household size (number of persons per household)
- *RR* is the predicted response rate

For the calculation, *r* (proportion of women with 4+ ANC visits) was assumed to be 26 per cent. The value of *deff* (design effect) was taken as 1.4 based on estimates from previous surveys, *pb* (percentage of women giving birth in the last 2 years in the total population) was taken as 4 per cent, *AveSize* (average household size) was taken as 4.5 persons per household, and the response rate was assumed to be 95 per cent based on experience from previous surveys.

To allow a maximum margin of error of ± 8 to 9 per cent in estimating proportion of women with 4+ ANC visits, the resulting number of households from this exercise ranged from 778 to 985 households needed for each district. In this case the relative margin of error for this indicator would be between 30.8% and 34.6% at the district level. Taking midway between these two a sample size of 800 was decided to be taken from each district. To have more precise estimates for the 20 priority districts under the United Nations Development Assistance Framework (UNDAF) with the Government of Bangladesh, a sample size of 1000 was used for these districts. Thus a total sample size of 55,200 households was decided for the survey.

The number of households selected per cluster for the Bangladesh MICS 2012-2013 was determined as 20 households, based on a number of considerations, including the design effect, the budget available, and the time that would be needed per team to complete one cluster. Dividing the total number of households by the number of sample households per cluster, it was calculated that 50

sample clusters would need to be selected in each of the 20 UNDAF districts and 40 sample clusters would need to be selected from the remaining 44 districts.

As the individual districts were considered to be domains of estimation and the sample size was determined to address the minimum requirement for the number of sample households, there was no need for increasing the sample based on the population of the district; therefore proportional allocation by district was not used. As mentioned before, 50 clusters were allocated to each UNDAF district and 40 clusters allocated for the remaining districts, with the final sample size calculated as 55,200 households (50 clusters * 20 districts * 20 sample households per cluster for UNDAF districts, and 40 clusters * 44 districts * 20 sample households per cluster for non-UNDAF districts). The tables below show the allocation of clusters to the sampling strata.

Table SD.1: Overall sample size

	Number of clusters	Number of household
20 UNDAF priority districts @ 50 clusters per district	1,000	20,000
44 Non-UNDAF districts @ 40 clusters per district	1,760	35,200
Total	2,760	55,200

Table SD.2: The allocation of sample size among strata and its urban-rural distribution

Division	Zila (District) Serial	ZILA CODE	Stratum	Total		Urban		Rural	
				No. of PSUs	No. of HH	No. of PSUs	No. of HH	No. of PSUs	No. of HH
Barisal	1	04	Barguna*	50	1000	4	80	46	920
	2	06	Barisal	40	800	10	200	30	600
	3	09	Bhola*	50	1000	6	120	44	880
	4	42	Jhalokati	40	800	6	120	34	680
	5	78	Patuakhali*	50	1000	5	100	45	900
	6	79	Pirojpur	40	800	4	80	36	720
Chittagong	7	03	Bandarban*	50	1000	9	180	41	820
	8	12	Brahmanbaria	40	800	2	40	38	760
	9	13	Chandpur	40	800	6	120	34	680
	10	15	Chittagong	40	800	20	400	20	400
	11	19	Comilla	40	800	4	80	36	720
	12	22	Cox's Bazar*	50	1000	11	220	39	780
	13	30	Feni	40	800	9	180	31	620
	14	46	Khagrachhari*	50	1000	15	300	35	700
	15	51	Lakshmipur	40	800	6	120	34	680
	16	75	Noakhali	40	800	7	140	33	660
	17	84	Rangamati*	50	1000	10	200	40	800
Dhaka	18	26	Dhaka	40	800	31	620	9	180
	19	29	Faridpur	40	800	4	80	36	720
	20	33	Gazipur	40	800	13	260	27	540
	21	35	Gopalganj	40	800	6	120	34	680
	22	39	Jamalpur*	50	1000	9	180	41	820
	23	48	Kishorganj	40	800	5	100	35	700
	24	54	Madaripur	40	800	6	120	34	680
	25	56	Manikganj	40	800	2	40	38	760

Table SD.2: continued

Division	Zila (District) Serial	ZILA CODE	Stratum	Total		Urban		Rural	
				No. of PSUs	No. of HH	No. of PSUs	No. of HH	No. of PSUs	No. of HH
	26	59	Munshiganj	40	800	4	80	36	720
	27	61	Mymensingh	40	800	4	80	36	720
	28	67	Narayanganj	40	800	13	260	27	540
	29	68	Narsingdi	40	800	8	160	32	640
	30	72	Netrakona*	50	1000	5	100	45	900
	31	82	Rajbari	40	800	4	80	36	720
	32	86	Shariatpur	40	800	3	60	37	740
	33	89	Sherpur	40	800	4	80	36	720
	34	93	Tangail	40	800	5	100	35	700
Khulna	35	01	Bagerhat*	50	1000	6	120	44	880
	36	18	Chuadanga	40	800	10	200	30	600
	37	41	Jessore	40	800	7	140	33	660
	38	44	Jhenaidah	40	800	5	100	35	700
	39	47	Khulna*	50	1000	15	300	35	700
	40	50	Kushtia	40	800	6	120	34	680
	41	55	Magura	40	800	6	120	34	680
	42	57	Meherpur	40	800	6	120	34	680
	43	65	Narail	40	800	8	160	32	640
	44	87	Satkhira*	50	1000	4	80	46	920
Rajshahi	45	10	Bogra	40	800	6	120	34	680
	46	38	Joypurhat	40	800	5	100	35	700
	47	64	Naogaon	40	800	2	40	38	760
	48	69	Natore	40	800	4	80	36	720
	49	70	Nawabganj	40	800	8	160	32	640
	50	76	Pabna	40	800	4	80	36	720
	51	81	Rajshahi	40	800	12	240	28	560
	52	88	Sirajganj*	50	1000	6	120	44	880
Rangpur	53	27	Dinajpur	40	800	6	120	34	680
	54	32	Gaibandha*	50	1000	6	120	44	880
	55	49	Kurigram*	50	1000	8	160	42	840
	56	52	Lalmonirhat	40	800	4	80	36	720
	57	73	Nilphamari*	50	1000	9	180	41	820
	58	77	Panchagarh	40	800	3	60	37	740
	59	85	Rangpur*	50	1000	7	140	43	860
	60	94	Thakurgaon	40	800	5	100	35	700
Sylhet	61	36	Habiganj*	50	1000	4	80	46	920
	62	58	Maulvibazar	40	800	4	80	36	720
	63	90	Sunamganj*	50	1000	5	100	45	900
	64	91	Sylhet*	50	1000	13	260	37	740
		Total		**2760**	**55200**	**454**	**9080**	**2306**	**46120**

*indicates UNDAF districts

Table SD.3: Division level distribution of Sample Clusters (Primary Sampling Units) and sample households

Division Sl. No.	Division	Urban		Rural		Total	
		No. of PSUs	No. of HH	No. of PSUs	No. of HH	No. of PSUs	No. of HH
10	Barisal	35	700	235	4,700	270	5,400
20	Chittagong	99	1,980	381	7,620	480	9,600
30	Dhaka	126	2,520	574	11,480	700	14,000
40	Khulna	73	1,460	357	7,140	430	8,600
50	Rajshahi	47	940	283	5,660	330	6,600
55	Rangpur	48	960	312	6,240	360	7,200
60	Sylhet	26	520	164	3,280	190	3,800
		454	**9,080**	**2,306**	**46,120**	**2,760**	**55,200**

Sampling Frame and Selection of Clusters

The 2011 census frame was used for the selection of clusters. Census enumeration areas (EAs) were defined as primary sampling units (PSUs), and were selected from each of the sampling strata using a probability proportional to size (PPS) sampling procedure, based on the number of households in each enumeration area from the population and housing census 2011 frame. The first stage of sampling was thus completed by selecting the required number of enumeration areas from each of the sixty four (64) districts. The definition of urban areas used in MICS is in line with the one followed by the Bangladesh Bureau of Statistics for the enumeration and results of the national Population and Housing Census 2011.

Listing Activities

Since the sampling frame (the 2011 census) was not up-to-date, a field operation before the survey for a new listing of households was conducted in all the sample enumeration areas during the period of 30 November to 6 December, 2012. For this purpose, experienced staff of the Bangladesh Bureau of Statistics were assigned with background information and training in this listing task. The assigned staff visited all households following survey protocols and filled a prescribed schedule with necessary information. Directions to the selected cluster were also provided in the listing schedule along with the free hand sketch map.

Selection of Households

Lists of households were prepared by the listing staff in the field for each enumeration area. The households were then sequentially numbered from 1 to n (the total number of households in each enumeration area) at the BBS HQ, where the selection of 20 households in each enumeration area was carried out using random systematic selection procedures.

Selection of Households for water quality test

From the list of 20 households selected from each enumeration area for the survey (cluster), a sub-sample of 5 households was selected using the random systematic selection procedure for collecting information on arsenic content of the drinking water used by the household. From among these 5 selected households, one household was randomly chosen for testing *E.coli* content. This particular household was also identified for collection and testing of 'source' water for arsenic and *E.coli* content. Thus, a total of 13,800 households (2760 clusters*5) were selected for testing of arsenic content in household drinking water; 2,760 households were selected for testing of *E.coli* in household drinking water and the same households were also identified for testing the 'source' water (source from which the household collected its drinking water) for both arsenic and *E.coli* contents. To facilitate selection of households for water testing in the field, a 'Household selection table' was provided to the Supervisor in each of the survey teams.

Calculation of Sample Weights

The Multiple Indicator Cluster Survey (MICS) sample is not self-weighting. Essentially, by allocating equal numbers of households to each of the districts, different sampling fractions were used in each district since the sizes of the districts varied. For this reason, sample weights were calculated and these were used in the subsequent analyses of the survey data.

The major component of the weight is the reciprocal of the sampling probabilities employed in selecting the number of sample households in that particular sampling stratum (*h*) and PSU (*i*) :

$$W_{hi} = \frac{1}{f_{hi}}$$

The term f_{hi}, the sampling fraction for the *i-th* sample PSU in the *h-th* stratum, is the product of the probabilities of selection at every stage in each sampling stratum:

$$f_{hi} = p_{1hi} \times p_{2hi}$$

where p_{shi} is the probability of selection of the sampling unit at stage *s* for the *i-th* sample PSU in the *h-th* sampling stratum. Based on the sample design, these probabilities were calculated as follows:

$$p_{1hi} = \frac{n_h \times M_{hi}}{M_h},$$

n_h = number of sample PSUs selected in stratum *h*
M_{hi} = number of households in the 2011 Census frame for the *i-th* sample PSU in stratum *h*
M_h = total number of households in the 2011 Census frame for stratum *h*

$$p_{2hi} = \frac{20}{M'_{hi}}$$

M'_{hi} = number of households listed in the *i-th* sample PSU in stratum *h*

Since the number of households in each enumeration area (PSU) from the 2011 Census frame used for the first stage selection and the updated number of households in the enumeration area from the listing are generally different, individual overall probabilities of selection for households in each sample enumeration area (cluster) were calculated.

A final component in the calculation of sample weights takes into account the level of non-response for the household and individual interviews. The adjustment for household non-response in each stratum is equal to:

$$\frac{1}{RR_h}$$

where RR_h is the response rate for the sample households in stratum *h*, defined as the proportion of the number of interviewed households in stratum *h* out of the number of selected households found to be occupied during the fieldwork in stratum *h*.

Similarly, the adjustment for non-response at the individual level (women and under-5 children) for each stratum is equal to:

$$\frac{1}{RR_h}$$

where RR_h is the response rate for the individual questionnaires in stratum *h*, defined as the proportion of eligible individuals (women, and under-5 children) in the sample households in stratum *h* who were successfully interviewed.

After the completion of fieldwork, response rates were calculated for each sampling stratum. These were used to adjust the sample weights calculated for each cluster. Response rates in the Multiple Indicator Cluster Survey (MICS) are shown in Table HH.1 in this report.

The non-response adjustment factors for the individual women and under-5 questionnaires were applied to the adjusted household weights. The numbers of eligible women and under-5 children were obtained from the roster of household members in the Household Questionnaire for households where interviews were completed.

The design weights for the households were calculated by multiplying the inverse of the probabilities of selection by the non-response adjustment factor for each enumeration area. These weights were then standardized (or normalized), one purpose of which is to make the weighted sum of the interviewed sample units equal to the total sample size at the national level. Normalization is achieved by dividing the full sample weights (adjusted for nonresponse) by the average of these weights across all households at the national level. This is performed by multiplying the sample weights by a constant factor equal to the unweighted number of households at the national level divided by the weighted total number of households (using the full sample weights adjusted for nonresponse). A similar standardization procedure was followed in obtaining standardized weights for the individual women and under-5 questionnaires. Adjusted (normalized) weights varied between 0.057542 and 7.620269 in the 2760 sample enumeration areas (clusters).

Sample weights were appended to all data sets, and analyses were performed by weighting households, women, and under-5s with these sample weights.

Appendix B. List of Personnel Involved in the Survey

Bangladesh Bureau of Statistics

Steering Committee

01.	Secretary, Statistics and Informatics Division	- Chairman
02.	Director General, BBS	- Member
03.	Director General, NIPORT	- Member
04.	Joint Secretary, Statistics and Informatics Division	- Member
05.	Deputy Director General, BBS	- Member
06.	Chief (Education & Social Sector), IMED	- Member
07.	Division Chief, GED, Planning commission	- Member
08.	Division Chief, SEI Division, Planning commission	- Member
09.	Division Chief, Programming Division, Planning Commission	- Member
10.	Director General, Directorate of Primary Education	- Member
11.	Joint Secretary (UN), Economic Relations division	- Member
12.	Joint Secretary (Public Health), Ministry of Health and Family Welfare	- Member
13.	Joint Secretary (Dev), Finance Division	- Member
14.	Representative, Ministry of Women and Children Affairs (MOWCA)	- Member
15.	Representative, Ministry of Information and Communication Technology (ICT)	- Member
16.	Representative, Ministry of Information	- Member
17.	Representative, A2I Project, Prime Minister Office	- Member
18.	Director, Demography & Health Wing, BBS	- Member
19.	Chief, Social Policy, Planning, Monitoring & Evaluation Section, UNICEF	- Member
20.	Project Director, MSCW Project, BBS	- Member
21.	Deputy Project Director, MSCW Project, BBS	- Member
22.	Deputy Secretary (Dev), Statistics and Informatics Division	- Member Secretary

Technical Committee

1.	Director General, BBS	- Chairperson
2.	Deputy Director General, BBS	- Member
3.	Joint Secretary, Statistics and Informatics Division	- Member
4.	Director, ISRT, Dhaka University	- Member
5.	Representative, Ministry of Women and Children Affairs (MOWCA)	- Member
6.	Representative, Ministry of Health and Family Welfare	- Member
7.	Director, Demography and Health Wing, BBS	- Member
8.	Director (Research), NIPORT	- Member
9.	Director (MIS), DG Health, Mohakhali, Dhaka	- Member
10.	Deputy Chief, ERD, Ministry of Finance	- Member
11.	Representative, Department of Gender Studies, DU	- Member
12.	Representative, Computer Science and Engineering, BUET	- Member
13.	Representative, Bangladesh Computer Council	- Member
14.	Chief, SPPME Section, UNICEF, Bangladesh	- Member
15.	Director (Demography), ICDDRB	- Member
16.	Project Director, MSVSB Project, BBS	- Member
17.	Project Director, FS-NSC Project, BBS	- Member
18.	Deputy Project Director, MSCW Project, BBS	- Member
19.	Project Director, MSCW Project, BBS	- Member Secretary

MICS

Working Group

1.	Director General, BBS	- Chairman
2.	Deputy Director General, BBS	- Member
3.	Director, Census Wing, BBS	- Member
4.	Director, Demography and Health Wing, BBS	- Member
5.	Director, Computer Wing, BBS	- Member
6.	M& E Specialist, SPPME Section, UNICEF Bangladesh	- Member
7.	Project Director, MSVSB Project, BBS	- Member
8.	Project Director, FS-NSC Project, BBS	- Member
9.	Senior Assistant Secretary, Dev Sec-1 Statistics and Informatics Division	- Member
10.	Private Secretary to Secretary Statistics and Informatics Division	- Member
11.	All officers working in MSCW Project	- Member
12.	Project Director, MSCW Project	- Member Secretary

Project Management

1. Dr. Dipankar Roy, Deputy Director, Project Director
2. Mohammad Shaheen, Deputy Director, Deputy Project Director
3. Abdur Rashid Howlader, Programmer
4. Md. Abdul Latif, Statistical Officer, Drawing and Disbursement Officer
5. S M Anwar Husain, Statistical Investigator, Statistical Investigator
6. Purobi Rani Deb, Computer Operator, Computer Operator

MICS Survey Responsibility

- Survey Coordinator
- Survey Deputy Coordinator
- Data Entry Coordinator
- Data Entry Administrator
- Data Entry Asstt. Coordinator
- Staff Member: Field Operation Liaison and Control Room

Appendix C. Estimates of Sampling Errors

The sample of respondents selected in the Bangladesh Multiple Indicator Cluster Survey is only one of the samples that could have been selected from the same population, using the same design and size. Each of these samples would yield results that differ somewhat from the results of the actual sample selected. Sampling errors are a measure of the variability between the estimates from all possible samples. The extent of variability is not known exactly, but can be estimated statistically from the survey data.

The following sampling error measures are presented in this appendix for each of the selected indicators:

- *Standard error (se):* Standard error is the square root of the variance of the estimate, and is a measure of the sampling error. For survey indicators that are means, proportions or ratios, the Taylor series linearization method is used for the estimation of standard errors. For more complex statistics, such as fertility and mortality rates, the Jackknife repeated replication method is used for the standard error estimation.
- *Coefficient of variation (se/r)* is the ratio of the standard error to the value *(r)* of the indicator, and is a measure of the relative sampling error.
- *Design effect* (*deff*) is the ratio of the actual variance of an indicator, under the sampling method used in the survey, to the variance calculated under the assumption of simple random sampling based on the same sample size. The *square root of the design effect* (*deft*) is used to show the efficiency of the sample design in relation to the precision. A *deft* value of 1.0 indicates that the sample design of the survey is as efficient as a simple random sample for a particular indicator, while a *deft* value above 1.0 indicates an increase in the standard error due to the use of a more complex sample design.
- *Confidence limits* are calculated to show the interval within which the true value for the population can be reasonably assumed to fall, with a specified level of confidence. For any given statistic calculated from the survey, the value of that statistic will fall within a range of plus or minus two times the standard error ($r + 2.se$ or $r - 2.se$) of the statistic in 95 per cent of all possible samples of identical size and design.

For the calculation of sampling errors from the MICS data, programs developed in CSPro Version 5.0, SPSS Version 21 Complex Samples module and CMRJack[1] have been used.

The results are shown in the tables that follow. In addition to the sampling error measures described above, the tables also include weighted and unweighted counts of denominators for each indicator. Given the use of normalized weights, by comparing the weighted and unweighted counts it is possible to determine whether a particular domain has been under-sampled or over-sampled compared to the average sampling rate. If the weighted count is smaller than the unweighted count, this means that the particular domain had been over-sampled. As explained later in the footnote of Table SE.1, there is an exception in the case of indicators 4.1 and 4.3, and for household drinking water arsenic count, for which the unweighted count represents the number of sample households, and the weighted counts reflect the total population.

Sampling errors are calculated for indicators of primary interest, for the Bangladesh level, for urban and rural areas, and for all divisions. Three of the selected indicators are based on households, 4 are based on household members, 7 are based on women and 7 are based on children under 5. Table SE.1 shows the list of indicators for which sampling errors are calculated, including the base population (denominator) for each indicator. Tables SE.2 to SE.11 show the calculated sampling errors for selected domains.

[1] *CMRJack is a software developed by FAFO, an independent and multidisciplinary research foundation. CMRJack produces mortality estimates and standard errors for surveys with complete birth histories or summary birth histories. See http://www.fafo.no/ais/child_mortality/index.html*

Readers may note that we have included maps showing district level estimates for some of the indicators with different colours being used to represent different ranges of values. The reader should treat interpretation of these maps with some caution, because the associated sampling errors at the district level are larger than those at the division level

Table SE.1: Indicators selected for sampling error calculations

List of indicators selected for sampling error calculations, and base populations (denominators) for each indicator, Bangladesh MICS, 2012-2013

MICS5 Indicator		Base Population
Households		
2.19	Iodized salt consumption	All households
4.S1a	Source drinking water arsenic exceeding standard (50 ppb)	All households
Household members		
4.1	Use of improved drinking water sources	All household members[a]
4.3	Use of improved sanitation	All household members[a]
4.S2a	Household drinking water arsenic exceeding standard (50 ppb)	All household members
7.4	Primary school net attendance ratio (adjusted)	Children of primary school age
7.5	Secondary school net attendance ratio (adjusted)	Children of secondary school age
Women		
5.4	Unmet need	Women age 15-49 years who are currently married or in union
5.5a	Antenatal care coverage (1+ times, skilled provider)	Women age 15-49 years with a live birth in the last 2 years
5.5b	Antenatal care coverage (4+ times, any provider)	Women age 15-49 years with a live birth in the last 2 years
5.7	Skilled attendant at delivery	Women age 15-49 years with a live birth in the last 2 years
5.11	Post-natal health check for the newborn	Women age 15-49 years with a live birth in the last 2 years
7.1	Literacy rate (young women)	Women age 15-24 years
9.1	Knowledge about HIV prevention (young women)	Women age 15-24 years
Under-5s		
8.1	Birth registration	Children under age 5 years
2.1a	Underweight prevalence (moderate and severe)	Children under age 5 years
2.1b	Underweight prevalence (severe)	Children under age 5 years
2.2a	Stunting (moderate and severe)	Children under age 5 years
2.2b	Stunting (severe)	Children under age 5 years
2.3a	Wasting (moderate and severe)	Children under age 5 years
2.3b	Wasting (severe)	Children under age 5 years

[a] To calculate the weighted results of MICS Indicators 4.1, 4.3 , 4.S1a and 4.S2a the household weight is multiplied by the number of household members in each household. Therefore the unweighted base population presented in the SE tables reflect the unweighted number of households, whereas the weighted numbers reflect the household population.

Table SE.2: Sampling Errors: Total Sample

	MICS Indicator	MDG Indicator	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Weighted count	Unweighted count	Confidence limits	
										Lower bound r - 2se	Upper bound r + 2se
Households											
Iodized salt consumption	2.19		0.5432	0.00411	0.008	3.515	1.875	51,499	51,561	0.535	0.551
Source drinking water arsenic exceeding standard (50 ppb)	4.S1a		0.1250	0.00713	0.058	1.198	1.094	2,558	2,554	0.095	0.123
Household members											
Use of improved drinking water sources	4.1	7.8	0.9792	0.00147	0.002	5.508	2.347	237,396	51,895	0.976	0.982
Use of improved sanitation	4.3	7.9	0.5588	0.00523	0.009	5.761	2.400	237,396	51,895	0.548	0.569
Primary school net attendance ratio (adjusted)	7.4	2.1	0.7319	0.00376	0.005	2.127	1.458	28,802	29,545	0.724	0.739
Secondary school net attendance ratio (adjusted)	7.5		0.4611	0.00482	0.010	2.526	1.589	26,377	27,060	0.451	0.471
Household drinking water arsenic exceeding standard (50 ppb)	4.S2a		0.1240	0.00517	0.045	3.383	1.839	59,718	12,952	0.096	0.116
Women											
Contraceptive prevalence	5.3	5.3	0.6176	0.00356	0.006	2.279	1.509	42,263	42,389	0.610	0.625
Unmet need	5.4	5.6	0.1390	0.00232	0.017	1.908	1.381	42,263	42,389	0.134	0.144
Antenatal care coverage (1+ times, skilled provider)			0.5867	0.00717	0.012	1.666	1.291	7,950	7,866	0.572	0.601
Antenatal care coverage (4+ times, any provider)	5.5b	5.5	0.2472	0.00701	0.028	2.079	1.442	7,950	7,866	0.233	0.261
Skilled attendant at delivery	5.7	5.2	0.4351	0.00804	0.018	2.071	1.439	7,950	7,866	0.419	0.451
Literacy rate (young women)	7.1	2.3	0.8204	0.00443	0.005	2.331	1.527	17,901	17,486	0.811	0.829
Post-natal health check for the newborn	5.11		0.4118	0.00772	0.019	1.936	1.391	7,950	7,866	0.396	0.427
Knowledge about HIV prevention (young women)	9.1	6.3	0.0906	0.00337	0.037	2.418	1.555	17,901	17,486	0.084	0.097
Under-5s											
Birth registration	8.1		0.3698	0.00527	0.014	2.491	1.578	20,903	20,903	0.359	0.380
Underweight prevalence (moderate and severe)	2.1a	1.8	0.3193	0.00483	0.015	2.140	1.463	19,921	19,921	0.310	0.329
Underweight prevalence (severe)	2.1b	1.8	0.0876	0.00277	0.032	1.920	1.386	19,921	19,921	0.082	0.093
Stunting prevalence (moderate and severe)	2.2a		0.4200	0.00476	0.011	1.801	1.342	19,422	19,391	0.410	0.429
Stunting prevalence (severe)	2.2b		0.1645	0.00402	0.024	2.281	1.510	19,422	19,391	0.156	0.173
Wasting prevalence (moderate and severe)	2.3a		0.0965	0.00272	0.028	1.668	1.292	19,640	19,598	0.091	0.102
Wasting prevalence (severe)	2.3b		0.0163	0.00101	0.062	1.249	1.118	19,640	19,598	0.014	0.018

Table SE.3: Sampling Errors: Urban Areas

	MICS Indicator	MDG Indicator	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Weighted count	Unweighted count	Confidence limits	
										Lower bound r - 2se	Upper bound r + 2se
Households											
Iodized salt consumption	2.19		0.7613	0.00962	0.013	4.250	2.062	11,049	8,341	0.742	0.781
Source water arsenic exceeding standard (50 ppb)	4.S1a		0.0680	0.01505	0.213	1.410	1.187	531	409	0.025	0.085
Household members											
Use of improved drinking water sources	4.1	7.8	0.9911	0.00257	0.003	6.318	2.514	49,249	8,421	0.986	0.996
Use of improved sanitation	4.3	7.9	0.5855	0.01877	0.032	12.219	3.496	49,249	8,421	0.548	0.623
Primary school net attendance ratio (adjusted)	7.4	2.1	0.7719	0.00913	0.012	2.020	1.421	5,343	4,271	0.754	0.790
Secondary school net attendance ratio (adjusted)	7.5		0.5217	0.01510	0.029	3.678	1.918	5,106	4,025	0.492	0.552
Household water arsenic exceeding standard (50 ppb)	4.S2a		0.0720	0.01216	0.193	5.274	2.296	12,230	2,105	0.035	0.083
Women											
Contraceptive prevalence	5.3	5.3	0.5958	0.00927	0.016	2.544	1.595	9,290	7,122	0.577	0.614
Unmet need	5.4	5.6	0.1494	0.00644	0.043	2.321	1.524	9,290	7,122	0.137	0.162
Antenatal care coverage (1+ times, skilled provider)			0.7210	0.01491	0.021	1.413	1.189	1,681	1,280	0.691	0.751
Antenatal care coverage (4+ times, any provider)	5.5b	5.5	0.4334	0.02335	0.054	2.841	1.685	1,681	1,280	0.387	0.480
Skilled attendant at delivery	5.7	5.2	0.5906	0.02342	0.040	2.900	1.703	1,681	1,280	0.544	0.637
Literacy rate (young women)	7.1	2.3	0.8347	0.01033	0.012	2.442	1.563	4,300	3,159	0.814	0.855
Post-natal health check for the newborn	5.11		0.5338	0.02285	0.043	2.684	1.638	1,681	1,280	0.488	0.580
Knowledge about HIV prevention (young women)	**9.1**	**6.3**	**0.1372**	**0.01112**	**0.081**	**3.302**	**1.817**	**4,300**	**3,159**	**0.115**	**0.159**
Under-5s											
Birth registration	8.1		0.4286	0.01404	0.033	2.681	1.637	4,268	3,331	0.401	0.457
Underweight prevalence (moderate and severe)	2.1a	1.8	0.2701	0.01426	0.053	3.257	1.805	4,049	3,159	0.242	0.299
Underweight prevalence (severe)	2.1b		0.0724	0.00793	0.110	2.958	1.720	4,049	3,159	0.057	0.088
Stunting prevalence (moderate and severe)	2.2a		0.3634	0.01430	0.039	2.724	1.650	3,943	3,085	0.335	0.392
Stunting prevalence (severe)	2.2b		0.1432	0.01199	0.084	3.610	1.900	3,943	3,085	0.119	0.167
Wasting prevalence (moderate and severe)	2.3a		0.0911	0.00820	0.090	2.537	1.593	4,013	3,126	0.075	0.107
Wasting prevalence (severe)	2.3b		0.0137	0.00216	0.157	1.074	1.036	4,013	3,126	0.009	0.018

Table SE.4: Sampling Errors: Rural Areas

	MICS Indicator	MDG Indicator	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Weighted count	Unweighted count	Confidence limits	
										Lower bound r - 2se	Upper bound r + 2se
Households											
Iodized salt consumption	2.19		0.4836	0.00443	0.009	3.398	1.843	40,450	43,220	0.475	0.492
Source water arsenic exceeding standard (50 ppb)	4.S1a		0.1400	0.00810	0.059	1.186	1.089	2,027	2,145	0.107	0.139
Household members											
Use of improved drinking water sources	4.1	7.8	0.9761	0.00172	0.002	5.535	2.353	188,147	43,474	0.973	0.980
Use of improved sanitation	4.3	7.9	0.5518	0.00442	0.008	3.43	1.852	188,147	43,474	0.543	0.561
Primary school net attendance ratio (adjusted)	7.4	2.1	0.7228	0.00411	0.006	2.135	1.461	23,459	25,274	0.715	0.731
Secondary school net attendance ratio (adjusted)	7.5		0.4465	0.00476	0.011	2.114	1.454	21,271	23,035	0.437	0.456
Household water arsenic exceeding standard (50 ppb)	4.S2a		0.1180	0.00571	0.044	3.135	1.771	47,488	10,847	0.107	0.129
Women											
Contraceptive prevalence	5.3	5.3	0.6237	0.00374	0.006	2.106	1.451	32,973	35,267	0.616	0.631
Unmet need	5.4	5.6	0.1360	0.00235	0.017	1.661	1.289	32,973	35,267	0.131	0.141
Antenatal care coverage (1+ times, skilled provider)			0.5506	0.00805	0.015	1.723	1.313	6,268	6,586	0.535	0.567
Antenatal care coverage (4+ times, any provider)	5.5b	5.5	0.1973	0.00612	0.031	1.559	1.248	6,268	6,586	0.185	0.210
Skilled attendant at delivery	5.7	5.2	0.3934	0.00796	0.02	1.75	1.323	6,268	6,586	0.377	0.409
Literacy rate (young women)	7.1	2.3	0.8158	0.00484	0.006	2.234	1.495	13,601	14,327	0.806	0.826
Post-natal health check for the newborn	5.11		0.3791	0.00738	0.019	1.525	1.235	6,268	6,586	0.364	0.394
Knowledge about HIV prevention (young women)	9.1	6.3	0.0758	0.00278	0.037	1.576	1.255	13,601	14,327	0.070	0.081
Under-5s											
Birth registration	8.1		0.3546	0.00549	0.015	2.31	1.520	16,635	17,572	0.344	0.366
Underweight prevalence (moderate and severe)	2.1a	1.8	0.3319	0.00489	0.015	1.805	1.344	15,872	16,762	0.322	0.342
Underweight prevalence (severe)	2.1b		0.0914	0.00285	0.031	1.635	1.279	15,872	16,762	0.086	0.097
Stunting prevalence (moderate and severe)	2.2a		0.4344	0.00471	0.011	1.472	1.213	15,479	16,306	0.425	0.444
Stunting prevalence (severe)	2.2b		0.1699	0.00402	0.024	1.869	1.367	15,479	16,306	0.162	0.178
Wasting prevalence (moderate and severe)	2.3a		0.0979	0.00270	0.028	1.365	1.168	15,627	16,472	0.092	0.103
Wasting prevalence (severe)	2.3b		0.0170	0.00114	0.067	1.289	1.135	15,627	16,472	0.015	0.019

Table SE.5: Sampling Errors: Barisal Division

	MICS Indicator	MDG Indicator	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Weighted count	Unweighted count	Confidence limits	
										Lower bound r - 2se	Upper bound r + 2se
Households											
Iodized salt consumption	2.19		0.6237	0.01051	0.017	2.411	1.553	3,143	5,120	0.603	0.645
Source water arsenic exceeding standard (50 ppb)	4.S1a		0.0010	0.00000	0.000	-	-	160	258	-	-
Household members											
Use of improved drinking water sources	4.1	7.8	0.9532	0.00640	0.007	4.719	2.172	15,028	5,138	0.940	0.966
Use of improved sanitation	4.3	7.9	0.5197	0.01141	0.022	2.677	1.636	15,028	5,138	0.497	0.543
Primary school net attendance ratio (adjusted)	7.4	2.1	0.7192	0.01365	0.019	2.798	1.673	1,895	3,033	0.692	0.747
Secondary school net attendance ratio (adjusted)	7.5		0.4777	0.01210	0.025	1.616	1.271	1,723	2,757	0.453	0.502
Household water arsenic exceeding standard (50 ppb)	4.S2a		0.0010	0.00101	1.005	1.302	1.141	3,787	1,283	0.000	0.003
Women											
Contraceptive prevalence	5.3	5.3	0.5666	0.00977	0.017	1.604	1.267	2,540	4,131	0.547	0.586
Unmet need	5.4	5.6	0.1898	0.00667	0.035	1.195	1.093	2,540	4,131	0.177	0.203
Antenatal care coverage (1+ times, skilled provider)			0.4033	0.01949	0.048	1.143	1.069	475	725	0.364	0.442
Antenatal care coverage (4+ times, any provider)	5.5b	5.5	0.1402	0.01435	0.102	1.236	1.112	475	725	0.112	0.169
Skilled attendant at delivery	5.7	5.2	0.3839	0.01934	0.050	1.145	1.070	475	725	0.345	0.423
Literacy rate (young women)	7.1	2.3	0.8610	0.01039	0.012	1.474	1.214	1,035	1,635	0.840	0.882
Post-natal health check for the newborn	5.11		0.2196	0.01273	0.058	0.684	0.827	475	725	0.194	0.245
Knowledge about HIV prevention (young women)	9.1	6.3	0.0743	0.00831	0.112	1.638	1.280	1,035	1,635	0.058	0.091
Under-5s											
Birth registration	8.1		0.3231	0.01268	0.039	1.418	1.191	1,270	1,929	0.298	0.348
Underweight prevalence (moderate and severe)	2.1a	1.8	0.3517	0.01377	0.039	1.536	1.239	1,216	1,847	0.324	0.379
Underweight prevalence (severe)	2.1b		0.0972	0.00869	0.089	1.590	1.261	1,216	1,847	0.080	0.115
Stunting prevalence (moderate and severe)	2.2a		0.4138	0.01700	0.041	2.159	1.470	1,199	1,814	0.380	0.448
Stunting prevalence (severe)	2.2b		0.1584	0.01166	0.074	1.850	1.360	1,199	1,814	0.135	0.182
Wasting prevalence (moderate and severe)	2.3a		0.1169	0.00841	0.072	1.264	1.124	1,220	1,846	0.100	0.134
Wasting prevalence (severe)	2.3b		0.0150	0.00299	0.200	1.121	1.059	1,220	1,846	0.009	0.021

Table SE.6: Sampling Errors: Chittagong Division

	MICS Indicator	MDG Indicator	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Weighted count	Unweighted count	Confidence limits	
										Lower bound r - 2se	Upper bound r + 2se
Households											
Iodized salt consumption	2.19		0.5932	0.01292	0.022	6.206	2.491	9,188	8,977	0.567	0.619
Source water arsenic exceeding standard (50 ppb)	4.S1a		0.2280	0.02500	0.110	1.511	1.229	457	422	0.150	0.250
Household members											
Use of improved drinking water sources	4.1	7.8	0.9700	0.00395	0.004	4.841	2.200	47,725	9,041	0.962	0.978
Use of improved sanitation	4.3	7.9	0.5945	0.01251	0.021	5.865	2.422	47,725	9,041	0.569	0.619
Primary school net attendance ratio (adjusted)	7.4	2.1	0.7237	0.00954	0.013	2.781	1.668	6,168	6,113	0.705	0.743
Secondary school net attendance ratio (adjusted)	7.5		0.4560	0.01069	0.023	2.606	1.614	5,875	5,658	0.435	0.477
Household water arsenic exceeding standard (50 ppb)	4.S2a		0.2430	0.01900	0.085	4.702	2.168	11,942	2,256	0.170	0.246
Women											
Contraceptive prevalence	5.3	5.3	0.5285	0.01188	0.022	4.021	2.005	7,634	7,103	0.505	0.552
Unmet need	5.4	5.6	0.1891	0.00805	0.043	3.000	1.732	7,634	7,103	0.173	0.205
Antenatal care coverage (1+ times, skilled provider)			0.5815	0.01843	0.032	2.255	1.502	1,851	1,616	0.545	0.618
Antenatal care coverage (4+ times, any provider)	5.5b	5.5	0.2168	0.01518	0.070	2.192	1.481	1,851	1,616	0.186	0.247
Skilled attendant at delivery	5.7	5.2	0.4153	0.01855	0.045	2.288	1.513	1,851	1,616	0.378	0.452
Literacy rate (young women)	7.1	2.3	0.8152	0.01178	0.014	3.076	1.754	3,751	3,341	0.792	0.839
Post-natal health check for the newborn	5.11		0.3356	0.01927	0.057	2.688	1.640	1,851	1,616	0.297	0.374
Knowledge about HIV prevention (young women)	9.1	6.3	0.0555	0.00578	0.104	2.130	1.459	3,751	3,341	0.044	0.067
Under-5s											
Birth registration	8.1		0.4142	0.01315	0.032	3.095	1.759	4,792	4,343	0.388	0.441
Underweight prevalence (moderate and severe)	2.1a	1.8	0.3223	0.01144	0.035	2.422	1.556	4,499	4,046	0.299	0.345
Underweight prevalence (severe)	2.1b		0.0916	0.00624	0.068	1.892	1.376	4,499	4,046	0.079	0.104
Stunting prevalence (moderate and severe)	2.2a		0.4312	0.01051	0.024	1.786	1.336	4,447	3,963	0.410	0.452
Stunting prevalence (severe)	2.2b		0.1867	0.00901	0.048	2.120	1.456	4,447	3,963	0.169	0.205
Wasting prevalence (moderate and severe)	2.3a		0.0922	0.00571	0.062	1.577	1.256	4,550	4,048	0.081	0.104
Wasting prevalence (severe)	2.3b		0.0181	0.00249	0.137	1.409	1.187	4,550	4,048	0.013	0.023

Table SE.7: Sampling Errors: Dhaka Division

	MICS Indicator	MDG Indicator	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Weighted count	Unweighted count	Confidence limits	
										Lower bound r - 2se	Upper bound r + 2se
Households											
Iodized salt consumption	2.19		0.6461	0.00700	0.011	2.751	1.659	16,428	12,837	0.632	0.660
Source water arsenic exceeding standard (50 ppb)	4.S1a		0.1120	0.01300	0.108	1.014	1.007	788	624	0.085	0.137
Household members											
Use of improved drinking water sources	4.1	7.8	0.9988	0.00039	0.000	1.597	1.264	72,991	12,913	0.998	1.000
Use of improved sanitation	4.3	7.9	0.5402	0.01303	0.024	8.824	2.970	72,991	12,913	0.514	0.566
Primary school net attendance ratio (adjusted)	7.4	2.1	0.7255	0.00743	0.010	2.036	1.427	8,871	7,353	0.711	0.740
Secondary school net attendance ratio (adjusted)	7.5		0.4561	0.01083	0.024	3.122	1.767	7,908	6,598	0.434	0.478
Household water arsenic exceeding standard (50 ppb)	4.S2a		0.0950	0.00700	0.074	1.969	1.403	18,439	3,213	0.079	0.109
Women											
Contraceptive prevalence	5.3	5.3	0.6003	0.00669	0.011	1.965	1.402	13,402	10,521	0.587	0.614
Unmet need	5.4	5.6	0.1497	0.00412	0.028	1.402	1.184	13,402	10,521	0.141	0.158
Antenatal care coverage (1+ times, skilled provider)			0.6190	0.01385	0.022	1.634	1.278	2,503	2,008	0.591	0.647
Antenatal care coverage (4+ times, any provider)	5.5b	5.5	0.2625	0.01648	0.063	2.817	1.678	2,503	2,008	0.230	0.295
Skilled attendant at delivery	5.7	5.2	0.4478	0.01802	0.040	2.636	1.623	2,503	2,008	0.412	0.484
Literacy rate (young women)	7.1	2.3	0.8088	0.00865	0.011	2.088	1.445	5,803	4,316	0.792	0.826
Post-natal health check for the newborn	5.11		0.4394	0.01649	0.038	2.217	1.489	2,503	2,008	0.406	0.472
Knowledge about HIV prevention (young women)	9.1	6.3	0.1300	0.00854	0.066	2.779	1.667	5,803	4,316	0.113	0.147
Under-5s											
Birth registration	8.1		0.3433	0.01081	0.032	2.715	1.648	6,456	5,235	**0.322**	**0.365**
Underweight prevalence (moderate and severe)	2.1a	1.8	0.3085	0.01046	0.034	2.582	1.607	6,180	5,033	**0.288**	**0.329**
Underweight prevalence (severe)	2.1b		0.0885	0.00612	0.069	2.335	1.528	6,180	5,033	**0.076**	**0.101**
Stunting prevalence (moderate and severe)	2.2a		0.4212	0.01020	0.024	2.097	1.448	6,007	4,917	**0.401**	**0.442**
Stunting prevalence (severe)	2.2b		0.1656	0.00898	0.054	2.870	1.694	6,007	4,917	**0.148**	**0.184**
Wasting prevalence (moderate and severe)	2.3a		0.0915	0.00589	0.064	2.059	1.435	6,034	4,932	**0.080**	**0.103**
Wasting prevalence (severe)	2.3b		0.0134	0.00170	0.126	1.069	1.034	6,034	4,932	**0.010**	**0.017**

Table SE.8: Sampling Errors: Khulna Division

	MICS Indicator	MDG Indicator	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Weighted count	Unweighted count	Confidence limits	
										Lower bound r - 2se	Upper bound r + 2se
Households											
Iodized salt consumption	2.19		0.6006	0.00919	0.0150	2.8530	1.6890	6,139	8,103	0.582	0.619
Source water arsenic exceeding standard (50 ppb)	4.S1a		0.2150	0.02200	0.1050	1.1640	1.0790	308	405	0.141	0.229
Household members											
Use of improved drinking water sources	4.1	7.8	0.9443	0.00622	0.0070	5.9810	2.4460	26,508	8,138	0.932	0.957
Use of improved sanitation	4.3	7.9	0.5802	0.00682	0.0120	1.5520	1.2460	26,508	8,138	0.567	0.594
Primary school net attendance ratio (adjusted)	7.4	2.1	0.7538	0.00827	0.0110	1.3980	1.1820	2,853	3,795	0.737	0.770
Secondary school net attendance ratio (adjusted)	7.5		0.5087	0.01118	0.0220	1.7610	1.3270	2,641	3,525	0.486	0.531
Household water arsenic exceeding standard (50 ppb)	4.S2a		0.19200	0.01400	0.0780	2.6720	1.6350	6,703	2,031	0.132	0.188
Women											
Contraceptive prevalence	5.3	5.3	0.7025	0.00610	0.0090	1.2440	1.1150	5,110	6,997	0.690	0.715
Unmet need	5.4	5.6	0.0930	0.00399	0.0430	1.3210	1.1490	5,110	6,997	0.085	0.101
Antenatal care coverage (1+ times, skilled provider)			0.7464	0.01522	0.0200	1.2820	1.1320	760	1,048	0.716	0.777
Antenatal care coverage (4+ times, any provider)	5.5b	5.5	0.2707	0.01457	0.0540	1.1260	1.0610	760	1,048	0.242	0.300
Skilled attendant at delivery	5.7	5.2	0.5673	0.01702	0.0300	1.2350	1.1110	760	1,048	0.533	0.601
Literacy rate (young women)	7.1	2.3	0.8775	0.00774	0.0090	1.4600	1.2090	1,911	2,618	0.862	0.893
Post-natal health check for the newborn	5.11		0.5198	0.01692	0.0330	1.2000	1.0960	760	1,048	0.486	0.554
Knowledge about HIV prevention (young women)	9.1	6.3	0.0937	0.00621	0.0660	1.1900	1.0910	1,911	2,618	0.081	0.106
Under-5s											
Birth registration	8.1		0.3210	0.01157	0.0360	1.6760	1.2940	2,014	2,729	0.298	0.344
Underweight prevalence (moderate and severe)	2.1a	1.8	0.2846	0.00910	0.0320	1.0800	1.0390	1,964	2,658	0.266	0.303
Underweight prevalence (severe)	2.1b		0.0622	0.00527	0.0850	1.2640	1.1240	1,964	2,658	0.052	0.073
Stunting prevalence (moderate and severe)	2.2a		0.3445	0.01003	0.0290	1.1620	1.0780	1,925	2,608	0.324	0.365
Stunting prevalence (severe)	2.2b		0.1135	0.00751	0.0660	1.4620	1.2090	1,925	2,608	0.098	0.128
Wasting prevalence (moderate and severe)	2.3a		0.1002	0.00626	0.0620	1.1340	1.0650	1,926	2,612	0.088	0.113
Wasting prevalence (severe)	2.3b		0.0174	0.00293	0.1690	1.3160	1.1470	1,926	2,612	0.012	0.023

Table SE.9: Sampling Errors: Rajshahi Division

	MICS Indicator	MDG Indicator	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Weighted count	Unweighted count	Confidence limits	
										Lower bound r - 2se	Upper bound r + 2se
Households											
Iodized salt consumption	2.19		0.3625	0.00993	0.027	2.642	1.625	7,381	6,188	0.343	0.382
Source water arsenic exceeding standard (50 ppb)	4.S1a		0.0400	0.01400	0.298	1.364	1.168	376	317	0.012	0.068
Household members											
Use of improved drinking water sources	4.1	7.8	0.9933	0.00238	0.002	5.326	2.308	30,923	6,247	0.989	0.998
Use of improved sanitation	4.3	7.9	0.5201	0.01002	0.019	2.512	1.585	30,923	6,247	0.500	0.540
Primary school net attendance ratio (adjusted)	7.4	2.1	0.7514	0.00979	0.013	1.475	1.214	3,438	2,873	0.732	0.771
Secondary school net attendance ratio (adjusted)	7.5		0.4606	0.01256	0.027	1.644	1.282	3,093	2,591	0.435	0.486
Household water arsenic exceeding standard (50 ppb)	4.S2a		0.0450	0.00900	0.203	3.129	1.769	7,787	1,565	0.026	0.064
Women											
Contraceptive prevalence	5.3	5.3	0.6802	0.00802	0.012	1.531	1.237	6,078	5,183	0.664	**0.696**
Unmet need	5.4	5.6	0.1020	0.00516	0.051	1.508	1.228	6,078	5,183	0.092	**0.112**
Antenatal care coverage (1+ times, skilled provider)			0.6362	0.01789	0.028	0.990	0.995	850	717	0.600	**0.672**
Antenatal care coverage (4+ times, any provider)	5.5b	5.5	0.2557	0.01497	0.059	0.843	0.918	850	717	0.226	**0.286**
Skilled attendant at delivery	5.7	5.2	0.5179	0.01784	0.034	0.912	0.955	850	717	0.482	**0.554**
Literacy rate (young women)	7.1	2.3	0.8300	0.01211	0.015	1.949	1.396	2,206	1,875	0.806	**0.854**
Post-natal health check for the newborn	5.11		0.4185	0.01677	0.040	0.828	0.910	850	717	0.385	**0.452**
Knowledge about HIV prevention (young women)	9.1	6.3	0.1002	0.00939	0.094	1.833	1.354	2,206	1,875	0.081	**0.119**
Under-5s											
Birth registration	8.1		0.3263	0.01374	0.042	1.713	1.309	2,405	1,996	0.299	0.354
Underweight prevalence (moderate and severe)	2.1a	1.8	0.2990	0.01293	0.043	1.538	1.240	2,321	1,929	0.273	0.325
Underweight prevalence (severe)	2.1b		0.0724	0.00624	0.086	1.118	1.057	2,321	1,929	0.060	0.085
Stunting prevalence (moderate and severe)	2.2a		0.3943	0.01241	0.031	1.221	1.105	2,278	1,893	0.369	0.419
Stunting prevalence (severe)	2.2b		0.1322	0.00961	0.073	1.523	1.234	2,278	1,893	0.113	0.151
Wasting prevalence (moderate and severe)	2.3a		0.0906	0.00768	0.085	1.358	1.165	2,287	1,899	0.075	0.106
Wasting prevalence (severe)	2.3b		0.0151	0.00303	0.200	1.169	1.081	2,287	1,899	0.009	0.021

Table SE.10: Sampling Errors: Rangpur Division

	MICS Indicator	MDG Indicator	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Weighted count	Unweighted count	Confidence limits	
										Lower bound r - 2se	Upper bound r + 2se
Households											
Iodized salt consumption	2.19		0.3378	0.00966	0.029	2.833	1.683	6,435	6,797	0.318	0.357
Source water arsenic exceeding standard (50 ppb)	4.S1a		0.0130	0.00300	0.440	0.393	0.627	329	351	0.004	0.014
Household members											
Use of improved drinking water sources	4.1	7.8	0.9987	0.00041	0.000	0.882	0.939	28,234	6,820	0.998	1.000
Use of improved sanitation	4.3	7.9	0.5744	0.00879	0.015	2.155	1.468	28,234	6,820	0.557	0.592
Primary school net attendance ratio (adjusted)	7.4	2.1	0.7574	0.00860	0.011	1.439	1.200	3,367	3,577	0.740	0.775
Secondary school net attendance ratio (adjusted)	7.5		0.5230	0.01104	0.021	1.638	1.280	3,086	3,351	0.501	0.545
Household water arsenic exceeding standard (50 ppb)	4.S2a		0.0130	0.00400	0.341	2.376	1.541	6,994	1,718	0.002	0.018
Women											
Contraceptive prevalence	5.3	5.3	0.7275	0.00734	0.010	1.540	1.241	5,230	5,672	0.713	0.742
Unmet need	5.4	5.6	0.0909	0.00482	0.053	1.595	1.263	5,230	5,672	0.081	0.101
Antenatal care coverage (1+ times, skilled provider)			0.4661	0.01648	0.035	1.065	1.032	886	977	0.433	0.499
Antenatal care coverage (4+ times, any provider)	5.5b	5.5	0.3580	0.01590	0.044	1.073	1.036	886	977	0.326	0.390
Skilled attendant at delivery	5.7	5.2	0.3939	0.01584	0.040	1.026	1.013	886	977	0.362	0.426
Literacy rate (young women)	7.1	2.3	0.8004	0.01070	0.013	1.553	1.246	1,935	2,170	0.779	0.822
Post-natal health check for the newborn	5.11		0.4679	0.01741	0.037	1.188	1.090	886	977	0.433	0.503
Knowledge about HIV prevention (young women)	9.1	6.3	0.0592	0.00468	0.079	0.853	0.923	1,935	2,170	0.050	0.069
Under-5s											
Birth registration	8.1		0.4755	0.01192	0.025	1.504	1.226	2,372	2,639	0.452	0.499
Underweight prevalence (moderate and severe)	2.1a	1.8	0.3262	0.00928	0.028	0.993	0.996	2,275	2,535	0.308	0.345
Underweight prevalence (severe)	2.1b		0.0813	0.00568	0.070	1.095	1.046	2,275	2,535	0.070	0.093
Stunting prevalence (moderate and severe)	2.2a		0.4368	0.01062	0.024	1.132	1.064	2,213	2,469	0.416	0.458
Stunting prevalence (severe)	2.2b		0.1624	0.00850	0.052	1.311	1.145	2,213	2,469	0.145	0.179
Wasting prevalence (moderate and severe)	2.3a		0.0873	0.00674	0.077	1.414	1.189	2,227	2,483	0.074	0.101
Wasting prevalence (severe)	2.3b		0.0139	0.00260	0.187	1.225	1.107	2,227	2,483	0.009	0.019

Table SE.11: Sampling Errors: Sylhet Division

	MICS Indicator	MDG Indicator	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Weighted count	Unweighted count	Confidence limits	
										Lower bound r - 2se	Upper bound r + 2se
Households											
Iodized salt consumption	2.19		0.5072	0.01481	0.029	3.105	1.762	2,786	3,539	0.478	0.537
Source water arsenic exceeding standard (50 ppb)	4.S1a		0.3020	0.02900	0.124	0.827	0.909	140	177	0.116	0.232
Household members											
Use of improved drinking water sources	4.1	7.8	0.9379	0.01303	0.014	10.499	3.240	15,987	3,598	0.912	0.964
Use of improved sanitation	4.3	7.9	0.5860	0.01530	0.026	3.470	1.863	15,987	3,598	0.555	0.617
Primary school net attendance ratio (adjusted)	7.4	2.1	0.6943	0.01252	0.018	2.066	1.437	2,209	2,801	0.669	0.719
Secondary school net attendance ratio (adjusted)	7.5		0.3274	0.01406	0.043	2.317	1.522	2,051	2,580	0.299	0.355
Household water arsenic exceeding standard (50 ppb)	4.S2a		0.3490	0.02100	0.117	2.698	1.643	4,067	886	0.105	0.191
Women											
Contraceptive prevalence	5.3	5.3	0.4636	0.01190	0.026	1.583	1.258	2,269	2,782	0.440	0.487
Unmet need	5.4	5.6	0.1630	0.00843	0.052	1.449	1.204	2,269	2,782	0.146	0.180
Antenatal care coverage (1+ times, skilled provider)			0.5211	0.02136	0.041	1.415	1.190	625	775	0.478	0.564
Antenatal care coverage (4+ times, any provider)	5.5b	5.5	0.1605	0.01456	0.091	1.217	1.103	625	775	0.131	0.190
Skilled attendant at delivery	5.7	5.2	0.2667	0.02002	0.075	1.587	1.260	625	775	0.227	0.307
Literacy rate (young women)	7.1	2.3	0.7824	0.01405	0.018	1.774	1.332	1,260	1,531	0.754	0.811
Post-natal health check for the newborn	5.11		0.4530	0.02107	0.047	1.387	1.178	625	775	0.411	0.495
Knowledge about HIV prevention (young women)	9.1	6.3	0.0530	0.00646	0.122	1.274	1.129	1,260	1,531	0.040	0.066
Under-5s											
Birth registration	8.1		0.3503	0.01440	0.041	1.851	1.360	1,595	2,032	0.321	0.379
Underweight prevalence (moderate and severe)	2.1a	1.8	0.3968	0.01483	0.037	1.720	1.311	1,466	1,873	0.367	0.426
Underweight prevalence (severe)	2.1b		0.1306	0.00986	0.075	1.602	1.266	1,466	1,873	0.111	0.150
Stunting prevalence (moderate and severe)	2.2a		0.5064	0.01552	0.031	1.664	1.290	1,353	1,727	0.475	0.537
Stunting prevalence (severe)	2.2b		0.2220	0.01382	0.062	1.910	1.382	1,353	1,727	0.194	0.250
Wasting prevalence (moderate and severe)	2.3a		0.1329	0.00842	0.063	1.093	1.045	1,397	1,778	0.116	0.150
Wasting prevalence (severe)	2.3b		0.0283	0.00405	0.143	1.059	1.029	1,397	1,778	0.020	0.036

APPENDIX D. Data Quality Tables

Table DQ.1: Age distribution of household population

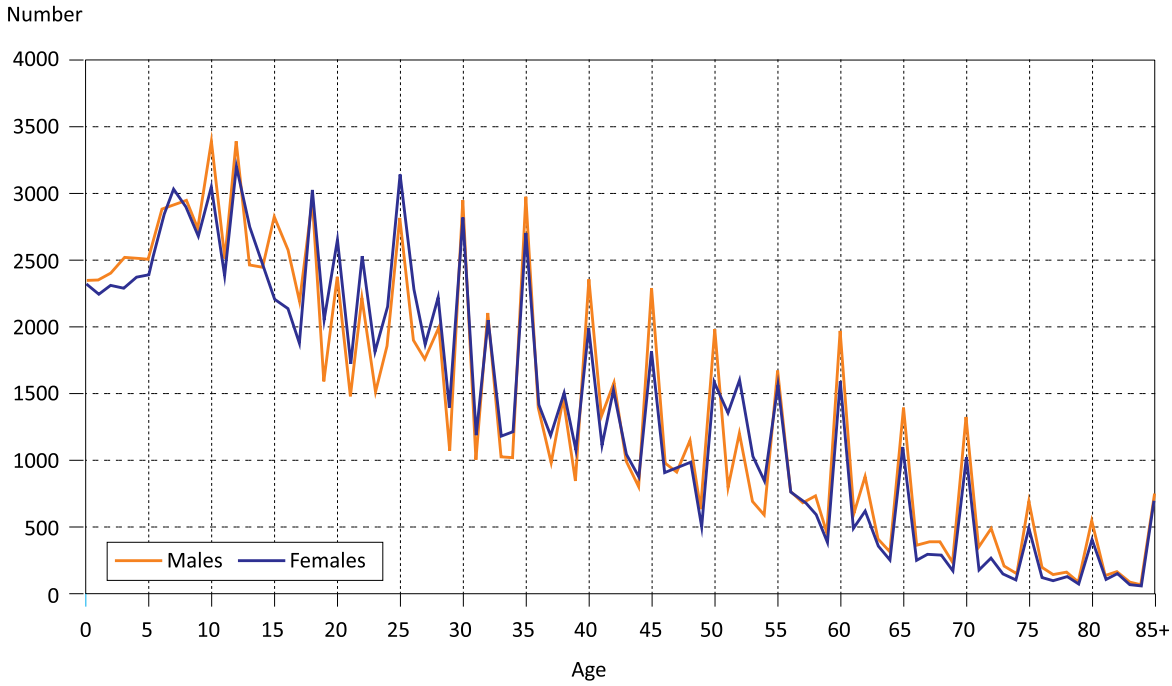
Single-year age distribution of household population by sex, Bangladesh, 2012-2013

Number		Males		Females	
		Number	Per cent	Number	Per cent
Age	0	2,320	1.9	2,301	2.0
	1	2,329	1.9	2,224	1.9
	2	2,375	2.0	2,285	1.9
	3	2,496	2.1	2,264	1.9
	4	2,495	2.1	2,342	2.0
	5	2,481	2.1	2,371	2.0
	6	2,867	2.4	2,770	2.4
	7	2,904	2.4	3,015	2.6
	8	2,935	2.5	2,865	2.4
	9	2,710	2.3	2,656	2.3
	10	3,367	2.8	3,039	2.6
	11	2,472	2.1	2,360	2.0
	12	3,370	2.8	3,189	2.7
	13	2,448	2.0	2,720	2.3
	14	2,427	2.0	2,446	2.1
	15	2,804	2.3	2,190	1.9
	16	2,556	2.1	2,122	1.8
	17	2,171	1.8	1,861	1.6
	18	2,965	2.5	3,002	2.6
	19	1,569	1.3	2,022	1.7
	20	2,346	2.0	2,631	2.2
	21	1,460	1.2	1,696	1.4
	22	2,189	1.8	2,506	2.1
	23	1,486	1.2	1,786	1.5
	24	1,834	1.5	2,102	1.8
	25	2,794	2.3	3,118	2.6
	26	1,879	1.6	2,268	1.9
	27	1,734	1.4	1,841	1.6
	28	1,967	1.6	2,194	1.9
	29	1,049	0.9	1,367	1.2
	30	2,918	2.4	2,791	2.4
	31	975	0.8	1,157	1.0
	32	2,066	1.7	2,029	1.7
	33	1,001	0.8	1,153	1.0
	34	989	0.8	1,182	1.0
	35	2,934	2.5	2,682	2.3
	36	1,323	1.1	1,391	1.2
	37	959	0.8	1,147	1.0
	38	1,450	1.2	1,475	1.3
	39	815	0.7	1,042	0.9
	40	2,318	1.9	1,975	1.7
	41	1,306	1.1	1,081	0.9

TABLE DQ.1: continued

Number	Males		Females	
	Number	Per cent	Number	Per cent
42	1,554	1.3	1,495	1.3
43	957	0.8	1,005	0.9
44	779	0.7	839	0.7
45	2,250	1.9	1,792	1.5
46	954	0.8	880	0.7
47	873	0.7	906	0.8
48	1,110	0.9	961	0.8
49	601	0.5	469	0.4
50	1,951	1.6	1,555	1.3
51	770	0.6	1,316	1.1
52	1,163	1.0	1,568	1.3
53	664	0.6	996	0.8
54	555	0.5	808	0.7
55	1,634	1.4	1,533	1.3
56	737	0.6	732	0.6
57	652	0.5	677	0.6
58	701	0.6	555	0.5
59	402	0.3	351	0.3
60	1,930	1.6	1,565	1.3
61	564	0.5	455	0.4
62	843	0.7	597	0.5
63	373	0.3	315	0.3
64	271	0.2	213	0.2
65	1,351	1.1	1,064	0.9
66	328	0.3	213	0.2
67	357	0.3	260	0.2
68	354	0.3	253	0.2
69	191	0.2	138	0.1
70	1,287	1.1	985	0.8
71	316	0.3	133	0.1
72	449	0.4	243	0.2
73	170	0.1	99	0.1
74	115	0.1	66	0.1
75	649	0.5	459	0.4
76	160	0.1	78	0.1
77	100	0.1	57	0.0
78	124	0.1	86	0.1
79	62	0.1	35	0.0
80	501	0.4	365	0.3
81	98	0.1	72	0.1
82	120	0.1	114	0.1
83	52	0.0	37	0.0
84	33	0.0	22	0.0
85+	705	0.6	672	0.6
DK/missing	24	0.0	21	0.0
Total	119,684	100.0	117,712	100.0

Figure DQ.1: Household Population by Single Ages, Bangladesh MICS, 2012-2013



Note: The graph excludes 45 household population with unknown age and/or sex

Table DQ.2: Age distribution of eligible and interviewed women

Household population of women age 10-54 years, interviewed women age 15-49 years, and percentage of eligible women who were interviewed, by five-year age groups, Bangladesh, 2012-2013

		Household population of women age 10-54 years	Interviewed women age 15-49 years		Percentage of eligible women interviewed (Completion rate)
		Number	Number	Per cent	
Age	10-14	13,754	na	na	na
	15-19	11,198	9,147	17.5	81.7
	20-24	10,722	8,923	17.0	83.2
	25-29	10,788	9,460	18.1	87.7
	30-34	8,313	7,514	14.4	90.4
	35-39	7,737	7,015	13.4	90.7
	40-44	6,395	5,764	11.0	90.1
	45-49	5,008	4,524	8.6	90.3
	50-54	6,243	na	na	na
Total (15-49)		**60,161**	**52,346**	**100.0**	**87.0**

na= not applicable

DQ.3: Age distribution of children in household and under-5 questionnaires

Household population of children age 0-7 years, children age 0-4 years whose mothers/caretakers were interviewed, and percentage of under-5 children whose mothers/caretakers were interviewed, by single years of age, Bangladesh, 2012-2013

		Household population of children 0-7 years	Under-5s with completed interviews		Percentage of eligible under-5s interviewed (Completion rate)
		Number	Number	Per cent	
Age	0	4,621	3,966	19.0	85.8
	1	4,552	4,102	19.6	90.1
	2	4,660	4,177	20.0	89.6
	3	4,760	4,329	20.7	91.0
	4	4,837	4,347	20.8	89.9
	5	4,852	na	na	na
	6	5,637	na	na	na
	7	5,919	na	na	na
Total (0-4)		**23,430**	**20,922**	**100.0**	**89.3**

na= not applicable

DQ.4: Birth date reporting: Household population

Per cent distribution of household population by completeness of date of birth information, Bangladesh, 2012-2013

		Completeness of reporting of month and year of birth				Total	Number of household members
		Year and month of birth	Year of birth only	Month of birth only	Both missing		
Total		**51.3**	**15.9**	**1.3**	**31.5**	**100.0**	**239,491**
Age	0-4	96.9	1.8	0.2	1.1	100.0	23,402
	5-14	79.1	8.9	1.8	10.1	100.0	57,044
	15-24	55.0	15.8	2.3	26.9	100.0	43,114
	25-49	32.8	22.4	1.0	43.8	100.0	75,486
	50-64	18.0	23.0	0.5	58.6	100.0	26,790
	65-84	12.9	20.8	0.2	66.1	100.0	12,183
	85+	7.3	17.5	0.0	75.2	100.0	1,434
	DK/missing	10.5	15.8	0.0	73.7	100.0	38
Division	Barisal	54.9	5.5	3.3	36.3	100.0	24,192
	Chittagong	54.0	23.3	0.1	22.5	100.0	44,981
	Dhaka	49.9	23.2	0.7	26.2	100.0	58,803
	Khulna	61.0	20.4	0.1	18.5	100.0	35,307
	Rajshahi	50.9	15.5	2.2	31.4	100.0	25,890
	Rangpur	44.1	2.3	3.8	49.8	100.0	30,135
	Sylhet	38.9	3.7	0.2	57.2	100.0	20,183
Area	Urban	56.2	14.4	1.0	28.4	100.0	38,032
	Rural	50.3	16.2	1.3	32.1	100.0	201,459

DQ.5: Birth date and age reporting: Women

Per cent distribution of women age 15-49 years by completeness of date of birth/age information, Bangladesh, 2012-2013

		Completeness of reporting of date of birth and age					Total	Number of women age 15-49 years
		Year and month of birth	Year of birth and age	Year of birth only	Age only	Other/DK/ Missing		
Total		**40.5**	**20.4**	**0.0**	**38.5**	**0.6**	**100.0**	**51,791**
Division	Barisal	45.7	5.2	0.0	47.4	1.7	100.0	4,966
	Chittagong	41.3	31.5	0.0	27.1	0.2	100.0	9,084
	Dhaka	42.6	27.4	0.0	29.8	0.2	100.0	12,767
	Khulna	57.2	27.0	0.0	15.7	0.1	100.0	8,273
	Rajshahi	34.6	23.3	0.0	41.2	0.8	100.0	6,070
	Rangpur	26.9	2.9	0.0	68.7	1.4	100.0	6,724
	Sylhet	22.7	3.1	0.0	73.9	0.2	100.0	3,907
Area	Urban	49.7	17.4	0.0	32.3	0.6	100.0	8,951
	Rural	38.6	21.1	0.0	39.8	0.5	100.0	42,840

DQ.6: Birth date and age reporting: Under-5s

Per cent distribution children under 5 by completeness of date of birth/age information, Bangladesh, 2012-2013

		Completeness of reporting of date of birth and age					Total	Number of under-5 children
		Year and month of birth	Year of birth and age	Year of birth only	Age only	Other/DK/ Missing		
Total		**99.1**	**0.8**	**0.0**	**0.1**	**0.0**	**100.0**	**20,903**
Division	Barisal	98.4	1.5	0.0	0.1	0.0	100.0	1,929
	Chittagong	98.4	1.6	0.0	0.1	0.0	100.0	4,343
	Dhaka	99.8	0.2	0.0	0.0	0.0	100.0	5,235
	Khulna	99.8	0.2	0.0	0.0	0.0	100.0	2,729
	Rajshahi	99.9	0.1	0.0	0.0	0.0	100.0	1,996
	Rangpur	99.4	0.5	0.0	0.1	0.0	100.0	2,639
	Sylhet	97.8	1.7	0.0	0.5	0.0	100.0	2,032
Area	Urban	98.9	1.1	0.0	0.1	0.0	100.0	3,331
	Rural	99.2	0.7	0.0	0.1	0.0	100.0	17,572

DQ.7: Birth date reporting: Children, adolescents and young people

Per cent distribution of children, adolescents and young people age 5-24 years by completeness of date of birth information, Bangladesh, 2012-2013

		Completeness of reporting of month and year of birth				Total	Number of children, adolescents and young people age 5-24 years
		Year and month of birth	Year of birth only	Month of birth only	Both missing		
Total		**68.7**	**11.9**	**2.0**	**17.4**	**100.0**	**100,158**
Division	Barisal	65.0	5.0	5.8	24.2	100.0	9,902
	Chittagong	69.9	20.5	0.1	9.5	100.0	20,275
	Dhaka	68.2	15.5	1.2	15.1	100.0	24,489
	Khulna	83.7	12.3	0.1	3.9	100.0	13,662
	Rajshahi	73.8	9.4	3.0	13.7	100.0	10,185
	Rangpur	62.7	2.3	6.5	28.4	100.0	12,410
	Sylhet	51.7	5.6	0.3	42.4	100.0	9,235
Area	Urban	73.8	10.6	1.5	14.1	100.0	15,445
	Rural	67.8	12.1	2.2	18.0	100.0	84,713

DQ.8: Birth date reporting: First and last births

Per cent distribution of first and last births to women age 15-49 years by completeness of date of birth, Bangladesh, 2012-2013

		Completeness of reporting of date of birth										
		Date of first birth				Total	Number of first births	Date of last birth			Total	Number of last births
		Year and month of birth	Year of birth only	Completed years since first birth only	Other/ DK/ Missing			Both month and year	Year only	Other/ DK/ Missing		
Total		**76.8**	**8.4**	**12.0**	**2.9**	**100.0**	**40,291**	**98.1**	**1.6**	**0.3**	**100.0**	**31,411**
Division	Barisal	75.6	3.4	14.9	6.1	100.0	3,867	97.9	1.4	0.8	100.0	2,996
	Chittagong	77.5	14.1	7.7	0.7	100.0	6,866	95.8	3.5	0.7	100.0	5,481
	Dhaka	76.8	12.5	9.6	1.1	100.0	9,902	99.3	0.6	0.1	100.0	7,747
	Khulna	88.1	6.2	5.0	0.7	100.0	6,630	97.6	2.3	0.1	100.0	5,018
	Rajshahi	80.3	6.3	7.9	5.4	100.0	4,919	99.7	0.2	0.1	100.0	3,713
	Rangpur	67.2	3.2	21.8	7.9	100.0	5,453	98.9	1.0	0.1	100.0	4,316
	Sylhet	62.0	5.2	32.2	0.6	100.0	2,654	96.6	2.1	1.3	100.0	2,140
Area	Urban	82.5	7.1	8.3	2.1	100.0	6,686	97.9	1.7	0.5	100.0	4,889
	Rural	75.7	8.6	12.7	3.0	100.0	33,605	98.1	1.5	0.3	100.0	26,522

Table DQ.9: Completeness of reporting

Percentage of observations that are missing information for selected questions and indicators, Bangladesh, 2012-2013

		Per cent with missing/incomplete information*	Number of cases
Household	Salt test result	0.5	51,895
	Starting time of interview	0.1	51,895
	Ending time of interview	0.0	51,895
Women	Date of first marriage/union: Only month	22.9	44,150
	Date of first marriage/union: Both month and year	27.7	44,150
	Age at first marriage/union	0.3	44,150
	Starting time of interview	0.1	51,791
	Ending time of interview	0.0	51,791
Under-5	Starting time of interview	0.1	20,903
	Ending time of interview	0.1	20,903

*Includes “Don’t know” responses.

DQ.10: Completeness of information for anthropometric indicators: Underweight

Per cent distribution of children under 5 by completeness of information on date of birth and weight, Bangladesh, 2012-2013

		Valid weight and date of birth	Reason for exclusion from analysis				Total	Per cent of children excluded from analysis	Number of children under 5
			Weight not measured	Incomplete date of birth	Weight not measured, incomplete date of birth	Flagged cases (outliers)			
Total		**95.3**	**3.7**	**0.8**	**0.1**	**0.1**	**100.0**	**4.7**	**20,903**
Age	<6 months	96.6	2.8	0.1	0.0	0.5	100.0	3.4	1,959
	6-11 months	97.2	2.1	0.2	0.0	0.6	100.0	2.8	1,942
	12-23 months	97.1	2.4	0.4	0.0	0.1	100.0	2.9	4,026
	24-35 months	95.6	3.6	0.6	0.1	0.1	100.0	4.4	4,175
	36-47 months	93.5	5.3	1.1	0.0	0.0	100.0	6.5	4,391
	48-59 months	93.7	4.4	1.7	0.2	0.0	100.0	6.3	4,410

DQ.11: Completeness of information for anthropometric indicators: Stunting

Per cent distribution of children under 5 by completeness of information on date of birth and length or height, Bangladesh, 2012-2013

		Valid length/ height and date of birth	Reason for exclusion from analysis				Total	Per cent of children excluded from analysis	Number of children under 5
			Length/ Height not measured	Incomplete date of birth	Length/Height not measured, incomplete date of birth	Flagged cases (outliers)			
Total		**92.8**	**5.3**	**0.8**	**0.1**	**1.1**	**100.0**	**7.2**	**20,903**
Age	<6 months	92.8	4.2	0.1	-	3.0	100.0	7.2	1,959
	6-11 months	95.4	2.5	0.2	-	1.9	100.0	4.6	1,942
	12-23 months	95.0	3.6	0.4	0.0	1.0	100.0	5.0	4,026
	24-35 months	91.4	7.0	0.5	0.1	1.0	100.0	8.6	4,175
	36-47 months	91.4	6.8	1.1	0.1	0.6	100.0	8.6	4,391
	48-59 months	92.3	5.5	1.7	0.2	0.3	100.0	7.7	4,410

DQ.12: Completeness of information for anthropometric indicators: Wasting

Per cent distribution of children under 5 by completeness of information on weight and length or height, Bangladesh, 2012-2013

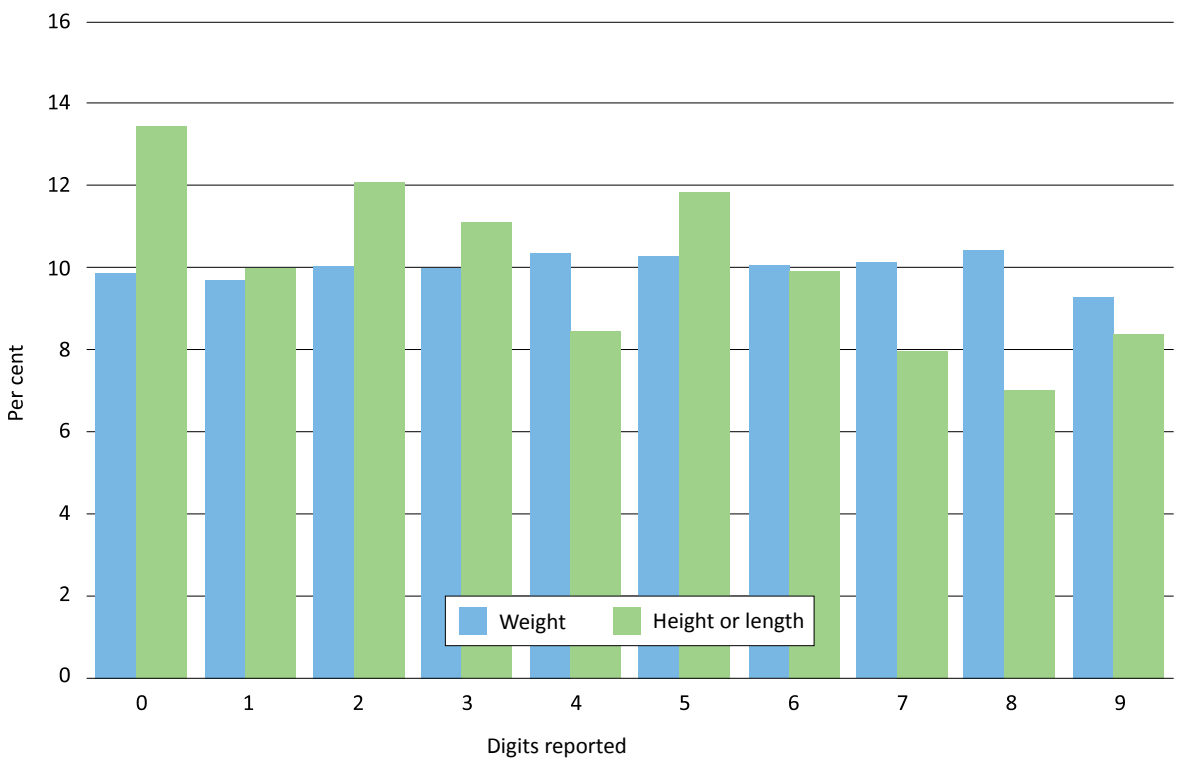
		Valid weight and length/ height	Reason for exclusion from analysis				Total	Per cent of children excluded from analysis	Number of children under 5
			Weight not measured	Length/ Height not measured	Weight and length/height not measured	Flagged cases (outliers)			
Total		**93.0**	**0.1**	**1.7**	**3.6**	**0.9**	**100.0**	**6.2**	**20,903**
Age	<6 months	92.2	0.1	1.5	2.7	3.4	100.0	7.7	1,959
	6-11 months	96.3	0.0	0.5	2.1	1.0	100.0	3.5	1,942
	12-23 months	95.5	0.0	1.2	2.4	0.5	100.0	4.1	4,026
	24-35 months	91.6	0.0	3.4	3.6	0.9	100.0	8.0	4,175
	36-47 months	91.7	0.1	1.6	5.2	0.4	100.0	7.2	4,391
	48-59 months	92.2	0.1	1.2	4.4	0.5	100.0	6.1	4,410

DQ.13: Heaping in anthropometric measurements

Distribution of weight and height/length measurements by digits reported for the decimal points, Bangladesh, 2012-2013

		Weight		Height	
		Number	Per cent	Number	Per cent
Digits	0	1,979	9.8	2,707	13.4
	1	1,947	9.7	1,999	9.9
	2	2,018	10.0	2,429	12.1
	3	2,009	10.0	2,231	11.1
	4	2,075	10.3	1,701	8.5
	5	2,069	10.3	2,381	11.8
	6	2,015	10.0	1,995	9.9
	7	2,034	10.1	1,596	7.9
	8	2,100	10.4	1,407	7.0
	9	1,873	9.3	1,684	8.4
	0 or 5	4,048	20.1	5,088	25.3
	Total	20,119	100.0	20,130	100.0

Figure DQ.2: Weight and height/length measurements by digits reported for the decimal points, Bangladesh MICS, 2012-2013



DQ:14: Observation of birth certificates

Per cent distribution of children under 5 by presence of birth certificates, and percentage of birth certificates seen, Bangladesh, 2012-2013

		Child has birth certificate		Child does not have birth certificate	Missing/ DK	Total	Percentage of birth certificates seen by the interviewer (1)/ (1+2)*100	Number of children under age 5
		Seen by the interviewer (1)	Not seen by the interviewer (2)					
Total		**21.0**	**10.4**	**68.3**	**0.2**	**100.0**	**66.9**	**20,903**
Division	Barisal	19.0	8.6	72.3	0.2	100.0	68.8	1,929
	Chittagong	23.0	10.8	66.0	0.2	100.0	68.0	4,343
	Dhaka	17.1	11.7	70.7	0.5	100.0	59.5	5,235
	Khulna	21.3	8.5	70.1	0.1	100.0	71.5	2,729
	Rajshahi	18.9	6.5	74.4	0.2	100.0	74.4	1,996
	Rangpur	29.4	11.0	59.3	0.3	100.0	72.7	2,639
	Sylhet	19.6	13.6	66.7	0.0	100.0	59.0	2,032
Area	Urban	27.3	12.3	60.0	0.3	100.0	69.0	3,331
	Rural	19.8	10.1	69.9	0.2	100.0	66.4	17,572
Child's age	0-5 months	9.5	4.8	85.6	0.1	100.0	66.3	1,959
	6-11 months	14.6	7.0	78.3	0.2	100.0	67.8	1,942
	12-23 months	16.6	8.3	74.8	0.2	100.0	66.6	4,026
	24-35 months	20.5	9.8	69.4	0.3	100.0	67.6	4,175
	36-47 months	23.3	12.6	63.9	0.3	100.0	64.9	4,391
	48-59 months	31.2	14.7	53.7	0.4	100.0	68.0	4,410

DQ.15: Observation of women's health cards

Per cent distribution of women with a live birth in the last 2 years by presence of a health card, and the percentage of health cards seen by the interviewers, Bangladesh, 2012-2013

		Woman does not have health card	Woman has health card		Missing/ DK	Total	Per cent of health cards seen by the interviewer (1)/ (1+2)*100	Number of women with a live birth in the last two years
			Seen by the interviewer (1)	Not seen by the interviewer (2)				
Total		**32.1**	**26.8**	**39.5**	**1.5**	**100.0**	**40.4**	**7,866**
Division	Barisal	31.4	40.0	25.2	3.3	100.0	61.3	725
	Chittagong	43.6	18.6	35.1	2.7	100.0	34.7	1,616
	Dhaka	35.1	24.1	39.8	0.9	100.0	37.7	2,008
	Khulna	20.7	33.0	45.4	0.9	100.0	42.1	1,048
	Rajshahi	24.1	36.3	38.8	0.8	100.0	48.3	717
	Rangpur	24.4	28.0	46.6	1.0	100.0	37.6	977
	Sylhet	33.7	19.9	45.3	1.2	100.0	30.5	775
Area	Urban	28.0	30.5	39.2	2.3	100.0	43.8	1,280
	Rural	32.9	26.1	39.6	1.4	100.0	39.7	6,586
Age of women	15 - 24	26.4	30.5	41.8	1.3	100.0	42.2	3,553
	25 - 34	34.5	24.9	38.9	1.7	100.0	39.0	3,524
	35 - 49	47.5	18.8	31.9	1.8	100.0	37.0	789

Table DQ.16: Observation of places for handwashing

Per cent distribution of places for handwashing observed by the interviewers in all interviewed households, Bangladesh, 2012-2013

		Place for handwashing				Missing/ DK	Total	Number of households interviewed
		Observed	Not observed					
			Place for handwashing not in dwelling	No permission to see	Other reason			
Total		**81.0**	**18.0**	**0.2**	**0.8**	**0.0**	**100.0**	**51,895**
Division	Barisal	94.4	5.1	-	0.5	-	100.0	5,138
	Chittagong	61.0	36.9	0.5	1.6	0.0	100.0	9,041
	Dhaka	88.2	10.2	0.3	1.3	0.0	100.0	12,913
	Khulna	72.4	27.5	0.1	0.0	-	100.0	8,138
	Rajshahi	80.6	19.2	0.0	0.2	0.0	100.0	6,247
	Rangpur	98.0	1.6	-	0.3	-	100.0	6,820
	Sylhet	74.3	24.7	0.3	0.6	0.1	100.0	3,598
Area	Urban	83.7	15.5	0.5	0.4	0.0	100.0	8,421
	Rural	80.5	18.5	0.1	0.8	0.0	100.0	43,474
Wealth index quintile	Poorest	69.7	29.1	0.2	1.0	0.0	100.0	13,738
	Second	80.8	18.0	0.1	1.0	0.0	100.0	11,269
	Middle	84.3	14.9	0.1	0.7	0.0	100.0	10,155
	Fourth	86.7	12.5	0.2	0.6	0.0	100.0	9,258
	Richest	90.7	8.7	0.4	0.2	0.0	100.0	7,475

DQ.17: Presence of mother in the household and the person interviewed for the under-5 questionnaire

Distribution of children under five by whether the mother lives in the same household, and the person who was interviewed for the under-5 questionnaire, Bangladesh, 2012-2013

		Mother in the household		Mother not in the household			Total	Number of children under 5
		Mother interviewed	Other adult female interviewed	Father interviewed	Other adult female interviewed	Other adult male interviewed		
Total		**98.1**	**0.0**	**0.0**	**1.8**	**0.0**	**100.0**	**23,430**
Age	0	99.2	0.0	0.0	0.7	-	100.0	4,621
	1	99.1	0.0	0.0	0.8	0.0	100.0	4,552
	2	98.2	0.0	0.0	1.7	0.0	100.0	4,660
	3	97.5	0.0	0.0	2.4	0.0	100.0	4,760
	4	96.8	0.1	0.1	3.0	0.0	100.0	4,837

DQ.18: Selection of children age 1-14 years for the child discipline module

Per cent distribution of households by the number of children age 1-14 years, and the percentage of households with at least two children age 1-14 years where correct selection of one child for the child discipline module was performed, Bangladesh, 2012-2013

		Number of children age 1-14 years				Number of households	Per cent of households where correct selection was performed	Number of households with 2 or more children age 1-14 years
		None	One	Two or more	Total			
Total		**25.0**	**29.8**	**45.1**	**100.0**	**51,895**	**96.6**	**23,421**
Division	Barisal	23.7	30.4	45.9	100.0	5,138	96.8	2,358
	Chittagong	20.3	24.6	55.1	100.0	9,041	96.1	4,985
	Dhaka	25.8	28.7	45.5	100.0	12,913	96.0	5,878
	Khulna	28.4	35.1	36.6	100.0	8,138	97.3	2,975
	Rajshahi	29.9	35.0	35.2	100.0	6,247	96.7	2,196
	Rangpur	25.4	31.5	43.1	100.0	6,820	97.1	2,942
	Sylhet	19.6	22.4	58.0	100.0	3,598	97.5	2,087
Area	Urban	26.5	32.7	40.9	100.0	8,421	95.9	3,441
	Rural	24.8	29.3	46.0	100.0	43,474	96.7	19,980
Wealth index quintile	Poorest	24.3	24.7	51.0	100.0	13,738	97.2	7,007
	Second	23.6	29.4	47.0	100.0	11,269	96.4	5,295
	Middle	24.2	31.7	44.1	100.0	10,155	96.7	4,477
	Fourth	26.7	32.5	40.7	100.0	9,258	96.2	3,771
	Richest	27.5	34.0	38.4	100.0	7,475	95.9	2,871

DQ.19: School attendance by single age

Distribution of household population age 5-24 years by educational level and and grade attended in the current (or most recent) school year, Bangladesh, 2012-2013

		Not attending school	Preschool	Primary school Grade						Secondary School Grade								Higher than secondary	Not able to determine	DK/ Missing	Total	Number of household members
				1	2	3	4	5	DK/ Missing	1	2	3	4	5	6	7	DK/ Missing					
Age at beginning of school year	5	70.3	15.8	11.2	2.4	0.3	0.0	0.0	0.0	-	-	-	0.0	-	-	-	-	-	-	-	100.0	4,972
	6	48.5	16.4	23.3	9.8	1.7	0.2	0.0	-	-	0.1	-	-	-	-	-	-	-	-	-	100.0	5,673
	7	23.3	11.1	32.8	24.1	6.9	1.4	0.2	0.0	0.0	-	0.0	0.0	-	-	-	-	-	-	0.0	100.0	5,801
	8	11.4	4.8	21.5	35.9	19.1	5.6	1.4	-	0.1	0.1	0.0	0.0	-	-	-	-	-	-	-	100.0	5,778
	9	8.1	1.9	11.2	27.8	29.0	15.1	5.8	-	0.8	0.2	0.0	-	0.0	0.0	-	-	-	-	0.0	100.0	5,586
	10	9.0	0.6	4.4	16.6	25.9	24.1	13.7	0.0	4.1	1.3	0.2	-	0.1	0.0	-	0.0	0.0	-	-	100.0	5,964
	11	10.0	0.3	2.1	7.7	16.3	21.5	22.5	-	11.2	6.2	1.7	0.3	0.0	0.0	0.1	-	-	-	0.0	100.0	5,268
	12	13.9	0.2	1.2	3.9	8.8	14.2	20.3	0.0	15.7	13.8	6.0	1.6	0.2	0.1	0.2	-	-	-	-	100.0	6,150
	13	18.4	0.2	0.7	1.7	4.6	7.7	11.8	-	14.0	18.6	13.6	6.4	1.8	0.1	0.3	-	0.1	-	-	100.0	5,346
	14	26.5	0.2	0.1	0.7	1.4	3.4	5.9	-	7.9	14.3	17.8	13.9	6.6	1.0	0.2	-	0.1	-	-	100.0	4,720
	15	34.4	0.0	0.2	0.4	0.7	1.3	2.6	-	4.2	7.8	14.1	18.2	11.2	3.5	1.3	0.0	0.2	-	-	100.0	4,893
	16	40.8	-	0.0	0.2	0.2	0.5	1.0	-	2.4	3.7	7.1	14.1	15.2	10.2	4.0	-	0.6	-	-	100.0	4,547
	17	51.6	-	0.0	0.1	0.1	0.2	0.3	-	0.8	1.6	3.0	6.8	9.6	14.2	9.2	0.0	2.5	-	-	100.0	4,640
	18	62.1	-	0.0	-	0.1	0.1	0.2	-	0.5	0.9	1.4	3.7	5.4	9.3	11.2	-	5.2	-	0.0	100.0	5,188
	19	71.8	0.0	0.1	0.1	0.0	0.0	0.0	-	0.3	0.3	0.5	1.5	2.0	5.5	8.3	0.0	9.5	-	0.0	100.0	4,228
	20	75.9	0.0	0.1	0.0	0.0	-	0.2	-	0.1	0.3	0.2	1.0	1.6	3.4	5.9	-	11.3	-	0.0	100.0	4,193
	21	79.9	-	0.1	-	-	0.1	0.0	-	0.0	0.1	0.2	0.6	1.0	1.6	2.8	-	13.5	-	-	100.0	3,762
	22	82.7	0.0	0.1	0.1	0.1	0.1	0.0	-	0.1	0.1	0.2	0.1	0.5	1.2	2.5	-	12.1	-	0.0	100.0	4,083
	23	84.3	0.1	0.1	0.0	-	0.1	0.3	-	-	0.1	0.1	0.2	0.6	0.5	1.7	0.0	11.9	-	0.0	100.0	3,554
	24	54.6	0.0	0.1	0.0	-	0.0	0.0	-	0.0	-	0.0	0.0	0.1	0.3	0.5	-	7.8	36.5	-	100.0	4,522

DQ.20: Sex ratio at birth among children ever born and living

Sex ratio (number of males per 100 females) among children ever born (at birth), children living, and deceased children, by age of women, Bangladesh, 2012-2013

		Children Ever Born			Children Living			Children Deceased			Number of women
		Sons	Daughters	Sex ratio at birth	Sons	Daughters	Sex ratio	Sons	Daughters	Sex ratio	
Total		**57,851**	**54,202**	**1.07**	**52,221**	**49,626**	**1.05**	**5,630**	**4,576**	**1.23**	**51,791**
Age	15-19	708	619	1.14	663	595	1.11	45	24	1.88	9,008
	20-24	4,409	4,025	1.10	4,148	3,846	1.08	261	179	1.46	8,478
	25-29	9,649	8,924	1.08	9,012	8,452	1.07	637	472	1.35	9,428
	30-34	10,481	9,861	1.06	9,638	9,224	1.04	843	637	1.32	7,490
	35-39	11,624	11,298	1.03	10,520	10,347	1.02	1,104	951	1.16	7,063
	40-44	11,047	10,436	1.06	9,758	9,343	1.04	1,289	1,093	1.18	5,751
	45-49	9,933	9,039	1.10	8,482	7,819	1.08	1,451	1,220	1.19	4,573

Appendix E. Bangladesh MICS5 Indicators: Numerators and Denominators

MICS INDICATOR		Module[1]	Numerator	Denominator	MDG Indicator Reference[2]
MORTALITY[3]					
1.2	Infant mortality rate	CM	Probability of dying between birth and the first birthday		MDG 4.2
1.5	Under-five mortality rate	CM	Probability of dying between birth and the fifth birthday		MDG 4.1
NUTRITION					
2.1a 2.1b	Underweight prevalence	AN	Number of children under age 5 who fall below (a) minus two standard deviations (moderate and severe) (b) minus three standard deviations (severe) of the median weight for age of the WHO standard	Total number of children under age 5	MDG 1.8
2.2a 2.2b	Stunting prevalence	AN	Number of children under age 5 who fall below (a) minus two standard deviations (moderate and severe) (b) below minus three standard deviations (severe) of the median height for age of the WHO standard	Total number of children under age 5	
2.3a 2.3b	Wasting prevalence	AN	Number of children under age 5 who fall below (a) minus two standard deviations (moderate and severe) (b) minus three standard deviations (severe) of the median weight for height of the WHO standard	Total number of children under age 5	
2.4	Overweight prevalence	AN	Number of children under age 5 who are above two standard deviations of the median weight for height of the WHO standard	Total number of children under age 5	
2.5	Children ever breastfed	MN	Number of women with a live birth in the last 2 years who breastfed their last live-born child at any time	Total number of women with a live birth in the last 2 years	
2.6	Early initiation of breastfeeding	MN	Number of women with a live birth in the last 2 years who put their last newborn to the breast within one hour of birth	Total number of women with a live birth in the last 2 years	
2.7	Exclusive breastfeeding under 6 months	BD	Number of infants under 6 months of age who are exclusively breastfed[4]	Total number of infants under 6 months of age	
2.8	Predominant breastfeeding under 6 months	BD	Number of infants under 6 months of age who received breast milk as the predominant source of nourishment[5] during the previous day	Total number of infants under 6 months of age	

[1] *Some indicators are constructed by using questions in several modules in the MICS questionnaires. In such cases, only the module(s) which contains most of the necessary information is indicated.*

[2] *Millennium Development Goals (MDG) indicators, effective 15 January 2008 - http://mdgs.un.org/unsd/mdg/Host.aspx?Content=Indicators/OfficialList.htm, accessed 10 June 2013.*

[3] *When the Birth History module is used, mortality indicators are calculated for the last 5-year period. When the indicators are estimated indirectly (using the Fertility module only), the rates refer to dates as estimated by the indirect technique.*

[4] *Infants receiving breast milk, and not receiving any other fluids or foods, with the exception of oral rehydration solution, vitamins, mineral supplements and medicines*

[5] *Infants who receive breast milk and certain fluids (water and water-based drinks, fruit juice, ritual fluids, oral rehydration solution, drops, vitamins, minerals, and medicines), but do not receive anything else (in particular, non-human milk and food-based fluids)*

MICS INDICATOR		Module[1]	Numerator	Denominator	MDG Indicator Reference[2]
NUTRITION : continued					
2.9	Continued breastfeeding at 1 year	BD	Number of children age 12-15 months who received breast milk during the previous day	Total number of children age 12-15 months	
2.10	Continued breastfeeding at 2 years	BD	Number of children age 20-23 months who received breast milk during the previous day	Total number of children age 20-23 months	
2.11	Duration of breastfeeding	BD	The age in months when 50 Per cent of children age 0-35 months did not receive breast milk during the previous day		
2.12	Age-appropriate breastfeeding	BD	Number of children age 0-23 months appropriately fed[6] during the previous day	Total number of children age 0-23 months	
2.13	Introduction of solid, semi-solid or soft foods	BD	Number of infants age 6-8 months who received solid, semi-solid or soft foods during the previous day	Total number of infants age 6-8 months	
2.18	Bottle feeding	BD	Number of children age 0-23 months who were fed with a bottle during the previous day	Total number of children age 0-23 months	
2.19	Iodized salt consumption	SI	Number of households with salt testing 15 parts per million or more of iodide/iodate	Total number of households in which salt was tested or where there was no salt	
2.20	Low-birthweight infants	MN	Number of most recent live births in the last 2 years weighing below 2,500 grams at birth	Total number of most recent live births in the last 2 years	
2.21	Infants weighed at birth	MN	Number of most recent live births in the last 2 years who were weighed at birth	Total number of most recent live births in the last 2 years	
CHILD HEALTH					
3.9	Neonatal tetanus protection	MN	Number of women age 15-49 years with a live birth in the last 2 years who were given at least two doses of tetanus toxoid vaccine within the appropriate interval[7] prior to the most recent birth	Total number of women age 15-49 years with a live birth in the last 2 years	
3.12	Diarrhoea treatment with oral rehydration therapy (ORT) and continued feeding	CA	Number of children under age 5 with diarrhoea in the last 2 weeks who received ORT (ORS packet, pre-packaged ORS fluid, recommended homemade fluid or increased fluids) and continued feeding during the episode of diarrhoea	Total number of children under age 5 with diarrhoea in the last 2 weeks	
3.13	Care-seeking for children with acute respiratory infection (ARI) symptoms	CA	Number of children under age 5 with ARI symptoms in the last 2 weeks for whom advice or treatment was sought from a health facility or provider	Total number of children under age 5 with ARI symptoms in the last 2 weeks	
3.14	Antibiotic treatment for children with ARI symptoms	CA	Number of children under age 5 with ARI symptoms in the last 2 weeks who received antibiotics	Total number of children under age 5 with ARI symptoms in the last 2 weeks	
3.15	Use of solid fuels for cooking	HC	Number of household members in households that use solid fuels as the primary source of domestic energy to cook	Total number of household members	

[6] *Infants age 0-5 months who are exclusively breastfed, and children age 6-23 months who are breastfed and ate solid, semi-solid or soft foods*
[7] *See the MICS tabulation plan for a detailed description*

MICS INDICATOR		Module[1]	Numerator	Denominator	MDG Indicator Reference[2]
WATER AND SANITATION					
4.1	Use of improved drinking water sources	WS	Number of household members using improved sources of drinking water	Total number of household members	MDG 7.8
4.2	Water treatment	WS	Number of household members in households using unimproved drinking water who use an appropriate treatment method	Total number of household members in households using unimproved drinking water sources	
4.3	Use of improved sanitation	WS	Number of household members using improved sanitation facilities which are not shared	Total number of household members	MDG 7.9
4.4	Safe disposal of child's faeces	CA	Number of children age 0-2 years whose last stools were disposed of safely	Total number of children age 0-2 years	
4.5	Place for handwashing	HW	Number of households with a specific place for handwashing where water and soap or other cleansing agent are present	Total number of households	
4.6	Availability of soap or other cleansing agent	HW	Number of households with soap or other cleansing agent	Total number of households	
WATER QUALITY TESTING					
4.S1a 4.S1b	Arsenic concentration of source water	WQ	Number of households using source water containing: a) over 50 ppb Arsenic concentration b) over 10 ppb Arsenic concentration	Total number of households	
4.S2a 4.S2b	Arsenic concentration of household drinking water	WQ	Number of household members using drinking water with a) over 50 ppb Arsenic concentration b) over 10 ppb Arsenic concentration	Total number of household members	
4.S3	*E.coli* concentration in source water	WQ	Number of households with *E.Coli* risk level of ≥ 1 cfu/100ml in source water at source	Total number of households	
4.S4	*E.coli* concentration in household drinking water	WQ	Number of households with *E.Coli* risk level of ≥ 1 cfu/100ml in household drinking water	Total number of household members	
REPRODUCTIVE HEALTH					
5.1	Adolescent birth rate[8]	CM - BH	Age-specific fertility rate for women age 15-19 years		MDG 5.4
5.2	Early childbearing	CM - BH	Number of women age 20-24 years who had at least one live birth before age 18	Total number of women age 20-24 years	
5.3	Contraceptive prevalence rate	CP	Number of women age 15-49 years currently married or in union who are using (or whose partner is using) a (modern or traditional) contraceptive method	Total number of women age 15-49 years who are currently married or in union	MDG 5.3
5.4	Unmet need[9]	UN	Number of women age 15-49 years who are currently married or in union who are fecund and want to space their births or limit the number of children they have and who are not currently using contraception	Total number of women age 15-49 years who are currently married or in union	MDG 5.6
5.5a 5.5b	Antenatal care coverage	MN	Number of women age 15-49 years with a live birth in the last 2 years who were attended during their last pregnancy that led to a live birth (a) at least once by skilled health personnel (b) at least four times by any provider	Total number of women age 15-49 years with a live birth in the last 2 years	MDG 5.5

[8] *When the Birth History module is used, the indicator is calculated for the last 3-year period. When estimated using the Fertility module only, the rate refers to the last one year*

[9] *See the MICS tabulation plan for a detailed description*

MICS INDICATOR		Module[1]	Numerator	Denominator	MDG Indicator Reference[2]
REPRODUCTIVE HEALTH : continued					
5.6	Content of antenatal care	MN	Number of women age 15-49 years with a live birth in the last 2 years who had their blood pressure measured and gave urine and blood samples during the last pregnancy that led to a live birth	Total number of women age 15-49 years with a live birth in the last 2 years	
5.7	Skilled attendant at delivery	MN	Number of women age 15-49 years with a live birth in the last 2 years who were attended by skilled health personnel during their most recent live birth	Total number of women age 15-49 years with a live birth in the last 2 years	MDG 5.2
5.8	Institutional deliveries	MN	Number of women age 15-49 years with a live birth in the last 2 years whose most recent live birth was delivered in a health facility	Total number of women age 15-49 years with a live birth in the last 2 years	
5.9	Caesarean section	MN	Number of women age 15-49 years whose most recent live birth in the last 2 years was delivered by caesarean section	Total number of women age 15-49 years with a live birth in the last 2 years	
5.10	Post-partum stay in health facility	PN	Number of women age 15-49 years who stayed in the health facility for 12 hours or more after the delivery of their most recent live birth in the last 2 years	Total number of women age 15-49 years with a live birth in the last 2 years	
5.11	Post-natal health check for the newborn	PN	Number of last live births in the last 2 years who received a health check while in facility or at home following delivery, or a post-natal care visit within 2 days after delivery	Total number of last live births in the last 2 years	
5.12	Post-natal health check for the mother	PN	Number of women age 15-49 years who received a health check while in facility or at home following delivery, or a post-natal care visit within 2 days after delivery of their most recent live birth in the last 2 years	Total number of women age 15-49 years with a live birth in the last 2 years	
CHILD DEVELOPMENT					
6.1	Attendance to early childhood education	EC	Number of children age 36-59 months who are attending an early childhood education programme	Total number of children age 36-59 months	
6.2	Support for learning	EC	Number of children age 36-59 months with whom an adult has engaged in four or more activities to promote learning and school readiness in the last 3 days	Total number of children age 36-59 months	
6.3	Father's support for learning	EC	Number of children age 36-59 months whose biological father has engaged in four or more activities to promote learning and school readiness in the last 3 days	Total number of children age 36-59 months	
6.4	Mother's support for learning	EC	Number of children age 36-59 months whose biological mother has engaged in four or more activities to promote learning and school readiness in the last 3 days	Total number of children age 36-59 months	
6.5	Availability of children's books	EC	Number of children under age 5 who have three or more children's books	Total number of children under age 5	
6.6	Availability of playthings	EC	Number of children under age 5 who play with two or more types of playthings	Total number of children under age 5	

MICS INDICATOR		Module[1]	Numerator	Denominator	MDG Indicator Reference[2]
CHILD DEVELOPMENT : continued					
6.7	Inadequate care	EC	Number of children under age 5 left alone or in the care of another child younger than 10 years of age for more than one hour at least once in the last week	Total number of children under age 5	
6.8	Early child development index	EC	Number of children age 36-59 months who are developmentally on track in at least three of the following four domains: literacy-numeracy, physical, social-emotional, and learning	Total number of children age 36-59 months	
LITERACY AND EDUCATION					
7.1	Literacy rate among young women	WB	Number of women age 15-24 years who are able to read a short simple statement about everyday life or who attended secondary or higher education	Total number of women age 15-24 years	MDG 2.3
7.2	School readiness	ED	Number of children in first grade of primary school who attended pre-school during the previous school year	Total number of children attending the first grade of primary school	
7.3	Net intake rate in primary education	ED	Number of children of school-entry age who enter the first grade of primary school	Total number of children of school-entry age	
7.4	Primary school net attendance ratio (adjusted)	ED	Number of children of primary school age currently attending primary or secondary school	Total number of children of primary school age	MDG 2.1
7.5	Secondary school net attendance ratio (adjusted)	ED	Number of children of secondary school age currently attending secondary school or higher	Total number of children of secondary school age	
7.6	Children reaching last grade of primary	ED	Proportion of children entering the first grade of primary school who eventually reach last grade		MDG 2.2
7.7	Primary completion rate	ED	Number of children attending the last grade of primary school (excluding repeaters)	Total number of children of primary school completion age (age appropriate to final grade of primary school)	
7.8	Transition rate to secondary school	ED	Number of children attending the last grade of primary school during the previous school year who are in the first grade of secondary school during the current school year	Total number of children attending the last grade of primary school during the previous school year	
7.9	Gender parity index (primary school)	ED	Primary school net attendance ratio (adjusted) for girls	Primary school net attendance ratio (adjusted) for boys	MDG 3.1
7.10	Gender parity index (secondary school)	ED	Secondary school net attendance ratio (adjusted) for girls	Secondary school net attendance ratio (adjusted) for boys	MDG 3.1
CHILD PROTECTION					
8.1	Birth registration	BR	Number of children under age 5 whose births are reported registered	Total number of children under age 5	
8.3	Violent discipline	CD	Number of children age 1-14 years who experienced psychological aggression or physical punishment during the last one month	Total number of children age 1-14 years	
8.4	Marriage before age 15	MA	Number of women age 15-49 years who were first married or in union before age 15	Total number of women age 15-49 years	
8.5	Marriage before age 18	MA	Number of women age 20-49 years who were first married or in union before age 18	Total number of women age 20-49 years	

MICS INDICATOR		Module[1]	Numerator	Denominator	MDG Indicator Reference[2]
CHILD PROTECTION : continued					
8.6	Young women age 15-19 years currently married or in union [M]	MA	Number of women age 15-19 years who are married or in union	Total number of women age 15-19 years	
8.7	Polygyny [M]	MA	Number of women age 15-49 years who are in a polygynous union	Total number of women age 15-49 years who are married or in union	
8.8a 8.8b	Spousal age difference	MA	Number of women who are married or in union and whose spouse is 10 or more years older, (a) among women age 15-19 years, (b) among women age 20-24 years	Total number of women who are married or in union (a) age 15-19 years, (b) age 20-24 years	
8.13	Children's living arrangements	HL	Number of children age 0-17 years living with neither biological parent	Total number of children age 0-17 years	
8.14	Prevalence of children with one or both parents dead	HL	Number of children age 0-17 years with one or both biological parents dead	Total number of children age 0-17 years	
8.15	Children with at least one parent living abroad	HL	Number of children 0-17 years with at least one biological parent living abroad	Total number of children 0-17 years	
HIV/AIDS AND SEXUAL BEHAVIOUR					
9.1	Knowledge about HIV prevention among young women	HA	Number of women age 15-24 years who correctly identify ways of preventing the sexual transmission of HIV[10], and who reject major misconceptions about HIV transmission	Total number of women age 15-24 years	MDG 6.3
9.2	Knowledge of mother-to-child transmission of HIV	HA	Number of women age 15-49 years who correctly identify all three means[11] of mother-to-child transmission of HIV	Total number of women age 15-49 years	
9.3	Accepting attitudes towards people living with HIV	HA	Number of women age 15-49 years expressing accepting attitudes on all four questions[12] toward people living with HIV	Total number of women age 15-49 years who have heard of HIV	
9.4	Women who know where to be tested for HIV	HA	Number of women age 15-49 years who state knowledge of a place to be tested for HIV	Total number of women age 15-49 years	
9.7	HIV counselling during antenatal care	HA	Number of women age 15-49 years who had a live birth in the last 2 years and received antenatal care during the pregnancy of their most recent birth, reporting that they received counselling on HIV during antenatal care	Total number of women age 15-49 years who had a live birth in the last 2 years	
ACCESS TO MASS MEDIA AND USE OF INFORMATION/COMMUNICATION TECHNOLOGY					
10.1	Exposure to mass media	MT	Number of women age 15-49 years who, at least once a week, read a newspaper or magazine, listen to the radio, and watch television	Total number of women age 15-49 years	
10.2	Use of computers	MT	Number of young women age 15-24 years who used a computer during the last 12 months	Total number of women age 15-24 years	
10.3	Use of internet	MT	Number of young women age 15-24 who used the internet during the last 12 months	Total number of women age 15-24 years	

[10] *Using condoms and limiting sex to one faithful, uninfected partner*

[11] *Transmission during pregnancy, during delivery, and by breastfeeding*

[12] *Women (1) who think that a female teacher with the AIDS virus should be allowed to teach in school, (2) who would buy fresh vegetables from a shopkeeper or vendor who has the AIDS virus, (3) who would not want to keep it as a secret if a family member became infected with the AIDS virus, and (4) who would be willing to care for a family member who became sick with the AIDS virus*

Appendix F. Bangladesh MICS Questionnaires

MICS

HOUSEHOLD QUESTIONNAIRE

MICS5, Bangladesh 2012-13

HOUSEHOLD INFORMATION PANEL			HH
HH1. Cluster number:..... ___ ___ ___ ___		HH2. Household number:..... ___ ___	
HH3. Interviewer name and number:		HH4. Supervisor name and number:	
Name _____.....___ ___		Name_____..... ___ ___	
HH5. Day / Month / Year of interview: ___ ___ /___ ___ / ___ ___ ___ ___		HH7. DIVISION: BARISAL.....10 CHITTAGONG .....20 DHAKA .....30 KHULNA.....40 RAJSHAHI.....50 RANGPUR .....55 SYLHET 60	
HH6. AREA: Urban.....1 Rural 2			
HH7A. DISTRICT name and code Name _____ ___ ___			
HH7B. Is the household selected for water testing?	Yes .....1 No.....2	HH7C. Is the household selected for additional water testing?	Yes .....1 No.....2

WE ARE FROM BANGLADESH BUREAU OF STATISTICS. WE ARE COLLECTING INFORMATION ON FAMILY HEALTH AND EDUCATION I WOULD LIKE TO TALK TO YOU ABOUT THESE SUBJECTS. THE INTERVIEW WILL TAKE ABOUT 45 MINUTES. ALL THE INFORMATION WE OBTAIN WILL REMAIN STRICTLY CONFIDENTIAL AND YOUR ANSWERS WILL NEVER BE SHARED WITH ANYONE OTHER THAN OUR PROJECT TEAM.

MAY I START NOW?

☐ *Yes, permission is given ⇨ Go to HH18 to record the time and then begin the interview.*

☐ *No, permission is not given ⇨Circle 04 in HH9. Discuss this result with your supervisor.*

After all questionnaires for the household have been completed, fill in the following information:	
HH8. Name of head of household:	_____
HH9. Result of household interview: Completed ---------- 01 No household member or no competent respondent at home at time of visit---------- 02 Entire household absent for extended period of time ---------- 03 Refused---------- 04 Dwelling vacant / Address not a dwelling ---------- 05 Dwelling destroyed---------- 06 Dwelling not found ---------- 07 Other (specify)---------- 96	HH10. Respondent to household questionnaire: Name:..... Line Number:..... HH11. Total number of household members: ----------
HH12. Number of women age 15-49 years:----------	HH13. Number of woman's questionnaires completed:.....
HH14. Number of children under age 5:----------	HH15. Number of under-5 questionnaires completed: .....

HH16. Field editor name and number:	HH17. Data entry clerk (First) name and number:	HH17A. Data entry clerk (Second) name and number:
_____ __ __	_____ __ __	_____ __ __

HH18.
Record the time.
Hour..... __ __
Minutes..... __ __

HOUSEHOLD LISTING FORM — HL

FIRST, PLEASE TELL ME THE NAME OF EACH PERSON WHO USUALLY LIVES HERE, STARTING WITH THE HEAD OF THE HOUSEHOLD.

List the head of the household in line 01. List all household members (HL2), their relationship to the household head (HL3), and their sex (HL4)

Then ask: ARE THERE ANY OTHERS WHO LIVE HERE, EVEN IF THEY ARE NOT AT HOME NOW?

If yes, complete listing for questions HL2-HL4. Then, ask questions starting with HL5 for each person at a time.

Use an additional questionnaire if all rows in the household listing form have been used.

		FOR WOMEN AGE **15-49**	FOR CHILDREN AGE 5-14	FOR CHILDREN UNDER AGE 5	For children age **0-17** years

HL1. *Line No.*	HL2. *Name*	HL3. What is the relation-ship of (*name*) to the head of house-hold?	HL4. IS (name) MALE OR FEMALE? 1 Male 2 Female		HL5. WHAT IS (name)'S DATE OF BIRTH? 98 DK 9998 DK		HL6. How old is (name)? *Record in completed years. If age is 95 or above, record '95'*	HL7. *Circle line no. if woman is age 15-49*	HL8. Who is the mother or primary caretaker of this child? *Record line no. of mother/ caretaker*	HL9. Who is the mother or primary caretaker of this child? *Record line no. of mother/ caretaker*	HL11. Is (name)'s natural mother alive? 1 Yes 2 No↘ HL13 8 DK↘ HL13	HL12. Does (name)'s natural mother live in this house-hold? *Record line no. of mother and go to HL13 or 00 for "No"*	HL12A. Where does (name)'s natural mother live? 1 In another household in this country 2 Abroad 3 Institution 8 DK	HL13. Is (name)'s natural father alive? 1 Yes 2 No↘ Next Line 8 DK↘ Next Line	HL14. Does (name)'s natural father live in this house-hold? *Record line no. of father and go to next person or 00 for "No"*	HL14A. Where does (name)'s natural father live? 1 In another household in this country 2 Abroad 3 Institution 8 DK
Line	**Name**	**Relation***	**M**	**F**	**Month**	**Year**	**Age**	**15-49**	**Mother**	**Mother**	**y n dk**	**Mother**		**y n dk**	**Father**	
01		0 1	1	2	__ __	__ __	__ __	01	___ ___	___ ___	1 2 8	___ ___	1 2 3 8	1 2 8	___ ___	1 2 3 8
02		___ ___	1	2	__ __	__ __	__ __	02	___ ___	___ ___	1 2 8	___ ___	1 2 3 8	1 2 8	___ ___	1 2 3 8
03		___ ___	1	2	__ __	__ __	__ __	03	___ ___	___ ___	1 2 8	___ ___	1 2 3 8	1 2 8	___ ___	1 2 3 8
04		___ ___	1	2	__ __	__ __	__ __	04	___ ___	___ ___	1 2 8	___ ___	1 2 3 8	1 2 8	___ ___	1 2 3 8
05		___ ___	1	2	__ __	__ __	__ __	05	___ ___	___ ___	1 2 8	___ ___	1 2 3 8	1 2 8	___ ___	1 2 3 8
06		___ ___	1	2	__ __	__ __	__ __	06	___ ___	___ ___	1 2 8	___ ___	1 2 3 8	1 2 8	___ ___	1 2 3 8
07		___ ___	1	2	__ __	__ __	__ __	07	___ ___	___ ___	1 2 8	___ ___	1 2 3 8	1 2 8	___ ___	1 2 3 8
08		___ ___	1	2	__ __	__ __	__ __	08	___ ___	___ ___	1 2 8	___ ___	1 2 3 8	1 2 8	___ ___	1 2 3 8
09		___ ___	1	2	__ __	__ __	__ __	09	___ ___	___ ___	1 2 8	___ ___	1 2 3 8	1 2 8	___ ___	1 2 3 8
10		___ ___	1	2	__ __	__ __	__ __	10	___ ___	___ ___	1 2 8	___ ___	1 2 3 8	1 2 8	___ ___	1 2 3 8
11		___ ___	1	2	__ __	__ __	__ __	11	___ ___	___ ___	1 2 8	___ ___	1 2 3 8	1 2 8	___ ___	1 2 3 8
12		___ ___	1	2	__ __	__ __	__ __	12	___ ___	___ ___	1 2 8	___ ___	1 2 3 8	1 2 8	___ ___	1 2 3 8
13		___ ___	1	2	__ __	__ __	__ __	13	___ ___	___ ___	1 2 8	___ ___	1 2 3 8	1 2 8	___ ___	1 2 3 8
14		___ ___	1	2	__ __	__ __	__ __	14	___ ___	___ ___	1 2 8	___ ___	1 2 3 8	1 2 8	___ ___	1 2 3 8
15		___ ___	1	2	__ __	__ __	__ __	15	___ ___	___ ___	1 2 8	___ ___	1 2 3 8	1 2 8	___ ___	1 2 3 8

Tick here if additional questionnaire used ☐

Probe for additional household members.
Probe especially for any infants or small children not listed, and others who may not be members of the family (such as servants, friends) but who usually live in the household.
Insert names of additional members in the household list and complete form accordingly.

Now for each woman age 15-49 years, write her name and line number and other identifying information in the information panel of a separate Individual Women's Questionnaire.
For each child under age 5, write his/her name and line number AND the line number of his/her mother or caretaker in the information panel of a separate Under-5 Questionnaire.
You should now have a separate questionnaire for each eligible woman and each child under five in the household.

* *Codes for HL3: Relationship to head of household:*

01 Head	05 Grandchild	09 Brother-In-Law / Sister-In-Law	13 Adopted / Foster / Stepchild
02 Wife / Husband	06 Parent	10 Uncle / Aunt	14 Not related
03 Son / Daughter	07 Parent-In-Law	11 Niece / Nephew	98 Don't know
04 Son-In-Law / Daughter-In-Law	08 Brother / Sister	12 Other relative	

EDUCATION ED

			For household members age **5 and above**				For household members age **5-24** years								
ED1. *Line number*	ED2. *Name and age* *Copy from Household Listing Form, HL2 and HL6*		ED3. HAS (*name*) EVER ATTENDED PRE-SCHOOL, PRIMARY SCHOOL, SECONDARY SCHOOL, COLLEGE OR UNIVERSITY ? 1 Yes 2 No⇨Next Line		ED4A. WHAT IS THE HIGHEST LEVEL OF SCHOOL (*name*) HAS ATTENDED? Level: 0 Preschool 1 Primary 2 Secondary /Higher secondary 3 Higher 8 DK *If level=0, skip to ED5*	ED4B. WHAT IS THE HIGHEST GRADE (*name*) COMPLETED AT THIS LEVEL? Grade: 98 DK *If less than 1 grade, enter 00.*	ED5. DURING THE 2012 SCHOOL YEAR, DID (NAME) ATTEND PRE-SCHOOL, PRIMARY SCHOOL, SECONDARY SCHOOL, COLLEGE OR UNIVERSITY AT ANY TIME? 1 Yes 2 No ⇨ ED7		ED6. DURING THIS/THAT SCHOOL YEAR, WHICH LEVEL AND GRADE IS/WAS (*name*) ATTENDING? Level: 0 Preschool 1 Primary 2 Secondary /Higher Secondary 3 Higher 8 DK *If level=0, skip to ED7*	ED6. DURING THIS/THAT SCHOOL YEAR, WHICH LEVEL AND GRADE IS/WAS (*name*) ATTENDING? GRADE: 98 DK	ED7. DURING THE PREVIOUS SCHOOL YEAR, THAT IS 2011, DID (*name*) ATTEND PRE-SCHOOL, PRIMARY SCHOOL, SECONDARY SCHOOL, COLLEGE OR UNIVERSITY AT ANY TIME? 1 Yes 2 No ⇨Next Line 8 DK ⇨Next Line			ED8. DURING THAT PREVIOUS SCHOOL YEAR, WHICH LEVEL AND GRADE DID (*name*) ATTEND? Level: 0 Preschool 1 Primary 2 Secondary / Higher secondary 3 Higher 8 DK *If level=0, go to next person*	ED8. DURING THAT PREVIOUS SCHOOL YEAR, WHICH LEVEL AND GRADE DID (*name*) ATTEND? GRADE:98 DK
LINE	NAME	AGE	YES	NO	LEVEL	GRADE	YES	NO	LEVEL	GRADE	Y	N	DK	LEVEL	GRADE
01		_ _ _ _ _ _	1	2	0 1 2 3 8	_ _ _ _ _ _	1	2	0 1 2 3 8	_ _ _ _ _ _	1	2	8	0 1 2 3 8	_ _ _ _ _ _
02		_ _ _ _ _ _	1	2	0 1 2 3 8	_ _ _ _ _ _	1	2	0 1 2 3 8	_ _ _ _ _ _	1	2	8	0 1 2 3 8	_ _ _ _ _ _
03		_ _ _ _ _ _	1	2	0 1 2 3 8	_ _ _ _ _ _	1	2	0 1 2 3 8	_ _ _ _ _ _	1	2	8	0 1 2 3 8	_ _ _ _ _ _
04		_ _ _ _ _ _	1	2	0 1 2 3 8	_ _ _ _ _ _	1	2	0 1 2 3 8	_ _ _ _ _ _	1	2	8	0 1 2 3 8	_ _ _ _ _ _
05		_ _ _ _ _ _	1	2	0 1 2 3 8	_ _ _ _ _ _	1	2	0 1 2 3 8	_ _ _ _ _ _	1	2	8	0 1 2 3 8	_ _ _ _ _ _
06		_ _ _ _ _ _	1	2	0 1 2 3 8	_ _ _ _ _ _	1	2	0 1 2 3 8	_ _ _ _ _ _	1	2	8	0 1 2 3 8	_ _ _ _ _ _
07		_ _ _ _ _ _	1	2	0 1 2 3 8	_ _ _ _ _ _	1	2	0 1 2 3 8	_ _ _ _ _ _	1	2	8	0 1 2 3 8	_ _ _ _ _ _
08		_ _ _ _ _ _	1	2	0 1 2 3 8	_ _ _ _ _ _	1	2	0 1 2 3 8	_ _ _ _ _ _	1	2	8	0 1 2 3 8	_ _ _ _ _ _
09		_ _ _ _ _ _	1	2	0 1 2 3 8	_ _ _ _ _ _	1	2	0 1 2 3 8	_ _ _ _ _ _	1	2	8	0 1 2 3 8	_ _ _ _ _ _
10		_ _ _ _ _ _	1	2	0 1 2 3 8	_ _ _ _ _ _	1	2	0 1 2 3 8	_ _ _ _ _ _	1	2	8	0 1 2 3 8	_ _ _ _ _ _
11		_ _ _ _ _ _	1	2	0 1 2 3 8	_ _ _ _ _ _	1	2	0 1 2 3 8	_ _ _ _ _ _	1	2	8	0 1 2 3 8	_ _ _ _ _ _
12		_ _ _ _ _ _	1	2	0 1 2 3 8	_ _ _ _ _ _	1	2	0 1 2 3 8	_ _ _ _ _ _	1	2	8	0 1 2 3 8	_ _ _ _ _ _
13		_ _ _ _ _ _	1	2	0 1 2 3 8	_ _ _ _ _ _	1	2	0 1 2 3 8	_ _ _ _ _ _	1	2	8	0 1 2 3 8	_ _ _ _ _ _
14		_ _ _ _ _ _	1	2	0 1 2 3 8	_ _ _ _ _ _	1	2	0 1 2 3 8	_ _ _ _ _ _	1	2	8	0 1 2 3 8	_ _ _ _ _ _
15		_ _ _ _ _ _	1	2	0 1 2 3 8	_ _ _ _ _ _	1	2	0 1 2 3 8	_ _ _ _ _ _	1	2	8	0 1 2 3 8	_ _ _ _ _ _

Ed4b/Ed6/Ed8	0-Preschool: Grade=00	1-Primary; Grade 01 to 05	2-Secondary/Higher Secondary: Grade 01 to 07	3-Higher: Grade 01 to 05	3-Higher (MBBS); Grade 11 to 15	3-Higher(Engineering); Grade 21 to 25	3-Higher(PhD); Grade 31 to 35

WATER AND SANITATION		WS
WS1. What is the main source of drinking water for members of your household?	Piped water Piped into dwelling ..... 11 Piped into compound, yard or plot ..... 12 Piped to neighbour ..... 13 Public tap / standpipe ..... 14 Tube Well, Borehole ..... 21 Dug well Protected well ..... 31 Unprotected well ..... 32 Water from spring Protected spring ..... 41 Unprotected spring ..... 42 Rainwater collection ..... 51 Tanker-truck ..... 61 Cart with small tank / drum ..... 71 Surface water (river, stream, dam, lake, pond, canal, irrigation channel) ..... 81 Bottled water ..... 91 Other (*specify*) 96	11 ⇨ WS6 12 ⇨ WS6 13 ⇨ WS6 14 ⇨ WS3 21 ⇨ WS3 31 ⇨ WS3 32 ⇨ WS3 41 ⇨ WS3 42 ⇨ WS3 51 ⇨ WS3 61 ⇨ WS3 71 ⇨ WS3 81 ⇨ WS3 96 ⇨ WS3
WS2. What is the main source of water used by your household for other purposes such as cooking and handwashing?	Piped water Piped into dwelling ..... 11 Piped into compound, yard or plot ..... 12 Piped to neighbour ..... 13 Public tap / standpipe ..... 14 Tube Well, Borehole ..... 21 Dug well Protected well ..... 31 Unprotected well ..... 32 Water from spring Protected spring ..... 41 Unprotected spring ..... 42 Rainwater collection ..... 51 Tanker-truck ..... 61 Cart with small tank / drum ..... 71 Surface water (river, stream, dam, lake, pond, canal, irrigation channel) ..... 81 Other (*specify*) 96	11 ⇨WS6 12 ⇨WS6 13 ⇨WS6
WS3. Where is that water source located?	In own dwelling ..... 1 In own yard / plot ..... 2 Elsewhere 3	1 ⇨ WS6 2⇨ WS6
WS4. How long does it take to go there, get water, and come back?	Number of minutes ..... __ __ __ DK 998	
WS5. Who usually goes to this source to collect the water for your household? *probe:* Is this person under age 15? What sex?	Adult woman (age 15+ years) ..... 1 Adult man (age 15+ years) ..... 2 Female child (under 15) ..... 3 Male child (under 15) ..... 4 DK 8	

WATER AND SANITATION : continued		WS
WS6. Do you do anything to the water to make it safer to drink?	Yes ..... 1 No ..... 2 DK 8	 2 ⇨ WS8 8 ⇨ WS8
WS7. What do you usually do to make the water safer to drink? *Probe:* Anything else? *Record all items mentioned.*	Boil ..... A Add bleach / chlorine ..... B Strain it through a cloth ..... C Use water filter (ceramic, sand, composite, etc.) ..... D Solar disinfection ..... E Let it stand and settle ..... F Other (*specify*) ..... X DKZ	
WS8. What kind of toilet facility do members of your household usually use? *if "flush" or "pour flush", probe:* Where does it flush to? *If necessary, ask permission to observe the facility.*	Flush / Pour flush Flush to piped sewer system ..... 11 Flush to septic tank ..... 12 Flush to pit (latrine) ..... 13 Flush to somewhere else ..... 14 Flush to unknown place / Not sure / DK where ..... 15 Pit latrine Ventilated Improved Pit latrine (VIP) ..... 21 Pit latrine with slab ..... 22 Pit latrine without slab / Open pit ..... 23 Composting toilet ..... 31 Bucket ..... 41 Hanging toilet, Hanging latrine ..... 51 No facility, Bush, Field ..... 95 Other (*specify*) 96	 95 ⇨ Next Module
WS9. Do you share this facility with others who are not members of your household?	Yes ..... 1 No 2	 2 ⇨ Next Module
WS10. Do you share this facility only with members of other households that you know, or is the facility open to the use of the general public?	Other households only (not public) ..... 1 Public facility 2	 2 ⇨ Next Module
WS11. How many households in total use this toilet facility, including your own household?	Number of households (if less than 10) ..... 0 __ Ten or more households ..... 10 DK 98	

HOUSEHOLD CHARACTERISTICS		HC
HC1A. What is the religion of the head of this household?	Islam ..... 1 Hinduism ..... 2 Buddhism ..... 3 Christianity ..... 4 Other religion (*specify*) ..... 6 No religion 7	
HC1B. What is the mother tongue/native language of the head of this household?	Bangla ..... 1 English ..... 2 Other language (*specify*) 6	
HC1C. Does the head of this household belong to any small ethnic group?	Yes ..... 1 No 2	

HOUSEHOLD CHARACTERISTICS : continued		HC
HC2. How many rooms in this household are used for sleeping?	Number of rooms	
HC3. *Main material of the dwelling floor.* *Record observation.*	Natural floor Earth / Sand ..... 11 Dung ..... 12 Rudimentary floor Wood planks ..... 21 Palm / Bamboo ..... 22 Finished floor Parquet or polished wood ..... 31 Vinyl or asphalt strips ..... 32 Ceramic tiles ..... 33 Cement ..... 34 Carpet ..... 35 Other (*specify*) 96	
Hc4. *Main material of the roof.* *Record observation.*	Natural roofing No Roof ..... 11 Thatch / Palm leaf ..... 12 Sod ..... 13 Rudimentary Roofing Rustic mat ..... 21 Palm / Bamboo ..... 22 Wood planks ..... 23 Cardboard ..... 24 Finished roofing Metal/Tin ..... 31 Wood ..... 32 Calamine / Cement fibre ..... 33 Ceramic tiles ..... 34 Cement ..... 35 Roofing shingles ..... 36 Other (*specify*) 96	
Hc5. *Main material of the exterior walls.* *Record observation.*	Natural walls No walls ..... 11 Cane / Palm / Trunks ..... 12 Dirt ..... 13 Rudimentary walls Bamboo with mud ..... 21 Stone with mud ..... 22 Uncovered adobe ..... 23 Plywood ..... 24 Cardboard ..... 25 Reused wood ..... 26 Tin ..... 27 Finished walls Cement ..... 31 Stone with lime / cement ..... 32 Bricks ..... 33 Cement blocks ..... 34 Covered adobe ..... 35 Wood planks / shingles ..... 36 Other (*specify*) 96	

HOUSEHOLD CHARACTERISTICS : continued		HC
HC6. WHAT TYPE OF FUEL DOES YOUR HOUSEHOLD MAINLY USE FOR COOKING?	Electricity ..... 01 Liquefied Petroleum Gas (LPG) ..... 02 Natural gas ..... 03 Biogas ..... 04 Kerosene ..... 05 Coal / Lignite ..... 06 Charcoal ..... 07 Wood ..... 08 Straw / Shrubs / Grass ..... 09 Animal dung ..... 10 Agricultural crop residue ..... 11 No food cooked in household ..... 95 Other (*specify*) 96	01 ⇨ HC8 02 ⇨ HC8 03 ⇨ HC8 04 ⇨ HC8 05 ⇨ HC8 95 ⇨ HC8
HC7. IS THE COOKING USUALLY DONE IN THE HOUSE, IN A SEPARATE BUILDING, OR OUTDOORS? *if 'in the house', probe:* IS IT DONE IN A SEPARATE ROOM USED AS A KITCHEN?	In the house In a separate room used as kitchen ..... 1 Elsewhere in the house ..... 2 In a separate building ..... 3 Outdoors ..... 4 Other (*specify*) 6	

HC8. DOES YOUR HOUSEHOLD HAVE:		Yes	No	
[A]	ELECTRICITY?	Electricity 1	2	
[B]	A RADIO?	Radio 1	2	
[C]	A TELEVISION?	Television 1	2	
[D]	A NON-MOBILE TELEPHONE?	Non-mobile telephone 1	2	
[E]	A REFRIGERATOR?	Refrigerator 1	2	
[F]	AN ELECTRIC FAN?	Electric Fan 1	2	
[G]	A COT / BED?	Cot/bed 1	2	
[H]	A TABLE?	Table 1	2	
[I]	AN ALMIRAH / WARDROBE?	Almirah / wardrobe 1	2	
[J]	A SOFA SET?	Sofa set 1	2	
[K]	A WATER DISPENSER?	Water dispenser 1	2	
[L]	A WATER PUMP?	Water pump 1	2	

HC9. DOES ANY MEMBER OF YOUR HOUSEHOLD OWN:		Yes	No	
[A]	A WATCH?	Watch 1	2	
[B]	A MOBILE TELEPHONE?	Mobile telephone 1	2	
[C]	A BICYCLE?	Bicycle 1	2	
[D]	A MOTORCYCLE OR SCOOTER?	Motorcycle / Scooter 1	2	
[E]	AN ANIMAL-DRAWN CART?	Animal drawn-cart 1	2	
[F]	A CAR OR TRUCK?	Car / Truck 1	2	
[G]	A BOAT WITH A MOTOR?	Boat with motor 1	2	
[H]	RICKSHAW/VAN?	Rickshaw /van? 1	2	
[I]	NASIMAN/KARIMAN/VOTBATI?	Nasiman/Kariman/Votbati 1	2	
[J]	EASY BIKE /AUTO BIKE (BATTERY DRIVEN)	Easy bike/Auto bike (Battery driven) 1	2	
[K]	A COMPUTER?	Computer 1	2	

HOUSEHOLD CHARACTERISTICS : continued		HC
HC10. Do you or someone living in this household own this dwelling? *if "no", then ask:* Do you rent this dwelling from someone not living in this household? *if "rented from someone else", circle "2". for other responses, circle "6".*	Own ..... 1 Rent ..... 2 Other (Not owned or rented) 6	
HC11. Does any member of this household own any land that can be used for agriculture?	Yes ..... 1 No 2	2⇨HC13
HC12. How many acres of agricultural land do members of this household own? *If less than 1, record "00". If 95 or more, record '95'. If unknown, record '98'.*	**Acres**	
HC13. Does this household own any livestock, herds, other farm animals, or poultry?	Yes ..... 1 No 2	2⇨HC15
HC14. How many of the following animals does this household have? [A] Cattle, milk cows, or bulls? [B] Horses, donkeys, or mules? [C] Goats? [D] Sheep? [E] Chicken/Ducks? [F] Pigs? *If none, record '00'.* *If 95 or more, record '95'.* *If unknown, record '98'.*	Cattle, milk cows, or bulls ..... __ __ Horses, donkeys, or mules ..... __ __ Goats ..... __ __ Sheep ..... __ __ Chicken/Ducks ..... __ __ Pigs ..... __ __	
HC15. Does any member of this household have a bank account?	Yes ..... 1 No 2	
HC16. Do you do anything to get protection from mosquito bites?	Yes ..... 1 No ..... 2 DK 8	2 ⇨ Next Module 8 ⇨ Next Module
HC17. What are you doing to get protection from mosquito bites? *Circle all that apply.*	Mosquito net ..... A Coil ..... B Spray ..... C Electric mat ..... D Other (*specify*) ..... X DK ..... Z	

SELECTION OF ONE CHILD FOR CHILD DISCIPLINE — SL

☐ *List each of the children aged 1-14 years below in the order they appear in the Household Listing Form. Do not include other household members outside of the age range 1-14 years.*

☐ *Record the line number, name, sex, and age for each child.*

☐ *If there are no children age 1-14 years in the household, leave the table blank and go to SL6.*

SL1. *Rank number*	SL2. *Line number from HL1*	SL3. *Name from HL2*	SL4. *Sex from HL4*		SL5. *Age from HL6*
Rank	Line	Name	M	F	Age
1	__ __		1	2	___ ___
2	__ __		1	2	___ ___
3	__ __		1	2	___ ___
4	__ __		1	2	___ ___
5	__ __		1	2	___ ___
6	__ __		1	2	___ ___
7	__ __		1	2	___ ___
8	__ __		1	2	___ ___

SL6. *Total number of children age 1-14 years* — Total number ..... __ __

SL7. *Check the number of children age 1-14 years in SL6:*

☐ *None ⇨ Go to Handwashing module*

☐ *One or more ⇨ Continue with SL8*

SL8 *Check the last digit of the household number (HH2) from the cover page. This is the number of the row you should go to in the table below.*
Check the total number of children age 1-14 in SL6 above. This is the number of the column you should go to.
Find the box where the row and the column meet and circle the number that appears in the box. This is the rank number of the selected child (in SL1)

	Total Number of Eligible Children in the Household (from SL6)							
Last digit of household number (HH2)	1	2	3	4	5	6	7	8+
0	1	2	2	4	3	6	5	4
1	1	1	3	1	4	1	6	5
2	1	2	1	2	5	2	7	6
3	1	1	2	3	1	3	1	7
4	1	2	3	4	2	4	2	8
5	1	1	1	1	3	5	3	1
6	1	2	2	2	4	6	4	2
7	1	1	3	3	5	1	5	3
8	1	2	1	4	1	2	6	4
9	1	1	2	1	2	3	7	5

SL9. *Record the rank number (SL1), line number (SL2), name (SL3) and age (SL5) of the selected child*

Rank number ..... __ __

Line number ..... __ __

Name_____ Age ..... __ __

Next Module for this child

CHILD DISCIPLINE		CD
CD2. *Write the line number (SL2) and name (SL3) of the child selected.*	Line number ..... __ __ Name	
CD3. ADULTS USE CERTAIN WAYS TO TEACH CHILDREN THE RIGHT BEHAVIOUR OR TO ADDRESS A BEHAVIOUR PROBLEM. I WILL READ VARIOUS METHODS THAT ARE USED AND I WANT YOU TO TELL ME IF YOU OR ANYONE ELSE IN YOUR HOUSEHOLD HAS USED THIS METHOD WITH *(name)* IN THE PAST MONTH.	Y N	
[A] TOOK AWAY PRIVILEGES, FORBADE SOMETHING (*name*) LIKED OR DID NOT ALLOW HIM/HER TO LEAVE HOUSE.	Took away privileges..... 1 2	
[B] EXPLAINED WHY (*name*)'S BEHAVIOUR WAS WRONG.	Explained wrong behaviour..... 1 2	
[C] SHOOK HIM/HER.	Shook him/her 1 2	
[D] SHOUTED, YELLED AT OR SCREAMED AT HIM/HER.	Shouted, yelled, screamed 1 2	
[E] GAVE HIM/HER SOMETHING ELSE TO DO.	Gave something else to do 1 2	
[F] SPANKED, HIT OR SLAPPED HIM/HER ON THE BOTTOM WITH BARE HAND.	Spanked, hit, slapped on bottom with bare hand 1 2	
[G] HIT HIM/HER ON THE BOTTOM OR ELSEWHERE ON THE BODY WITH SOMETHING LIKE A BELT, HAIRBRUSH, STICK OR OTHER HARD OBJECT.	Hit with belt, hairbrush, stick, or other hard object 1 2	
[H] CALLED HIM/HER DUMB, LAZY, OR ANOTHER NAME LIKE THAT.	Called dumb, lazy, or another name 1 2	
[I] HIT OR SLAPPED HIM/HER ON THE FACE, HEAD OR EARS.	Hit/slapped on the face, head or ears 1 2	
[J] HIT OR SLAPPED HIM/HER ON THE HAND, ARM, OR LEG.	Hit/slapped on hand, arm or leg 1 2	
[K] BEAT HIM/HER UP, THAT IS HIT HIM/HER OVER AND OVER AS HARD AS ONE COULD	Beat up, hit over and over as hard as one could 1 2	
CD4. DO YOU BELIEVE THAT IN ORDER TO BRING UP, RAISE, OR EDUCATE A CHILD PROPERLY, THE CHILD NEEDS TO BE PHYSICALLY PUNISHED?	Yes .....1 No .....2 Don't know / No opinion 8	

HANDWASHING		HW
HW1. PLEASE SHOW ME WHERE MEMBERS OF YOUR HOUSEHOLD MOST OFTEN WASH THEIR HANDS.	Observed ..... 1 Not observed Not in dwelling / plot / yard ..... 2 No permission to see ..... 3 Other reason 6	 2 ⇨ HW4 3 ⇨ HW4 6 ⇨ HW4
HW2. *Observe presence of water at the specific place for handwashing.* *Verify by checking the tap/pump, or basin, bucket, water container or similar objects for presence of water.*	Water is available ..... 1 Water is not available 2	
HW3. *Record if soap or detergent is present at the specific place for handwashing.* *Circle all that apply.* *Skip to HH19 if any soap or detergent code (A, B, C or D) is circled. If "None" (Y) is circled, continue with HW4.*	Bar soap ..... A Detergent (Powder / Liquid / Paste) ..... B Liquid soap ..... C Ash / Mud / Sand ..... D None ..... Y	A ⇨ HH19 B ⇨HH19 C ⇨ HH19 D ⇨ HH19
HW4. DO YOU HAVE ANY SOAP OR DETERGENT IN YOUR HOUSEHOLD FOR WASHING HANDS?	Yes ..... 1 No 2	 2 ⇨ HH19
HW5. CAN YOU PLEASE SHOW IT TO ME? *Record observation. Circle all that apply.*	Bar soap ..... A Detergent (Powder / Liquid / Paste) ..... B Liquid soap ..... C Ash / Mud / Sand ..... D Not able / Does not want to show ..... Y	

Hh19. Record The Time.	Hour and minutes ..... __ __ : __ __	

SALT IODIZATION		SI
SI1. WE WOULD LIKE TO CHECK WHETHER THE SALT USED IN YOUR HOUSEHOLD IS IODIZED. MAY I SEE A SAMPLE OF THE SALT USED TO COOK THE MAIN MEAL EATEN BY MEMBERS OF YOUR HOUSEHOLD LAST NIGHT? *Once you have examined the salt, circle number that corresponds to test outcome.*	Not iodized 0 PPM ..... 1 More than 0 PPM & less than 15 PPM ..... 2 15 PPM or more ..... 3 No salt in the house ..... 6 Salt not tested 7	

HH20. *THANK THE RESPONDENT FOR HIS/HER COOPERATION AND CHECK THE HOUSEHOLD LISTING FORM:*

☐ *A separate Questionnaire for Individual Women has been issued for each woman age 15-49 years in the household list (HL7)*

☐ *A separate Questionnaire for Children Under Five has been issued for each child under age 5 years in the household list (HL9)*

☐ *A separate Questionnaire for Testing Water Quality been issued if household has been selected for water testing (HH 7A/7B))*

Return to the cover page and make sure that all information is entered, including the number of eligible women (HH12 and under-5s (HH14) Make arrangements for the administration of the remaining questionnaire(s) in this household.

Interviewer's Observations

Field Editor's Observations

Supervisor's Observations

MICS

QUESTIONNAIRE FOR INDIVIDUAL WOMEN

MICS5, Bangladesh 2012-13

WOMAN'S INFORMATION PANEL	WM
This questionnaire is to be administered to all women age 15 through 49 (see Household Listing Form, column HL7). *A separate questionnaire should be used for each eligible woman.*	
WM1. Cluster number: ___ ___ ___ ___	WM2. Household number: ___ ___
WM3. Woman's name: Name	WM4. Woman's line number: ___ ___
WM5. Interviewer name and number: Name ..... ___ ___	WM6. Day / Month / Year of interview: ___ ___ / ___ ___ / ___ ___ ___ ___

Repeat greeting if not already read to this woman:

WE ARE FROM BANGLADESH BUREAU OF STATISTICS. WE ARE WORKING ON A PROJECT CONCERNED WITH FAMILY HEALTH AND EDUCATION. I WOULD LIKE TO TALK TO YOU ABOUT THESE SUBJECTS. THE INTERVIEW WILL TAKE ABOUT 40 MINUTES. ALL THE INFORMATION WE OBTAIN WILL REMAIN STRICTLY CONFIDENTIAL AND YOUR ANSWERS WILL NEVER BE SHARED WITH ANYONE OTHER THAN OUR PROJECT TEAM.

If greeting at the beginning of the household questionnaire has already been read to this woman, then read the following:

NOW I WOULD LIKE TO TALK TO YOU MORE ABOUT YOUR HEALTH AND OTHER TOPICS. THIS INTERVIEW WILL TAKE ABOUT 40 MINUTES. AGAIN, ALL THE INFORMATION WE OBTAIN WILL REMAIN STRICTLY CONFIDENTIAL AND YOUR ANSWERS WILL NEVER BE SHARED WITH ANYONE OTHER THAN OUR PROJECT TEAM.

May I start now?

☐ *Yes, permission is given ⇨Go to WM10 to record the time and then begin the interview.*

☐ *No, permission is not given ⇨Circle 03 in WM7. Discuss this result with your supervisor.*

WM7. Result of woman's interview	Completed ..... 01 Not at home ..... 02 Refused ..... 03 Partly completed ..... 04 Incapacitated ..... 05 Other (*specify*) _____ 96

WM8. Field editor name and number:	WM9. Data entry clerk (First) name and number:	WM9A. Data entry clerk (Second) name and number:
_____ __ __	_____ __ __	_____ __ __

WM10. *Interview Time*	Hours ..... __ __ Minutes ..... __ __

WOMAN'S BACKGROUND		WB
WB1. In what month and year were you born?	Date of birth Month ..... __ __ DK month ..... 98 Year ..... __ __ __ __ DK year 9998	
WB2. How old are you? *Probe:* How old were you at your last birthday? *Compare and correct WB1 and/or WB2 if inconsistent*	Age (in completed years) ..... __ __	
WB3. Have you ever attended pre-primary school, primary school, secondary school, college or university?	Yes ..... 1 No 2	2 ⇨ WB7
WB4. What is the highest level of pre-primary school, primary school, secondary school, college or university you attended?	Preschool ..... 0 Primary ..... 1 Secondary/Higher secondary ..... 2 Higher 3	0 ⇨ WB7
WB5. What is the highest grade you completed at the level of pre-primary school, primary school, secondary school, college or university? *If less than 1 grade, enter "00"*	Grade ..... __ __	
WB6. Check WB4: ☐ *Secondary or higher.* ⇨ *Go to Next Module* ☐ *Primary* ⇨ *Continue with WB7*		
WB7. Now I would like you to read this sentence to me. *Show sentence on the card to the respondent.* *If respondent cannot read whole sentence, probe:* Can you read part of the sentence to me?	Cannot read at all ..... 1 Able to read only parts of sentence ..... 2 Able to read whole sentence ..... 3 No sentence in required language ..... 4 *(specify language)* Blind / visually impaired 5	

ACCESS TO MASS MEDIA AND USE OF INFORMATION/COMMUNICATION TECHNOLOGY		MT
MT1. Check WB7: ☐ *Question left blank (Respondent has secondary or higher education)* ⇨ *Continue with MT2* ☐ *Able to read or no sentence in required language (codes 2, 3 or 4)* ⇨ *Continue with MT2* ☐ *Cannot read at all or blind (codes 1 or 5)* ⇨ *Go to MT3*		
MT2. How often do you read a newspaper or magazine: almost every day, at least once a week, less than once a week or not at all?	Almost every day ..... 1 At least once a week ..... 2 Less than once a week ..... 3 Not at all 4	
MT3. Do you listen to the radio almost every day, at least once a week, less than once a week or not at all?	Almost every day ..... 1 At least once a week ..... 2 Less than once a week ..... 3 Not at all 4	
MT4. How often do you watch television: would you say that you watch almost every day, at least once a week, less than once a week or not at all?	Almost every day ..... 1 At least once a week ..... 2 Less than once a week ..... 3 Not at all 4	
MT5. *Check WB2: Age of respondent?* ☐ *Age 15-24* ⇨ *Continue with MT6* ☐ *Age 25-49* ⇨ *Go to Next Module*		
MT6. Have you ever used a computer?	Yes ..... 1 No 2	2 ⇨ MT9
MT7. Have you used a computer from any location in the last 12 months?	Yes ..... 1 No 2	2 ⇨ MT9
MT8. During the last one month, how often did you use a computer: almost every day, at least once a week, less than once a week or not at all?	Almost every day ..... 1 At least once a week ..... 2 Less than once a week ..... 3 Not at all 4	
MT9. Have you ever used the internet?	Yes ..... 1 No 2	2 ⇨ Next Module
MT10. In the last 12 months, have you used the internet? *If necessary, probe for use from any location, with any device.*	Yes ..... 1 No 2	2 ⇨ Next Module
MT11. During the last one month, how often did you use the internet: almost every day, at least once a week, less than once a week or not at all?	Almost every day ..... 1 At least once a week ..... 2 Less than once a week ..... 3 Not at all 4	

MARRIAGE		MA
MA1. Are you currently married?	Yes, currently married ..... 1 No 3	 3⇨MA5
MA2. How old is your husband? *Probe*: How old was your husband on his last birthday?	Age in years ..... __ __ DK 98	
MA3. Besides yourself, does your husband have any other wives?	Yes ..... 1 No 2	2⇨MA7
MA4. How many other wives does he have?	Number ..... __ __ DK 98	⇨MA7 98⇨MA7
MA5. Have you ever been *married?*	Yes, formerly married ..... 1 No 3	3⇨Illness Symptoms Module
MA6. What is your marital status now: are you widowed, divorced or separated?	Widowed ..... 1 Divorced ..... 2 Separated 3	
MA7. Have you been married only once or more than once?	Only once ..... 1 More than once 2	
MA8. In what month and year did you start living with your (first) husband?	Month ..... __ __ DK month ..... 98 Year ..... __ __ __ __ DK year 9998	 ⇨Next Module
MA9. How old were you when you started living with your (first) husband?	Age in years ..... __ __	

CHILD MORTALITY		CM
All questions refer only to LIVE births.		
CM1. Now I would like to ask about all the births you have had during your life. Have you ever given birth?	Yes ..... 1 No 2	 2⇨CM8
CM2. What was the date of your first birth? I mean the very first time you gave birth, even if the child is no longer living, or whose father is not your current husband. *Skip to CM4 only if year of first birth is given. Otherwise, continue with CM3.*	Date of first birth Day ..... __ __ DK day ..... 98 Month ..... __ __ DK month ..... 98 Year ..... __ __ __ __ DK year 9998	 ⇨CM4
CM3. How many years ago did you have your first birth?	Completed years since first birth ..... __ __	
CM4. Do you have any sons or daughters to whom you have given birth who are now living with you?	Yes ..... 1 No 2	 2⇨CM6

CM5. How many sons live with you? How many daughters live with you? *If none, record '00'*.	Sons at home..... __ __ Daughters at home..... __ __	
CM6. Do you have any sons or daughters to whom you have given birth who are alive but do not live with you?	Yes .....1 No 2	2⇨CM8
CM7. How many sons are alive but do not live with you? How many daughters are alive but do not live with you? *If none, record '00'*.	Sons elsewhere..... __ __ Daughters elsewhere..... __ __	
CM8. Have you ever given birth to a boy or girl who was born alive but later died? *If "No" probe by asking:* I mean, to a child who ever breathed or cried or showed other signs of life – even if he or she lived only a few minutes or hours?	Yes .....1 No 2	2⇨CM10
CM9. How many boys have died? How many girls have died? *If none, record '00'*.	Boys dead ..... __ __ Girls dead ..... __ __	
CM10. Sum answers to CM5, CM7, and CM9.	Sum ..... __ __	

CM11. Just to make sure that I have this right, you have had in total (total number in CM10) live births during your life. Is this correct?

☐ *Yes. Check below:*

☐ *No live births ⇨ Go to CONTRACEPTION Module*

☐ *One or more live births ⇨ Continue with CM12*

☐ *No ⇨ Check responses to CM1-CM10 and make corrections as necessary before proceeding to CM12*

CM12. Of these (*total number in CM10*) births you have had, when did you deliver the last one (even if he or she has died)? Month and year must be recorded.	Date of last birth Day..... __ __ DK day.....98 Month ..... __ __ Year ..... __ __ __ __	

CM13. *Check CM12: Last birth occurred within the last 2 years, that is, since (day and month of interview) in **2010/2011***

☐ *No live birth in last 2 years. ⇨ Go to CONTRACEPTION Module.*

☐ *One or more live births in last 2 years. ⇨ Ask for the name of the last-born child*

*Name of last-born child*_____

If child has died, take special care when referring to this child by name in the following modules.

Continue with the next module.

DESIRE FOR LAST BIRTH — DB

This module is to be administered to all women with a live birth in the 2 years preceding date of interview.
Check child mortality module CM13 and record name of last-born child here _____.
Use this child's name in the following questions, where indicated.

DB1. When you got pregnant with (*name*), did you want to get pregnant at that time?	Yes ..... 1 No 2	1⇨Next Module
DB2. Did you want to have a baby later on, or did you not want any (*more*) children?	Later ..... 1 No more 2	2⇨Next Module
DB3. How much longer did you want to wait?	Months ..... 1 __ __ Years ..... 2 __ __ DK 998	

MATERNAL AND NEWBORN HEALTH — MN

This module is to be administered to all women with a live birth in the 2 years preceding date of interview.
Check child mortality module CM13 and record name of last-born child here _____.
Use this child's name in the following questions, where indicated.

MN1. Did you see anyone for antenatal care during your pregnancy with (*name*)?	Yes ..... 1 No 2	2⇨MN5
MN2. Whom did you see? *Probe:* Anyone else? *Probe for the type of person seen and circle all answers given.*	Health professional: Doctor ..... A Nurse / Midwife ..... B Auxiliary midwife ..... C Other person Traditional birth attendant ..... F Community health worker ..... G Other (*specify*) X	
MN3. How many times did you receive antenatal care during this pregnancy?	Number of times ..... __ __ DK 98	
MN4. As part of your antenatal care during this pregnancy, were any of the following done at least once:	Yes No	
[A] Was your blood pressure measured?	Blood pressure 1 2	
[B] Did you give a urine sample?	Urine sample 1 2	
[C] Did you give a blood sample?	Blood sample 1 2	
MN5. Do you have a card or other document with your own immunizations listed? May I see it please? *If a card is presented, use it to assist with answers to the following questions.*	Yes (card seen) ..... 1 Yes (card not seen) ..... 2 No ..... 3 DK 8	

MN6. When you were pregnant with (*name*), did you receive any injection in the arm or shoulder to prevent the baby from getting tetanus, that is convulsions after birth?	Yes .....1 No .....2 DK 8	 2⇨MN9 8⇨MN9
MN7. How many times did you receive this tetanus injection during your pregnancy with (*name*)? *If 7 or more times, record '7'.*	Number of times .....__ DK 8	 8⇨MN9
MN8. How many tetanus injections during last pregnancy were reported in MN7? ☐ *At least two tetanus injections during last pregnancy. ð Go to MN17* ☐ *Only one tetanus injection during last pregnancy. ð Continue with MN9*		
MN9. Did you receive any tetanus injection at any time before your pregnancy with (*name*), either to protect yourself or another baby?	Yes .....1 No .....2 DK 8	 2⇨MN17 8⇨MN17
MN10. How many times did you receive a tetanus injection before your pregnancy with (*name*)? *If 7 or more times, record '7'.*	Number of times .....__ DK 8	 8⇨MN17
MN11. How many years ago did you receive the last tetanus injection before your pregnancy with (*name*)?	Years ago .....__ __	
MN17. Who assisted with the delivery of (*name*)? *Probe:* Anyone else? *Probe for the type of person assisting and circle all answers given.* *If respondent says no one assisted, probe to determine whether any adults were present at the delivery.*	Health professional: Doctor ..... A Nurse / Midwife ..... B Auxiliary midwife ..... C Other person Traditional birth attendant ..... F Community health worker ..... G Relative / Friend ..... H Other (*specify*) ..... X No one ..... Y	
MN18. Where did you give birth to (name)? *Probe to identify the type of source.* *If unable to determine whether public or private, write the name of the place.* _____ *(Name of place)*	Home Respondent's home .....11 Other home .....12 Public sector Govt. hospital .....21 Govt. clinic / health centre .....22 Govt. health post .....23 Other public (*specify*) _____ 26 Private Medical Sector Private hospital .....31 Private clinic .....32 Private maternity home .....33 Other private medical (*specify*) .....36 Other (*specify*) _____ 96	 11⇨MN20 12⇨MN20 96⇨MN20

MN19. Was (*name*) delivered by caesarean section? That is, did they cut your belly open to take the baby out?	Yes .....1 No 2	
MN20. When (*name*) was born, was he/she very large, larger than average, average, smaller than average, or very small?	Very large .....1 Larger than average .....2 Average .....3 Smaller than average .....4 Very small .....5 DK 8	
MN21. Was (*name*) weighed at birth?	Yes .....1 No .....2 DK 8	2⇨MN23 8⇨MN23
MN22. How much did (*name*) weigh? *Record weight from health card, if available.*	From card ..... 1 (kg) __ . __ __ __ From recall..... 2 (kg) __ . __ __ __ DK 99998	
MN23. Has your menstrual period returned since the birth of (*name*)?	Yes .....1 No 2	
MN24. Did you ever breastfeed (*name*)?	Yes .....1 No 2	2⇨Next Module
MN25. How long after birth did you first put (*name*) to the breast? *If less than 1 hour, record '00' hours.* *If less than 24 hours, record hours.* *Otherwise, record days.*	Immediately ..... 000 Hours ..... 1 __ __ Days ..... 2 __ __ Don't know / remember..... 998	
MN26. In the first three days after delivery, was (*name*) given anything to drink other than breast milk?	Yes ----- 1 No ----- 2	2⇨Next Module
MN27. What was (*name*) given to drink? *Probe:* Anything else?	Milk (other than breast milk) ..... A Plain water..... B Sugar or glucose water ..... C Gripe water..... D Sugar-salt-water solution..... E Fruit juice..... F Infant formula..... G Tea / Infusions ..... H Honey ..... I Other (*specify*)_____ X	

POST-NATAL HEALTH CHECKS PN

This module is to be administered to all women with a live birth in the 2 years preceding the date of interview.
Check child mortality module CM13 and record name of last-born child here _____.
Use this child's name in the following questions, where indicated.

PN1. Check MN18: Was the child delivered in a health facility?

☐ *Yes, the child was delivered in a health facility (MN18=21-26 or 31-36) ⇨ Continue with PN2*

☐ *No, the child was not delivered in a health facility (MN18=11-12 or 96) ⇨ Go to PN6*

PN2. NOW I WOULD LIKE TO ASK YOU SOME QUESTIONS ABOUT WHAT HAPPENED IN THE HOURS AND DAYS AFTER THE BIRTH OF (*name).* YOU HAVE SAID THAT YOU GAVE BIRTH IN (*name OR TYPE OF FACILITY IN MN18*). HOW LONG DID YOU STAY THERE AFTER THE DELIVERY? *If less than one day, record hours.* *If less than one week, record days.* *Otherwise, record weeks.*	Hours.....1 __ __ Days.....2 __ __ Weeks.....3 __ __ Don't know / remember.....998	
PN3. I WOULD LIKE TO TALK TO YOU ABOUT CHECKS ON (*name*)'S HEALTH AFTER DELIVERY – FOR EXAMPLE, SOMEONE EXAMINING (*name*), CHECKING THE CORD, OR SEEING IF (*name*) IS OK. BEFORE YOU LEFT THE (*name or type of facility in MN18*), DID ANYONE CHECK ON (*name*)'S HEALTH?	Yes.....1 No.....2	
PN4. AND WHAT ABOUT CHECKS ON <u>YOUR</u> HEALTH – I MEAN, SOMEONE ASSESSING YOUR HEALTH, FOR EXAMPLE ASKING QUESTIONS ABOUT YOUR HEALTH OR EXAMINING YOU. DID ANYONE CHECK ON <u>YOUR</u> HEALTH BEFORE YOU LEFT (*name or type or facility in MN18*)**?**	Yes.....1 No.....2	
PN5. NOW I WOULD LIKE TO TALK TO YOU ABOUT WHAT HAPPENED AFTER YOU LEFT (*name OR TYPE OF FACILITY IN MN18*)**.** DID ANYONE CHECK ON (*name*)'S HEALTH AFTER YOU LEFT (*name OR type of facility in MN18*)**?**	Yes.....1 No.....2	1⇨PN11 2⇨PN16
PN6. *Check MN17: Did a health professional, traditional birth attendant, or community health worker assist with the delivery?* ☐ *Yes, delivery assisted by a health professional, traditional birth attendant, or community health worker (MN17=A-G) ⇨ Continue with PN7* ☐ *No, delivery not assisted by a health professional, traditional birth attendant, or community health worker (A-G not circled in MN17) ⇨ Go to PN10*		
PN7. YOU HAVE ALREADY SAID THAT (*person or persons in MN17*) ASSISTED WITH THE BIRTH. NOW I WOULD LIKE TO TALK TO YOU ABOUT CHECKS ON (*name*)'S HEALTH AFTER DELIVERY, FOR EXAMPLE EXAMINING (*name*), CHECKING THE CORD, OR SEEING IF (*name*) IS OK. AFTER THE DELIVERY WAS OVER AND BEFORE (*person or persons in MN17*) LEFT YOU, DID (*person or persons in MN17*) CHECK ON (*name*'S) HEALTH?	Yes.....1 No.....2	

PN8. And did (*person or persons in MN17*) check on <u>your</u> health before leaving? By check on your health, I mean assessing your health, for example asking questions about your health or examining you.	Yes .....1 No 2	
PN9. After the (*person or persons in MN17*) left you, did anyone check on the health of (*name*)?	Yes .....1 No 2	1⇨PN11 2⇨PN18
PN10. I would like to talk to you about checks on (*name*)'s health after delivery – for example, someone examining (*name*), checking the cord, or seeing if the baby is ok. After (*name*) was delivered, did anyone check on his/her health?	Yes .....1 No 2	 2⇨PN19
PN11. Did such a check happen only once, or more than once?	Once .....1 More than once 2	1⇨PN12A 2⇨PN12B
PN12A. How long after delivery did that check happen? PN12B. How long after delivery did the first of these checks happen? *If less than one day, record hours.* *If less than one week, record days.* *Otherwise, record weeks.*	Hours ..... 1 __ __ Days ..... 2 __ __ Weeks ..... 3 __ __ Don't know / remember ----------998	
PN13. Who checked on (*name*)'s health at that time?	Health professional Doctor ..... A Nurse / Midwife ..... B Auxiliary midwife ..... C Other person Traditional birth attendant ..... F Community health worker ..... G Relative / Friend ..... H Other (*specify*)_____ X	
PN14. Where did this check take place? *Probe to identify the type of source.* *If unable to determine whether public or private, write the name of the place.* _____ *(Name of place)*	Home Respondent's home .....11 Other home .....12 Public sector Govt. hospital .....21 Govt. clinic / health centre .....22 Govt. health post .....23 Other public (*specify*) _____ 26 Private medical sector Private hospital .....31 Private clinic .....32 Private maternity home .....33 Other private medical (*specify*) _____ 36 Other (*specify*)_____ 96	

PN15. Check MN18: Was the child delivered in a health facility? ☐ *Yes, the child was delivered in a health facility (MN18=21-26 or 31-36)* ⇨ *Continue with PN16* ☐ *No, the child was not delivered in a health facility (MN18=11-12 or 96)* ⇨ *Go to PN17*		
PN16. AFTER YOU LEFT (*name or type of facility in MN18*), DID ANYONE CHECK ON <u>YOUR</u> HEALTH?	Yes ---------- 1 No ---------- 2	1⇨PN20 2⇨NEXT MODULE
PN17. *Check MN17: Did a health professional, traditional birth attendant, or community health worker assist with the delivery?* ☐ *Yes, delivery assisted by a health professional, traditional birth attendant, or community health worker (MN17=A-G)* ⇨ *Continue with PN18* ☐ *No, delivery not assisted by a health professional, traditional birth attendant, or community health worker (A-G not circled in MN17)* ⇨ *Go to PN19*		
PN18. AFTER THE DELIVERY WAS OVER AND (*person or persons in MN17*) LEFT, DID ANYONE CHECK ON <u>YOUR</u> HEALTH?	Yes .....1 No 2	1⇨PN20 2⇨NEXT MODULE
PN19. AFTER THE BIRTH OF (*name*), DID ANYONE CHECK ON <u>YOUR</u> HEALTH? I MEAN SOMEONE ASSESSING YOUR HEALTH, FOR EXAMPLE ASKING QUESTIONS ABOUT YOUR HEALTH OR EXAMINING YOU.	Yes .....1 No 2	2⇨NEXT MODULE
PN20. DID SUCH A CHECK HAPPEN ONLY ONCE, OR MORE THAN ONCE?	Once .....1 More than once 2	1⇨PN21A 2⇨PN21B
PN21A. HOW LONG AFTER DELIVERY DID THAT CHECK HAPPEN? PN21B. HOW LONG AFTER DELIVERY DID THE FIRST OF THESE CHECKS HAPPEN? *If less than one day, record hours.* *If less than one week, record days.* *Otherwise, record weeks.*	Hours .....1 __ __ Days .....2 __ __ Weeks .....3 __ __ Don't know / remember 998	
PN22. WHO CHECKED ON <u>YOUR</u> HEALTH AT THAT TIME?	Health professional Doctor ..... A Nurse / Midwife ..... B Auxiliary midwife ..... C Other person Traditional birth attendant ..... F Community health worker ..... G Relative / Friend ..... H Other (*specify*)_____ X	

PN23. WHERE DID THIS CHECK TAKE PLACE? *Probe to identify the type of source.* *If unable to determine whether public or private, write the name of the place.* _____ *(Name of place)*	Home Respondent's home .....11 Other home.....12 Public sector Govt. hospital.....21 Govt. clinic / health centre.....22 Govt. health post .....23 Other public (*specify*) _____ 26 Private medical sector Private hospital .....31 Private clinic .....32 Private maternity home .....33 Other private medical (*specify*) _____ 36 Other (*specify*)_____ 96	

CONTRACEPTION CP

CP0. *Check MA1: Is respondent currently married?*

☐ *Yes, currently married (MA1=1) ⇨ Continue with CP1*

☐ *No, not currently married (MA1=3) ⇨ Go to ILLNESS SYMPTOMS Module*

CP1. I WOULD LIKE TO TALK WITH YOU ABOUT ANOTHER SUBJECT – FAMILY PLANNING. ARE YOU PREGNANT NOW?	Yes, currently pregnant .....1 No.....2 Unsure or DK 8	1⇨CP2A
CP2. COUPLES USE VARIOUS WAYS OR METHODS TO DELAY OR AVOID A PREGNANCY. ARE YOU CURRENTLY DOING SOMETHING OR USING ANY METHOD TO DELAY OR AVOID GETTING PREGNANT?	Yes .....1 No.....2	1⇨CP3
CP2A. HAVE YOU EVER DONE SOMETHING OR USED ANY METHOD TO DELAY OR AVOID GETTING PREGNANT?	Yes .....1 No.....2	1⇨NEXT MODULE 2⇨NEXT MODULE

CP3. What are you doing to delay or avoid a pregnancy? *Do not prompt.* *If more than one method is mentioned, circle each one.*	Female sterilization ..... A Male sterilization ..... B IUD ..... C Injectables ..... D Implants ..... E Pill ..... F Male condom ..... G Female condom ..... H Diaphragm ..... I Foam / Jelly ..... J Lactational amenorrhoea method (LAM) ..... K Periodic abstinence / Rhythm ..... L Withdrawal ..... M Other (*specify*)_____ X	
UNMET NEED		**UN**
UN1. *Check CP1. Currently pregnant?* ☐ *Yes, currently pregnant ⇨ Continue with UN2* ☐ *No, unsure or DK ⇨ Go to UN5*		
UN2. Now I would like to talk to you about your current pregnancy. When you got pregnant, did you want to get pregnant at that time?	Yes ..... 1 No 2	1⇨UN4
UN3. Did you want to have a baby later on or did you not want any (more) children?	Later ..... 1 No more 2	
UN4. Now I would like to ask some questions about the future. After the child you are now expecting, would you like to have another child, or would you prefer not to have any more children?	Have another child ..... 1 No more / None ..... 2 Undecided / Don't know 8	1⇨UN7 2⇨UN13 8⇨UN13
UN5. *Check CP3. Currently using "Female sterilization"?* ☐ *Yes ⇨ Go to UN13* ☐ *No ⇨ Continue with UN6*		
UN6. Now I would like to ask you some questions about the future. Would you like to have (a/another) child, or would you prefer not to have any (more) children?	Have (a/another) child ..... 1 No more / None ..... 2 Says she cannot get pregnant ..... 3 Undecided / Don't know 8	 2⇨UN9 3⇨UN11 8⇨UN9

UN7. How long would you like to wait before the birth of (a/another) child?	Months ..... 1 __ __ Years ..... 2 __ __ Soon / Now ..... 993 Says she cannot get pregnant ..... 994 After marriage ..... 995 Other ..... 996 Don't know 998	994 ⇨ UN11
UN8. *Check CP1. Currently pregnant?* ☐ *Yes, currently pregnant ⇨ Go to UN13* ☐ *No, unsure or DK ⇨ Continue with UN9*		
UN9. *Check CP2. Currently using a method?* ☐ *Yes ⇨ Go to UN13* ☐ *No ⇨ Continue with UN10*		
UN10. Do you think you are physically able to get pregnant at this time?	Yes ..... 1 No ..... 2 DK 8	1 ⇨ UN13 8 ⇨ UN13
UN11. Why do you think you are not physically able to get pregnant?	Infrequent sex / No sex ..... A Menopausal ..... B Never menstruated ..... C Hysterectomy (surgical removal of uterus) ..... D Has been trying to get pregnant for 2 years or more without result ..... E Postpartum amenorrheic ..... F Breastfeeding ..... G Too old ..... H Fatalistic ..... I Other (*specify*)_____ X Don't know ..... Z	
UN12. *Check UN11. "Never menstruated" mentioned?* ☐ *Mentioned ⇨ Go to Next Module* ☐ *Not mentioned ⇨ Continue with UN13*		

UN13. When did your last menstrual period start? *Record the answer using the same unit stated by the respondent*	Days ago ..... 1 __ __ Weeks ago ..... 2 __ __ Months ago ..... 3 __ __ Years ago ..... 4 __ __ In menopause / Has had hysterectomy.....994 Before last birth.....995 Never menstruated 996	

ILLNESS SYMPTOMS — IS

IS1. *Check Household Listing, column HL9*

Is the respondent the mother or caretaker of any child under age 5?

☐ *Yes* ⇨ *Continue with IS2.*

☐ *No* ⇨ *Go to Next Module.*

IS2. Sometimes children have severe illnesses and should be taken immediately to a health facility. What types of symptoms would cause you to take your child to a health facility right away? *Probe:* Any other symptoms? *Keep asking for more signs or symptoms until the mother/ caretaker cannot recall any additional symptoms.* *Circle all symptoms mentioned, but do <u>not</u> prompt with any suggestions*	Child not able to drink or breastfeed ..... A Child becomes sicker ..... B Child develops a fever ..... C Child has fast breathing ..... D Child has difficult breathing..... E Child has blood in stool ..... F Child is drinking poorly..... G Diarrhoea ..... H Other (*specify*)_____X Other (*specify*)_____Y Other (*specify*)_____Z	

HIV/AIDS — HA

HA1. Now I would like to talk with you about something else. Have you ever heard of an illness called AIDS?	Yes .....1 No.....2	2 ⇨ WM11
HA2. Can people reduce their chance of getting the AIDS virus by having just one uninfected sex partner who has no other sex partners?	Yes .....1 No.....2 DK 8	

HA3. Can people get the AIDS virus because of witchcraft or other supernatural means?	Yes ..... 1 No ..... 2 DK 8	
HA4. Can people reduce their chance of getting the AIDS virus by using a condom every time they have sex?	Yes ..... 1 No ..... 2 DK 8	
HA5. Can people get the AIDS virus from mosquito bites?	Yes ..... 1 No ..... 2 DK 8	
HA6. Can people get the AIDS virus by sharing food with a person who has the AIDS virus?	Yes ..... 1 No ..... 2 DK 8	
HA7. Is it possible for a healthy-looking person to have the AIDS virus?	Yes ..... 1 No ..... 2 DK 8	
HA8. Can the virus that causes AIDS be transmitted from a mother to her baby:	Yes / No / DK [A] During pregnancy? During pregnancy ..... 1 2 8 [B] During delivery? During delivery ..... 1 2 8 [C] By breastfeeding? By breastfeeding 1 2 8	
HA9. In your opinion, if a female teacher has the AIDS virus but is not sick, should she be allowed to continue teaching in school?	Yes ..... 1 No ..... 2 DK / Not sure / Depends 8	
HA10. Would you buy fresh vegetables from a shopkeeper or vendor if you knew that this person had the AIDS virus?	Yes ..... 1 No ..... 2 DK / Not sure / Depends 8	
HA11. If a member of your family got infected with the AIDS virus, would you want it to remain a secret?	Yes ..... 1 No ..... 2 DK / Not sure / Depends 8	
HA12. If a member of your family became sick with AIDS, would you be willing to care for her or him in your own household?	Yes ..... 1 No ..... 2 DK / Not sure / Depends 8	

HA13. *Check CM13: Any live birth in last 2 years?*

☐ *No live birth in last 2 years (CM13="No" or blank)* ⇨ *Go to HA27*

☐ *One or more live births in last 2 years* ⇨ *Continue with HA14*

HA14. *Check MN1: Received antenatal care?*

☐ *Received antenatal care* ⇨ *Continue with HA15*

☐ *Did not receive antenatal care* ⇨ *Go to HA27*

HA15. During any of the antenatal visits for your pregnancy with (*name*), were you given any information about:	Y N DK	
[A] Babies getting the AIDS virus from their mother?	AIDS from mother 1 2 8	
[B] Things that you can do to prevent getting the AIDS virus?	Things to do 1 2 8	
[C] Getting tested for the AIDS virus?	Tested for AIDS 1 2 8	
HA27. Do you know of a place where people can go to get tested for the AIDS virus?	Yes ..... 1 No 2	

WM11. *Record the time*.	Hour and minutes..... __ __ : __ __	

WM12. *Check Household Listing Form, column HL9.*
Is the respondent the mother or caretaker of any child age 0-4 living in this household?

☐ *Yes* ⇨ *Go to QUESTIONNAIRE FOR CHILDREN UNDER FIVE for that child and start the interview with this respondent.*

☐ *No* ⇨ *End the interview with this respondent by thanking her for her cooperation.*
Check for the presence of any other eligible woman or child under-5 in the household.

Interviewer's Observations

Field Editor's Observations

Supervisor's Observations

MICS

QUESTIONNAIRE FOR CHILDREN UNDER FIVE

MICS5, Bangladesh 2012-13

UNDER-FIVE CHILD INFORMATION PANEL	UF

This questionnaire is to be administered to all mothers or caretakers (see Household Listing Form, column HL9) who care for a child that lives with them and is under the age of 5 years (see Household Listing Form, column HL6).
A separate questionnaire should be used for each eligible child.

UF1. Cluster number: ___ ___ ___ ___	UF2. Household number: ___ ___
UF3. Child's name: Name_____	UF4. Child's line number: ___ ___
UF5. Mother's / Caretaker's name: Name_____	UF6. Mother's / Caretaker's line number: ___ ___
UF7. Interviewer name and number: Name_____ ___ ___	UF8. Day / Month / Year of interview: ___ ___ / ___ ___ / ___ ___ ___ ___

Repeat greeting if not already read to this respondent:

WE ARE FROM BANGLADESH BUREAU OF STATISTICS. WE ARE WORKING ON A PROJECT CONCERNED WITH FAMILY HEALTH AND EDUCATION. I WOULD LIKE TO TALK TO YOU ABOUT (*name*)'S HEALTH AND WELL-BEING. THE INTERVIEW WILL TAKE ABOUT 30 MINUTES. ALL THE INFORMATION WE OBTAIN WILL REMAIN STRICTLY CONFIDENTIAL AND YOUR ANSWERS WILL NEVER BE SHARED WITH ANYONE OTHER THAN OUR PROJECT TEAM.

If greeting at the beginning of the household questionnaire has already been read to this person, then read the following:

NOW I WOULD LIKE TO TALK TO YOU MORE ABOUT (*name*)'S HEALTH AND OTHER TOPICS. THIS INTERVIEW WILL TAKE ABOUT 30 MINUTES. AGAIN, ALL THE INFORMATION WE OBTAIN WILL REMAIN STRICTLY CONFIDENTIAL AND YOUR ANSWERS WILL NEVER BE SHARED WITH ANYONE OTHER THAN OUR PROJECT TEAM.

MAY I START NOW?

☐ *YES, PERMISSION IS GIVEN ⇨ GO TO UF12 TO RECORD THE TIME AND THEN BEGIN THE INTERVIEW.*

☐ *NO, PERMISSION IS NOT GIVEN ⇨ CIRCLE 03 IN UF9. DISCUSS THIS RESULT WITH YOUR SUPERVISOR*

UF9. Result of interview for children under 5 Codes refer to mother/caretaker.	Completed.....01 Not at home.....02 Refused.....03 Partly completed.....04 Incapacitated.....05 Other (*specify*)_____96

UF10. Field editor name and number: _____ __ __	UF11. Data entry clerk (First) name and number: _____ __ _	UF11A. Data entry clerk (Second) name and number: _____ __ __
UF12. Record the starting time of interview		Hours ---------- __ __ Minutes---------- __ __

AGE		AG
AG1. NOW I WOULD LIKE TO ASK YOU SOME QUESTIONS ABOUT THE HEALTH OF (*name*). IN WHAT MONTH AND YEAR WAS (*name*) BORN? PROBE: WHAT IS HIS / HER BIRTHDAY? *If the mother/caretaker knows the exact birth date, also enter the day; otherwise, circle 98 for day* *Month and year must be recorded.*	Date of birth Day ..... __ __ DK day ..... 98 Month..... __ __ Year..... __ __ __ __	
AG2. HOW OLD IS (*name*)? *Probe:* HOW OLD WAS (*name*) AT HIS / HER LAST BIRTHDAY? *Record age in completed years.* *Record '0' if less than 1 year.* *Compare and correct AG1 and/or AG2 if inconsistent.*	Age (in completed years)..... __	

BIRTH REGISTRATION		BR
BR1. DOES (*name*) HAVE A BIRTH CERTIFICATE? *IF YES, ASK:* MAY I SEE IT?	Yes, seen ..... 1 Yes, not seen..... 2 No ..... 3 DK 8	1⇨NEXT MODULE 2⇨NEXT MODULE
BR2. HAS (*name*)'S BIRTH BEEN REGISTERED WITH THE CIVIL AUTHORITIES?	Yes ..... 1 No ..... 2 DK 8	1⇨NEXT MODULE
BR3. DO YOU KNOW HOW TO REGISTER YOUR CHILD'S BIRTH?	Yes ..... 1 No 2	

EARLY CHILDHOOD DEVELOPMENT		EC
EC1. HOW MANY CHILDREN'S BOOKS OR PICTURE BOOKS DO YOU HAVE FOR (*name*)?	None ..... 00 Number of children's books ..... 0 __ Ten or more books 10	

EC2. I AM INTERESTED IN LEARNING ABOUT THE THINGS THAT (*name*) PLAYS WITH WHEN HE/SHE IS AT HOME. DOES HE/SHE PLAY WITH: [A] HOMEMADE TOYS (SUCH AS DOLLS, CARS, OR OTHER TOYS MADE AT HOME)? [B] TOYS FROM A SHOP OR MANUFACTURED TOYS? [C] HOUSEHOLD OBJECTS (SUCH AS BOWLS OR POTS) OR OBJECTS FOUND OUTSIDE (SUCH AS STICKS, ROCKS, ANIMAL SHELLS OR LEAVES)? If the respondent says "YES" to the categories above, then probe to learn specifically what the child plays with to ascertain the response	Y N DK Homemade toys .....1 2 8 Toys from a shop .....1 2 8 Household objects or outside objects 1 2 8	
EC3. SOMETIMES ADULTS TAKING CARE OF CHILDREN HAVE TO LEAVE THE HOUSE TO GO SHOPPING, WASH CLOTHES, OR FOR OTHER REASONS AND HAVE TO LEAVE YOUNG CHILDREN. ON HOW MANY DAYS IN THE PAST WEEK WAS (*name*): [A] LEFT ALONE FOR MORE THAN AN HOUR? [B] LEFT IN THE CARE OF ANOTHER CHILD, THAT IS, SOMEONE LESS THAN 10 YEARS OLD, FOR MORE THAN AN HOUR? *If 'none' enter' 0'. If 'don't know' enter'8'*	Number of days left alone for more than an hour ..... Number of days left with other child for more than an hour	
EC4. Check AG2: Age of child ☐ *Child age 3 or 4 ⇨ Continue with EC5* ☐ *Child age 0, 1 or 2 ⇨ Go to Next Module*		
EC5. DOES (*name*) ATTEND ANY ORGANIZED LEARNING OR EARLY CHILDHOOD EDUCATION PROGRAMME, SUCH AS A PRIVATE OR GOVERNMENT FACILITY, INCLUDING KINDERGARTEN OR COMMUNITY CHILD CARE?	Yes.....1 No .....2 DK 8	 2⇨EC7 8⇨EC7
EC6. WITHIN THE LAST SEVEN DAYS, ABOUT HOW MANY HOURS DID *(name)* ATTEND?	Number of hours ..... ___ ___	

EC7. In the past 3 days, did you or any household member over 15 years of age engage in any of the following activities with (*name*): *If yes, ask:* Who engaged in this activity with (*name*)? *Circle all that apply.* [A] Read books to or looked at picture books with (*name*)? [B] Told stories to (*name*)? [C] Sang songs to (*name*) or with (*name*), including lullabies? [D] Took (*name*) outside the home, compound, yard or enclosure? [E] Played with (*name*)? [F] Named, counted, or drew things to or with (*name*)?	Mother / Father / Other / No one Read books: A B X Y Told stories: A B X Y Sang songs: A B X Y Took outside: A B X Y Played with: A B X Y Named/counted: A B X Y	
EC8. I would like to ask you some questions about the health and development of (*name*). Children do not all develop and learn at the same rate. For example, some walk earlier than others. These questions are related to several aspects of your child's development. Can (*name*) identify or name at least ten letters of the alphabet?	Yes.....1 No.....2 DK.....8	
EC9. Can (*name*) read at least four simple, popular words?	Yes.....1 No.....2 DK.....8	
EC10. Does (*name*) know the name and recognize the symbol of all numbers from 1 to 10?	Yes.....1 No.....2 DK.....8	
EC11. Can (*name*) pick up a small object with two fingers, like a stick or a rock from the ground?	Yes.....1 No.....2 DK.....8	
EC12. Is (*name*) sometimes too sick to play?	Yes.....1 No.....2 DK.....8	

EC13. Does (*name*) follow simple directions on how to do something correctly?	Yes.....1 No .....2 DK 8	
EC14. When given something to do, is (*name*) able to do it independently?	Yes.....1 No .....2 DK 8	
EC15. Does (*name*) get along well with other children?	Yes.....1 No .....2 DK 8	
EC16. Does (*name*) kick, bite, or hit other children or adults?	Yes.....1 No .....2 DK 8	
EC17. Does (*name*) get distracted easily?	Yes.....1 No .....2 DK 8	

BREASTFEEDING		**BF**
BF1. Has (*name*) ever been breastfed?	Yes.....1 No .....2 DK 8	 2⇨BF3 8⇨BF3
BF2. Is (*name*) still being breastfed?	Yes.....1 No .....2 DK 8	
BF3. I would like to ask you about liquids that (*name*) may have had yesterday during the day or the night. I am interested in whether (*name*) had the item even if it was combined with other foods. Please include liquids consumed outside of your home. Did (*name*) <u>drink plain water</u> yesterday, during the day or night?	Yes.....1 No .....2 DK 8	
BF4. Did (*name*) <u>drink infant formula</u> yesterday, during the day or night?	Yes.....1 No .....2 DK 8	 2⇨BF6 8⇨BF6
BF5. How many times did (*name*) <u>drink infant formula</u>?	Number of times .....__ __	

BF6. Did (*name*) drink milk, such as tinned, powdered or fresh animal milk yesterday, during the day or night?	Yes.....1 No .....2 DK 8	 2⇨BF8 8⇨BF8
BF7. How many times did (*name*) drink tinned, powdered or fresh animal milk?	Number of times .....__ __	
BF8. Did (*name*) drink juice or juice drinks yesterday, during the day or night?	Yes.....1 No .....2 DK 8	
BF9. Did (*name*) drink clear broth/ clear soup yesterday, during the day or night?	Yes.....1 No .....2 DK 8	
BF10. Did (*name*) drink or eat vitamin or mineral supplements or any medicines yesterday, during the day or night?	Yes.....1 No .....2 DK 8	
BF11. Did (*name*) drink ORS (oral rehydration solution) yesterday, during the day or night?	Yes.....1 No .....2 DK 8	
BF12. Did (*name*) drink any other liquids yesterday, during the day or night?	Yes.....1 No .....2 DK 8	
BF13. Did (*name*) drink or eat yogurt yesterday, during the day or night?	Yes.....1 No .....2 DK 8	 2⇨BF15 8⇨BF15
BF14. How many times did (*name*) drink or eat yogurt yesterday, during the day or night?	Number of times .....__ __	
BF15. Did (*name*) eat thin porridge yesterday, during the day or night?	Yes.....1 No .....2 DK 8	
BF16. Did (*name*) eat solid or semi-solid (soft, mushy) food yesterday, during the day or night?	Yes.....1 No .....2 DK 8	 2⇨BF18 8⇨BF18

BF17. How many times did (*name*) eat solid or semi-solid (soft, mushy) food yesterday, during the day or night?	Number of times .....__ __	
BF18. Yesterday, during the day or night, did (*name*) drink anything from a bottle with a nipple?	Yes.....1 No .....2 DK 8	

CARE OF ILLNESS		CA
CA1. In the last two weeks, has (*name*) had diarrhoea?	Yes.....1 No .....2 DK 8	 2⇨CA7 8⇨CA7
CA2. I would like to know how much *(name)* was given to drink during the diarrhoea (including breastmilk). During the time *(name)* had diarrhoea, was he/she given less than usual to drink, about the same amount, or more than usual? *If less, probe*: Was he/she given much less than usual to drink, or somewhat less?	Much less.....1 Somewhat less.....2 About the same .....3 More .....4 Nothing to drink .....5 DK 8	
CA3. During the time *(name)* had diarrhoea, was he/she given less than usual to eat, about the same amount, more than usual, or nothing to eat? *If "less", probe:* Was he/she given much less than usual to eat or somewhat less?	Much less.....1 Somewhat less.....2 About the same .....3 More .....4 Stopped food .....5 Never gave food.....6 DK 8	

CA4. During the episode of diarrhoea, was (*name*) given to drink any of the following: *Read each item aloud and record response before proceeding to the next item.* [A] A fluid made from a special packet called "*packet saline*" (for example or saline)? [B] Rice based ORS packet for diarrhoea? [C] Sugar and salt solution? [D] Green coconut water? [E] Rice water? [F] Boiled Rice water?	Y N DK Fluid from ORS packet ..... 1 2 8 Rice-based ORS packet ..... 1 2 8 Sugar and salt solution ..... 1 2 8 Green coconut water ..... 1 2 8 Rice water ..... 1 2 8 Boiled rice water 1 2 8	
CA5. Was anything (else) given to treat the diarrhoea?	Yes ..... 1 No ..... 2 DK 8	2⇨CA7 8⇨CA7
CA6. What (else) was given to treat the diarrhoea? *Probe*: Anything else? *Record all treatments given. Write brand name(s) of all medicines mentioned.* _____ (Name)	Pill or Syrup Antibiotic ..... A Antimotility ..... B Zinc ..... C Other pill or syrup (Not antibiotic, antimotility or zinc) ..... G Unknown pill or syrup ..... H Injection Antibiotic ..... L Non-antibiotic ..... M Unknown injection ..... N Intravenous ..... O Home remedy / Herbal medicine ..... Q Other (*specify*) _____ X	
CA7. At any time in the last two weeks, has (*name*) had an illness with a cough?	Yes ..... 1 No ..... 2 DK 8	2⇨CA14 8⇨CA14
CA8. When (*name*) had an illness with a cough, did he/she breathe faster than usual with short, rapid breaths or have difficulty breathing?	Yes ..... 1 No ..... 2 DK 8	2⇨CA14 8⇨CA14
CA9. Was the fast or difficult breathing due to a problem in the chest or a blocked or runny nose?	Problem in chest only ..... 1 Blocked or runny nose only ..... 2 Both ..... 3 Other (*specify*) _____ 6 DK 8	2⇨CA14 6⇨CA14
CA10. Did you seek any advice or treatment for the illness from any source?	Yes ..... 1 No ..... 2 DK 8	2⇨CA12 8⇨CA12

CA11. FROM WHERE DID YOU SEEK ADVICE OR TREATMENT? *PROBE:* ANYWHERE ELSE? Circle all providers mentioned, but do NOT prompt with any suggestions. Probe to identify each type of source. If unable to determine if public or private sector, write the name of the place. _____ (Name of place)	Public sector Govt. hospital ..... A Govt. health centre..... B Govt. health post ..... C Village health worker..... D Mobile / Outreach clinic .....E Other public (specify)_____ H Private medical sector Private hospital / clinic .....I Private physician..... J Private pharmacy ..... K Mobile clinic ..... L Other private medical (specify) _____O Other source Relative / Friend ..... P Shop .....Q Traditional practitioner ..... R Other (specify) _____ X	
CA12. WAS (*name*) GIVEN ANY MEDICINE TO TREAT THIS ILLNESS?	Yes.....1 No .....2 DK 8	 2⇨CA14 8⇨CA14
CA13. WHAT MEDICINE WAS (*name*) GIVEN? *PROBE:* ANY OTHER MEDICINE? *Circle all medicines given. Write brand name(s) of all medicines mentioned.* _____ (Names of medicines)	Antibiotic Pill / Syrup ..... A Injection..... B Anti-malarials ..... M Paracetamol / Panadol / Acetaminophen..... P Aspirin .....Q Ibuprofen..... R Other (specify) _____ X DK .....Z	
CA14. Check AG2: Child aged under 3? ☐ *Yes* ⇨ *Continue with CA15* ☐ *No* ⇨ *Go to UF13*		
CA15. THE LAST TIME (*name*) PASSED STOOLS, WHAT WAS DONE TO DISPOSE OF THE STOOLS?	Child used toilet / latrine..... 01 Put / Rinsed into toilet or latrine..... 02 Put / Rinsed into drain or ditch ..... 03 Thrown into garbage (solid waste) ..... 04 Buried ..... 05 Left in the open ..... 06 Other (specify) _____ 96 DK 98	
UF13. *RECORD THE TIME.*	Hour and minutes..... ___ ___ : ___ ___	

UF14. *Is the respondent the mother or caretaker of another child age 0-4 living in this household?*

☐ *Yes ⇨ Indicate to the respondent that you will need to measure the weight and height of the child later. Go to the next QUESTIONNAIRE FOR CHILDREN UNDER FIVE to be administered to the same respondent*

☐ *No ⇨ End the interview with this respondent by thanking him/her for his/her cooperation and tell her/him that you will need to measure the weight and height of the child*

Check to see if there are other woman's or under-5 questionnaires to be administered in this household.

Move to another woman's or under-5 questionnaire, or start making arrangements for anthropometric measurements of all eligible children in the household.

ANTHROPOMETRY		**AN**
After questionnaires for all children are complete, the measurer weighs and measures each child. Record weight and length/height below, taking care to record the measurements on the correct questionnaire for each child. Check the child's name and line number on the household listing before recording measurements.		
AN1. *Measurer's name and number:*	Name_____ ___ ___	
AN2. *Result of height / length and weight measurement*	Either or both measured .....1 Child not present .....2 Child or mother/caretaker refused.....3 Other (specify) _____ 6	 2⇨AN6 3⇨AN6 6⇨AN6
AN3. *Child's weight*	Kilograms (kg) ..... Weight not measured..... 99.9	
AN4. *Child's length or height* Check age of child in AG2: ☐ Child under 2 years old. ⇨ Measure length (lying down). ☐ Child age 2 or more years. ⇨ Measure height (standing up).	Length (cm) Lying down..... 1 __ __ __ . __ Height (cm) Standing up..... 2 __ __ __ . __ Length / Height not measured..... 9999.9	
AN5. *Oedema* Observe and record	Checked Oedema present .....1 Oedema not present .....2 Unsure.....3 Not checked (specify reason) _____ 7	
AN6. Is there another child in the household who is eligible for measurement? ☐ Yes ⇨ Record measurements for next child. ☐ No ⇨ Check if there are any other individual questionnaires to be completed in the household.		

Interviewer's Observations

Field Editor's Observations

Supervisor's Observations

MICS

MICS

QUESTIONAIRE FOR TESTING WATER QUALITY

MICS5, Bangladesh 2012-13

WATER QUALITY		WQ
WQ1: Measurer name and number	_____ ___ ___	
WQ2: Cluster number from HH1	___ ___ ___ ___	
WQ3: Household number from HH2	___ ___	
WQ4: I WOULD LIKE TO TAKE SOME SAMPLES OF THE WATER YOU DRINK IN YOUR HOUSE TO TEST FOR ARSENIC. CAN YOU PLEASE PROVIDE ME WITH A GLASS OF DRINKING WATER, WHICH YOU WOULD GIVE TO A CHILD?	Yes.....1 No 2	1 ⇨WQ6
WQ5: WHY DO YOU NOT WANT TO PROVIDE SAMPLES FOR WATER TESTING?	Specify Reason _____	⇨End the interview
WQ6: *Observe how water for sample was collected.* *Record Observation*	Direct from source outside home ..... 1 Direct from source inside home. .....2 From filter inside home ....3 From uncovered storage container ....4 From covered storage container..... ...5 Unable to observe 6	
WQ7: FROM WHAT SOURCE DID YOU COLLECT THIS WATER?	Piped water Piped into dwelling.....11 Piped into compound, yard or plo.....2 Piped to neighbour.....3 Public tap / standpipe.....14 Tube Well, Borehole .....21 Dug well Protected well .....31 Unprotected well.....32 Water from spring Protected spring .....41 Unprotected spring.....42 Rainwater collection.....51 Tanker-truck.....61 Cart with small tank / drum.....71 Surface water (river, stream, dam, lake, pond, canal, irrigation channel).....81 Other (*specify*) _____96	
WQ8: HOW MUCH WATER DO YOU COLLECT IN A DAY FROM THIS SOURCE?	< 5 litres.....1 5-10 litres .....2 10-20 litres .....3 20-50 litres .....4 50-100 litres .....5 100-200 litres .....6 > 200 litres.....7 Don't Know.....8	

WQ9: *Conduct the Arsenic Test* *Record arsenic level (ppb) in household water sample* *(0, 10, 25, 50, 100, 200, 300, 500, or 1000)*	☐☐☐☐	
Discuss arsenic leaflet with respondent, interpreting results		
WQ9A. Check HH7C on Household Questionnaire Cover Page. Is the household selected for additional water testing? Check the Systematic Table, column 6, to confirm that additional water quality testing should be done. ☐ Yes ⇨ *Continue with WQ10* ☐ No ⇨ *Thank the respondent. The Questionnaire is complete.*		
ADDITIONAL WATER QUALITY TESTING *WQ10. Using the same glass of drinking water which was tested for arsenic, take a sterile 1 mL syringe and add 1 mL of water to each of two Compact Dry plates. Filter 100 mL of water through a sterile filter paper and place this in one of the Compact Dry plates. Close and label both H-XXXX-YY, where XXXX is the cluster number and YY is the household number.*		
WQ10A. *Ask if it is possible to visit the drinking water source from where the drinking water was collected?* ☐ Yes ⇨ *Collect water directly from this source and test it for arsenic and E. coli as done with the household samples. Label these Compact Dry plates S-XXXX-YY, where XXXX is the cluster number and YY is the household number.Continue with WQ11* ☐ No ⇨*Thank the respondent. The Questionnaire is complete*		
WQ11: *Conduct the Arsenic Test:* *Arsenic level (ppb) in source water sample* *(0, 10, 25, 50, 100, 200, 300, 500, or 1000)*	☐☐☐☐	

THE FOLLOWING INFORMATION WQ12 – WQ15 HAS TO BE RECORDED BY THE MEASURER AFTER 24-48 HOURS INCUBATION: *WQ12a to WQ13b should be completed for samples provided by the respondent.* *WQ14a to WQ15b should be completed for samples collected at actual water source*		
WQ12a: *Record number of red colonies in 1 mL household water sample*	☐☐☐	
WQ12b: *Record number of blue colonies in 1 mL household water sample*	☐☐☐	
WQ13a: *Record number of red colonies in 100 mL household water sample*	☐☐☐	
WQ13b: *Record number of blue colonies in 100 mL household water sample*	☐☐☐	
Test results of samples collected from actual water source		
WQ14a: *Record number of red colonies in 1 mL source water sample*	☐☐☐	

WQ14b: *Record number of blue colonies in 1 mL source water sample*		
WQ15a: *Record number of red colonies in 100 mL source water sample*		
WQ15b: *Record number of blue colonies in 100 mL source water sample*		

WQ16. *Check the Systematic Table to see if the household is selected for Arsenic Duplicate Sampling (grey shading)* ☐ Yes ⇨ *Fill and label sample bottles from household and source and continue with WQ17* ☐ No ⇨ *Thank the respondent. The Questionnaire is complete.*		
WQ17. *Check the Systematic Table to see if the household is selected for E. Coli Duplicate Sampling and Blank (grey shading and *)* ☐ Yes ⇨ *Continue with WQ18* ☐ No ⇨ *Thank the respondent. The Questionnaire is complete.*		
WQ18 *Conduct the Arsenic Test:* *Arsenic level (ppb) in Blank* *(0, 10, 25, 50, 100, 200, 300, 500, or 1000)*		

Conduct E. coli test on Blank (record results after 24-48 hours)		
WQ19a: *Record number of red colonies in 1 mL Blank water sample*		
WQ19b: *Record number of blue colonies in 1 mL Blank water sample*		
WQ19c: *Record number of red colonies in 100 mL Blank water sample*		
WQ19d: *Record number of blue colonies in 100 mL Blank water sample*		

Measurer's Observation

(observations or specific indications regarding the samples)

Bangladesh Bureau of Statistics (BBS)
Statistics and Informatics Division, Ministry of Planning
Government of the People's Republic of Bangladesh
Dhaka, Bangladesh
www.bbs.gov.bd

Social Policy, Planning, Monitoring and Evaluation Section (SPPME)
United Nations Children's Fund (UNICEF)
BSL Office Complex
1, Minto Road, Dhaka-1000, Bangladesh

Telephone: (880-2) 55668088
Email: dhaka@unicef.org
www.unicef.org.bd

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