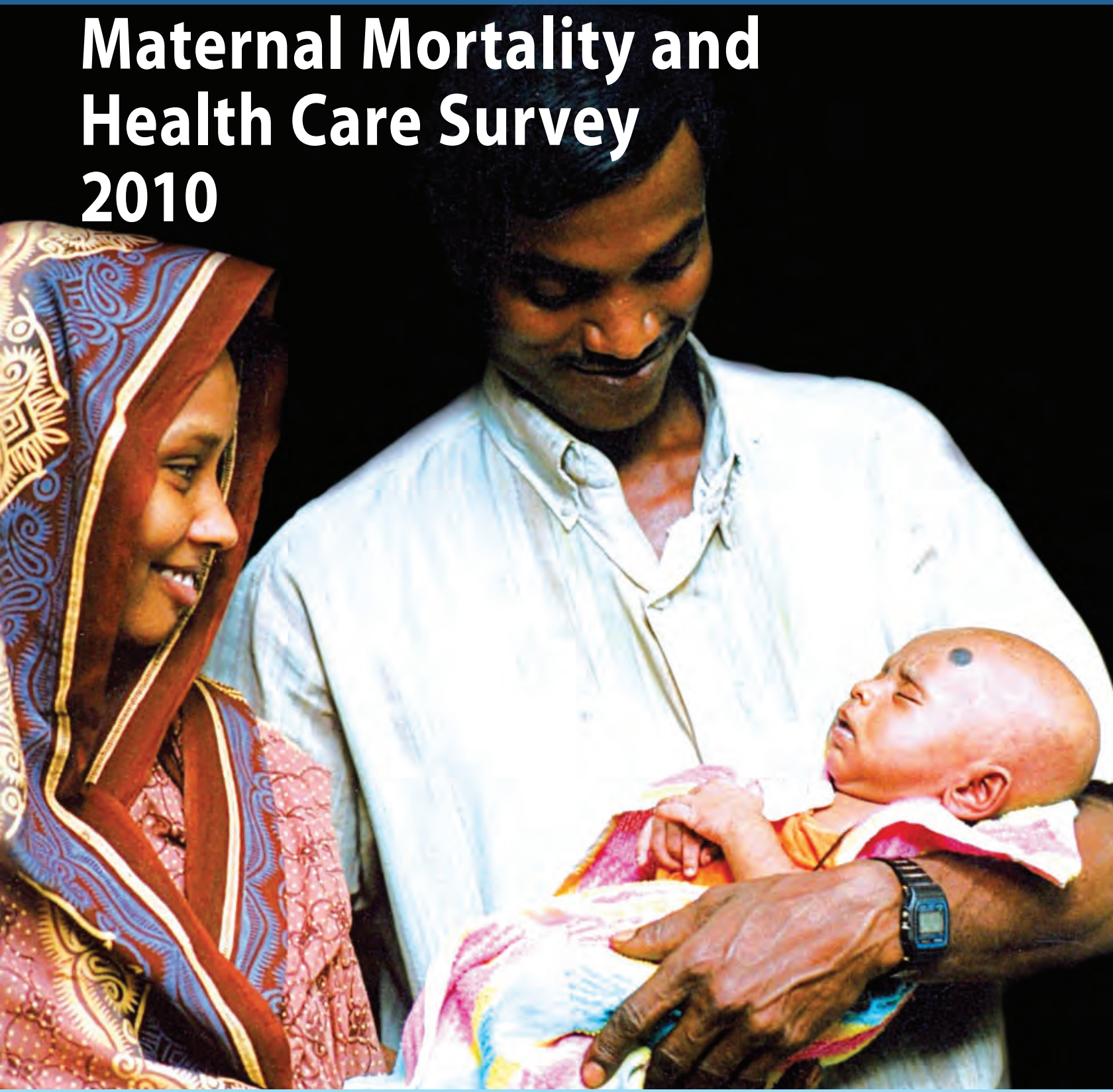
# Bangladesh

# Maternal Mortality and Health Care Survey 2010



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# Bangladesh

# Maternal Mortality and Health Care Survey 2010


**National Institute of Population Research and Training (NIPORT)**

**MEASURE Evaluation, UNC-CH, USA**

**icddr,b**



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*Data collection and data processing agencies:*

Associates for Community and Population Research (ACPR)
3/10 Block A, Lalmatia, Dhaka-1207, Bangladesh

Mitra and Associates
2/17 Iqbal Road, Mohammadpur, Dhaka-1207, Bangladesh

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

সিনিয়র সচিব
স্বাস্থ্য ও পরিবার কল্যাণ মন্ত্রণালয়
গণপ্রজাতন্ত্রী বাংলাদেশ সরকার

# FOREWORD

Bangladesh Maternal Mortality and Health Care Survey (BMMS) 2010 is a large national survey designed to assess progress toward MDG-5 by providing national estimate of status of maternal mortality in Bangladesh from 2001. The survey also aims to identify causes of maternal and non-maternal deaths to adult women and to provide information on birth planning, women's experience with antenatal, delivery, postnatal, and emergency obstetric care.

BMMS 2010 estimate shows that Bangladesh is on track to achieve MDG-5. The Maternal Mortality Ratio (MMR) declined significantly by around 40 percent from 322 to 194 between BMMS 2001 and BMMS 2010. Despite impressive decline of deaths, haemorrhage and eclampsia are two leading causes responsible for more than half of all maternal deaths. However, death occurrences have been shifted towards the post-partum period and now almost two-thirds of maternal deaths occur after delivery.

The information and interpretations presented in this report will be instrumental in determining strategic directions for the Health, Population, and Nutrition Sector Development Program (HPNSDP). This will also help in developing crucial indicators for monitoring policies and programs and for updating and implementing National Maternal Health Strategy. The survey will greatly contribute towards implementing national priorities and global commitment for better health of mothers and save their lives.

The need for further analysis of huge data bank created under BMMS 2010 is always there. I hope that researchers and program personnel will seize the opportunity to utilize the invaluable resources for providing more information and programmatic directions for improvement of maternal health programs.

The contributors of this report deserve special thanks. I deeply appreciate the huge efforts of the National Institute of Population Research and Training (NIPORT) in conducting BMMS 2010. I appreciate MEASURE Evaluation, University of North Carolina at Chapel Hill and icddr,b for providing technical assistance. The Associates for Community and Population Research (ACPR) and Mitra and Associates worked hard for the field survey. The contributions of US Agency for International Development (USAID) Bangladesh, the Australian Agency for International Development (AusAID), and the United Nations Population Fund (UNFPA) have been valuable indeed to accomplish this important survey.

Md. Humayun Kabir

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

# PREFACE

Bangladesh Maternal Mortality and Health Care Survey (BMMS) 2010 is the second survey of this kind conducted in Bangladesh through a collaborative effort of the National Institute of population Research and Training (NIPORT), MEASURE Evaluation, University of North Carolina at Chapel Hill, USA and icddr,b. The first such national level survey (BMMS-2001) was conducted in 2001. Associate for Community and Population Research (ACPR) and Mitra and Associates, two Bangladeshi private research firms, collected the survey data. The financial support for the survey was provided by the Government of the People's Republic of Bangladesh, the US Agency for International Development (USAID)/Bangladesh, the Australian Agency for International Development (AusAID) and the United Nations Population Fund (UNFPA).

The Government of Bangladesh is committed to achieving for Millennium Development Goal 5: reducing maternal mortality ratio (MMR) to 143 deaths per 100,000 live births by 2015 and increasing skilled attendance at birth to 50 percent by 2016. BMMS 2010 was conducted to assess the success of the country program towards these targets. The main objective of BMMS 2010 was to provide updated national estimates of MMR, specific causes of maternal and non-maternal deaths among adult women and utilization of maternal health services in Bangladesh.

This report is intended to provide policy makers and program managers with a comprehensive look at levels and changes in key indicators on maternal mortality and utilization of maternal health services at national level. I believe the survey results will enhance the understanding of the most important issues of national maternal health program and establish the ground work for further analysis of BMMS 2010 data.

The members of the Review Committee (RC) included professionals from government, non-government, international organizations, as well as researchers and professionals working for the maternal health program, who contributed valuable comments during major phases of the survey. I would like to extend my heartiest thanks and appreciations to the members of the RC for their invaluable contribution and commitment at different phases in the conduct of survey.

I acknowledge the joint effort of the organizations and individuals who made great contributions towards the success of the survey. I would like to acknowledge with high appreciation the contributions of the individual authors for their contributions to BMMS 2010. I express my deepest gratitude to the professionals of NIPORT for their untiring effort to carry out BMMS 2010 survey in time. I am grateful to MEASURE Evaluation, UNC-CH and icddr,b for their technical assistance at every stages of survey. USAID/Bangladesh, AusAID and UNFPA also deserve special thank for their financial support in accomplishing the entire survey. I sincerely extend my thanks to ACPR and Mitra and Associates for the completion of the field work in time. Finally, with gratitude, I acknowledge the cooperation of the thousands of respondents of the survey who in fact provided basic information and that laid foundation of this comprehensive report.

(Shelina Afroza, PhD)

# CONTRIBUTORS TO THE REPORT

**NIPORT**

Subrata K. Bhadra
Shahin Sultana

**icddr,b**

Shams-El-Arifeen
Jannatul Ferdous
Quamrun Nahar
Peter Kim Streatfield

**MEASURE Evaluation**

Ahmed Al-Sabir
Nitai Chakraborty
Kenneth Hill
Peter M. Lance
Katharine Lee McFadden
Han Raggers

**USAID Bangladesh**

Kanta Jamil

# SUMMARY OF KEY FINDINGS AND IMPLICATIONS

## INTRODUCTION

The Government of Bangladesh has invested in a maternal health program with support from a number of development partners. Committed to achieving the Millennium Development Goal (MDG) 5, Bangladesh's targets are to reduce the maternal mortality ratio (MMR) to 143 per 100,000 live births by 2015, and to increase skilled attendance at birth to 50 percent by 2016. In the last decade, the health, nutrition, and population sector program of Bangladesh has adopted a national strategy for maternal health focusing on Emergency Obstetric Care (EmOC) for reducing maternal mortality, focusing especially on early detection and appropriate referral of complications, and improvement of quality of care. Since 2001, the government embarked on program to retrain existing government community health care workers as Community Skilled Birth Attendants (CSBA) as the primary operational strategy for achieving the 2015 target of 50 percent skilled attendance at birth.

## SURVEY OBJECTIVES

The second Bangladesh Maternal Mortality and Health Care Survey was conducted in 2010 (BMMS 2010) with the major objectives being to provide a maternal mortality estimate for the period 2008-2010, to determine whether MMR has significantly declined from 1998-2001, and to ascertain the causes of maternal death. The first such national level survey was conducted in 2001 (BMMS 2001).

The specific objectives of BMMS 2010 were:

1. To estimate the Maternal Mortality Ratio (MMR) for the period 2008-2010;
2. To identify specific causes of maternal deaths;
3. To assess the level of use of antenatal care, post natal care, skilled birth attendant at delivery in 2005, 2006, 2007, 2008, 2009, and changes in use rates across the five years preceding interview;
4. To collect information on birth planning; and
5. To assess the experience of and care seeking for maternal complications and changes in care-seeking patterns from 2005-2009.

## IMPLEMENTATION

The survey was carried out in a national sample of 175,000 households, interviewing ever-married women 13 to 49, as well as investigating any deaths to women of reproductive ages, especially maternal and pregnancy-related deaths. Data collection for the survey was conducted from 18 January to 6 August, 2010.

### Definitions

Maternal Death: Death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management, but not from accidental or incidental causes.

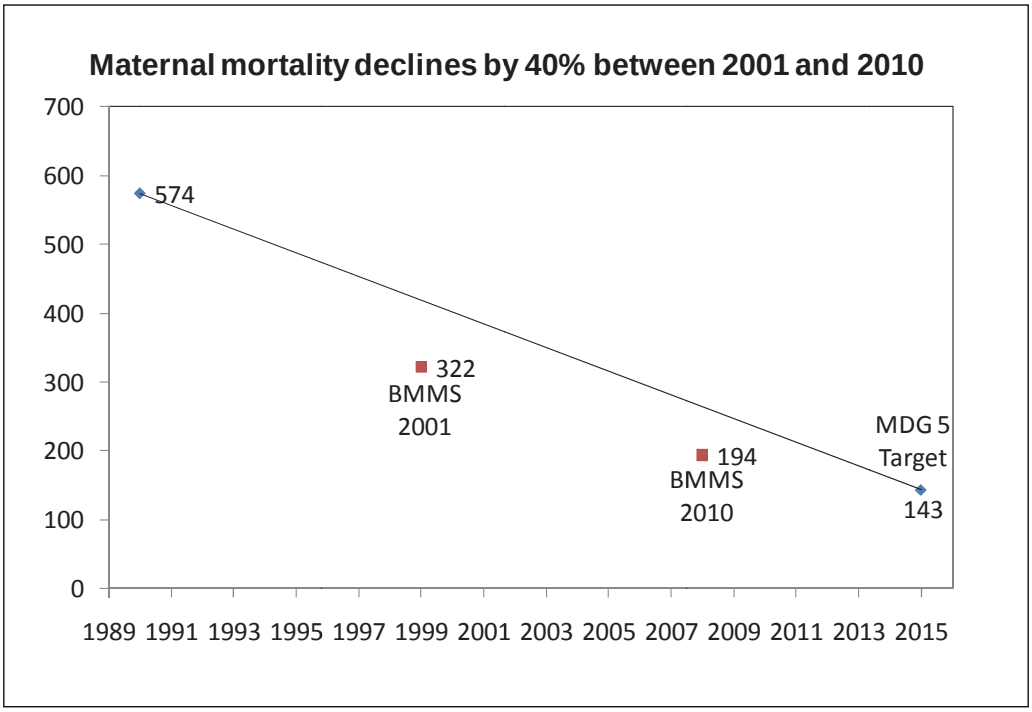
Pregnancy-related Death: Death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the cause of death.

Direct obstetric death: Deaths resulting from obstetric complications of the pregnant state (pregnancy, labor, and puerperium) from interventions, omissions, incorrect treatment, or from a chain of events resulting from any of the above.

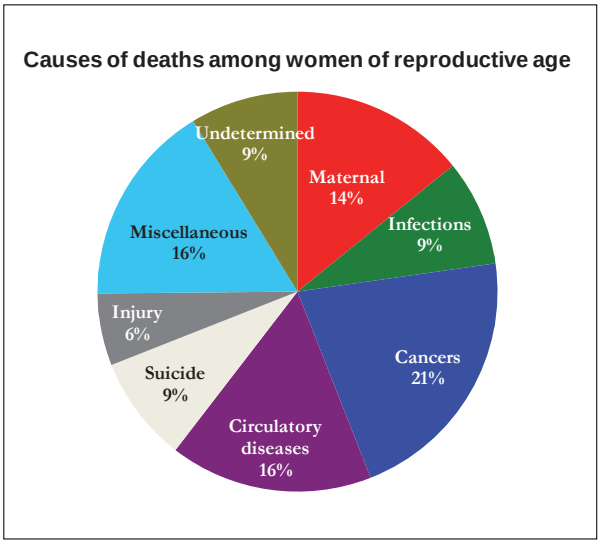
Indirect obstetric death: Deaths from a previously existing disease or a disease that developed during pregnancy and which was not due to direct obstetric causes, but which was aggravated by physiologic effects of pregnancy.

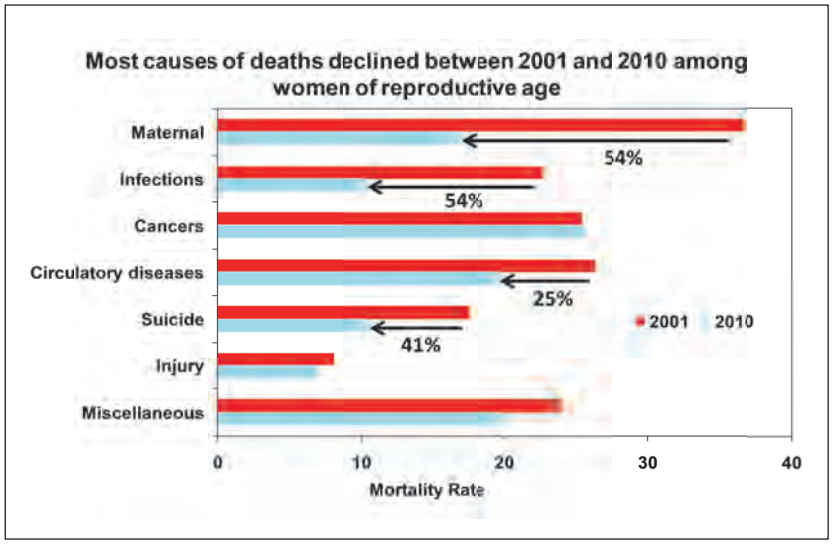
## *MATERNAL MORTALITY AMONG WOMEN IN THE REPRODUCTIVE AGES: LEVELS, TRENDS, AND CAUSES*

Maternal mortality declined from 322 in 2001 to 194 in 2010, a 40 percent decline in 9 years. The rate of decline was at an average of about 5.5 percent per year, compared to the average annual rate of reduction of 5.4 percent required for achieving MDG5. Bangladesh appears to be on track to achieving the primary target of MDG 5.

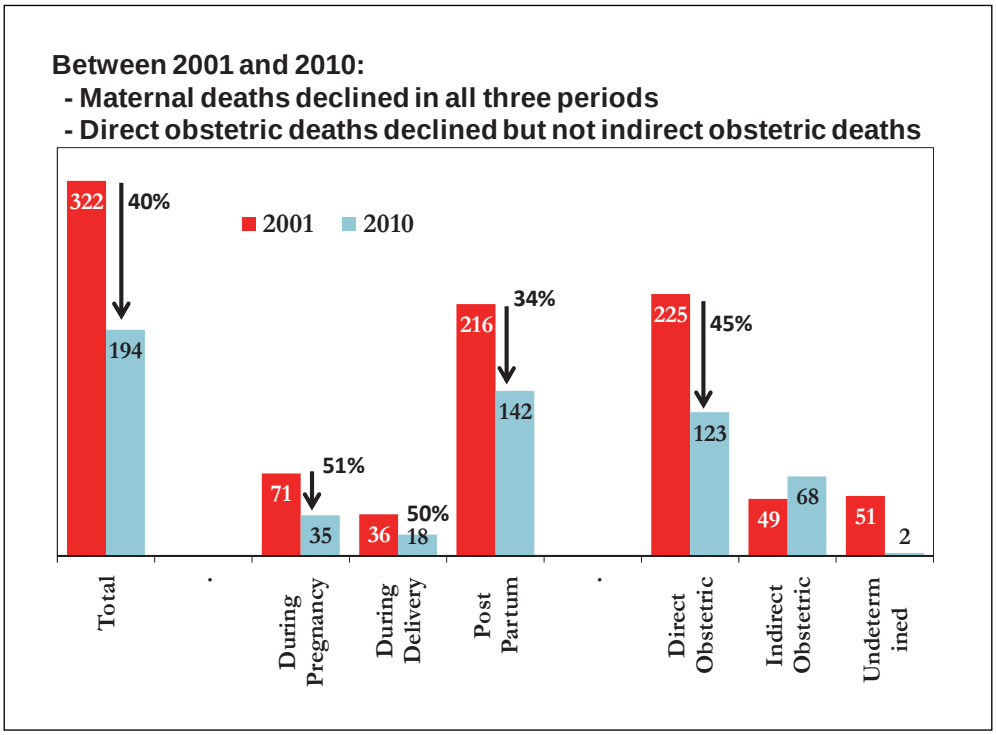



Comparing BMMS 2001 and 2010 show that overall mortality among women in the reproductive ages has consistently declined in all ages during these 9 years. Cancers (21 percent), circulatory diseases (16 percent), and maternal causes (14 percent) are responsible for more than half of all deaths among Bangladeshi women in the reproductive ages. While there have been large declines in deaths due to circulatory diseases and maternal causes, mortality rates due to cancers show no change. Deaths due to infections and suicides have also declined, with the latter now responsible for 9 percent of deaths among women in the reproductive ages.

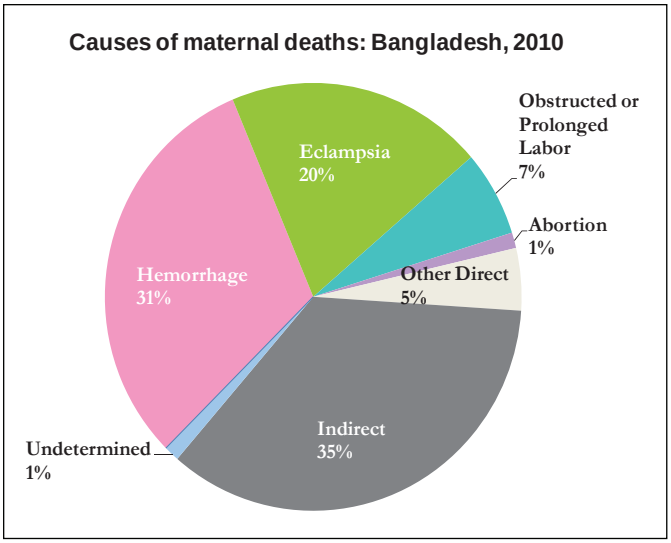


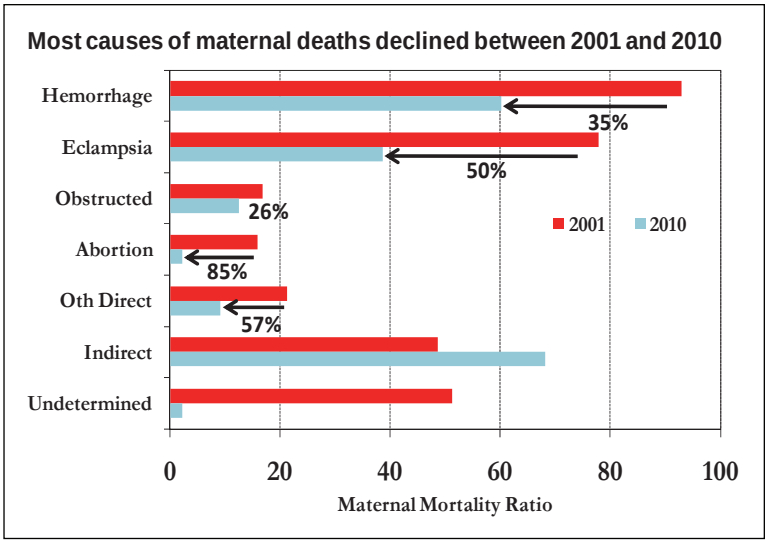



Consistent with the trend in overall mortality among women in the reproductive ages, maternal mortality has also declined in almost all ages between the two surveys. The entire decline in MMR has been due to reductions in direct obstetric deaths. Mortality due to indirect obstetric causes has increased somewhat. Maternal mortality during pregnancy and during delivery has also declined, by 50 percent. In contrast, the reduction in post partum maternal deaths was only by a third.




We observed substantial declines in all causes of direct obstetric deaths between the 2001 and 2010 surveys. In BMMS 2010, hemorrhage and eclampsia were the dominant direct obstetric causes of deaths, together responsible for more than half of the MMR. Obstructed or prolonged labor (seven percent) and abortions (one percent) were the other direct obstetric causes of deaths. We note that abortion-related deaths declined from five percent of MMR in 2001 to about one percent of MMR in 2010. The 2010 survey also did not identify any case of infection as an underlying maternal cause of death. Indirect obstetric causes of deaths accounted for about one-third (35 percent) of maternal deaths.



## Data Sources

Sisterhood: Each married woman asked about her sisters' age if still alive, age at death, and year of death if dead. For any sister who died between the ages of 10 and 49, additional questions were asked to ascertain whether she was pregnant, delivering, or within two months of delivery at the time of death.

Household Deaths: Each household asked if any death occurred since October 2006. If yes, name, sex, and age at death were recorded. For deaths of women aged 13 to 49, additional questions were asked to ascertain whether she was pregnant, delivering, or within two months of delivery at the time of death.

Household Deaths with Verbal Autopsy: For all household deaths of women aged 13 to 49, a verbal autopsy was applied. Maternal deaths were identified on basis of review by two (or three) physicians.

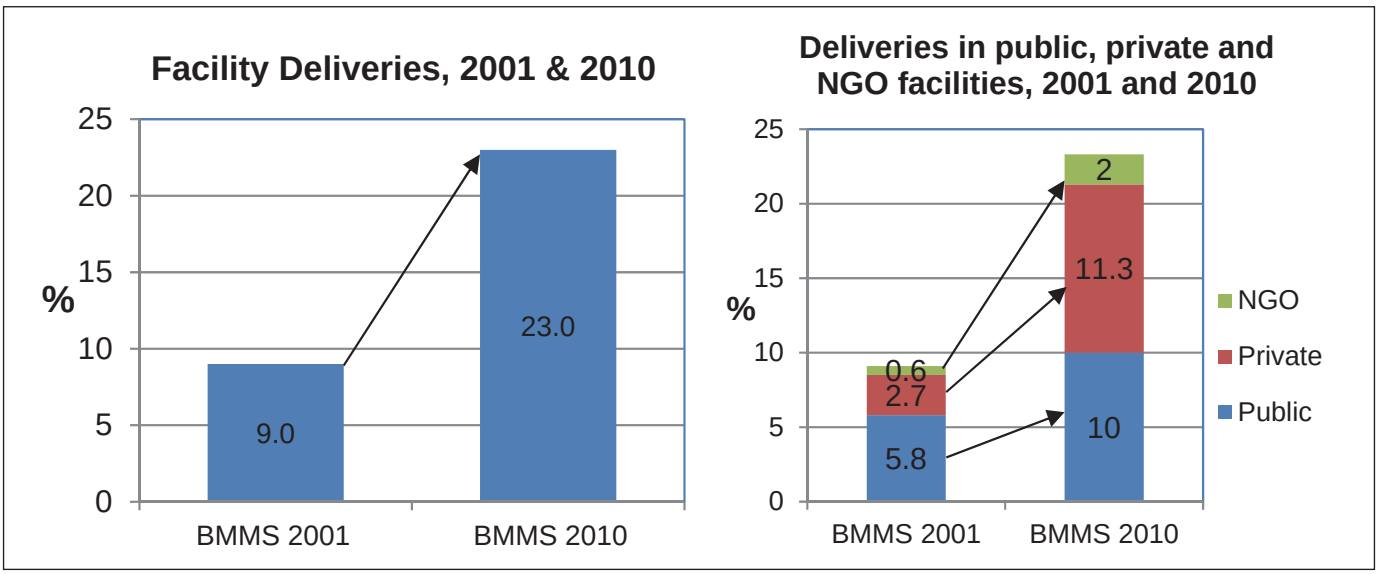
## WHY HAS MATERNAL MORTALITY (MMR) DECLINED BY 40 PERCENT BETWEEN 2001 AND 2010?

The risk of a maternal death is now down to 1 in 500 births, and thus a rare event. However our ability to predict which women may experience potentially fatal obstetric complications is poor. Thus we encourage all pregnant women to minimize risk by delivering with a skilled birth attendant, preferably in a facility, and under certain circumstances to have a C-section. Irrespective of whether or not a pregnant woman plans to deliver in a facility, considerable effort has gone into promoting prompt treatment seeking for obstetric complications if they arise.

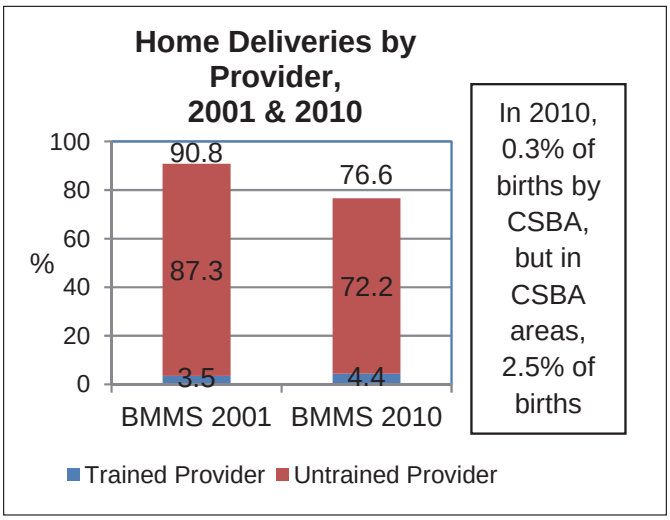
In the BMMS 2001 the two major causes, accounting for over half of maternal deaths, were hemorrhage (29 percent) and eclampsia (24 percent). Both of these normally require management at facility by a medically trained provider. In BMMS 2010 it is seen that very substantial declines have occurred in both these causes — a 35 percent reduction in hemorrhage and a 50 percent reduction in eclampsia. This implies greater use of facilities for delivery, and for management of obstetric complications. Does the evidence support this?

### *1. Behavior Change in Seeking Health Care*

*Facility Delivery*: After persisting at historically low levels, the proportion of women delivering in a facility has finally begun to rise in the past decade, more than doubling from 9 percent in 2001 to 23 percent in 2010. Much of that increase has come through the private sector (2.7 percent to 11.3 percent), although the public sector has seen some increase from a higher base (5.8 percent to 10.0 percent). NGOs remain a minor contributor for deliveries (0.6 percent to 2.0 percent), though they are more important for ANC.



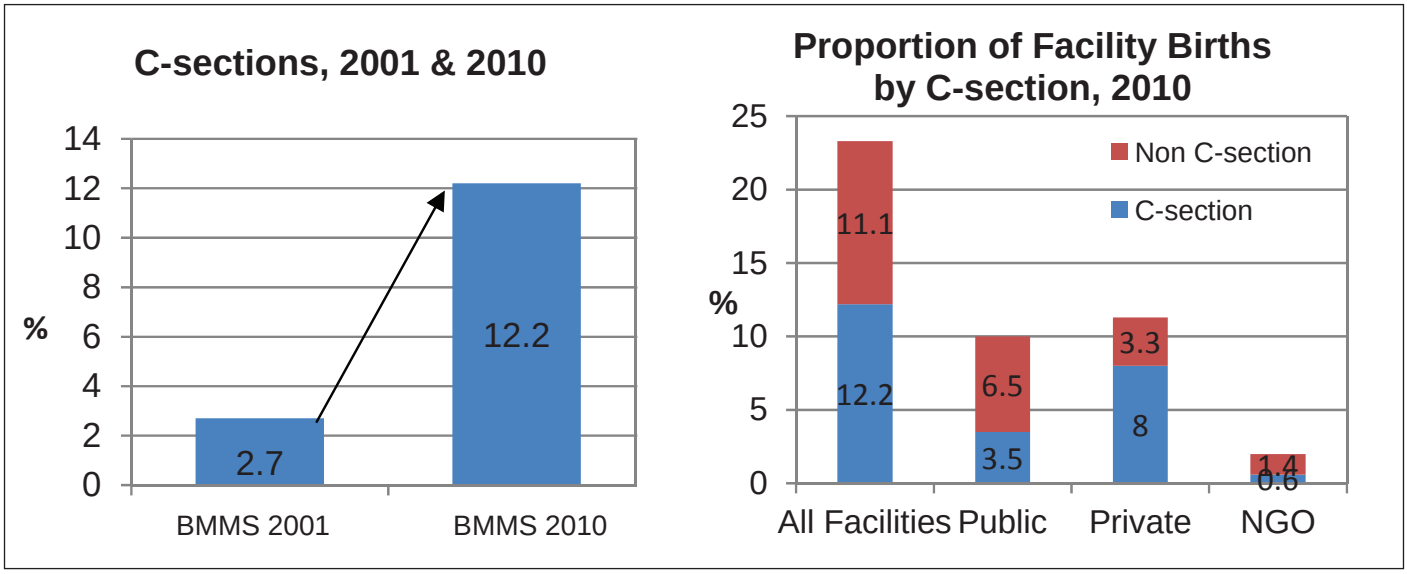
*Skilled Birth Attendant at Delivery (SBA)*: As facility delivery has increased, it would be expected that births with SBA would increase, and it has doubled (12.2 percent to 26.5 percent). Only a small proportion of women use a medically trained provider to attend deliveries at home (4.4 percent) which has changed little since 2001 (3.5 percent). Almost the entire increase in skilled attendance at delivery has been through facility deliveries — which suggests that strategic investments in improving services at health facilities may provide the greatest and quickest returns in terms of skilled attendance at delivery. The CSBA program cannot be expected to show a marked increase in attendance at delivery by CSBA (0.3 percent of women report CSBA assisting, although in areas with a CSBA this is higher, at 2.5 percent). However, it is highly unlikely that even a strengthened CSBA program can contribute substantially towards the 50 percent MDG 5 target for skilled birth attendance. CSBAs will likely have a continued role in serving communities with difficult access.




While the rise in facility delivery is welcome, it still leaves some 2.4 million births at home annually. But the decline in maternal deaths suggests that many pregnancies with complications may now be selectively going to facilities, as is intended.

Some hemorrhage cases can be avoided by proper management of the placenta (e.g., use of oxytocics to expel it rather than pulling on the umbilicus; avoiding excessive use of oxytocics which may rupture the uterus), but eclampsia cannot always be managed with magnesium sulphate (or diazepam). Where complications arise, C-section may be needed to avoid fatal consequences.

*C-section*: There has been a five-fold increase in use of C-section (2.7 percent to 12.2 percent), with much of the increase occurring in the private sector, which has implications in regards to access for the poor.

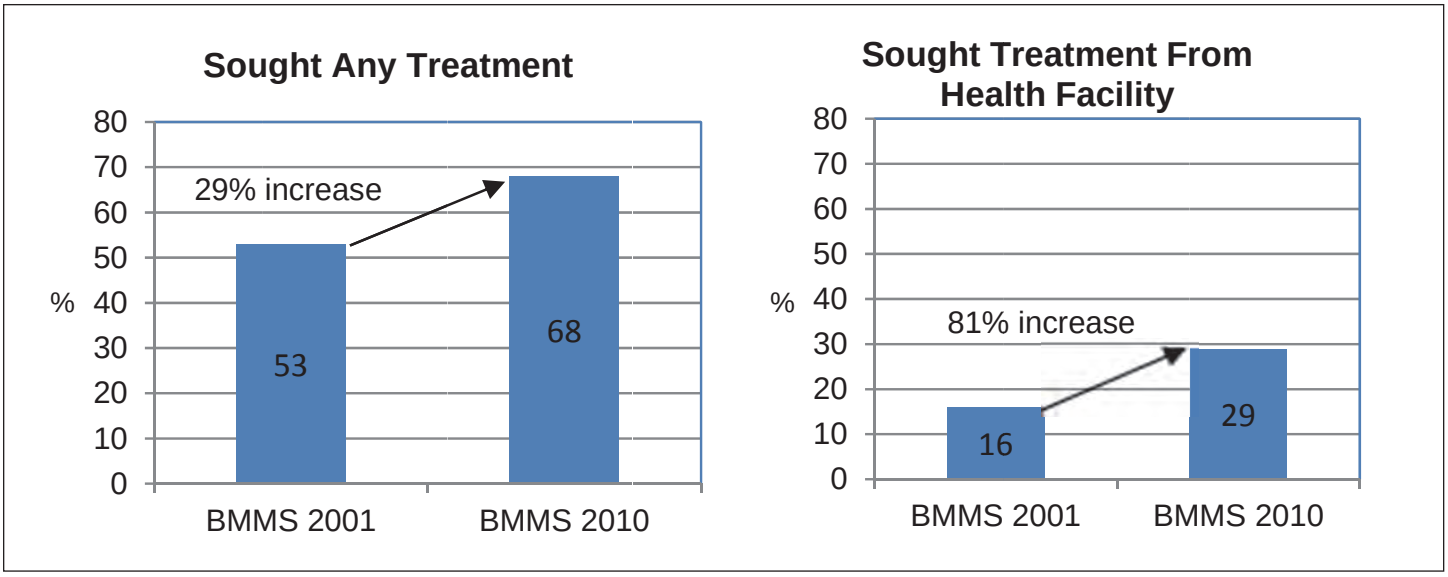


This intervention should reduce mortality from prolonged labor cases, and eclampsia where use of Magnesium Sulphate does not reduce the problem. Not all women who experienced these complications were managed through C-section, though 15 percent of those with convulsions did, and 26 percent of those with elevated blood pressure did.

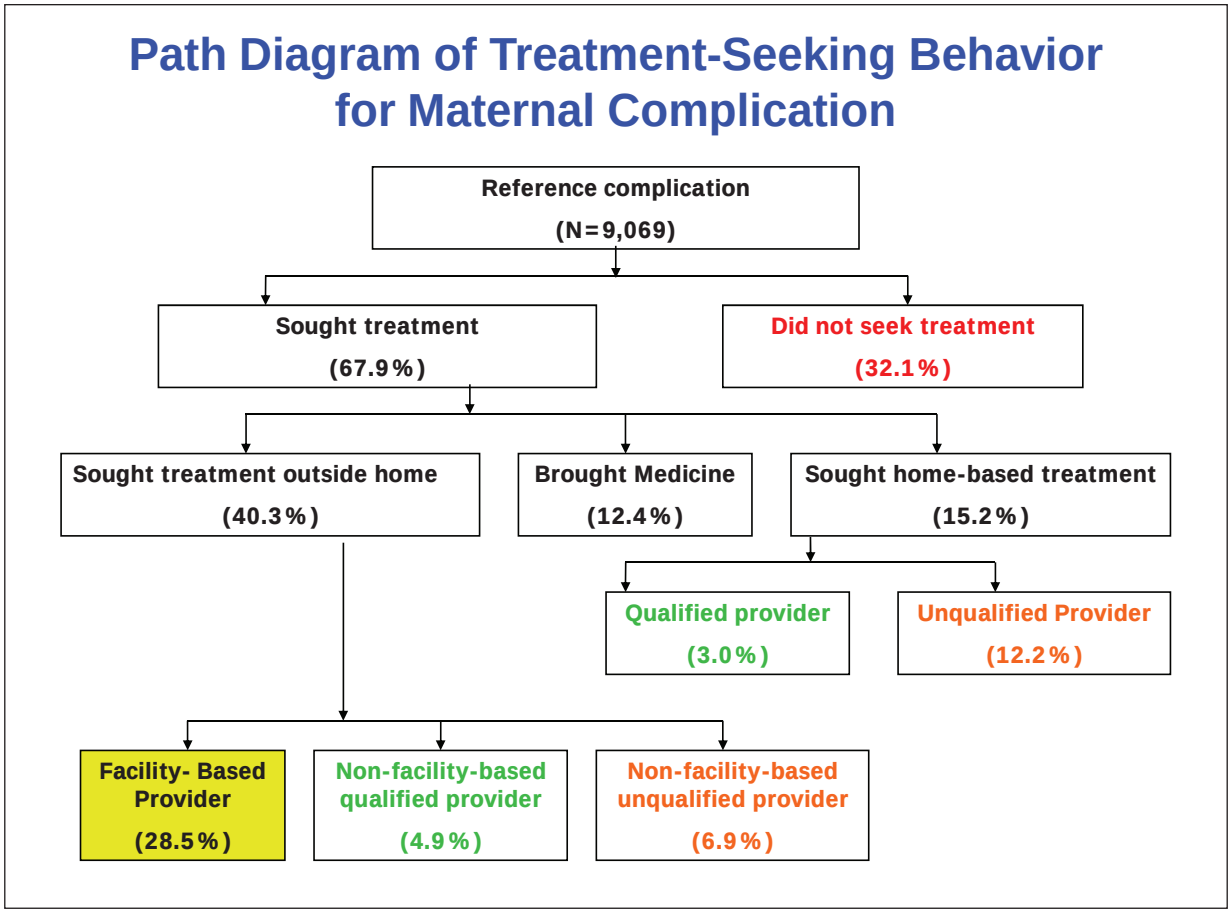
There is a concern that while some women who need a C-section may not get it, also some women who do not need it are getting it unnecessarily. Among women who reported no complications, 9.4 percent had a C-section, presumably for the convenience of the women or the provider. The provision of C-sections generates income for many providers, two-thirds of which are done in the private sector, so care must be taken not to allow commercialization of this valuable procedure, to the exclusion of the poor. It is reassuring to note that the five-fold increase among the poorest quintile was on a similar scale to the overall increase, but from a much lower base (0.5 percent of the poorest versus 2.7 percent overall).

Apart from the welcome increase in facility deliveries, there is clear evidence that women suffering obstetric complications are increasingly seeking treatment, particularly outside the house.

*Treatment Seeking for Complications*: There has been a substantial increase in women experiencing obstetric complications seeking treatment (53 percent to 68 percent). This includes home-based treatment, purchasing medicines from pharmacies, and treatment seeking outside the home. Seeking treatment from a facility has greatly increased (16 percent to 29 percent), indicating that both awareness and referral systems are improving. This positive trend is consistent across the economic scale. However, not all treatment seeking is effective, as the qualitative study showed that many of the maternal death cases sought treatment at a non-CEmOC facility which could not manage their problem (e.g. hemorrhage).




A substantial proportion of women, particularly among the poor, seek treatment by having someone purchase medicine (presumably at a pharmacy). This may not be a negative trend, as the survey shows a major decline in deaths from infections to women of reproductive age (down 54 percent from 2001 to 2010). This parallels the dramatic decline in the past decade in child mortality, part of which may be explained by greater availability and effective use of antibiotics for infections.




### *WHAT ACCOUNTS FOR THESE BEHAVIORAL CHANGES?*

(a) Improved Access to Health Programs

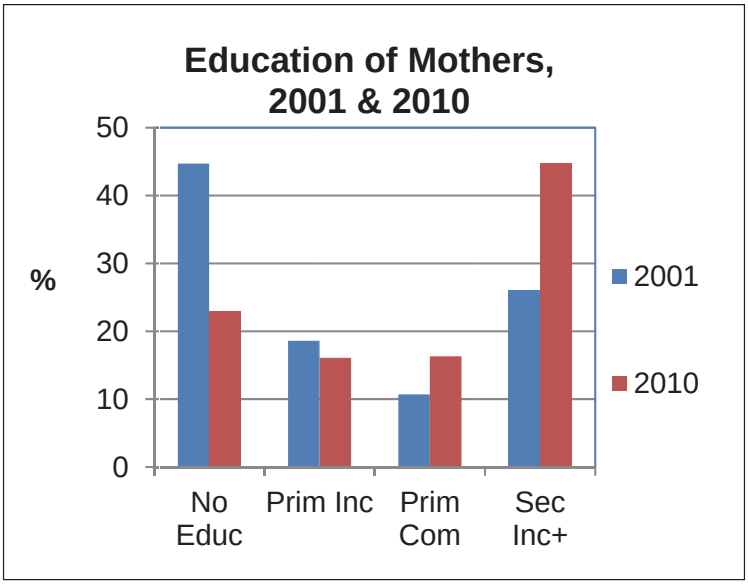
Up to 2000 there was a major effort to upgrade for comprehensive EmOC some 59 District Hospitals (DH) and 60 MCWCs, many of which are located at district headquarters. At the time of the 2001 BMMS, three Upazila Health Complexes (UHC) were also offering CEmOC. By 2010, the number of UHCs offering CEmOC had increased to 132, and MOHFW was upgrading 1,500 Union Health and Family Welfare Centers. This definitely improved availability outside the district headquarters (Sadar) Upazilas where the DHs and MCWCs were concentrated. Further analysis is needed to determine if this wider availability translated into greater use of CEmOC facilities.

There is evidence from the qualitative study that better communications, particularly the widespread availability of mobile phones, has contributed to more rapid contact with service providers—though not always the desired medically qualified providers, as sometimes contact was made with village doctors who were unable to resolve obstetric complications. Overall, improvements in road communications seem to have increased the use of facilities, though further spatial analysis of travel times, etc., will be needed to confirm this. Health behaviors are not simply determined by the availability of facilities and services, but are also influenced by socio-economic factors.

(b) Higher Education Levels

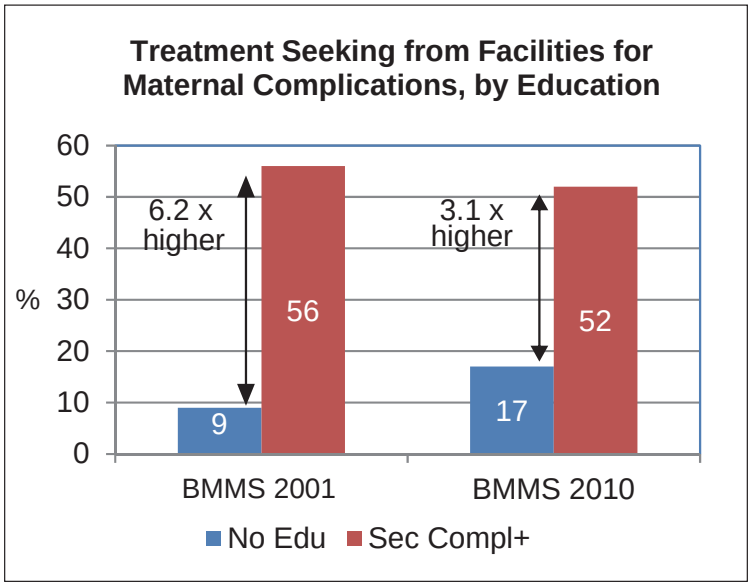
Globally, higher female education is associated with behaviors which reduce the risk of maternal (and child) mortality. The investments made by the Government (and some NGOs) over the past several decades in female primary and secondary education are starting to show positive impacts on risk behaviors.

The levels of education of recent mothers have risen dramatically in the past decade as well educated young women enter their childbearing years. The proportion of mothers with no education has halved since 2001, and the proportion with secondary schooling has nearly doubled. It is estimated that this trend alone has contributed to the impressive increases in facility delivery (25 percent of the increase), in the use of medically trained attendants at delivery (33 percent), and in treatment seeking for obstetric complications.




(c ) Increased Awareness

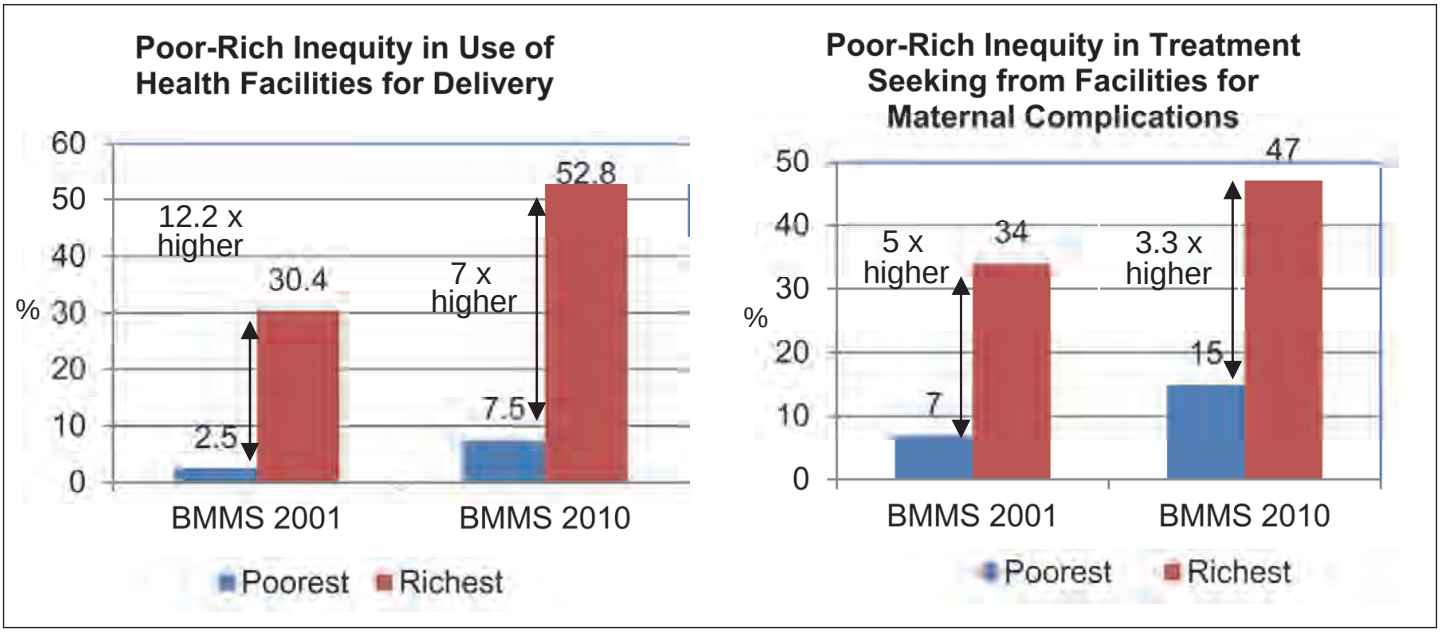
Not only are there fewer uneducated women giving birth, but among the uneducated, their awareness and behavior is changing positively. For example, seeking care for complications at a facility has doubled (8.6 percent to 16.9 percent) among uneducated women, while remaining unchanged among women with secondary plus education (56.1 percent to 52.2 percent). This differential improvement is reducing inequities by education.




(d) Better Economic Conditions

Bangladesh has undergone an improvement in overall economic wellbeing since 2001 (GNI pc up from $350 in 2000 to $550 in 2008), which is reflected in better housing, greater access to electricity, and presumably greater ability to mobilize funds for medical emergencies. This will be reflected in increases in many of the indicators among the poorest.

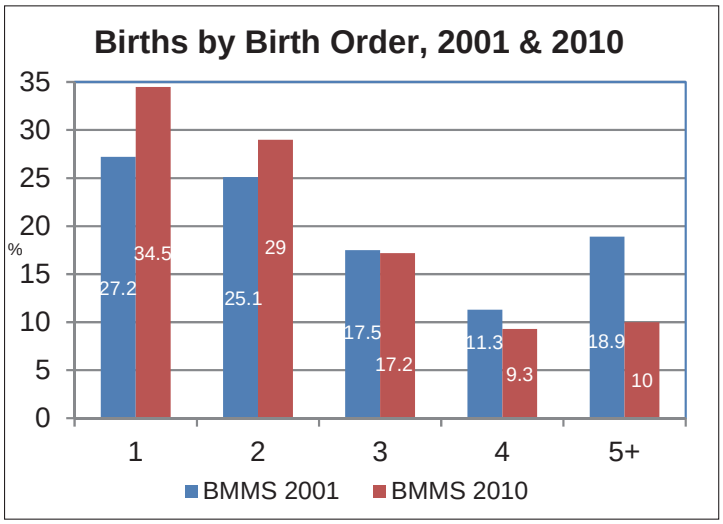
Virtually all indicators of use of health services by the poorest quintile show considerable improvement and reductions in inequity between rich and poor, from a tripling of facility delivery (2.5 percent in 2001 to 7.5 percent in 2010, see figure below), to use of medically trained assistance at delivery (3.6 percent to 9.2 percent), to seeking care for complications (7 percent to 15 percent). However, we need to be cautious that while the Rich:Poor ratio has decreased from 5 to 3.3 (below), the absolute gap between rich and poor remains substantial (15 percent versus 47 percent).

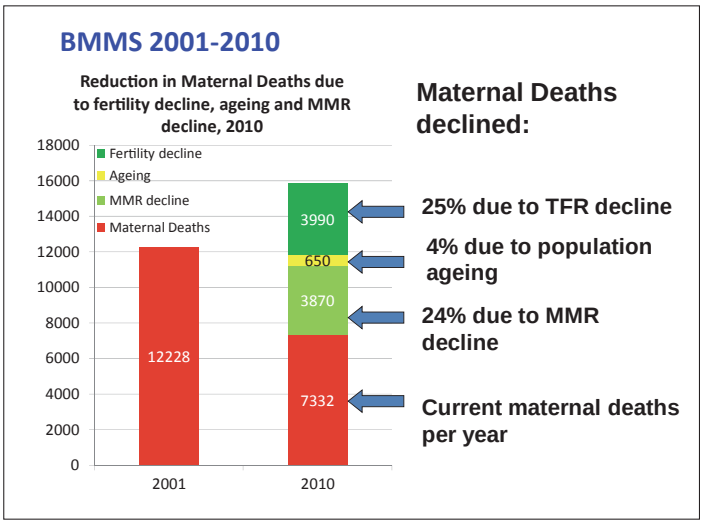



## 2. Demographic Factors

Between BMMS 2001 and BMMS 2010 the Total Fertility Rate fell from 3.2 to 2.5, that is a 22 percent decline in 9 years. The fall in fertility has some implications on reductions of risks of maternal deaths. The risk of maternal mortality increases as maternal age and order of the pregnancy rise. As fertility has fallen, the proportion of births to women of higher parities has fallen: e.g., birth order 4+ down from 30 percent to 19 percent, etc. (see figure). This shift away from high parity births, which are at high mortality risk, reduces the overall risk of maternal deaths.

In summary, compared to potential numbers of maternal deaths, the reduced annual number of 7,332 has been attained by a 25 percent reduction due to fertility decline (see figure below), mainly by a shift to low parity, lower risk births. Of course, the decline in MMR has also contributed to the overall reduction in numbers of maternal deaths, as discussed above.



## Major Findings

- Bangladesh appears to be on track to achieving MDG 5.
- Maternal mortality declined in Bangladesh by 40 percent in the last 9 years to 194 per 100,000 live births.
- The main reasons for this decline in maternal mortality are:
  - Fertility reductions reduced the proportion of higher risk high parity births;
  - The use of facilities for deliveries increased from 9 percent to 23 percent and use of facilities for maternal complication increased from 16 percent to 29 percent between BMMS 2001 and 2010. This was a consequence of improved access to care, substantially better education among women, improved awareness, and better economic conditions.

### *WHERE DO WE GO FROM HERE?*

Attaining MDG5 will require further efforts to achieve a further 25 percent reduction in MMR. What are the options?

- As fertility reduction has been as important as MMR reduction to this point, future gains in maternal mortality may be achieved by ensuring effective family planning to lower fertility to replacement level and below, which will shift births away from high parity higher risk births.
- The trend of rising education levels among young women can be expected to bring behavior changes which favour more use of skilled birth attendants, more facility deliveries, and more and quicker treatment seeking for complications.
- The decline in direct obstetric deaths is most likely the consequence of better care-seeking practices and improved access to higher level referral care. The higher proportion of maternal deaths now contributed by post-partum deaths (73 percent, up from 67 percent in 2001) suggest the need to prioritize the strengthening of access to treatment and improving referral systems and referral level care.
- On health interventions, the leading cause of maternal death in both surveys was hemorrhage and eclampsia. Several interventions have been tested and are being made available to reduce this problem. MOHFW has approved distribution of Misoprostol tablets to all pregnant women shortly before delivery to minimize the risk of hemorrhage. In addition, the use of delivery mats have proved to be effective at aiding attendants in determining if blood loss is 'excessive' around delivery. There is increasing the availability of Magnesium Sulphate for management of (pre-) eclampsia. Hopefully these interventions will become more widespread.
- It is necessary to understand the benefits of improved access to upgraded facilities at Upazila and Union levels. Plans are in place to expand such access, but staffing issues will need to be addressed, as well as essential logistics, including blood transfusion, being ensured. Finally, access for the poor is essential, and as relatively expensive interventions become more widely available, some kind of health insurance (possibly like Demand Side Financing or another model) may be needed to overcome the fear of heavy costs of life saving obstetric procedures.

## Contributors

Peter Kim Streatfield, Shams El Arifeen, Ahmed Al-Sabir, and Kanta Jamil.

## Summary

### *Chapter 1. Introduction — Objectives and Implementation*

- The major objectives of BMMS 2010 were to provide a national estimate of the maternal mortality ratio (MMR) for the period from 2007 to 2010, to identify the causes of maternal deaths, to assess maternal health-seeking behavior and compare them with Bangladesh Maternal Health Services and Maternal Mortality Survey (BMMS) 2001 to see changes that occurred since the 2001 survey.
- The survey was conducted under the authority of the National Institute of Population Research and Training (NIPORT), with technical assistance from MEASURE Evaluation, University of North Carolina, USA, the International Centre for Diarrhoeal Disease Research, Bangladesh (icddr,b), and USAID/Bangladesh. Mitra and Associates and Associates for Community and Population Research (ACPR) were responsible for data collection, data entry, and processing.
- The survey was conducted in a nationally representative sample of 175,600 households. In each selected household, ever-married women aged 13 to 49 were interviewed and any deaths among women of reproductive age, especially maternal and pregnancy-related deaths, were investigated. Field data collection was carried out from January 18 to August 6, 2010.
- In addition to ACPR and Mitra and Associates quality control teams, NIPORT and icddr,b quality control teams monitored the quality of field data collection. MEASURE Evaluation monitored the data quality through computer-based consistency checks.
- The data were processed on microcomputers using Census and Survey Processing System 4.0 (CSPro). To minimize error, a double data entry procedure was followed.
- The response rate was 97 percent.

# INTRODUCTION 1

## 1.1 SAFE MOTHERHOOD INITIATIVES IN BANGLADESH

Bangladesh has made remarkable progress in achieving certain goals related to child health, family planning and maternal health indicators in the last three decades. Infant mortality fell from 87 to 43 deaths per 1,000 live births at ages 0 to 11 months during the period from 1989 to 2011 while total fertility fell from 5.1 to 2.3 during the same interval (NIPORT et al., 2011). While progress was also made in improving maternal health status during that time period, it was relatively slow compared to achievements in child health and family planning. According to the latest Demographic and Health Survey, seven out of ten pregnant women have had at least one antenatal care (ANC) visit, 32 percent delivered with a medically trained provider, and one in three women received post-natal care (PNC) within two days of delivery.

Bangladesh has a long history of maternal and child health (MCH) activities dating back to 1946, but the first MCH unit was established in the Directorate of Health in 1952-1953 (NIPORT et al., 2003). Since then, various changes have been introduced in the provision of maternal health services. These include the integration of MCH services in the health arena, the use of a community-based approach to providing maternal health services by training traditional birth attendants (TBAs), and a more recent shift to a facility-based approach to safe motherhood with a primary focus on emergency obstetric care services (EmOC). Formulated in 2001, the Bangladesh National Strategy for Maternal Health focused explicitly on EmOC based on three key considerations: all pregnant women are at risk of developing life-threatening complications, most complications can neither be predicted accurately nor prevented, and once a woman develops complications, she needs prompt access to EmOC services if death or disability is to be prevented. Safe motherhood initiatives and programs implemented in Bangladesh prior to 2001 have been summarized in the Bangladesh Maternal Health Services and Maternal Mortality Survey (BMMS) 2001 final report (http://www.measuredhs.com/publications/publication-FR142-Other-Final-Reports.cfm).

During 2001 to 2011,[1] four special initiatives were introduced which have had a significant impact on the provision of maternal health services in the country. These include the upgrading of facilities for EmOC interventions, the Government of Bangladesh and United Nations Joint Initiative for "Accelerating Progress Towards Maternal & Neonatal Mortality & Morbidity Reduction," the Demand Side Financing (DSF) Maternal Health Voucher Scheme, and the Community Skilled Birth Attendant (CSBA) Program.

### *1.1.1* Emergency Obstetric Care Programs/Interventions

In line with global goals for the provision of safe motherhood, the Government of Bangladesh (GoB) initiated an EmOC program during the 4th Population and Health Project (1992-1997, then extended to 1998). In 1994, the Ministry of Health and Family Welfare (MOHFW) began upgrading existing government facilities in a phased-in manner under two development projects: a UNICEF-funded EmOC project to strengthen district hospitals and selected Upazila Health Complexes (UHCs) to provide comprehensive EmOC services, and a UNFPA-funded project to strengthen Maternal and Child Welfare Centers (MCWCs) to upgrade targeted MCWCs to provide comprehensive EmOC services. In 2000, a national target was set for one comprehensive EmOC and four basic EmOC facilities per 500,000 population, per World Health Organization (WHO) global targets. For Bangladesh, this target translates to about 260 comprehensive EmOC and 1,000 basic EmOC facilities nationwide.

Progress was made during the 5$^{th}$ and 6$^{th}$ planning cycles (Health and Population Sector Program 1998-2003 and Health, Nutrition and Population Sector Program 2003-2011) in the upgrading of facilities to provide comprehensive EmOC. Currently, all 59 district hospitals and 70 out of 97 MCWCs provide comprehensive EmOC services at the district level. At the tertiary level, 18 public sector medical college hospitals and four out of 25 specialized hospitals provide comprehensive EmOC services. To date, 133 out of 427 UHCs have been upgraded to provide comprehensive EmOC. While the planned implementation of comprehensive EmOC facilities meets the WHO criteria, recent performance data from Management Information System (MIS) of the Directorate General of Health Services (DGHS) show only 70-80 of the upgraded UHCs function as comprehensive EmOC facilities. A study conducted in Sylhet and Khulna divisions showed that the actual number of functioning facilities per 500,000 population offering comprehensive EmOC in 2006/2007 was 0.53 and 1.07, respectively, and the concentration of basic EmOC in 2006/2007 was 4.66 for both divisions (Anwar et al., 2009).

[1] For details on the safe motherhood initiatives before 2001, please refer to BMMS 2001 report.

### *1.1.2 Government of Bangladesh – UN Joint MNHI*

In 2006, the Ministry of Health and Family Welfare (MOHFW) of the GoB started the Joint GoB–UN-MNH Initiative for "Accelerating Progress Towards Maternal & Neonatal Mortality & Morbidity Reduction" (MNHI). The overall goal of MNHI is to reduce maternal & neonatal mortality and morbidity in Bangladesh with an emphasis on equity issues in order to achieve MDGs 4 and 5. The MNHI initiative has been implemented in phases. In Phase I (2006-2011), the program was implemented in four districts (Jamalpur, Moulavibazar, Narail, and Thakurgaon). In Phase II (2011-2016), the government will expand the program to seven additional districts (Bagerhat, Ponchogor, Sunamganj, Shirajgonj, Rangamati, and the coastal districts of Borguna and Patuakhali). There is also a plan to expand the program into 13 other districts (Nilphamari, Rangpur, Kurigram, Gaibanda, Netrokona, Sylhet, Habiganj, Khagrachhari, Bandarban, Cox's Bazar, Sathkhira, Khulna, and Bhola).

### *1.1.3 Demand Side Financing (DSF) Maternal Health Voucher Scheme*

The demand side financing (DSF) Maternal Health Voucher Scheme was initiated by the MOHFW with technical assistance from the WHO. After pilot testing in two upazilas in 2006, the program was then scaled up in 19 additional upazilas in 2007, and in 2008 an additional 12 upazilas were added to the program (Hatt et al., 2010). The main objective of the program was to accelerate progress towards MDG 5 by stimulating increased utilization of maternal health services by the poor and other vulnerable groups in the community. The scheme used two different approaches for targeting; i.e., the universal program and the targeted program. The universal program was implemented in the nine poorest upazilas, where all pregnant women of Parity 1 or 2 (first or second pregnancy), regardless of poverty status, were offered vouchers (Ahmed and Khan, 2011). The targeted program was implemented in 24 upazilas, where means-testing was used to identify eligible beneficiaries. The means-testing program used certain selection criteria for women to receive vouchers.

The vouchers cover the cost of three ANC visits, safe delivery at a facility or at home by skilled birth attendants, management of complications including the cost for caesarean sections from designated providers, and one PNC checkup within six weeks of delivery. Users also receive reimbursement for transportation, referral and cash incentives for the mother's nutrition, and a gift box for the newborn. In addition, the service providers receive benefits for providing services to the voucher beneficiaries. The DSF program has been expanded with financial support from the World Bank, DFID, and pool funding from HNPSP 2003-2010 and now covers 53 upazilas across different districts including seven in Joint GOB–UN collaborative MNHI districts. Under the current Health Population Nutrition Sector Development Program (HPNSDP) 2011-2016, the DSF program will be scaled up in phases in other rural upazilas in Bangladesh.

### *1.1.4 Community Skilled Birth Attendant (CSBA) Program*

A program called the "Skilled Birth Attendant Training Program" was initiated by the DGHS and the Obstetrical and Gynecological Society of Bangladesh (OGSB) during 2001-2002 with technical and financial assistance from WHO and UNFPA. The purpose of this program was to increase access to skilled attendance at birth and provision of ANC and PNC at home. Under the program, existing Family Welfare Assistants (FWAs) and Female Health Assistants (FeHAs) were trained in basic midwifery skills in order to provide home-based maternal health services in addition to their regular assignments. After an initial pilot in 2003 provided training for 90 workers from six districts, which had a positive evaluation (Bhuiyan, 2005), the program was expanded to 60 out of 64 districts with a target to train 13,500 FWA/FeHAs as CSBAs by 2010 (two CSBAs per union) to fulfill the skilled birth attendant section of MDG 5. However, as of June 2011, only 6,402 CSBAs had been trained. A recent UNFPA-supported program review showed that the contribution of CSBAs was very minimal in increasing the proportion of skilled attendance at birth and CSBAs receive little support and guidance from the health system after initial training (UNFPA, 2010). In addition to government CSBAs, some NGOs and bilateral projects have trained private CSBAs (P-CSBAs) following the curriculum developed for the public sector CSBAs. The P-CSBAs are not usually under any payroll and earn their livelihood from the MNH services they provide for mothers and newborns in their catchment areas. In the HPNSDP 2011-2016, although the emphasis is upon facility delivery, the CSBA training program will be expanded further, particularly in char[2] and other geographically hard-to-reach areas, by OGSB with financial support from the Canadian International Development Agency (CIDA) that will include private and NGO candidates along with public sector candidates.

[2] The riverine sand and silt landmasses.

## 1.2 ORGANIZATION OF THE 2010 BMMS

### *1.2.1 Survey Objectives and Implementing Organizations*

**Objectives**

The BMMS 2010 was designed to assess progress in Bangladesh toward Millennium Development Goal 5 and to enhance understanding of the factors that contribute to maternal death. The major objectives were to provide a national estimate of the maternal mortality ratio (MMR) for the period from 2007 to 2010, to identify the causes of maternal and non-maternal deaths in adult women, and to determine whether MMR declined significantly from the 1998 to 2001 period when an MMR for Bangladesh was estimated.

Additional objectives were to collect information on birth planning, to assess the levels of use of antenatal care, postnatal care, and skilled birth attendance at delivery, and to assess the experience of and care-seeking for maternal complications and changes in care-seeking patterns for the five years preceding the survey.

**Implementation**

The BMMS 2010 was funded by the Government of Bangladesh, the United States Agency for International Development (USAID), the Australian Agency for International Development, and the United Nations Population Fund. The survey was conducted by the National Institute of Population Research and Training (NIPORT), with technical assistance from MEASURE Evaluation, the International Centre for Diarrhoeal Disease Research, Bangladesh (icddr,b), and USAID/Bangladesh. Two highly reputable data collection firms located in Dhaka, Mitra and Associates and Associates for Community and Population Research (ACPR), were responsible for conducting the survey, which included the following tasks: translating and pretesting the questionnaires, hiring and training the field staff, implementing and supervising the data collection, and entering and processing the data. ACPR was responsible for implementing the survey in Barisal, Khulna, and Rajshahi divisions while Mitra & Associates were responsible for Dhaka, Chittagong, and Sylhet divisions.

Data collection was carried out from January 18 to August 6, 2010 and involved a nationally representative sample of 175,600 households. In each selected household, ever-married women aged 13 to 49 were interviewed and any deaths among women of reproductive age, especially maternal and pregnancy-related deaths, were investigated. Cause of death was determined using verbal autopsy and the International Classification of Diseases 10.

### *1.2.2 Survey Design*

To compare directly maternal mortality indicators between 2001 and 2010 required a sample size large enough to detect changes from the 2001 BMMS MMR estimate with acceptable statistical precision and adherence to sampling procedures similar to those employed in the 2001 BMMS, thus reducing potential for bias in comparison of MMR estimates due to differences in the representativeness of the 2001 and 2010 samples. To begin with, the target sample size for the BMMS 2010 was 175,000 households, a figure thought large enough to detect a roughly 20 percent decline in the BMMS 2001 MMR estimate of 322 with 95 percent significance and 80 percent power. The same multi-stage selection procedures applied in the BMMS 2001 were used to draw samples from the same frame employed in the BMMS 2001, parsed among the same domains. Though the frame was considerably older by the time of the BMMS 2010, this does not represent a source of bias as it is an exhaustive area frame. The frame was parsed into three domains: urban areas, rural areas, and other urban areas. The primary sampling unit (PSU) for the urban areas was the ward. The equivalent administrative unit outside of the formal cities was the union. Rural unions formed the PSUs for the rural domain, while their urban wards formed the PSU for the other urban domain. Urban areas in each union formed the PSUs for the other urban domain. In each selected urban PSU, two mohallas (the next administrative unit down from the ward) were selected, segmented, and a cluster was selected from each. The process in the rural and other urban domains was the same, except that mouzas (the administrative unit below the union) served as the secondary sampling unit.

Each selected mohalla and mouza was segmented into clusters and one of these clusters was selected from each selected mohalla and mouza. A total of 654 urban, 488 other urban, and 1,566 rural clusters were selected, for a grand total of 2,708 clusters overall. Sixty-five households were randomly selected in each cluster to receive a household instrument. The women in these households received the short questionnaire described below. Finally, women in 23 of these households per PSU were randomly selected to receive the long questionnaire described below. This design provides representative samples for maternal mortality at the national level, and representative estimates at the national, urban/rural, divisional, and district levels for most other indicators.

### *1.2.3 Questionnaires*

The survey employed five questionnaires, each rooted in the 2001 BMMS questionnaire design in order to insure maximum comparability with 2001 estimates.

The Household Questionnaire gathered information on the age, sex, and education among all usual household members, as well as the environmental circumstances of the household (household materials, water sources, etc.) and household ownership of assets. The Household Questionnaire also asked about any deaths of household members in the five years preceding the survey, thus identifying adult female deaths (age 13-49).

The Women's Short Questionnaire was used to gather data from all eligible women concerning their:

- Background (age, education, religion, etc.);
- Siblings (to calculate a sisterhood-based estimate of the maternal mortality rate); and
- Reproductive history and use of family planning methods.

The Women's Long Questionnaire was used to collect information from approximately 62,000 ever-married women age 13-49 (each of whom was in one of the 23 households within their cluster randomly selected for this instrument) concerning their:

- Birth planning, antenatal, delivery, and postnatal care;
- Experience with and treatment of maternal health problems during pregnancy, delivery, and after delivery, and treatment-seeking behavior;
- Information about their local CSBAs; and
- Exposure to media.

Together, these questionnaires provide extremely detailed information regarding the maternal health related activities and experiences of respondent women.

The Verbal Autopsy Questionnaire was used to collect information on causes of death for all female adult deaths in the household in the three years preceding the survey. The questionnaire included both structured (pre-coded) and non-structured (open-ended) questions which were answered by the most knowledgeable member of the household. As interviews were conducted in the 168,629 households that received the "short questionnaire," the results of the household death roster were reviewed to identify those households that experienced the death of a female since October 2007. In such cases, the verbal autopsy was conducted regarding the death. It was then reviewed by two physicians, who reached consensus on the cause of death in 85 percent of cases. The remaining 15 percent were referred to a third physician in an effort to reach a majority conclusion among the three reviews. In the four percent of cases where this was not possible, the verbal autopsy results were referred to an expert committee for resolution.

The CSBA questionnaire was used to collect information from CSBAs concerning their training, the type of services they provide and their knowledge of reproductive health. This questionnaire was administered to CSBAs who cover the cluster or union wherein a selected BMMS-2010 cluster was located.

The Service Availability Roster questionnaire was used to collect data on the socio-economic condition of the community as well as data on the accessibility and availability of health and family planning services. Subsequently, this roster was supplied to the interviewer teams for the main survey for identifying the specific sources of services used by respondents.

### 1.2.4 Training and Fieldwork

The survey research firms conducted a household listing operation in all of the sample points from December 2009 to June 2010. To obtain an accurate estimate of the maternal mortality ratio at the national level (as well as to achieve other objectives of the study), a stratified national sample of 168,629 households was systematically selected from a total of 2,708 clusters.

Field data collection for the BMMS-2010 was carried out by 60 interview teams in six phases. All interviewers were trained for 21 days. Fieldwork started on January 18, 2010 and was completed in the first week of August 2010. Each data collection team consisted of one male supervisor, one female editor, and four female interviewers. ACPR and Mitra and Associates fielded quality control teams to monitor the fieldwork and insure the quality of the data. Additionally, the National Institute of Population Research and Training (NIPORT) and icddr,b quality control teams monitored the interview teams and observed them during interviews to insure data quality. MEASURE Evaluation monitored the data coming in from the field through different computer-based consistency checks. Feedback was given to teams after each phase to improve the quality of data collection.

### 1.2.5 Data Processing

All questionnaires were returned to Dhaka for data processing at ACPR and Mitra and Associates. Data entry personnel were trained in Dhaka in February 2010. The processing operation consisted of office editing, coding of open-ended questions, data entry, and resolving inconsistencies found by the data processing programs. The data were processed on microcomputers working in double shifts. Census and Survey Processing System 4.0 (CSPro) was used during all stages of data entry and processing. Data processing commenced in mid-February of 2009 and was completed on August 20, 2010. To minimize error, a double data entry procedure was followed.

### 1.2.6 Response Rate

Table 1.1 shows response rates for the survey. A total of 175,600 households were selected for the sample, of which 168,629 were successfully interviewed. The shortfall is primarily due to vacant dwellings or inhabitants away for an extended period of time during data collection. Of the 171,296 occupied households, 98 percent were successfully interviewed. Within these households, 180,422 women were identified as eligible for the individual interview (i.e., ever-married women age 13-49), and interviews were completed with 175,621 of these women for a response rate of 97 percent.

Table 1.1 Results of the household and individual interviews

Number of households, number of interviews, and response rates, according to residence (unweighted), Bangladesh 2010.

| | Residence | | |
|---|---|---|---|
| Result | Urban | Rural | Total |
| **Household interviews** | | | |
| Households selected | 73,964 | 101,636 | 175,600 |
| Households occupied | 72,041 | 99,255 | 171,296 |
| Households interviewed | 70,738 | 97,891 | 168,629 |
| Household response rate | 98.2 | 98.6 | 98.4 |
| **Individual Interviews with women age 13-49** | | | |
| Eligible women | 76,640 | 103,782 | 180,422 |
| Eligible women interviewed | 74,232 | 101,389 | 175,621 |
| Eligible woman response rate | 96.9 | 97.7 | 97.3 |

## Summary

***Chapter 2. Characteristics of Households and Respondents***

- The average household size observed in BMMS 2010 is 4.7 people.
- The physical characteristics of households reflecting the general socioeconomic condition of the population have improved substantially since BMMS 2001.
  - Households with electricity have increased from 31 percent in 2001 to 55 percent in 2010.
  - Households with no toilet facilities have declined from 24 percent to five percent.
  - Household structures with bamboo or thatch roofs have reduced from 16 percent to four percent.
  - The ownership of a telephone or mobile phone has increased from two percent in 2001 to 64 percent in 2010.
- Half of ever-married women are age 13-29. Ninety-four percent of respondents are currently married.
- There has been a significant improvement in the level of women's education over the last 9 years. In BMMS 2010, 36 percent of ever married women had some form of secondary education, compared to 25 percent in BMMS 2001.
- Exposure to electronic media has increased between 2001 and 2010. One-in-two women watches television at least once a week in 2010, compared to one in three in 2001.

# CHARACTERISTICS OF HOUSEHOLDS AND RESPONDENTS 2

This chapter provides information on some of the socioeconomic characteristics of the household population and the individual survey respondents, such as age, sex, and educational level. It also examines the conditions of the households in which the survey population lives, including availability of electricity, sanitation facilities, housing materials, and possession of household durable goods. The information on household asset ownership is used to create an indicator of household economic status, the wealth index. The background characteristics of women age 13-49 are discussed in the final part of the chapter. Information collected on the characteristics of the households and respondents is important for understanding and interpreting the findings of the survey and also provides some indication of the representativeness of the survey.

Whenever possible, the 2010 Bangladesh Maternal Mortality and Health Care Survey (BMMS 2010) data are compared with data from the 2001 Bangladesh Maternal Health Services and Maternal Mortality Survey (BMMS 2001). Both BMMS surveys collected information from all usual residents of the selected households (the *de jure* population) and persons who stayed in the selected households the night before the interview (the *de facto* population). Since the difference between these two populations is very small, all tables in this report refer to the de facto population unless otherwise specified. Household information in the 2010 BMMS was collected with a short questionnaire from randomly selected households in each cluster to provide representative estimates for maternal mortality at the national level, while women in one-third of these households received a long questionnaire focused on maternal health care services.

## 2.1 HOUSEHOLD POPULATION

The BMMS Household and Woman's Questionnaires (short questionnaire) were used to collect data on the demographic and social characteristics of all usual residents of the sampled households and visitors who spent the night before the interview in the household.

### *2.1.1 Demographic Characteristics of Households*

Age and sex are important demographic variables and are the primary basis of demographic classification in vital statistics, censuses, and surveys. Both are important variables in the study of mortality, fertility, and marriage. The effect of variations in sex composition from one population group to another should be taken into account in comparative studies of mortality. In general, a cross-classification with sex is useful for the effective analysis of all forms of data obtained in surveys.

Table 2.1 shows the distribution of the de facto household population by age and sex according to urban and rural residence. The 2010 BMMS households constitute a population of 780,352 persons, 51 percent of whom are female. The sex ratio for all ages is 97 males per 100 females. However, the 2011 Census population comprises almost equal numbers of males and females. The marked difference in the sex ratio between the 2011 census and the 2010 BMMS could be due to the fact that the census' sex ratio is based on the de jure population, while the sex ratio obtained from the 2010 BMMS is based on the de facto household population. The sex composition of the population does not vary markedly by urban-rural residence.

Table 2.1 Household population by age, sex, and residence

Percent distribution of the de facto household population by five-year age group, according sex and residence, Bangladesh 2010.

| | Urban | | | Rural | | | Total | | |
|---|---|---|---|---|---|---|---|---|---|
| Age group | Male | Female | Total | Male | Female | Total | Male | Female | Total |
| 0-4 | 11.1 | 10.4 | 10.7 | 11.8 | 11.1 | 11.4 | 11.6 | 10.9 | 11.3 |
| 5-9 | 12.0 | 11.2 | 11.6 | 13.2 | 12.4 | 12.8 | 12.9 | 12.1 | 12.5 |
| 10-14 | 11.3 | 11.0 | 11.1 | 12.2 | 11.5 | 11.8 | 12.0 | 11.3 | 11.6 |
| 15-19 | 9.7 | 12.1 | 10.9 | 9.5 | 11.1 | 10.3 | 9.5 | 11.3 | 10.4 |
| 20-24 | 8.3 | 11.9 | 10.1 | 7.2 | 10.1 | 8.7 | 7.5 | 10.6 | 9.0 |
| 25-29 | 8.9 | 9.5 | 9.2 | 7.2 | 8.5 | 7.9 | 7.6 | 8.8 | 8.2 |
| 30-34 | 7.1 | 7.2 | 7.1 | 6.0 | 6.6 | 6.3 | 6.3 | 6.8 | 6.5 |
| 35-39 | 7.3 | 6.4 | 6.8 | 6.5 | 6.0 | 6.2 | 6.7 | 6.1 | 6.4 |
| 40-44 | 5.4 | 5.2 | 5.3 | 5.1 | 5.1 | 5.1 | 5.2 | 5.1 | 5.1 |
| 45-49 | 5.3 | 4.8 | 5.0 | 5.0 | 5.3 | 5.1 | 5.1 | 5.1 | 5.1 |
| 50-54 | 3.8 | 1.9 | 2.8 | 3.8 | 2.0 | 2.9 | 3.8 | 2.0 | 2.9 |
| 55-59 | 2.9 | 2.6 | 2.8 | 3.2 | 3.0 | 3.1 | 3.1 | 2.9 | 3.0 |
| 60-64 | 2.4 | 2.0 | 2.2 | 2.8 | 2.5 | 2.6 | 2.7 | 2.3 | 2.5 |
| 65-69 | 1.6 | 1.2 | 1.4 | 2.0 | 1.6 | 1.8 | 1.9 | 1.5 | 1.7 |
| 70-74 | 1.4 | 1.1 | 1.2 | 2.0 | 1.3 | 1.6 | 1.8 | 1.3 | 1.5 |
| 75-79 | 0.6 | 0.5 | 0.6 | 1.0 | 0.6 | 0.8 | 0.9 | 0.6 | 0.8 |
| 80+ | 0.9 | 1.0 | 1.0 | 1.5 | 1.3 | 1.4 | 1.4 | 1.2 | 1.3 |
| Missing/Don't know | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Number | 92,933 | 95,161 | 188,094 | 291,269 | 300,989 | 592,258 | 384,202 | 396,150 | 780,352 |

More than one-third of the de facto household population (35 percent) is under 15 years of age, and 11 percent is under age five. Persons age 65 and over account for five percent of the total population. The proportion of the population under age 15 is somewhat lower in urban than rural areas, as is the proportion of the population over age 65.

The age-sex structure of the population is shown in a population pyramid in Figure 2.1. The pyramid is wider at the base than at the top and narrows slightly at the youngest age group. This pattern is typical of a historically high-fertility regime that has recently started to decline or stabilize.

**Figure 2.1 Population Pyramid.**

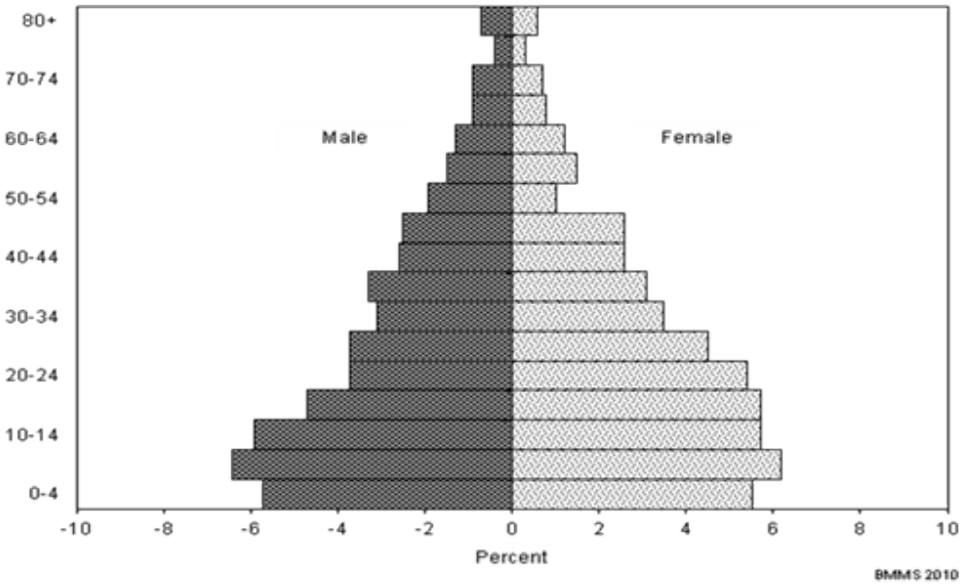


Figure 2.2 shows the distribution of the de-facto male and female household population by single year of age. The figure shows noticeable heaping at ages ending with 0 and 5, with heaping more prominent among males than females.

**Figure 2.2 Distribution of the male and female household population by single year of age.**

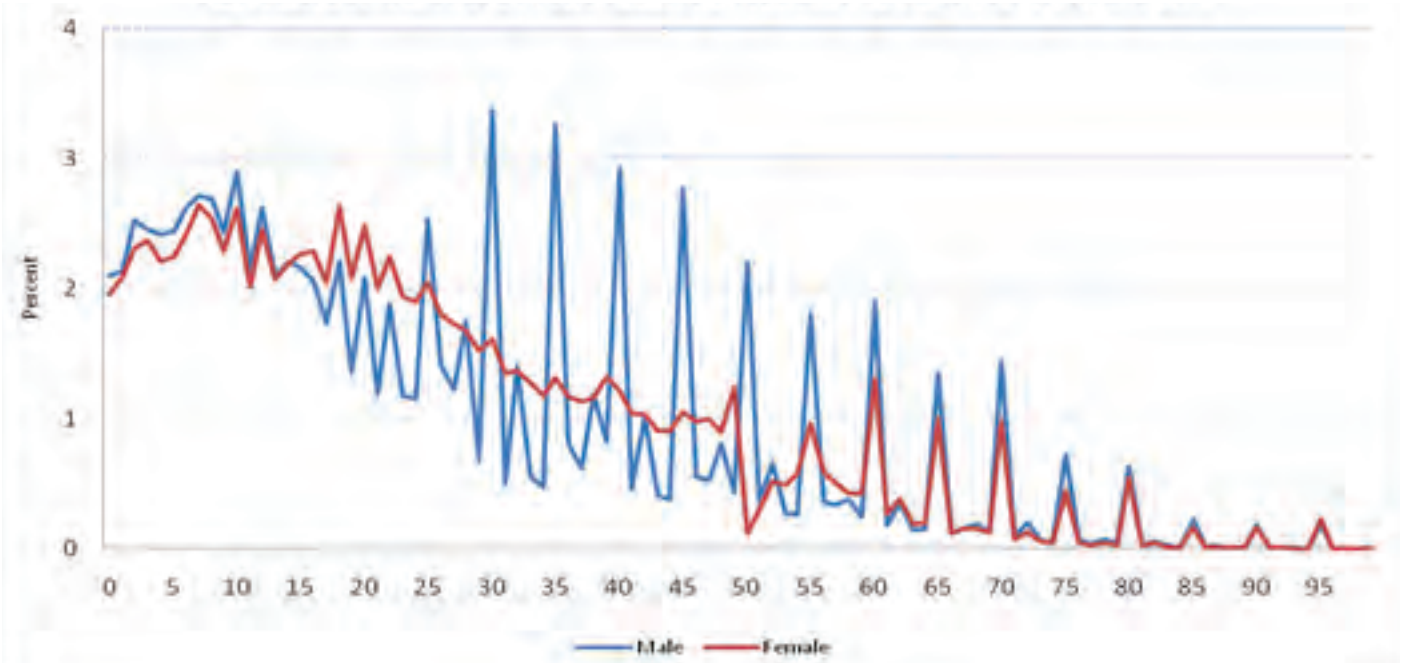



Table 2.2 presents changes in the broad age structure of the population since 1989. The proportion of the population under age 15 has declined from 43 percent in 1989 to 35 percent in 2010. In contrast, the proportion of the population age 15-59 has increased over time, as has the proportion of age 60 and over.

Table 2.2 Trends in population by age

Percent distribution of the de facto population by age group, selected sources, Bangladesh 1989-2010.

| Age group | 1989 BFS | 1989 CPS | 1991 CPS | 1993-94 BDHS | 1996-97 BDHS | 1999-2000 BDHS | 2001 BMMS | 2004 BDHS | 2007 BDHS | 2010 BMMS |
|---|---|---|---|---|---|---|---|---|---|---|
| <15 | 43.2 | 43.2 | 42.7 | 42.6 | 41.0 | 39.2 | 39.3 | 38.2 | 36.3 | 35.4 |
| 15-59 | 50.9 | 50.9 | 51.2 | 51.2 | 53.1 | 54.4 | 53.6 | 55.1 | 56.6 | 56.8 |
| 60+ | 5.9 | 5.9 | 6.0 | 6.2 | 5.9 | 6.4 | 7.0 | 6.6 | 7.1 | 7.8 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

BFS = Bangladesh Fertility Survey; CPS = Contraceptive Prevalence Survey; BDHS = Bangladesh Demographic and Health Survey; BMMS = Bangladesh Maternal Mortality and Health Care Survey.

Sources: NIPORT et al., 2003, and NIPORT et al., 2009.

### *2.1.2 Marital Status*

The BMMS includes information on the marital status of all household members age 10 and older. Table 2.3 shows the marital status distribution of the de facto household population age 13 and older. Among females age 15-49, 79 percent are currently married and 16 percent have never been married. The proportion never married is higher for males (37 percent) than females (16 percent). The proportion formerly married (widowed, divorced, separated, or deserted) is small—five percent for females and less than one percent for males.

Table 2.3 Marital status of the household population

Percent distribution of the de facto household population by current marital status according to sex and age group, Bangladesh, 2010.

| | Male | | | | | | Female | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Age** | Currently married | Formerly married | Never married | Missing | Total | Number | Currently married | Formerly married | Never married | Missing | Total | Number |
| 13-14 | 0.3 | 0.0 | 99.7 | 0.0 | 100.0 | 16,501 | 4.4 | 0.1 | 95.5 | 0.0 | 100.0 | 16,860 |
| 15-19 | 3.0 | 0.1 | 96.9 | 0.0 | 100.0 | 36,559 | 41.3 | 0.9 | 57.8 | 0.0 | 100.0 | 44,854 |
| 20-24 | 27.7 | 0.5 | 71.8 | 0.0 | 100.0 | 28,730 | 82.1 | 2.6 | 15.4 | 0.0 | 100.0 | 41,843 |
| 25-29 | 71.3 | 0.7 | 28.0 | 0.0 | 100.0 | 29,165 | 92.7 | 3.5 | 3.8 | 0.0 | 100.0 | 34,727 |
| 30-34 | 89.9 | 0.7 | 9.4 | 0.0 | 100.0 | 24,182 | 94.3 | 4.6 | 1.2 | 0.0 | 100.0 | 26,792 |
| 35-39 | 96.7 | 0.6 | 2.6 | 0.0 | 100.0 | 25,664 | 92.2 | 7.3 | 0.5 | 0.0 | 100.0 | 24,092 |
| 40-44 | 98.4 | 0.6 | 1.0 | 0.0 | 100.0 | 19,906 | 88.4 | 11.2 | 0.4 | 0.0 | 100.0 | 20,165 |
| 45-49 | 98.8 | 0.6 | 0.6 | 0.0 | 100.0 | 19,515 | 83.6 | 16.2 | 0.2 | 0.0 | 100.0 | 20,400 |
| 50-54 | 98.6 | 1.2 | 0.3 | 0.0 | 100.0 | 14,429 | 74.6 | 25.1 | 0.3 | 0.0 | 100.0 | 7,920 |
| 55+ | 93.9 | 5.9 | 0.2 | 0.0 | 100.0 | 45,915 | 43.5 | 56.2 | 0.2 | 0.0 | 100.0 | 39,108 |
| 15-49 | 62.8 | 0.5 | 36.7 | 0.0 | 100.0 | 183,721 | 78.6 | 5.3 | 16.1 | 0.0 | 100.0 | 212,873 |

Also of interest is the proportion of persons who marry young. At age 15-19, the proportions of ever-married are three percent for males and 41 percent for females. By age 25-29, 93 percent of females in Bangladesh have been married. For males in this age group, 71 percent have been married. The Singulate Mean Age at Marriage (SMAM), calculated from age-specific proportions of single in the 2010 BMMS, is 25.4 for males and 18.9 for females (for 15-49 years of age). According to the SMAM measure, men in Bangladesh tend to marry women who are almost seven years younger than they are.

### *2.1.3 Household Composition*

Table 2.4 shows the distribution of the households in the survey by sex of head of the household and by the number of de jure household members in urban and rural areas. A small minority of households in Bangladesh are headed by women (11 percent), though the majority are headed by males. The average household size observed in the survey is 4.7 people, with little variation between rural and urban areas.

Table 2.4 Household composition

Percentage distribution of households by sex of head of household and mean household size, Bangladesh 2010.

| | **Residence** | | |
|---|---|---|---|
| Household headship/size | Urban | Rural | **Total** |
| **Sex of household head** | | | |
| Male | 88.2 | 89.8 | 89.4 |
| Female | 11.8 | 10.2 | 10.6 |
| Total | 100.0 | 100.0 | 100.0 |
| Number of household | 41,133 | 127,496 | 168,629 |
| Mean size of household | 4.6 | 4.7 | 4.7 |

### *2.1.4 Education*

The educational attainment of household members is an important determinant of their opportunities and behavior. Studies (Cleland et al. 1994; Caldwell et al. 1999; United Nations 1995; Bongaarts 2003; Chowdhury 1977; Akmam 2002) have consistently shown that educational attainment affects reproductive behavior, contraceptive use, fertility, infant and child mortality, morbidity, and issues related to family health and hygiene. Table 2.5 provides data on educational attainment of the household population from both the BMMS surveys.

Education has become more widespread over time in Bangladesh. This is apparent from the differences in levels of educational attainment by age group 15-19. A steadily decreasing percentage of both males and females in the 10-14 years age group have never attended school. Data from BMMS 2001 and BMMS 2010 show that proportions who attended secondary school have increased for men and women age 15-19, although the increase for men is small (Figure 2.3).

**Figure 2.3 Percentage of Males and Females Age 15-19 with Some Secondary Education, 2001-2010.**

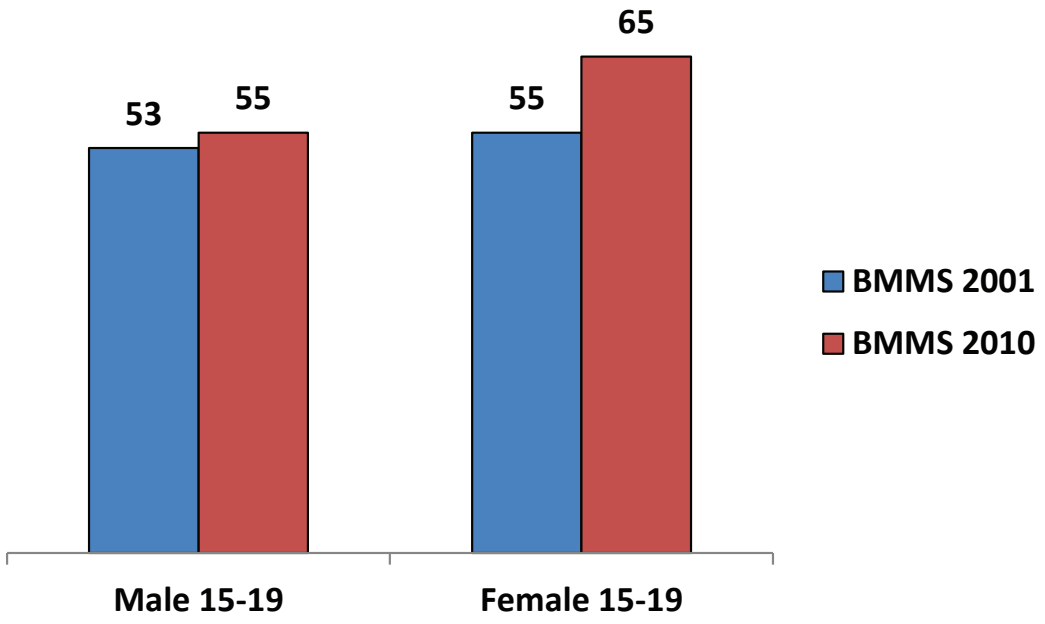


Table 2.5 Level of education by background characteristics

Percentage distribution of de-facto household population age six and above by highest level of education attended, according to background characteristics, Bangladesh 2010.

| | Level of education | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | No education | Primary incomplete | Primary complete | Secondary incomplete | Secondary complete or higher | Missing | Total | Number | Median years of education |
| | | | | Female | | | | | |
| **Age** | | | | | | | | | |
| 6-9 | 10.3 | 89.1 | 0.4 | 0.1 | 0.0 | 0.0 | 100.0 | 39,084 | 0.6 |
| 10-14 | 3.9 | 51.2 | 16.7 | 27.9 | 0.2 | 0.0 | 100.0 | 44,908 | 4.2 |
| 15-19 | 7.1 | 12.4 | 14.7 | 51.5 | 14.3 | 0.0 | 100.0 | 44,854 | 7.2 |
| 20-24 | 13.3 | 12.9 | 15.7 | 41.8 | 16.2 | 0.0 | 100.0 | 41,843 | 6.7 |
| 25-29 | 25.5 | 16.3 | 14.9 | 28.8 | 14.4 | 0.0 | 100.0 | 34,727 | 5.1 |
| 30-34 | 39.0 | 17.1 | 13.4 | 19.0 | 11.4 | 0.0 | 100.0 | 26,792 | 3.3 |
| 35-39 | 50.3 | 16.2 | 12.3 | 14.3 | 6.9 | 0.0 | 100.0 | 24,092 | 0.9 |
| 40-44 | 56.4 | 16.5 | 11.3 | 10.8 | 5.0 | 0.0 | 100.0 | 20,165 | 0.7 |
| 45-49 | 61.5 | 15.1 | 10.6 | 9.6 | 3.2 | 0.0 | 100.0 | 20,400 | 0.6 |
| 50-54 | 66.2 | 14.7 | 8.9 | 6.9 | 3.2 | 0.1 | 100.0 | 7,920 | 0.4 |
| 55-59 | 70.6 | 12.3 | 9.5 | 5.4 | 2.0 | 0.1 | 100.0 | 11,462 | 0.4 |
| 60-64 | 78.0 | 9.8 | 7.7 | 3.4 | 1.0 | 0.1 | 100.0 | 9,308 | 0.4 |
| 65+ | 85.4 | 7.3 | 4.9 | 1.9 | 0.3 | 0.1 | 100.0 | 18,337 | 0.2 |
| **Residence** | | | | | | | | | |
| Urban | 26.3 | 25.4 | 11.9 | 24.0 | 12.4 | 0.0 | 100.0 | 83,236 | 4.1 |
| Rural | 32.4 | 28.0 | 11.7 | 22.2 | 5.7 | 0.0 | 100.0 | 260,657 | 2.8 |
| **Division** | | | | | | | | | |
| Barisal | 23.2 | 31.3 | 15.1 | 22.4 | 7.9 | 0.0 | 100.0 | 21,795 | 3.9 |
| Chittagong | 27.9 | 28.0 | 10.9 | 25.3 | 7.9 | 0.1 | 100.0 | 72,983 | 3.6 |
| Dhaka | 32.3 | 27.3 | 11.8 | 21.1 | 7.5 | 0.1 | 100.0 | 111,788 | 2.8 |
| Khulna | 28.6 | 26.3 | 11.3 | 26.2 | 7.5 | 0.0 | 100.0 | 38,235 | 3.7 |
| Rajshahi | 33.4 | 26.1 | 11.3 | 21.9 | 7.3 | 0.0 | 100.0 | 76,360 | 2.7 |
| Sylhet | 36.4 | 28.2 | 13.0 | 17.7 | 4.5 | 0.0 | 100.0 | 22,733 | 2.0 |
| **Household wealth quintile** | | | | | | | | | |
| Lowest | 46.9 | 33.6 | 9.8 | 9.2 | 0.5 | 0.0 | 100.0 | 66,783 | 0.75 |
| Second | 36.3 | 30.9 | 12.1 | 18.5 | 2.2 | 0.0 | 100.0 | 67,357 | 1.8 |
| Middle | 29.9 | 27.9 | 12.7 | 24.8 | 4.7 | 0.0 | 100.0 | 68,902 | 3.3 |
| Fourth | 25.0 | 24.4 | 12.5 | 29.3 | 8.8 | 0.0 | 100.0 | 69,721 | 4.4 |
| Highest | 17.4 | 20.6 | 11.6 | 30.4 | 19.9 | 0.1 | 100.0 | 71,130 | 5.7 |
| **Total** | 30.9 | 27.4 | 11.8 | 22.6 | 7.4 | 0.0 | 100.0 | 343,893 | 3.1 |

Table 2.5 Level of education by background characteristics

Percentage distribution of de-facto household population age six and above by highest level of education attended, according to background characteristics, Bangladesh 2010.

| | Level of education | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | No education | Primary incomplete | Primary complete | Secondary incomplete | Secondary complete or higher | Missing | Total | Number | Median years of education |
| | | | | Male | | | | | |
| **Age** | | | | | | | | | |
| 6-9 | 12.4 | 87.1 | 0.4 | 0.1 | 0.0 | 0.0 | 100.0 | 40,149 | 0.7 |
| 10-14 | 7.0 | 54.9 | 15.4 | 22.4 | 0.2 | 0.1 | 100.0 | 45,954 | 3.7 |
| 15-19 | 10.0 | 17.9 | 16.6 | 40.2 | 15.2 | 0.0 | 100.0 | 36,559 | 6.3 |
| 20-24 | 13.3 | 15.2 | 17.9 | 30.7 | 22.8 | 0.1 | 100.0 | 28,730 | 6.2 |
| 25-29 | 21.6 | 14.6 | 16.2 | 26.8 | 20.5 | 0.3 | 100.0 | 29,165 | 5.5 |
| 30-34 | 30.1 | 14.3 | 13.2 | 21.2 | 20.9 | 0.3 | 100.0 | 24,182 | 4.9 |
| 35-39 | 38.2 | 13.6 | 11.8 | 18.3 | 17.8 | 0.2 | 100.0 | 25,664 | 4.0 |
| 40-44 | 42.6 | 13.4 | 10.1 | 16.8 | 16.9 | 0.2 | 100.0 | 19,906 | 2.7 |
| 45-49 | 44.1 | 13.5 | 10.7 | 16.9 | 14.6 | 0.3 | 100.0 | 19,515 | 2.3 |
| 50-54 | 45.1 | 13.0 | 10.6 | 16.6 | 14.5 | 0.2 | 100.0 | 14,429 | 2.0 |
| 55-59 | 44.7 | 12.5 | 10.1 | 15.5 | 16.8 | 0.3 | 100.0 | 12,025 | 2.0 |
| 60-64 | 50.1 | 12.9 | 10.1 | 12.6 | 14.0 | 0.4 | 100.0 | 10,458 | 0.9 |
| 65+ | 54.9 | 13.2 | 10.3 | 11.7 | 9.6 | 0.4 | 100.0 | 23,432 | 0.7 |
| **Residence** | | | | | | | | | |
| Urban | 20.7 | 26.5 | 11.8 | 22.1 | 18.6 | 0.3 | 100.0 | 80,496 | 4.6 |
| Rural | 27.8 | 29.7 | 12.1 | 19.5 | 10.8 | 0.2 | 100.0 | 249,671 | 3.2 |
| **Division** | | | | | | | | | |
| Barisal | 20.4 | 31.8 | 13.3 | 21.4 | 13.1 | 0.0 | 100.0 | 20,510 | 4.2 |
| Chittagong | 21.5 | 32.2 | 11.8 | 21.3 | 12.9 | 0.3 | 100.0 | 65,324 | 3.9 |
| Dhaka | 27.8 | 28.6 | 11.8 | 19.0 | 12.5 | 0.3 | 100.0 | 107,030 | 3.3 |
| Khulna | 25.1 | 26.6 | 11.4 | 23.1 | 13.8 | 0.0 | 100.0 | 38,235 | 4.1 |
| Rajshahi | 28.7 | 26.1 | 12.0 | 19.7 | 13.5 | 0.0 | 100.0 | 77,558 | 3.6 |
| Sylhet | 29.4 | 31.8 | 13.9 | 16.8 | 7.8 | 0.2 | 100.0 | 21,510 | 2.7 |
| **Household wealth quintile** | | | | | | | | | |
| Lowest | 45.2 | 35.8 | 9.5 | 8.1 | 1.3 | 0.1 | 100.0 | 63,393 | 0.7 |
| Second | 32.4 | 32.9 | 13.2 | 16.5 | 4.9 | 0.1 | 100.0 | 66,507 | 2.2 |
| Middle | 24.5 | 29.6 | 14.0 | 22.2 | 9.6 | 0.2 | 100.0 | 66,538 | 3.8 |
| Fourth | 18.5 | 25.7 | 13.2 | 26.5 | 15.9 | 0.2 | 100.0 | 66,705 | 4.9 |
| Highest | 10.8 | 21.0 | 10.2 | 26.7 | 31.0 | 0.2 | 100.0 | 67,024 | 7.2 |
| **Total** | 26.1 | 28.9 | 12.0 | 20.1 | 12.7 | 0.2 | 100.0 | 330,167 | 3.6 |

## 2.2 HOUSING CHARACTERISTICS

The physical characteristics of households are important in assessing the general socioeconomic condition of the population. In the 2010 BMMS, household questionnaire respondents were asked about access to electricity, type of toilet facility, and main materials of the roof, wall, and floor. Information on the characteristics of the sampled households is presented in Table 2.6.

More than half (55 percent) of households in Bangladesh have access to electricity. The percentage of households with electricity has increased from 31 percent in 2001 to 55 percent in 2010. However, access to electricity varies widely between urban areas (84 percent) and rural areas (45 percent).

Almost all Bangladeshi households (95 percent) have access to some type of toilet facility; only five percent of households in Bangladesh do not have a toilet facility. Ninety-one percent have hygienic toilets (septic tank/modern toilets, water-sealed/slab latrines, and pit toilets). Household sanitation has improved since the 2001 BMMS: the proportion of households with no toilet facilities has declined from 24 percent to five percent. Lack of sanitation facilities is more prevalent in rural than urban areas. Six percent of rural households have no toilet facility at all, compared with only one percent of urban households.

Table 2.6 Household characteristics

Percent distribution of households by housing characteristics, according to residence, Bangladesh 2010.

| | Residence | | |
|---|---|---|---|
| Characteristics | Urban | Rural | All |
| **Electricity** | | | |
| Yes | 84.2 | 45.2 | 54.7 |
| No | 15.8 | 54.8 | 45.3 |
| Total | 100.0 | 100.0 | 100.0 |
| **Sanitation facility** | | | |
| Septic tank/modern toilet | 35.5 | 3.8 | 11.5 |
| Improved/slab latrine | 41.9 | 51.2 | 48.9 |
| Pit without slab | 18.8 | 33.7 | 30.1 |
| Hanging/other | 2.4 | 5.8 | 5.0 |
| No facility | 1.3 | 5.6 | 4.5 |
| Total | 100.0 | 100.0 | 100.0 |
| **Roof material** | | | |
| Thatch/palm leaf/bamboo | 1.7 | 4.6 | 3.9 |
| Tin | 78.5 | 91.1 | 88.1 |
| Cement, ceramic, tiles | 19.2 | 4.0 | 7.7 |
| Other | 0.5 | 0.3 | 0.3 |
| Total | 100.0 | 100.0 | 100.0 |
| **Wall material** | | | |
| Cane/palm/trunks/dirt/bamboo with mud | 18.3 | 37.6 | 32.9 |
| Tin | 32.5 | 44.9 | 41.9 |
| Cement, stone with lime/cement, bricks | 47.2 | 14.5 | 22.4 |
| Other | 2.0 | 3.0 | 2.8 |
| Total | 100.0 | 100.0 | 100.0 |
| **Floor material** | | | |
| Earth/sand, palm/bamboo | 44.0 | 89.3 | 78.2 |
| Wood/planks | 1.1 | 0.6 | 0.7 |
| Cement, ceramics, tiles | 54.6 | 10.1 | 21.0 |
| Other | 0.3 | 0.0 | 0.1 |
| Total | 100.0 | 100.0 | 100.0 |
| Number of households | 41,133 | 127,496 | 168,629 |

There has been a big improvement in the type of materials used for housing since 2001. Tin is now the most common roofing material, accounting for 88 percent of the households (79 and 91 percent in urban and rural areas, respectively). In 2001, 16 percent of households were living with bamboo or thatch roofs but this was reduced to four percent in 2010. Similarly, in 2001 nearly 60 percent of households in Bangladesh were living in houses with walls of natural materials, but this number has decreased to 33 percent in 2010. In urban areas, 19 percent of households live in dwellings with cement or concrete roofs, while in rural areas, four percent of households live in bamboo or thatch dwellings.

Less than half the households (42 percent) in Bangladesh live in structures with tin walls. Another one-third of the households live in houses with natural materials such as cane, palm, trunks, dirt, or bamboo with mud, and the remaining 22 percent live in houses with brick or cement walls. Urban households live in more solid dwellings; 47 percent of urban households live in structures constructed with brick or cement walls, compared with only 15 percent of rural households.

About 80 percent of households have floors made of earth; only 21 percent have cement floors. Rural houses are more likely than urban houses to have earth floors. Likewise, urban houses are more likely to have cement floors. About 55 percent of households in urban areas have cement floors, while approximately 90 percent of rural households have floors made of earth.

### *2.2.1 Household Possessions*

Information on the possession of various durable goods was collected at the household level. More than 70 percent of households own a table or chair, 63 percent own a mobile phone, 47 percent own an electric fan, and 38 percent own an almirah (wardrobe). For more valuable items, 36 percent of households own a television, 25 percent own a bicycle, 12 percent own a radio, 8 percent own VCD players; , six percent own rickshaw/van, five percent own a water pump, four percent own a motor cycle, and a little over one percent of households have a car/truck/bus or motor driven boat. About one in ten households owns none of the listed items.

In general, households in rural Bangladesh are less likely to have consumer items like a radio, television, or mobile phone. Urban households are almost two times more likely than rural households to own a television. Since 2001, ownership of a television has increased from 17 percent to 36 percent of households. Over the same time, ownership of a radio has declined from 30 percent to 12 percent. The ownership of a telephone or mobile phone has also increased from two percent in 2001 to 64 percent in 2010.

The BMMS also collected data on household ownership of land. Almost 94 percent of Bangladeshi households own a homestead. While 43 percent own land other than a homestead, six percent of households do not own any land. Ownership of a homestead or land is less common in urban areas than in rural areas.

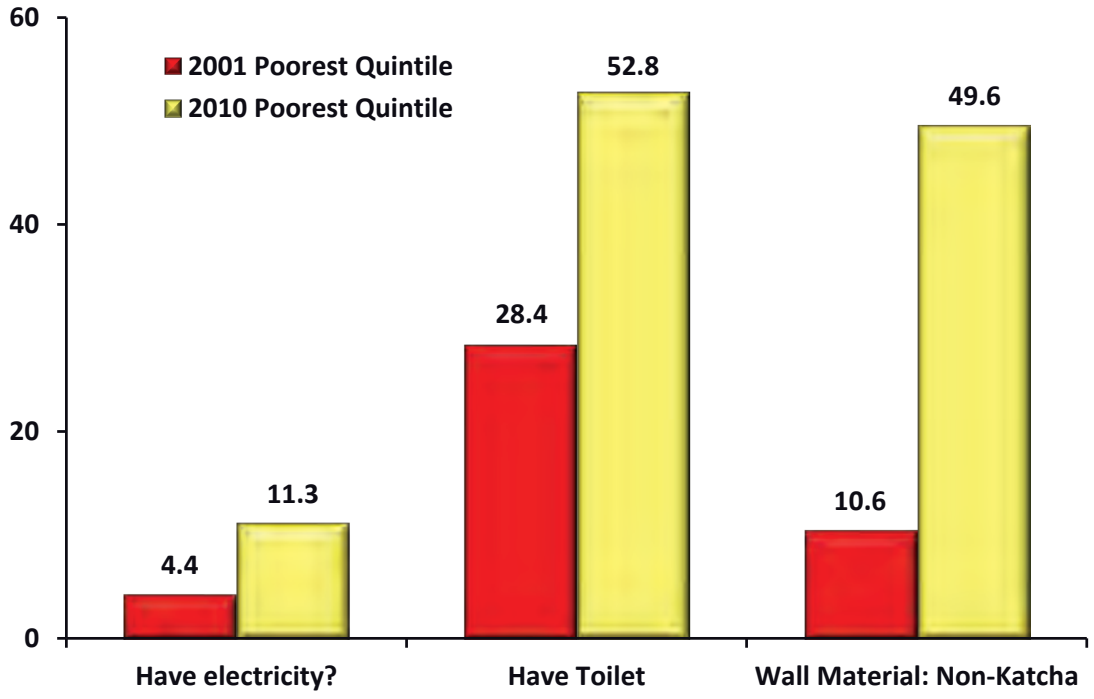
The wealth index was constructed from data on ownership of household assets, as well as dwelling characteristics such as type of drinking water available, sanitation facilities, roofing, and flooring. Each asset was assigned a weight (factor score) generated through principle components analysis. Each household's scores (the weight in the instance that the household owned the asset, zero otherwise) were then summed; individuals were ranked according to the total score of the household in which they resided. The sample was then divided into population quintiles ranked from lowest (poorest) to highest (wealthiest). According to Table 2.7, 49 percent of urban households are in the highest wealth quintile, compared to only 26 percent of rural households.

Table 2.7 Household durable goods, land ownership, and household wealth

Percentage of households possessing various durable consumer goods, ownership of land and household wealth, according to residence, Bangladesh 2010.

| | Residence | | |
|---|---|---|---|
| Characteristics | Urban | Rural | All |
| **Durable goods** | | | |
| Radio | 10.4 | 12.1 | 11.7 |
| Television | 59.0 | 28.5 | 35.9 |
| Mobile phone | 75.7 | 58.4 | 62.7 |
| Land phone | 3.9 | 0.4 | 1.3 |
| Refrigerator | 22.1 | 4.8 | 9.0 |
| Almirah | 52.1 | 33.1 | 37.7 |
| Table | 67.9 | 71.1 | 70.3 |
| Chair | 68.2 | 71.8 | 71.0 |
| Electric fan | 77.2 | 37.7 | 47.4 |
| Bicycle | 17.1 | 27.8 | 25.2 |
| Motor cycle | 4.4 | 3.5 | 3.7 |
| Animal driven cart | 0.1 | 0.4 | 0.3 |
| Car/truck/bus | 0.9 | 0.3 | 0.4 |
| Motor driven boat | 0.4 | 1.2 | 1.0 |
| Rickshaw/van | 5.3 | 6.2 | 6.0 |
| VCD | 14.4 | 6.1 | 8.1 |
| Water pump | 4.6 | 5.4 | 5.2 |
| Does not own any of the specified durable goods | 6.0 | 13.0 | 11.3 |
| **Land ownership** | | | |
| Owns a homestead | 88.3 | 95.2 | 93.5 |
| Owns other land | 30.6 | 46.7 | 42.8 |
| None of the above | 11.1 | 4.5 | 6.1 |
| **Wealth quintile** | | | |
| Lowest | 7.8 | 26.2 | 21.7 |
| Second | 8.9 | 24.0 | 20.3 |
| Middle | 13.1 | 21.8 | 19.7 |
| Fourth | 21.0 | 18.4 | 19.0 |
| Highest | 49.2 | 9.6 | 19.2 |
| Number of households | 41,133 | 127,496 | 168,629 |

**Figure 2.4 Basic household amenities.**




When the basic household amenities of the poorest quintile of the households are compared between BMMS 2001 and BMMS 2010, there has been an absolute improvement in the status among the poorest households. As shown in Figure 2.43 less than 5 percent of households in the poorest quintile had electricity whereas the same proportion is 11 percent in 2010. Similarly only 28 percent of the poorest households had a toilet in 2001 compared to 53 percent in 2010.

## 2.3 CHARACTERISTICS OF SURVEY RESPONDENTS

### *2.3.1 Background Characteristics*

The distribution of ever-married women aged 13-49 and the subset of those women who received the long questionnaire by background characteristics including age, marital status, place of residence, division, and educational level is shown in Table 2.8.

The age distribution of ever-married women is similar to that found in the all women sample. Half of ever-married women are age 13-29. About one-fourth of respondents live in urban areas. About one-third of respondents live in Dhaka division, and about one-fourth live in Rajshahi division. Nineteen percent of respondents live in Chittagong division, 12 percent in Khulna division, and six percent each in Barisal and Sylhet divisions.

About one-third (34 percent) of ever-married women have never been to school. Thirty percent of respondents have attended primary school and more than one-quarter have some secondary school. Ninety-four percent of ever-married women are currently married.

Table 2.8 Background characteristics of respondents: all women and the subset of women who received long questionnaire

Percent distribution of ever married women age 15-49 by selected background characteristics, Bangladesh, 2010.

| | All women (short questionnaire) | | | Subset of women (long questionnaire) | | |
|---|---|---|---|---|---|---|
| | | Number of women | | | Number of women | |
| Background Characteristic | Weighted percent | Weighted | Un-weighted | Weighted percent | Weighted | Un-weighted |
| **Age** | | | | | | |
| 15-19 | 10.6 | 18,535 | 18,089 | 10.4 | 6,440 | 6,280 |
| 20-24 | 19.8 | 34,690 | 33,848 | 19.7 | 12,171 | 11,881 |
| 25-29 | 18.8 | 32,811 | 32,849 | 19.0 | 11,700 | 11,705 |
| 30-34 | 14.9 | 26,049 | 26,509 | 14.9 | 9,186 | 9,359 |
| 35-39 | 13.4 | 23,418 | 23,692 | 13.3 | 8,175 | 8,282 |
| 40-44 | 11.2 | 19,607 | 19,974 | 11.3 | 6,945 | 7,070 |
| 45-49 | 11.3 | 19,771 | 19,940 | 11.4 | 7,025 | 7,079 |
| **Residence** | | | | | | |
| Urban | 24.6 | 42,968 | 73,966 | 24.5 | 15,117 | 26,048 |
| Rural | 75.4 | 131,913 | 100,935 | 75.5 | 46,524 | 35,608 |
| **Division** | | | | | | |
| Barisal | 6.2 | 10,756 | 18,686 | 6.1 | 3,760 | 6,513 |
| Chittagong | 19.1 | 33,466 | 31,592 | 19.2 | 11,842 | 11,198 |
| Dhaka | 32.3 | 56,463 | 40,934 | 32.2 | 19,878 | 14,422 |
| Khulna | 12.0 | 21,046 | 27,027 | 12.0 | 7,419 | 9,543 |
| Rajshahi | 24.9 | 43,535 | 39,144 | 24.9 | 15,356 | 13,844 |
| Sylhet | 5.5 | 9,615 | 17,518 | 5.5 | 3,386 | 6,136 |
| **Educational attainment** | | | | | | |
| No education | 34.4 | 60,166 | 57,404 | 34.4 | 21,193 | 20,264 |
| Primary incomplete | 15.7 | 27,506 | 27,375 | 15.8 | 9,756 | 9,681 |
| Primary complete | 14.2 | 24,891 | 25,249 | 14.1 | 8,697 | 8,913 |
| Secondary incomplete | 26.6 | 46,467 | 46,763 | 26.6 | 16,396 | 16,449 |
| Secondary complete or higher | 9.1 | 15,852 | 18,110 | 9.1 | 5,600 | 6,349 |
| **Marital status** | | | | | | |
| Currently married | 94.0 | 164,387 | 57,404 | 93.9 | 57,908 | 57,785 |
| Separated | 1.0 | 1,680 | 27,375 | 1.0 | 604 | 636 |
| Deserted | 0.4 | 780 | 25,249 | 0.4 | 259 | 284 |
| Divorced | 0.9 | 1,529 | 46,763 | 0.9 | 551 | 564 |
| Widowed | 3.7 | 6,505 | 18,110 | 3.8 | 2,319 | 2,387 |
| Total | 100.0 | 174,881 | 174,901 | 100.0 | 61,641 | 61,656 |

### *2.3.2 Educational Level of Survey Respondents*

Table 2.9 shows the educational level of ever-married women by background characteristics. Among ever-married women, education is inversely related to age; that is, older women are less educated than younger women. For instance, 9 percent of ever-married women age 15-19 years have never attended school, compared with 62 percent of those age 45-49.

Urban residents have more education than rural residents. For example, 36 percent of rural women had no education, compared with 29 percent of urban women. In contrast, while four in ten urban women (43 percent) have attended secondary school, only 33 percent of rural women have done so.

Women in Barisal, Chittagong, and Khulna divisions are comparatively more educated than women in the other divisions. In these divisions, the proportion of women with no education does not exceed 31 percent. Respondents in these divisions are also more likely than other respondents to complete primary school and/or to attend secondary school.

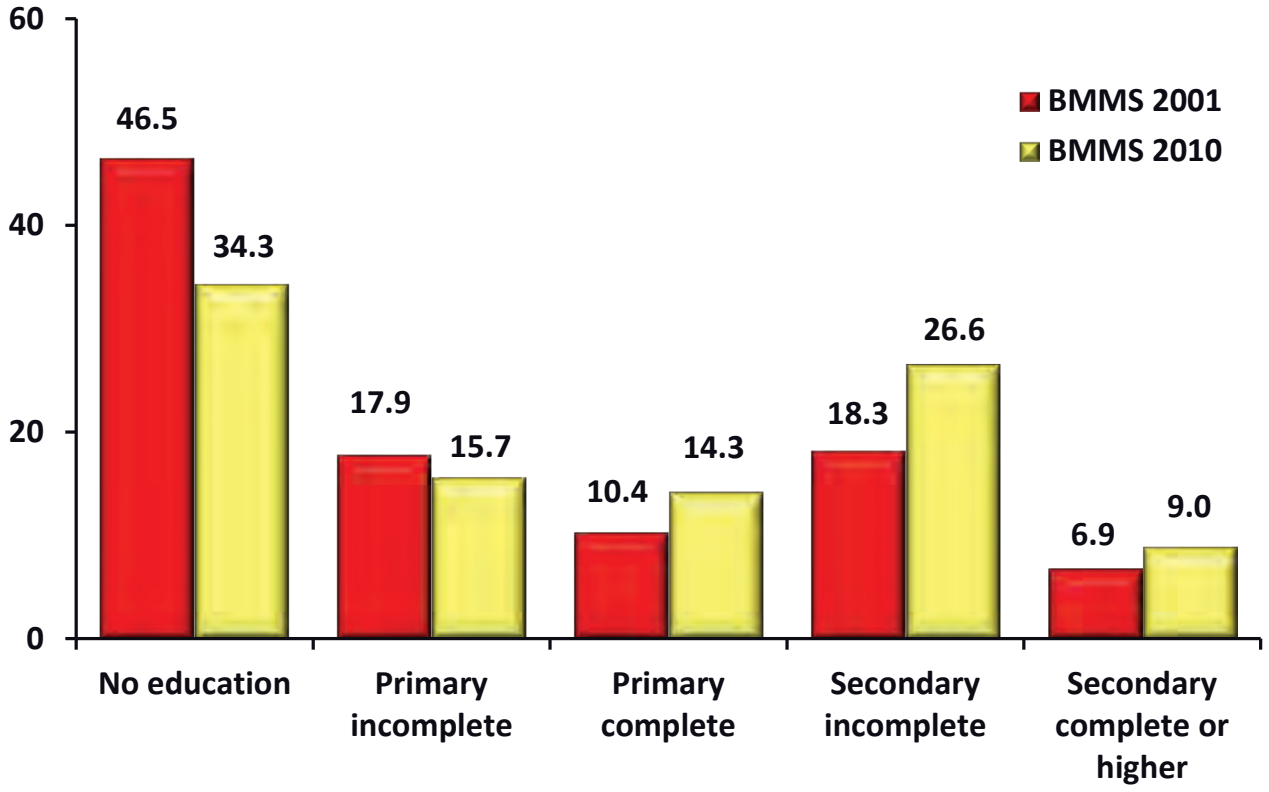
Table 2.9 Level of education by background characteristics

Percent distribution of ever-married women age 15-49 by highest level of education attended, according to background characteristics, Bangladesh 2010.

| Background characteristics | Level of education | | | | | Total | Number |
|---|---|---|---|---|---|---|---|
| | No education | Primary incomplete | Primary complete | Secondary incomplete | Secondary complete or higher | | |
| **Age** | | | | | | | |
| 15-19 | 8.8 | 13.7 | 18.6 | 50.9 | 7.9 | 100.0 | 6,440 |
| 20-24 | 14.1 | 13.9 | 16.5 | 43.8 | 11.7 | 100.0 | 12,171 |
| 25-29 | 25.9 | 16.8 | 15.2 | 29.4 | 12.6 | 100.0 | 11,700 |
| 30-34 | 38.5 | 17.8 | 13.3 | 19.5 | 11.0 | 100.0 | 9,186 |
| 35-39 | 49.5 | 17.0 | 12.1 | 14.3 | 7.1 | 100.0 | 8,175 |
| 40-44 | 57.0 | 16.1 | 11.4 | 10.5 | 4.9 | 100.0 | 6,945 |
| 45-49 | 61.8 | 15.3 | 10.0 | 9.4 | 3.6 | 100.0 | 7,025 |
| **Residence** | | | | | | | |
| Urban | 28.6 | 14.5 | 13.9 | 27.5 | 15.4 | 100.0 | 15,117 |
| Rural | 36.3 | 16.2 | 14.2 | 26.3 | 7.0 | 100.0 | 46,524 |
| **Division** | | | | | | | |
| Barisal | 23.1 | 21.6 | 19.8 | 24.9 | 10.6 | 100.0 | 3,760 |
| Chittagong | 29.6 | 14.7 | 12.9 | 31.1 | 11.7 | 100.0 | 11,842 |
| Dhaka | 35.2 | 15.4 | 14.3 | 25.8 | 9.3 | 100.0 | 19,878 |
| Khulna | 31.3 | 16.6 | 13.9 | 29.9 | 8.3 | 100.0 | 7,419 |
| Rajshahi | 38.9 | 15.8 | 13.1 | 24.7 | 7.6 | 100.0 | 15,356 |
| Sylhet | 44.8 | 14.8 | 15.8 | 19.2 | 5.5 | 100.0 | 3,386 |
| **Wealth quintile** | | | | | | | |
| Lowest | 58.1 | 18.7 | 12.0 | 10.7 | 0.5 | 100.0 | 11,731 |
| Second | 43.3 | 19.5 | 15.1 | 20.1 | 2.0 | 100.0 | 12,039 |
| Middle | 33.0 | 16.9 | 16.2 | 28.9 | 5.1 | 100.0 | 12,560 |
| Fourth | 25.2 | 14.2 | 15.2 | 35.1 | 10.4 | 100.0 | 12,481 |
| Highest | 14.7 | 10.3 | 12.1 | 36.7 | 26.2 | 100.0 | 12,831 |
| Total | 34.4 | 15.8 | 14.1 | 26.6 | 9.1 | 100.0 | 61,641 |

Over the last 9 years there has been a significant improvement in the level of women's education as shown by the education of the survey respondents. In BMMS 2010, 36 percent of ever married women had some form of secondary education (incomplete, complete or higher) compared to 25 percent in BMMS 2001 (Figure 2.5).

**Figure 2.5 Percentage of ever married women age 13-49, by education.**



### *2.3.3 Exposure to Mass Media*

The BMMS collected information on the exposure of respondents to the broadcast media. Respondents were asked whether they listen to a radio or watch television at least once a week. This information is important because it provides an indication of women's exposure to mass media; mass media are used to disseminate family planning, health, and other information. Table 2.10 shows that only 8 percent of women listen to the radio and 49 percent watch television at least once a week. About half of women are exposed to at least one of these media sources once a week.

Table 2.10 Exposure to mass media

Percentage of women aged 15-49 who usually watch television at least once a week and listen to the radio at least once a week., by background characteristics, Bangladesh 2010.

| | Exposure to mass media | | | |
|---|---|---|---|---|
| Background characteristics | Listen to the radio at least once a week | Watches television at least once a week | Exposed to either TV or radio once a week | Number |
| **Age** | | | | |
| 15-19 | 11.0 | 54.3 | 58.4 | 6,440 |
| 20-24 | 9.8 | 55.4 | 58.9 | 12,171 |
| 25-29 | 7.9 | 53.1 | 56.1 | 11,700 |
| 30-34 | 7.7 | 48.2 | 51.2 | 9,186 |
| 35-39 | 7.0 | 45.2 | 48.6 | 8,175 |
| 40-44 | 5.9 | 42.0 | 44.6 | 6,945 |
| 45-49 | 5.7 | 39.6 | 42.4 | 7,025 |
| **Residence** | | | | |
| Urban | 5.9 | 71.8 | 73.1 | 15,117 |
| Rural | 8.7 | 41.7 | 45.6 | 46,524 |
| **Division** | | | | |
| Barisal | 11.9 | 32.9 | 40.3 | 3,760 |
| Chittagong | 8.1 | 51.5 | 54.3 | 11,842 |
| Dhaka | 7.2 | 54.7 | 57.3 | 19,878 |
| Khulna | 9.8 | 49.9 | 54.1 | 7,419 |
| Rajshahi | 7.7 | 45.8 | 49.0 | 15,356 |
| Sylhet | 5.4 | 39.4 | 41.1 | 3,386 |
| **Educational attainment** | | | | |
| No education | 4.5 | 30.9 | 33.5 | 21,193 |
| Primary incomplete | 7.6 | 42.7 | 46.6 | 9,756 |
| Primary complete | 8.2 | 50.8 | 54.3 | 8,697 |
| Secondary incomplete | 11.0 | 64.3 | 68.1 | 16,396 |
| Secondary complete or higher | 12.5 | 81.9 | 84.6 | 5,600 |
| **Wealth quintile** | | | | |
| Lowest | 4.6 | 15.5 | 18.5 | 11,731 |
| Second | 7.9 | 21.7 | 26.8 | 12,039 |
| Middle | 9.7 | 43.4 | 48.5 | 12,560 |
| Fourth | 9.7 | 74.0 | 75.8 | 12,481 |
| Highest | 8.0 | 87.0 | 88.0 | 12,831 |
| Total | 8.0 | 49.1 | 52.3 | 61,641 |

## Summary

***Chapter 3. Adult Female Mortality — Levels and Causes***

- Bangladesh is on track to achieve Millennium Development Goal 5.
- Maternal mortality ratio has declined from 322/100,000 live births to 194/100,000 live births between BMMS 2001 to BMMS 2010, respectively.
- Overall, death rates have declined significantly among women in most reproductive age groups.
- Large declines have been seen in deaths due to maternal causes, infections, circulatory conditions, and even suicides.
- There has been no decline in malignancies, which now is the single most important cause of deaths among women in the reproductive ages.
- Declines in direct obstetric have been truly remarkable and is most likely the consequence of better care-seeking practices and improved access to higher level referral care.
- Hemorrhage and eclampsia, despite impressive declines, are responsible for more than half of all maternal deaths.
- Abortion-related deaths have declined from five percent of MMR in 2001 to about one percent of MMR in 2010, and no cases of infection as an underlying maternal cause of death were identified in the 2010 survey.
- While there were reductions in deaths during pregnancy, during delivery, and after delivery, the main declines occurred for pregnancy and delivery.
- Post-partum deaths now comprise a higher proportion of maternal deaths (73 percent), up from 67 percent in 2001.
- The predominance of hemorrhage and eclampsia deaths and deaths after delivery indicate a need to strengthen access to treatment for these two conditions, improve referral systems, and improve referral level care.

# ADULT FEMALE MORTALITY: LEVELS AND CAUSES

# 3

This chapter presents findings from the BMMS 2010 concerning maternal mortality and adult mortality from all causes for both females and males. Maternal mortality was expected to have declined from the levels found in the 2001 survey, but not substantially, given Bangladesh's relatively low proportions of deliveries assisted by trained professionals. Identifying factors associated with high risk and their trends provides a basis for targeting interventions. The BMMS used three alternative strategies to measure levels, trends, and differentials in maternal mortality. Selected findings are also compared with results from the BMMS 2001.

## 3.1 MEASURES OF MATERNAL MORTALITY

The "Tenth Revision of the International Classification of Diseases" defines a maternal death as any "death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and the site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental causes" (International Classification of Diseases, 10th Revision, WHO, 2004). A pregnancy-related death is defined as any death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the cause.

The maternal mortality ratio (MMR) is the most widely known and used indicator of maternal mortality. The MMR is calculated as the ratio of maternal deaths in a period to live births during the same period, expressed per 100,000 live births. MMR relates maternal deaths to the risk event, namely pregnancies. However, births are used as the indicator of pregnancies, as good data on pregnancies are not usually available, since many pregnancies, particularly those that terminate early, may never be reported. Pregnancy-related mortality ratio (PRMR) is also presented in this chapter; the PRMR differs from the MMR in that instead of maternal deaths it includes in the numerator any death occurring during pregnancy or within 42 days of end of pregnancy.

The maternal mortality rate (MMRate) is also used as measure of maternal mortality, expressed relative to the number of women of reproductive age. The MMRate is the ratio of the number of maternal deaths in a period (often one year) to the person-years lived by women age 15-49 in the same period (approximated for a one-year period as the mid-year population), expressed per 1,000 women of reproductive age. Unlike the MMR, the MMRate does not express the risk of death per risky event, i.e. pregnancies and child births, but per person potentially exposed to the risk. Consequently, the MMRate is influenced by both a change in the risk associated with pregnancies and deliveries, but also by a change in fertility as it changes the probability of the risky events. A change in fertility will not, by itself, affect the MMR.

### *3.1.1 Measuring Maternal Mortality*

Despite their major societal impacts, maternal deaths are relatively infrequent events. They are also difficult events to record. Even in countries with complete recording of births and deaths, maternal deaths are generally underreported because of incorrect classification of cause (Deneux-Tharaux et al., 2005; Atrash et al., 1995). In countries lacking complete vital registration systems, the problems are even greater: not only may maternal deaths be misclassified, they may simply be omitted. Various strategies have been developed for trying to estimate maternal mortality in settings where death registration is seriously incomplete. The most widely used method is the "sisterhood" approach. Respondents to a sample survey are asked about the survival or otherwise of their sisters. For sisters who have died, a further set of questions is added to identify those deaths that occurred while the woman was pregnant, during delivery, or in a defined postpartum period (Rutenberg and Sullivan, 1991). A second strategy uses a population census or large household survey to collect information about deaths by age and sex in each household in a defined reference period and asks additional questions for deaths of women of reproductive age to determine whether they died while they were pregnant or during some defined postpartum period (Stanton et al., 2001). Both methods measure pregnancy-related mortality rather than maternal mortality, since the definition depends only on the timing of death relative to pregnancy and not cause of death.

The fact that maternal deaths are relatively infrequent has important implications for measurement. Sample surveys need large samples to obtain reasonably precise estimates. The sisterhood method can enhance sample size in a high fertility population because each respondent will report on multiple sisters. However, once fertility drops below about four children per woman, this advantage erodes and may be a major disadvantage in a population with an average of two or fewer children per mother. Both the direct sisterhood approach and the deaths in the household approach can attempt to improve precision by increasing the length of the reference period for which estimates are calculated. For the direct sisterhood approach, the length of the reference period for which an estimate is calculated can be determined during the tabulation stage. Experience from the Demographic and Health Surveys (DHS) has shown that samples of about 10,000 households will provide direct sisterhood estimates of maternal mortality for a reference period covering the seven years before the survey with 95 percent confidence intervals (95% CI) on the order of ±25 percent. For the household deaths approach, the basic data on deaths are collected for a specified reference period; estimates can be calculated for shorter but not longer periods during the tabulation stage. Accurate recall of household deaths also becomes a concern with increases in the reference period for which information on deaths is collected.

Both the sisterhood and the household deaths approaches to measuring maternal mortality generally define a "maternal" death in terms of time of death relative to pregnancy. Both methods thus measure pregnancy-related mortality rather than maternal mortality. Although these deaths will include some deaths that are unrelated to the pregnancy (and thus should not be considered maternal deaths), it has been argued that the time of death questions tend to omit some maternal deaths in early pregnancy, simply because the pregnancy was not known to the respondent, and that the over-reporting of maternal deaths resulting from the inclusion of incidental deaths tends to cancel out the exclusion of maternal deaths for which the pregnancy was not declared (Hill et al., 2001).

A measure of maternal mortality can be obtained by combining the household death approach with a verbal autopsy, which attempts to identify the true cause of each death by asking about the symptoms that accompanied the final illness. Methods for conducting a verbal autopsy vary, but a common approach is to interview a close relative or other knowledgeable household member. The interview starts with an open-ended question asking the respondent to describe in his or her own words the circumstances surrounding the death, it then continues with questions about the presence or absence of specific symptoms. Evaluations of verbal autopsies indicate that their results, particularly for many chronic diseases of adulthood, are neither highly specific nor highly sensitive (e.g., for maternal mortality [Sloan et al., 2001]); results therefore need to be treated with caution. It is also possible that a verbal autopsy may misclassify some maternal deaths because the autopsy respondent did not know the deceased woman was pregnant.

### *3.1.2 Maternal Mortality Measures in the BMMS*

The BMMS used both the sisterhood and the household deaths approaches to measure maternal mortality and also used both a time of death and a verbal autopsy approach to identify pregnancy-related or maternal deaths among deaths of women of reproductive age reported by households. The Household Questionnaire included a section concerning deaths of usual residents of the household since October 2006. If any death was reported, further details regarding the name, sex, age at death, and month and year of death were collected. If the deceased person was a woman age 13-49 at the time of death, four questions were asked as to whether the woman died while she was pregnant, giving birth, within 42 days, or after 42 days to one year of the end of the pregnancy (Figure 3.1a). In addition, a verbal autopsy was conducted subsequently with household members for all deaths of women age 15 to 49 to try to ascertain whether the death was maternal. Cause of death was determined from the verbal autopsy by physician review; two physicians independently reviewed each case, but if they could not agree, the case was reviewed by a third physician (Figure 3.1b). An expert committee of obstetricians was also involved to assign a specific cause of maternal death when the three physicians agreed that the death was maternal but could not assign a specific cause. The International Classification of Diseases Revision 10 was used to assign all causes of death.

The Women's Questionnaire, administered to all ever-married female household members age 13-49, included a complete sibling history—the name, sex, survival status, and age (if living) or age at death, and years since death (if dead)—for every live birth the respondent's mother had, excluding the respondent herself. Further, for any sisters who died at age 12 or older, the time of death relative to pregnancy, childbirth, and the first two months after the end of the pregnancy was also ascertained.

In addition to providing information about maternal mortality, both sets of questions provide information about overall mortality, at all ages in the case of household deaths of usual residents and for age 13-49 in the case of data from the sibling history. The verbal autopsy also provides information on non-maternal causes of death for women of reproductive age. Overall and non-maternal mortality are examined in Section 3.3.

**Figure 3.1a Verbal autopsy determinations.**

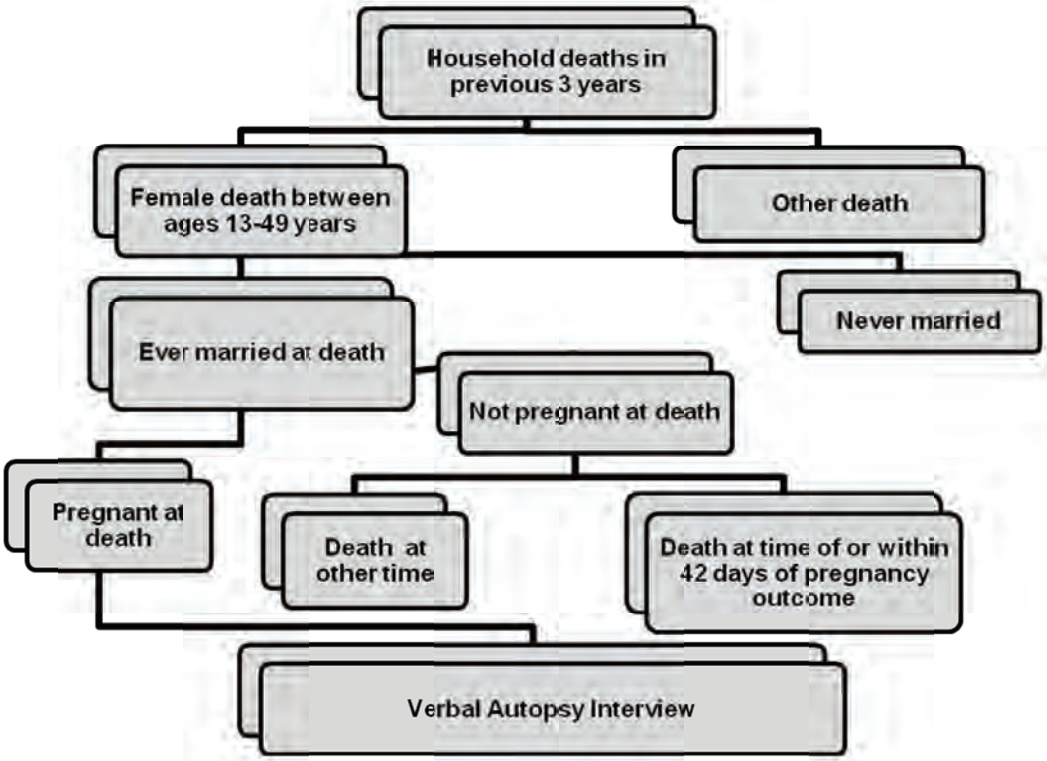
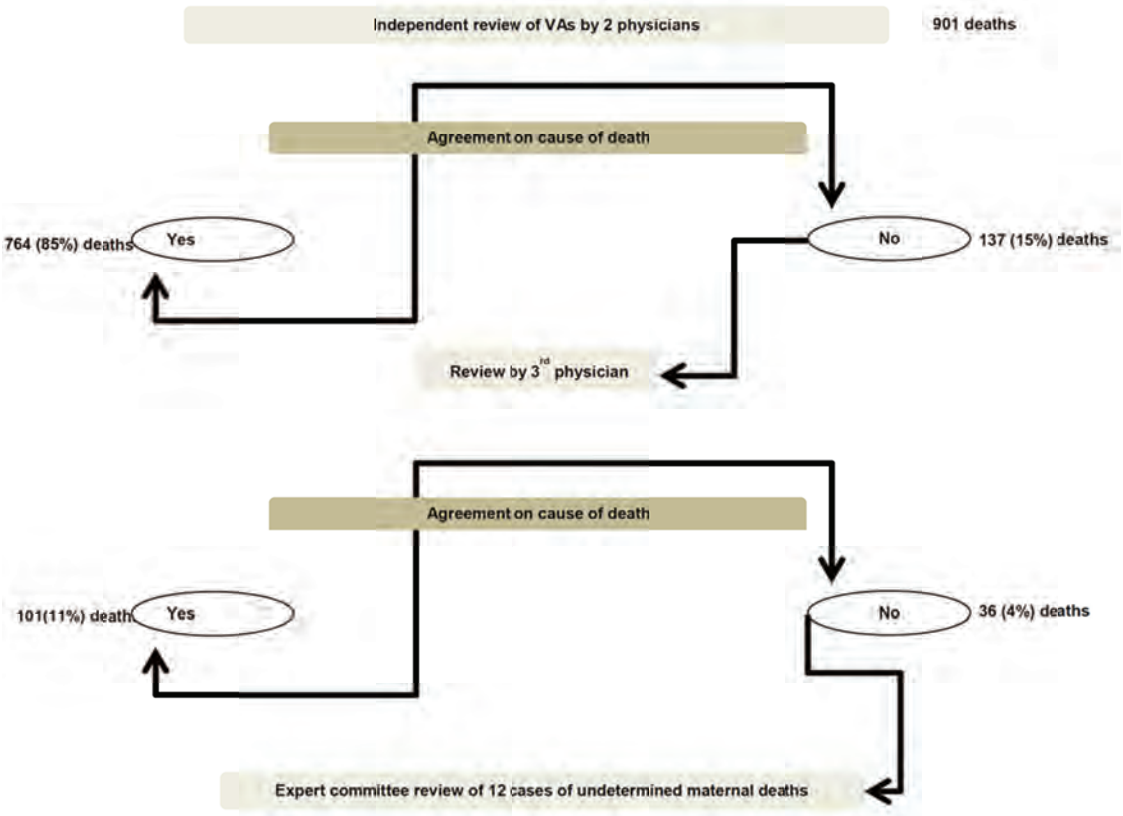



**Figure 3.1b The cause of death review process.**



## 3.2 MATERNAL MORTALITY IN BANGLADESH: LEVELS AND CAUSES

The 2010 BMMS provides three different estimates of mortality risks associated with pregnancy:

- Pregnancy-related mortality obtained from household deaths;
- Maternal mortality obtained from household deaths combined with the verbal autopsy; and
- Pregnancy-related mortality obtained from sister deaths combined with time of death information.

It should be noted that all the estimates presented here are from samples, and therefore have confidence intervals around them that are large for those based on small sub-categories of respondents. Caution should therefore be exercised in interpreting differences between groups.

### *3.2.1 Estimates from Household Deaths*

Household deaths were recorded for the period from October 2006 to the time of the survey, but the results presented here are based on deaths in the 36 months before the interview date, excluding the month of interview. The mortality estimates presented here thus refer approximately to the period from early 2007 to early 2010, as the interviews were conducted during January to August 2010. For a discussion of data quality of household deaths, see Appendix B.

***Pregnancy-Related Mortality***

Table 3.1 shows pregnancy-related deaths in the period 2007-2010 by the age of the deceased woman and by the time of death relative to the pregnancy. Deaths are weighted, which explains the decimal numbers. This table also shows exposure time: the number of woman-years of exposure to risk in each age group. Mortality rates are calculated by dividing the number of events (deaths) in a particular category by the exposure time in that category. A rate can then be expressed relative to births by dividing by the fertility rate specific for the category. The overall PRMR is 201 per 100,000 live births (95% CI: 156-247). This represents a 47.4 percent decline from the PRMR of 382 in the 2001 Survey (95% CI 305-460). Medium-variant UN Population Division estimates indicate that there were 3.1 million births in Bangladesh in 2010, which would mean that there were about 6,140 pregnancy-related deaths in that year. The PRMR increases monotonically with age from the age groups 15-19 to 45-49. Though the pattern is similar to that seen in 2001, the reductions in PRMR have been more marked in the youngest age group (66 percent reduction in women age 15-19) compared to the oldest women (53.6 percent reduction in women age 45-49). Risks are very high for the oldest women, but the difference in risk even between women age 15-19 and those aged 30-34 is substantial: the risk per birth for women age 30-34 is 4.9 times that for women age 15-19, while this ratio was only 2.9 in 2001.

Table 3.1 Pregnancy-related mortality ratios per 100,000 live births in the three years preceding the survey, by maternal age, Bangladesh 2010

| | Mortality | | | | | | Age specific fertility and age specific PRMR | |
|---|---|---|---|---|---|---|---|---|
| | Exposure time (woman years) | Deaths during pregnancy[1] | Deaths during delivery[1] | Deaths post-partum[1] | Total pregnancy related deaths[1] | Pregnancy related mortality rate[2] | ASFR[3] | ASPRMR[4] |
| **Maternal Age** | | | | | | | | |
| 15-19 | 136,314 | 3.903 | 1.049 | 5.784 | 10.736 | 0.079 | 0.105 | 75 |
| 20-24 | 119,518 | 6.733 | 4.138 | 16.086 | 26.958 | 0.226 | 0.160 | 141 |
| 25-29 | 97,183 | 5.304 | 0.742 | 16.081 | 22.127 | 0.228 | 0.123 | 185 |
| 30-34 | 77,147 | 3.664 | 0.541 | 16.265 | 20.470 | 0.265 | 0.073 | 364 |
| 35-39 | 71,927 | 5.424 | 5.130 | 10.378 | 20.933 | 0.291 | 0.031 | 944 |
| 40-44 | 59,862 | 1.455 | 0.166 | 1.731 | 3.352 | 0.056 | 0.010 | 561 |
| 45-49 | 47,834 | 3.228 | 0.000 | 0.000 | 3.228 | 0.067 | 0.002 | 2,863 |
| **General** | | | | | | | | |
| Total | 609,785 | 29.713 | 11.767 | 66.325 | 107.804 | 0.177 | 2.521 | - |
| GFR[5] | - | - | - | - | - | - | 0.088 | - |
| PRMR[6] | - | - | - | - | - | - | - | 201[7] |

Note: Information from the Household and Verbal Autopsy Questionnaires, considers de jure female household population in exposure, gets pregnancy-related deaths from listing with usual members who died in the three years before the survey and from verbal autopsy questionnaire, and assumes same fertility rates as de facto interviewed women.

[1] Deaths are weighted, hence, the number of deaths is not a round number.

[2] Deaths per 1,000.

[3] Births per woman.

[4] Deaths per 100,000 live births.

[5] GFR = General fertility rate.

[6] PRMR = Pregnancy-related mortality ratio.

[7] 95% Confidence Interval: 156 to 247.

## Maternal Mortality

The verbal autopsies administered for all households where the death of a woman age 15-49 was reported provide a basis for identifying maternal, as opposed to pregnancy-related, deaths. Table 3.2 shows the numbers of deaths judged to be maternal on the basis of the verbal autopsy, by the same time of death relative to pregnancy categories used in Table 3.1. The total (weighted) number of maternal deaths is 104, about four percent lower than the number of pregnancy-related deaths in Table 3.1. The estimated MMR is 194 per 100,000 live births (95% CI 149-238), compared with the PRMR of 201 in Table 3.1. This represents a 39.8 percent decline from the MMR of 322 in the 2001 Survey (95% CI 253-391).

Table 3.2 Maternal mortality ratios per 100,000 live births in the three years preceding the survey, by maternal age, Bangladesh 2010

| | Mortality | | | | | | Age specific fertility and age specific MMR | |
|---|---|---|---|---|---|---|---|---|
| | Exposure time (woman years) | Deaths during pregnancy[1] | Deaths during delivery[1] | Deaths post-partum[1] | Total maternal deaths[1] | Maternal mortality rate[2] | ASFR[3] | ASMMR[4] |
| **Maternal Age** | | | | | | | | |
| 15-19 | 136,314 | 1.05777 | 0.58 | 5.42 | 7.06 | 0.05177 | 0.105 | 49 |
| 20-24 | 119,518 | 4.68014 | 1.48 | 18.85 | 25.01 | 0.20923 | 0.160 | 130 |
| 25-29 | 97,183 | 3.08555 | 3.19 | 16.86 | 23.14 | 0.23807 | 0.123 | 194 |
| 30-34 | 77,147 | 3.66437 | 0.00 | 18.96 | 22.62 | 0.29322 | 0.073 | 402 |
| 35-39 | 71,927 | 4.08737 | 2.78 | 13.71 | 20.58 | 0.28616 | 0.031 | 928 |
| 40-44 | 59,862 | 0.00000 | 1.46 | 1.90 | 3.35 | 0.05600 | 0.010 | 561 |
| 45-49 | 47,834 | 2.02732 | 0.00 | 0.00 | 2.03 | 0.04238 | 0.002 | 1,798 |
| **Total** | 609,785 | 18.60253 | 9.48 | 75.70 | 103.78 | 0.17020 | 2.521 | - |
| GFR[5] | - | - | - | - | - | - | 0.088 | - |
| MMR[6] | - | - | - | - | - | - | - | 194[7] |

Note: Information from the Household and Verbal Autopsy Questionnaires, considers de jure female household population in exposure, gets maternal deaths from listing with usual members who died in the three years before the survey and from verbal autopsy questionnaire, and assumes the same fertility rates as de facto interviewed women.

[1] Deaths are weighted, hence, the number of deaths is not a round number.

[2] Deaths per 1,000.

[3] Births per woman.

[4] Deaths per 100,000 live births.

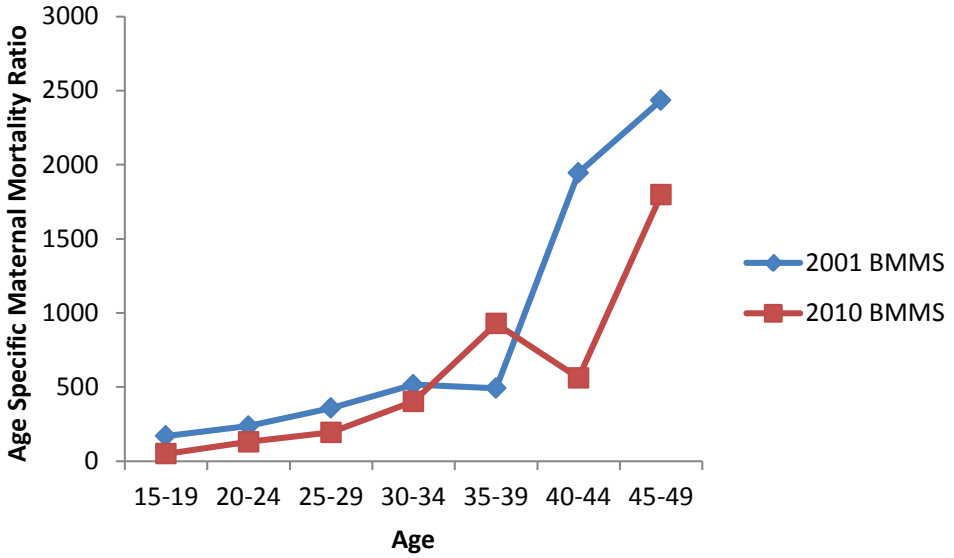
[5] GFR = General fertility rate.

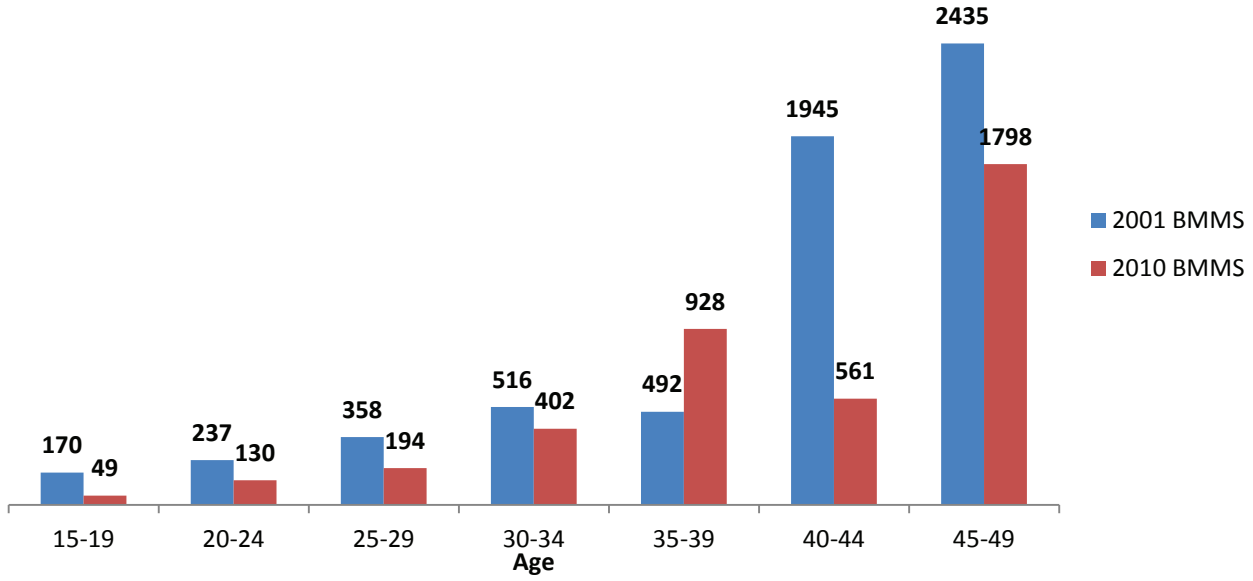
[6] MMR = Maternal mortality ratio.

[7] 95% Confidence Interval: 149 to 238.

The age pattern of maternal risk is very similar to the pregnancy-related risk, rising steeply with age. The risk per birth for women age 30-34 is 8.2 times the risk per birth for women age 15-24. In the 2001 survey, this ratio was 3.0 times, indicating greater reductions in MMR in the younger ages. This is obvious from Figure 3.2 comparing age-specific MMR between the 2001 and 2010 surveys. Reductions in MMR occurred in all age groups except 35-39, and are particularly notable among women below age 30. The highest reductions were in the youngest age group (15-19) and among women age 40-44.

**Figure 3.2 Comparing age-specific maternal mortality ratios between the 2001 and 2010 surveys.**




## *Maternal Mortality Ratios by Background Characteristics*

Table 3.3 shows exposure time, maternal deaths, and MMRs, overall and by broad obstetric causes of death, based on household deaths with verbal autopsy by selected background characteristics: residence, division, education, and socioeconomic status of the household. These estimates need to be interpreted with some caution because of limited exposure time and a small numbers of events. Overall MMR and MMR due to direct obstetric deaths are lower in urban areas compared to rural areas, but there is no difference in MMR due to indirect obstetric deaths. By division, Sylhet has the highest risk, whereas Khulna has the lowest, and the difference is 6.6 fold. A very interesting feature of the MMR in Dhaka division is the much higher rates of indirect obstetric deaths compared to direct obstetric deaths. No clear linear relation is observed between MMR and either wealth quintiles or maternal education, but MMR is lower for the two top wealth quintiles and for women with secondary or higher education than for the other wealth quintiles or education groups. These patterns also apply for direct obstetric deaths, and although the patterns for indirect obstetric deaths are less clear, the risks for indirect obstetric deaths were still the highest among women with no education and in the poorest households.

Table 3.3 Maternal mortality rates and ratios for the three years preceding the survey according to background characteristics, Bangladesh 2010

| | Maternal mortality rates and ratios | | | | | MMR by final cause of death | | |
|---|---|---|---|---|---|---|---|---|
| | Maternal deaths | Exposure | MMrate | GFR | MMR | Direct obstetric death | Indirect obstetric death | Undetermined maternal death |
| **Urban/rural** | | | | | | | | |
| Urban | 22.2 | 155,087 | 0.1430 | 0.0802 | 178 | 107 | 69 | 2 |
| Rural | 81.6 | 454,696 | 0.1795 | 0.0902 | 199 | 129 | 68 | 2 |
| **Division** | | | | | | | | |
| Barisal | 5.2 | 37,788 | 0.1376 | 0.0821 | 168 | 154 | 13 | 0 |
| Chittagong | 22.8 | 121,985 | 0.1869 | 0.1006 | 186 | 116 | 70 | 0 |
| Dhaka | 34.7 | 196,741 | 0.1762 | 0.0899 | 196 | 74 | 120 | 2 |
| Khulna | 3.2 | 71,347 | 0.0447 | 0.0696 | 64 | 60 | 4 | 0 |
| Rajshahi | 18.9 | 144,862 | 0.1307 | 0.0758 | 173 | 145 | 28 | 0 |
| Sylhet | 19.0 | 37,058 | 0.5126 | 0.1206 | 425 | 340 | 68 | 17 |
| **Educational level** | | | | | | | | |
| No education | 46.7 | 172,886 | 0.2704 | 0.0616 | 439 | 278 | 158 | 3 |
| Incomplete primary | 8.8 | 83,937 | 0.1043 | 0.0919 | 114 | 67 | 47 | 0 |
| Complete primary | 23.9 | 79,605 | 0.3000 | 0.1010 | 297 | 212 | 85 | 0 |
| Secondary or higher | 24.4 | 272,715 | 0.0895 | 0.0995 | 90 | 53 | 34 | 3 |
| Missing | 0.0 | 554 | 0.0000 | 0.0000 | - | - | - | - |
| **Wealth index quintile** | | | | | | | | |
| Poorest | 28.5 | 112,087 | 0.2540 | 0.1083 | 234 | 123 | 111 | 0 |
| Poorer | 19.3 | 117,134 | 0.1651 | 0.0909 | 182 | 127 | 52 | 3 |
| Middle | 29.0 | 121,250 | 0.2391 | 0.0859 | 278 | 202 | 76 | 0 |
| Richer | 14.6 | 126,035 | 0.1161 | 0.0810 | 143 | 113 | 30 | 0 |
| Richest | 12.4 | 133,284 | 0.0928 | 0.0755 | 123 | 52 | 63 | 8 |
| **Total** | 103.8 | 609,785 | 0.1702 | 0.0876 | 194 | 124 | 68 | 2 |

The verbal autopsy questionnaire recorded the number of previous live births that the deceased woman had, making it possible to classify maternal deaths by the woman's parity prior to the final pregnancy and estimate parity-specific maternal mortality risks. Table 3.4 shows the parity-specific births and maternal deaths in the three years before the survey and the resulting MMRs by parity. The MMRs by parity are calculated in a different way from those elsewhere in this report. Elsewhere, MMRates are calculated from maternal deaths and exposure time and converted into MMRs using the general fertility rate (GFR). For the calculations by parity, the MMR was calculated directly from maternal deaths at a given parity divided by the births of that parity, estimated after adjusting observed births for those not reported by women who died. Small numbers of deaths result in a rather erratic pattern, but it is clear that the safest births are those at parities 1 to 4, while those at parity 5 and higher have greater risks.

Table 3.4 Maternal mortality ratios per 100,000 live births in the three years preceding the survey, by prior parity, Bangladesh 2010

| Parity[1] | Births | GFR | Estimated total live births | Maternal deaths[2] | Maternal Mortality Ratio (MMR)[3] |
|---|---|---|---|---|---|
| 0 | 18,161 | 0.0333 | 18,194 | 35.3 | 194 |
| 1 | 15,295 | 0.0280 | 15,323 | 19.6 | 128 |
| 2 | 9,075 | 0.0166 | 9,092 | 20.2 | 222 |
| 3 | 4,900 | 0.0090 | 4,909 | 7.9 | 160 |
| 4 | 2,504 | 0.0046 | 2,508 | 10.6 | 423 |
| 5+ | 2,752 | 0.0050 | 2,757 | 10.2 | 372 |
| Total | 52,687 | 0.0965 | 52,782 | 103.8 | 197 |

Note: Information from the Household, Individual and Verbal Autopsy Questionnaires, considers exposure in birth history for de facto females only, considers de jure female household population in total exposure, gets maternal deaths from listing with usual members who died in the three years before the survey and from Verbal Autopsy Questionnaire, and assumes the same fertility rates as de facto interviewed women.

GFR = General fertility rate.

[1] Prior parity is the woman's parity prior to the final pregnancy.

[2] Deaths are weighted, hence, the number of deaths is not a round number.

[3] Deaths per 100,000 live births.

### *Maternal Deaths by Cause of Death*

Interpreting the information recorded in verbal autopsies, which is a fairly blunt instrument for identifying detailed causes of death, is something of an art form. Of the 132 deaths identified as maternal, the cause of death could not be specified for 12 (9 percent). Table 3.5 shows the cause-specific maternal mortality rates by age group. Ante and post-partum hemorrhage (31 percent) and eclampsia (20 percent) were the most common causes of maternal deaths (Figure 3.3), followed by obstructed or prolonged labor (6.5 percent), and deaths related to other direct causes (e.g., thromboembolic shock, sudden shock, other obstetric embolism, amniotic fluid embolism, hydatidiform mole, anesthetic hazards, any surgical/C-section complications, etc). Just above one percent of maternal deaths were attributable to abortion. A large proportion of maternal deaths were due to indirect causes (36.5 percent).

**Figure 3.3 Distribution of causes of maternal deaths among women of reproductive age (15-49 years) in the three years preceding the survey, Bangladesh 2010.**

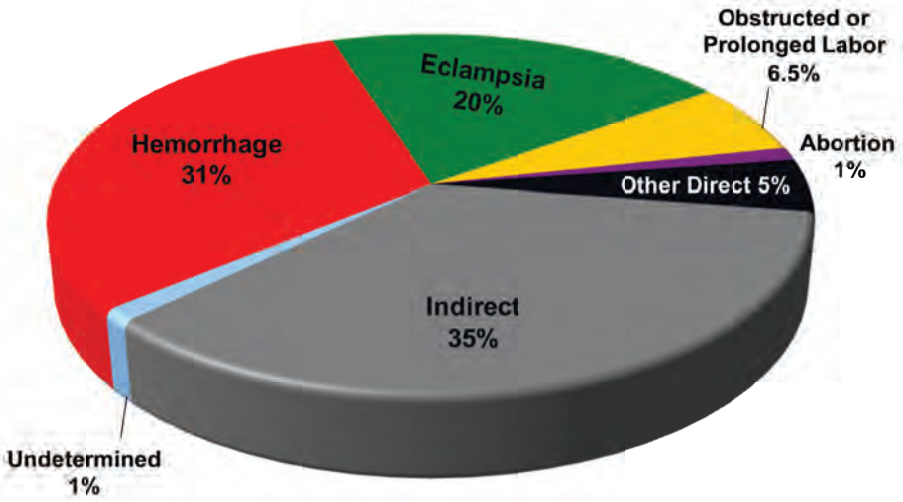


Table 3.5 Cause-specific maternal death rates (per 1,000 years of exposure) in the three years preceding the survey, by maternal age, Bangladesh 2010

| Age group | Exposure time (woman-years) | Direct obstetric death[1] | | | | | Indirect obstetric death[1] | Un-determined maternal death[1] | Maternal mortality rate[1] |
|---|---|---|---|---|---|---|---|---|---|
| | | Haemorrhage (ante- and post-partum) | Eclampsia | Obstructed/ prolonged labour | Abortion related death | Other direct | | | |
| 15-19 | 136,314 | 0.010 | 0.019 | 0.011 | 0.002 | 0.000 | 0.010 | 0.000 | 0.052 |
| 20-24 | 119,518 | 0.057 | 0.038 | 0.008 | 0.000 | 0.018 | 0.081 | 0.006 | 0.209 |
| 25-29 | 97,183 | 0.061 | 0.078 | 0.000 | 0.000 | 0.008 | 0.092 | 0.000 | 0.238 |
| 30-34 | 77,147 | 0.073 | 0.056 | 0.010 | 0.013 | 0.004 | 0.137 | 0.000 | 0.293 |
| 35-39 | 71,927 | 0.131 | 0.026 | 0.029 | 0.003 | 0.021 | 0.075 | 0.000 | 0.286 |
| 40-44 | 59,862 | 0.022 | 0.000 | 0.024 | 0.000 | 0.000 | 0.009 | 0.000 | 0.056 |
| 45-49 | 47,834 | 0.036 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.006 | 0.042 |
| Total | 609,785 | 0.053 | 0.034 | 0.011 | 0.002 | 0.008 | 0.060 | 0.002 | 0.170 |

Note: Information from the Household and Verbal Autopsy Questionnaires, considers de jure female household population in exposure, gets maternal deaths from listing with usual members who died in the three years before the survey and from verbal autopsy questionnaire, and assumes same fertility rates as de facto interviewed women.

[1] Deaths per 1,000.

### *3.2.2 Estimates of Pregnancy-Related Mortality from Sibling Histories*

Data on reported pregnancy-related deaths and exposure time from the sibling histories were analyzed to provide direct estimates of risks. For each death of a woman of reproductive age identified in the sibling history, additional information was collected about the timing of the death relative to pregnancy. Pregnancy-related deaths can therefore be identified and PRMRates calculated. The average PRMRate for women age 15-49 can then be divided by the GFR for the same period to estimate the PRMR. Since information is available about deaths for a long period in the past, estimates based on the sibling histories can be used to look at trends, again with a caveat about small numbers and sampling uncertainty. Table 3.6 shows pregnancy-related sister deaths, sister exposure time, and rates by age group of sister for three five-year periods—1996-2000, 2001-2005 and 2006-2010—as well as for the most recent three-year period—2008-2010. The PRMR declines from 382 per 100,000 live births (95% CI 328-436) in the period 1996-2000, to 301 for the period 2006-2010 (95% CI 256-346), and to 257 for the three-year period 2008-2010 (95% CI 205-309), rather higher than the 201 estimated from the household deaths shown in Table 3.1 for the same period. The age pattern of pregnancy-related mortality risk, however, is remarkably similar to that estimated from the household deaths, rising steeply with age of woman (Table 3.7).

### *3.2.3 Distribution of Maternal Deaths by Timing Relative to Delivery*

As mentioned, the timing of maternal deaths relative to delivery varies by source of data. About 18 percent of the maternal deaths identified by the Verbal Autopsy Questionnaire occurred during pregnancy, and about three fourths (73 percent) occurred postpartum (Table 3.2). However, some interesting patterns emerge when we compare this pattern with that of pregnancy-related deaths from the Household Questionnaire and from the sibling history. Of the pregnancy-related deaths recorded by the time-of-death questions on the Household Questionnaire, 28 percent occurred during pregnancy and 62 percent occurred postpartum (Table 3.1) — a pattern generally similar to that of maternal deaths from verbal autopsies. In contrast, the pattern for sibling deaths in relation to timing of death relative to delivery is quite different, with 43 percent of the deaths occurring during pregnancy and only 26 percent occurring postpartum (Table 3.7).

Table 3.6 Estimates of pregnancy-related mortality ratios (per 100,000 live births) from the BMMS 2010 sibling history

| | 1996-2000 | | | 2001-2005 | | | 2006-2010 | | | 2008-2010 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Age Group | Pregnancy-related deaths | Sister exposure | Pregnancy-related mortality rates | Pregnancy-related deaths | Sister exposure | Pregnancy-related mortality rates | Pregnancy-related deaths | Sister exposure | Pregnancy-related mortality rates | Pregnancy-related deaths | Sister exposure | Pregnancy-related mortality rates |
| 15-19 | 103 | 312,613 | 0.330 | 70 | 315,239 | 0.220 | 71 | 265,635 | 0.270 | 23 | 150,677 | 0.150 |
| 20-24 | 130 | 277,123 | 0.470 | 145 | 310,163 | 0.470 | 98 | 313,110 | 0.310 | 59 | 184,698 | 0.320 |
| 25-29 | 110 | 237,975 | 0.460 | 112 | 274,869 | 0.410 | 106 | 308,000 | 0.340 | 57 | 189,313 | 0.300 |
| 30-34 | 97 | 170,757 | 0.570 | 94 | 235,673 | 0.400 | 92 | 272,591 | 0.340 | 40 | 166,111 | 0.240 |
| 35-39 | 56 | 104,476 | 0.540 | 63 | 168,899 | 0.370 | 60 | 233,489 | 0.260 | 40 | 146,868 | 0.270 |
| 40-44 | 33 | 49,555 | 0.660 | 37 | 102,736 | 0.360 | 33 | 166,695 | 0.200 | 16 | 108,269 | 0.150 |
| 45-49 | 14 | 15,332 | 0.920 | 13 | 48,502 | 0.280 | 13 | 101,026 | 0.130 | 4 | 66,715 | 0.060 |
| Total | 544 | 1,167,833 | 0.470 | 535 | 1,456,082 | 0.370 | 474 | 1,660,545 | 0.290 | 239 | 1,012,652 | 0.240 |
| GFR | - | 136 | - | - | 121 | - | - | 92 | - | - | 88 | - |
| PRMRate | - | 382[1] | - | - | 296[2] | - | - | 301[3] | - | - | 257[4] | - |

GFR = General fertility rate.
PRMR = Pregnancy-related mortality rate.
CI = Confidence interval.

[1] 95% CI 328 to 436.
[2] 95% CI 262 to 329.
[3] 95% CI 256 to 346.
[4] 95% CI 205 to 309.

Table 3.7 Pregnancy-related deaths and mortality rates by time of death definition, 2007-2010, Bangladesh 2010

Note: data from sibling listing.

| | Mortality | | | | | | Age specific fertility and age specific PRMR | |
|---|---|---|---|---|---|---|---|---|
| | Exposure time | Deaths during pregnancy | Deaths during delivery | Deaths post-partum | Total pregnancy related deaths | Pregnancy related mortality rate | ASFR | ASPRMR |
| | **0-3 YEARS** | | | | | | | |
| **Maternal Age** | | | | | | | | |
| 15-19 | 150,677 | 9.2 | 8.3 | 5.3 | 22.8 | 0.151 | 0.105 | 144 |
| 20-24 | 184,698 | 29.6 | 19.2 | 10.1 | 58.9 | 0.319 | 0.160 | 199 |
| 25-29 | 189,313 | 19.5 | 16.5 | 20.7 | 56.8 | 0.300 | 0.123 | 244 |
| 30-34 | 166,111 | 15.6 | 14.3 | 10.5 | 40.3 | 0.243 | 0.073 | 332 |
| 35-39 | 146,868 | 16.4 | 12.8 | 11.0 | 40.3 | 0.274 | 0.031 | 889 |
| 40-44 | 108,269 | 10.2 | 1.5 | 4.1 | 15.8 | 0.146 | 0.010 | 1,460 |
| 45-49 | 66,715 | 3.1 | 0.0 | 1.0 | 4.1 | 0.061 | 0.002 | 2,609 |
| Total | 1,012,652 | 103.6 | 72.6 | 62.8 | 239.0 | 0.236 | 0.088 | 257 |

For deaths reported in the Household Questionnaire, it is possible to compare the classification of deaths as pregnancy-related using time-of-death questions in the Household Questionnaire with the classification as maternal from the verbal autopsy. Overall, about 4 percent of the pregnancy-related deaths were not classified as maternal by the verbal autopsy, but this figure was 37 percent for pregnancy-related deaths that were reported as occurring during pregnancy. The difference probably reflects the hierarchical way in which the questions about timing of death relative to pregnancy were asked in both the Household Questionnaire and the sibling history, starting with pregnancy, then delivery, and finally after delivery. Support for this conclusion comes from the fact that 20 and 4 percent, respectively, of pregnancy-related deaths reportedly occurring during pregnancy were defined by the verbal autopsy as maternal deaths during delivery or after delivery. This shift is one reason why the number of maternal deaths is higher than the number of pregnancy-related deaths in the postpartum period; the other reason is that one death (un-weighted) occurred more than 42 days after delivery, past the cutoff for pregnancy-related deaths classified as maternal by the verbal autopsy. For pregnancy-related deaths reportedly occurring after delivery, 89 percent were classified as maternal deaths occurring after delivery. Interestingly, 83 percent of pregnancy-related deaths reportedly occurring during delivery were classified as maternal deaths occurring after delivery.

### *3.2.4 Summary of Estimates of Pregnancy-Related and Maternal Mortality, 1996 to 2010*

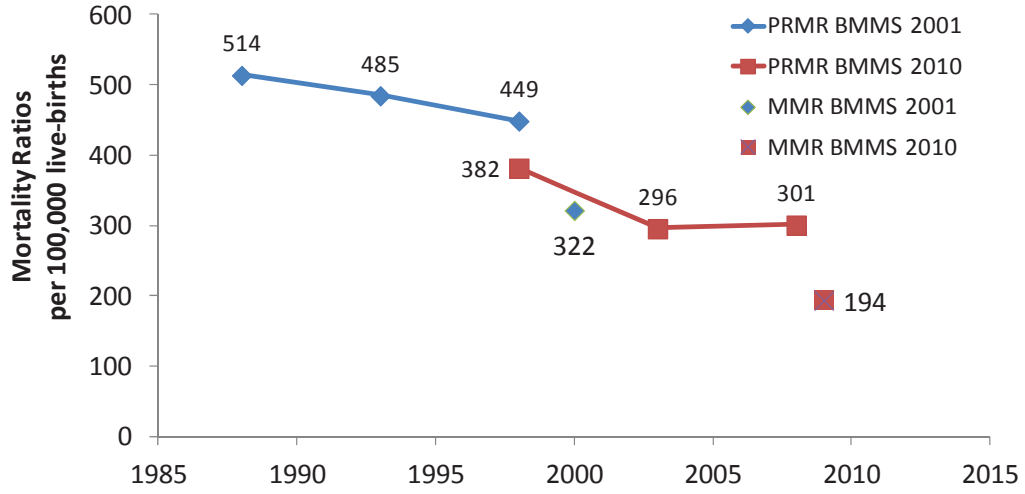
Figure 3.4 shows estimates of pregnancy-related and maternal mortality by time period, both from the 2001 and 2010 surveys. The sibling estimates show a steady downward trend over time, from 514 per 100,000 live births in the late 1980s to 301 per 100,000 live births in the three years before the 2010 survey. However, the 2010 survey provides a slightly lower (15 percent) estimate for the overlapping period 1996-2001 than the 2001 survey (382 versus 449), suggesting that the sibling history method possibly underestimates to a greater extent with longer recall periods. In both surveys, the verbal-autopsy-based MMR is lower than the sibling-history-based PRMR for the same period.

## 3.3 OVERALL ADULT MORTALITY

### *3.3.1 Adult Mortality Estimates from Household Deaths*

The mortality estimates given here are based on deaths recorded in the 36 months prior to interview and refer approximately to the period May 2007 to April 2010.

**Figure 3.4 BMMS estimates of pregnancy-related mortality and maternal mortality, 1998-2010.**




## *Mortality Levels and Patterns*

Table 3.8 shows the deaths, exposure time, and mortality rates from the BMMS for the three years before the survey. The rates are graphed (on a log scale) in Figure 3.5. The rates show the expected J-shaped pattern with age of high risk in early childhood, dropping to a minimum at age 10-14, and then rising steadily into old age. Male mortality is generally slightly higher than female mortality, and the differences are most pronounced between age 10 and 60. The table also shows two summary measures of adult mortality: the probability of dying between age 15 and 50 (35q15) and the probability of dying between age 15 and 60 (45q15). Females have an advantage on both measurements, particularly on the second. For both sexes, however, the mortality risks are surprisingly low, corresponding approximately to mortality risks in England and Wales in the early 1960s for both males and females.

Table 3.8 Age-specific mortality rates in the three years preceding the survey, by sex, Bangladesh 2010

| | Male | | | Female | | |
|---|---|---|---|---|---|---|
| Age group | Deaths | Exposure | Mortality rates | Deaths | Exposure | Mortality rates |
| < 1 | 1,022 | 25,490 | 0.04011 | 833 | 24,543 | 0.03393 |
| 1-4 | 359 | 116,399 | 0.00308 | 267 | 111,764 | 0.00239 |
| 5-9 | 133 | 150,821 | 0.00088 | 131 | 145,737 | 0.00090 |
| 10-14 | 92 | 130,451 | 0.00071 | 73 | 132,036 | 0.00055 |
| 15-19 | 110 | 107,155 | 0.00103 | 95 | 136,314 | 0.00070 |
| 20-24 | 132 | 93,879 | 0.00141 | 105 | 119,518 | 0.00088 |
| 25-29 | 106 | 93,530 | 0.00113 | 101 | 97,183 | 0.00104 |
| 30-34 | 104 | 74,428 | 0.00140 | 78 | 77,147 | 0.00101 |
| 35-39 | 146 | 75,523 | 0.00193 | 131 | 71,927 | 0.00182 |
| 40-44 | 198 | 60,123 | 0.00330 | 107 | 59,862 | 0.00179 |
| 45-49 | 259 | 54,473 | 0.00475 | 119 | 47,834 | 0.00249 |
| 50-54 | 323 | 40,501 | 0.00797 | 95 | 35,222 | 0.00271 |
| 55-59 | 349 | 37,796 | 0.00924 | 337 | 37,945 | 0.00889 |
| 60-64 | 609 | 26,927 | 0.02263 | 594 | 25,169 | 0.02362 |
| 65-69 | 619 | 25,065 | 0.02471 | 527 | 19,546 | 0.02696 |
| 70-74 | 985 | 15,694 | 0.06279 | 815 | 10,698 | 0.07615 |
| 75-79 | 599 | 13,042 | 0.04594 | 401 | 10,652 | 0.03768 |
| 80+ | 2,196 | 10,530 | 0.20851 | 2,162 | 9,712 | 0.22260 |
| Total | 8,343 | 1,151,827 | 0.00724 | 6,972 | 1,172,809 | 0.00595 |
| **Probability of dying** | | | | | | |
| 35q15 | - | - | 0.07206 | - | - | 0.04750 |
| 45q15 | - | - | 0.14865 | - | - | 0.10123 |

Note: Rates are based on data from the Household Questionnaire; deaths from the household listing in the three years before the survey.

**Figure 3.5 Age-specific mortality rates in the three years preceding the survey, by sex, Bangladesh 2010.**

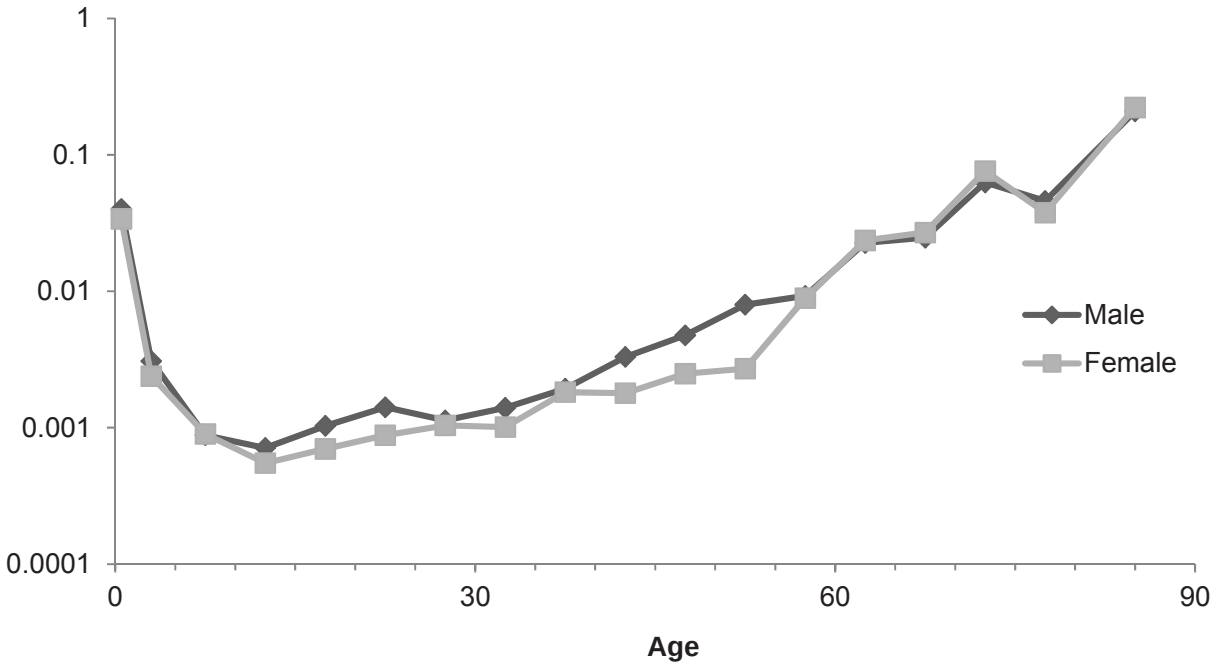



Table 3.9 shows mortality rates by age, sex, residence, and household wealth quintile. The two summary measures of adult mortality are also shown. Rural males have a higher probability of dying between ages 15 and 50 than their urban counterparts, but the differential is reversed for the probability of dying between age 15 and 60; rural male mortality is higher than urban under age 5. Rural females have lower risks than urban females between ages 15 and 60 but there is almost no difference in risks between ages 15 and 50. Compared to urban females, rural females have excess mortality below the age of 5 years and in the age groups of highest fertility (20-34), which may be related to higher reproductive risks in rural areas. Mortality risks tend to be highest in the poorest households and lowest in the wealthiest households. The patterns are not entirely uniform, however—perhaps because of fairly small numbers of deaths. For example, 35q15 females in the second lowest wealth quintile have the highest risk, while the highest risk for males is in the lowest quintile; for 45q15, the highest risk is in the lowest quintile for both males and females.

### *Causes of Non-maternal Deaths*

The Verbal Autopsy Questionnaire was used to collect information about signs and symptoms surrounding every female death between the ages of 15 and 49 (inclusive) as reported by the household. The primary purpose of the verbal autopsy was to identify maternal deaths, but the results also permit the assignation of non-maternal causes. Table 3.10 shows mortality rates by cause of death among women 15-49 in the three years preceding the survey. The cause categories are maternal; infectious diseases; malignancies/cancers; diseases of the circulatory system; suicide; other violent deaths; miscellaneous causes; and not classified for deaths for which it was impossible to assign a cause on the basis of the verbal autopsy, or for which the reviewing physicians could not agree.

Table 3.9 Age-specific mortality rates in the three years preceding the survey, by residence and household wealth quintile, Bangladesh 2010

| | Residence | | Wealth quintile | | | | | |
|---|---|---|---|---|---|---|---|---|
| Age group | Urban | Rural | Poorest | Poorer | Middle | Richer | Richest | Total |
| **MALE** | | | | | | | | |
| < 1 | 0.03686 | 0.04105 | 0.05416 | 0.03815 | 0.04028 | 0.03564 | 0.02801 | 0.04011 |
| 1-4 | 0.00283 | 0.00315 | 0.00373 | 0.00354 | 0.00305 | 0.00297 | 0.00177 | 0.00308 |
| 5-9 | 0.00072 | 0.00093 | 0.00087 | 0.00099 | 0.00126 | 0.00077 | 0.00044 | 0.00088 |
| 10-14 | 0.00094 | 0.00064 | 0.00105 | 0.00063 | 0.00053 | 0.00067 | 0.00067 | 0.00071 |
| 15-19 | 0.00079 | 0.00111 | 0.00126 | 0.00085 | 0.00111 | 0.00087 | 0.00112 | 0.00103 |
| 20-24 | 0.00085 | 0.00161 | 0.00216 | 0.00104 | 0.00142 | 0.00138 | 0.00124 | 0.00141 |
| 25-29 | 0.00097 | 0.00119 | 0.00087 | 0.00133 | 0.00126 | 0.00129 | 0.00091 | 0.00113 |
| 30-34 | 0.00156 | 0.00135 | 0.00235 | 0.00091 | 0.00104 | 0.00125 | 0.00140 | 0.00140 |
| 35-39 | 0.00149 | 0.00209 | 0.00261 | 0.00110 | 0.00261 | 0.00164 | 0.00169 | 0.00193 |
| 40-44 | 0.00313 | 0.00336 | 0.00492 | 0.00363 | 0.00287 | 0.00271 | 0.00243 | 0.00330 |
| 45-49 | 0.00513 | 0.00462 | 0.00599 | 0.00471 | 0.00384 | 0.00562 | 0.00375 | 0.00475 |
| 50-54 | 0.00920 | 0.00760 | 0.01265 | 0.00733 | 0.00634 | 0.00692 | 0.00780 | 0.00797 |
| 55-59 | 0.01008 | 0.00900 | 0.00860 | 0.00809 | 0.00840 | 0.01145 | 0.00950 | 0.00924 |
| 60-64 | 0.02694 | 0.02153 | 0.02956 | 0.01799 | 0.02242 | 0.01980 | 0.02434 | 0.02263 |
| 65-69 | 0.02968 | 0.02353 | 0.02024 | 0.02646 | 0.02024 | 0.02970 | 0.02698 | 0.02471 |
| 70-74 | 0.08048 | 0.05896 | 0.07048 | 0.06411 | 0.05797 | 0.05766 | 0.06451 | 0.06279 |
| 75-79 | 0.06036 | 0.04296 | 0.03893 | 0.04107 | 0.04978 | 0.04133 | 0.06008 | 0.04594 |
| 80+ | 0.25315 | 0.19883 | 0.16556 | 0.20614 | 0.23395 | 0.20412 | 0.23609 | 0.20851 |
| Total | 0.00680 | 0.00738 | 0.00793 | 0.00675 | 0.00721 | 0.00735 | 0.00698 | 0.00724 |
| **Probability of dying** | | | | | | | | |
| 35q15 | 0.06727 | 0.07378 | 0.09594 | 0.06568 | 0.06828 | 0.07117 | 0.06076 | 0.07206 |
| 45q15 | 0.15305 | 0.14762 | 0.18717 | 0.13505 | 0.13454 | 0.15281 | 0.13870 | 0.14865 |
| **FEMALE** | | | | | | | | |
| < 1 | 0.03122 | 0.03473 | 0.04163 | 0.04033 | 0.03340 | 0.02985 | 0.02124 | 0.03393 |
| 1-4 | 0.00236 | 0.00239 | 0.00331 | 0.00263 | 0.00190 | 0.00196 | 0.00176 | 0.00239 |
| 5-9 | 0.00093 | 0.00089 | 0.00137 | 0.00079 | 0.00080 | 0.00072 | 0.00065 | 0.00090 |
| 10-14 | 0.00061 | 0.00054 | 0.00042 | 0.00084 | 0.00047 | 0.00041 | 0.00060 | 0.00055 |
| 15-19 | 0.00077 | 0.00067 | 0.00133 | 0.00070 | 0.00082 | 0.00062 | 0.00021 | 0.00070 |
| 20-24 | 0.00059 | 0.00099 | 0.00134 | 0.00120 | 0.00086 | 0.00068 | 0.00047 | 0.00088 |
| 25-29 | 0.00083 | 0.00112 | 0.00123 | 0.00139 | 0.00131 | 0.00097 | 0.00041 | 0.00104 |
| 30-34 | 0.00081 | 0.00108 | 0.00162 | 0.00087 | 0.00136 | 0.00075 | 0.00048 | 0.00101 |
| 35-39 | 0.00197 | 0.00178 | 0.00179 | 0.00268 | 0.00167 | 0.00151 | 0.00146 | 0.00182 |
| 40-44 | 0.00206 | 0.00170 | 0.00172 | 0.00206 | 0.00210 | 0.00145 | 0.00160 | 0.00179 |
| 45-49 | 0.00272 | 0.00242 | 0.00250 | 0.00305 | 0.00233 | 0.00204 | 0.00256 | 0.00249 |
| 50-54 | 0.00336 | 0.00252 | 0.00340 | 0.00347 | 0.00295 | 0.00155 | 0.00246 | 0.00271 |
| 55-59 | 0.01140 | 0.00824 | 0.00890 | 0.00716 | 0.00978 | 0.00951 | 0.00901 | 0.00889 |
| 60-64 | 0.03253 | 0.02144 | 0.02337 | 0.02364 | 0.02502 | 0.02084 | 0.02540 | 0.02362 |
| 65-69 | 0.03345 | 0.02539 | 0.02246 | 0.02442 | 0.03238 | 0.02550 | 0.03023 | 0.02696 |
| 70-74 | 0.08801 | 0.07326 | 0.07842 | 0.07122 | 0.07307 | 0.08192 | 0.07530 | 0.07615 |
| 75-79 | 0.04479 | 0.03598 | 0.03231 | 0.04014 | 0.03176 | 0.04380 | 0.03989 | 0.03768 |
| 80+ | 0.21621 | 0.22413 | 0.23177 | 0.24101 | 0.23519 | 0.19815 | 0.21446 | 0.22260 |
| Total | 0.00554 | 0.00607 | 0.00632 | 0.00598 | 0.00612 | 0.00583 | 0.00548 | 0.00595 |
| **Probability of dying** | | | | | | | | |
| 35q15 | 0.04753 | 0.04764 | 0.05604 | 0.05797 | 0.05089 | 0.03935 | 0.03530 | 0.04750 |
| 45q15 | 0.11539 | 0.09755 | 0.11241 | 0.10673 | 0.10945 | 0.09105 | 0.08910 | 0.10123 |

Note: Rates are based on data from the Household Questionnaire; deaths from the household listing in the three years before the survey.

Table 3.10 Mortality rates (per 1,000 years of exposure) among women age 15-49 in the three years preceding the survey, by cause of death, Bangladesh 2010

| Age group | Maternal | Infections | Cancers | Circulatory disease | Suicide | Other violent causes | Miscellaneous causes | Not classified | Total |
|---|---|---|---|---|---|---|---|---|---|
| 15-19 | 0.052 | 0.099 | 0.085 | 0.015 | 0.155 | 0.097 | 0.098 | 0.093 | 0.694 |
| 20-24 | 0.209 | 0.101 | 0.103 | 0.060 | 0.104 | 0.087 | 0.124 | 0.087 | 0.875 |
| 25-29 | 0.238 | 0.064 | 0.133 | 0.187 | 0.112 | 0.057 | 0.124 | 0.103 | 1.019 |
| 30-34 | 0.293 | 0.104 | 0.101 | 0.125 | 0.062 | 0.035 | 0.232 | 0.075 | 1.028 |
| 35-39 | 0.286 | 0.124 | 0.503 | 0.362 | 0.164 | 0.039 | 0.214 | 0.120 | 1.813 |
| 40-44 | 0.056 | 0.162 | 0.667 | 0.370 | 0.017 | 0.045 | 0.291 | 0.172 | 1.780 |
| 45-49 | 0.042 | 0.088 | 0.739 | 0.725 | 0.016 | 0.111 | 0.612 | 0.135 | 2.469 |
| Total | 0.170 | 0.103 | 0.256 | 0.197 | 0.103 | 0.070 | 0.197 | 0.105 | 1.201 |

It was not possible to assign a cause to 36 deaths (4 percent of the total). However, for mortality across all ages among females age 15-49, the largest single cause of death was cancer (21 percent), followed by diseases of the circulatory system (16 percent), maternal causes (14 percent) and both infections and suicides (9 percent each) (Figure 3.6). Death rates from circulatory diseases and malignancies both rise sharply with age. Suicide rates, on the other hand, are highest at the age of 15-19 and again at the age 35-39. External causes—injuries—show no clear age pattern of risk. Both miscellaneous and unclassified death rates rise moderately with age.

Table 3.11 presents exposure time, number of deaths, and mortality rates, for all causes and for specific causes of death (including maternal) for women aged 15-49 years, based on household deaths by selected background characteristics (residence, division, education, and socioeconomic status of the household). For the two main causes of death, i,e., cancers and circulatory system conditions, there were no obvious urban-rural differences or differences by region (division) or wealth quintile. The lowest risk for both causes were was seen among the most educated women. The increasing risk with parity is obviously a consequence of the increasing age with higher parity.

**Figure 3.6 Distribution of causes of deaths among women of reproductive age (15-49 years) in the three years preceding the survey, Bangladesh 2010.**

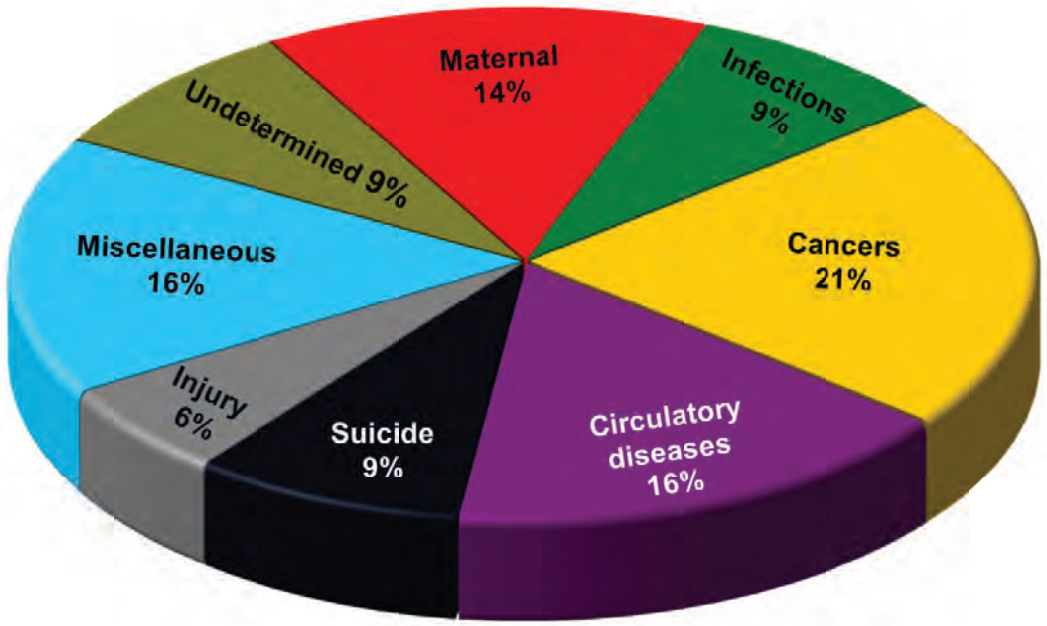


Table 3.11. All cause and cause specific female adult mortality rates for the three years preceding the survey according to background characteristics, Bangladesh 2010

| | Mortality | | | Cause specific | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Deaths | Exposure | Mortality rates | Pregnancy, childbirth and the puerperium (maternal) | Certain infectious and parasitic diseases (infectious) | Neoplasm (malignancy) | Diseases of the circulatory system | Intentional self harm (suicide) | External causes of morbidity and mortality (other violent) | Miscellaneous causes | Unspecified and undetermined |
| **Urban/rural** | | | | | | | | | | | |
| Urban | 174.9 | 155,087 | 1.1279 | 0.1430 | 0.1239 | 0.2616 | 0.1935 | 0.0545 | 0.0697 | 0.1925 | 0.0891 |
| Rural | 557.6 | 454,696 | 1.2264 | 0.1795 | 0.0955 | 0.2541 | 0.1978 | 0.1197 | 0.0701 | 0.1987 | 0.1110 |
| **Division** | | | | | | | | | | | |
| Barisal | 50.5 | 37,788 | 1.3358 | 0.1376 | 0.1340 | 0.1415 | 0.2437 | 0.0811 | 0.1901 | 0.2978 | 0.1101 |
| Chittagong | 151.2 | 121,985 | 1.2394 | 0.1869 | 0.1218 | 0.2962 | 0.1601 | 0.0308 | 0.0728 | 0.1920 | 0.1788 |
| Dhaka | 236.3 | 196,741 | 1.2012 | 0.1762 | 0.1230 | 0.2306 | 0.2182 | 0.0973 | 0.0932 | 0.1916 | 0.0712 |
| Khulna | 77.8 | 71,347 | 1.0910 | 0.0447 | 0.0507 | 0.3205 | 0.1903 | 0.2417 | 0.0099 | 0.1609 | 0.0723 |
| Rajshahi | 156.3 | 144,862 | 1.0793 | 0.1307 | 0.0751 | 0.2385 | 0.1764 | 0.1236 | 0.0500 | 0.1753 | 0.1096 |
| Sylhet | 60.3 | 37,058 | 1.6283 | 0.5126 | 0.1080 | 0.3198 | 0.2465 | 0.0479 | 0.0093 | 0.2961 | 0.0880 |
| **Educational level** | | | | | | | | | | | |
| No education | 321.7 | 172,886 | 1.8608 | 0.2704 | 0.1632 | 0.4234 | 0.2681 | 0.1096 | 0.1035 | 0.3441 | 0.1785 |
| Incomplete primary | 106.2 | 83,937 | 1.2648 | 0.1043 | 0.1381 | 0.1954 | 0.2669 | 0.1651 | 0.0581 | 0.2421 | 0.0949 |
| Complete primary | 127.1 | 79,605 | 1.5963 | 0.3000 | 0.1681 | 0.3427 | 0.2928 | 0.0726 | 0.0941 | 0.1884 | 0.1376 |
| Secondary or higher | 177.6 | 272,715 | 0.6512 | 0.0895 | 0.0346 | 0.1439 | 0.1022 | 0.0891 | 0.0455 | 0.0932 | 0.0532 |
| Missing | 0.0 | 554 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Wealth index quintile** | | | | | | | | | | | |
| Poorest | 170.9 | 112,087 | 1.5247 | 0.2540 | 0.1205 | 0.2459 | 0.1392 | 0.1234 | 0.1186 | 0.2972 | 0.2258 |
| Poorer | 175.4 | 117,134 | 1.4978 | 0.1651 | 0.1734 | 0.3329 | 0.2346 | 0.1588 | 0.0771 | 0.2524 | 0.1034 |
| Middle | 159.4 | 121,250 | 1.3146 | 0.2391 | 0.1239 | 0.3162 | 0.2153 | 0.1054 | 0.0512 | 0.1828 | 0.0808 |
| Richer | 124.8 | 126,035 | 0.9904 | 0.1161 | 0.0425 | 0.1626 | 0.2271 | 0.1160 | 0.0618 | 0.1550 | 0.1092 |
| Richest | 102.0 | 133,284 | 0.7651 | 0.0928 | 0.0632 | 0.2304 | 0.1660 | 0.0230 | 0.0477 | 0.1174 | 0.0247 |
| **Previous parity** | | | | | | | | | | | |
| 0 | 256.8 | 231,648 | 1.1085 | 0.1524 | 0.1223 | 0.1825 | 0.0880 | 0.1516 | 0.1152 | 0.1611 | 0.1353 |
| 1 | 108.2 | 144,892 | 0.7468 | 0.1352 | 0.0444 | 0.1614 | 0.1202 | 0.0412 | 0.0405 | 0.1354 | 0.0684 |
| 2 | 132.3 | 101,019 | 1.3096 | 0.1995 | 0.1134 | 0.3367 | 0.1592 | 0.1060 | 0.0435 | 0.2582 | 0.0931 |
| 3 | 80.0 | 62,087 | 1.2888 | 0.1268 | 0.1013 | 0.3274 | 0.2901 | 0.0857 | 0.0630 | 0.1914 | 0.1031 |
| 4 | 69.4 | 34,413 | 2.0164 | 0.3086 | 0.1002 | 0.4558 | 0.6385 | 0.0926 | 0.0532 | 0.3264 | 0.0412 |
| 5+ | 85.9 | 35,727 | 2.4032 | 0.2868 | 0.1864 | 0.5719 | 0.7297 | 0.0722 | 0.0000 | 0.3940 | 0.1623 |
| **Total** | 732.5 | 609,785 | 1.2013 | 0.1702 | 0.1027 | 0.2560 | 0.1967 | 0.1031 | 0.0700 | 0.1971 | 0.1054 |

### *3.3.2 Adult Mortality Estimates from Sibling Histories*

All eligible women (ever-married women age 13-49) were asked for a complete sibling history, as described above. The information from the sibling history permits the calculation of age-specific mortality rates by sex for age groups up to 45-49, where the numerator is sibling deaths at a given age and a given number of years before the survey and the denominator is person-years lived by both surviving siblings and person-years prior to death by those who died. Table 3.12 shows mortality rates by age and sex estimated from the BMMS sibling histories for three five-year periods, 1996-2000, 2001-2005, 2006-2010, and for the three years preceding the survey, 2008-2010.

***Mortality Levels and Trends***

An important potential advantage of the sibling history over the household deaths approach to measuring adult mortality is that the sibling history provides information about recent trends, assuming that recall or other data errors do not change over time. Table 3.12 shows trends in the summary measure 35q15 over the 15 years before the survey. For the three-year period preceding the survey, the sibling estimates of 35q15 are similar to, if somewhat lower than, the estimates based on household deaths for males and somewhat higher for females shown in Table 3.8: a 6.4 percent risk of dying between age 15 and 50 for males, as opposed to 7.2 percent for males from the household deaths; a 5.1 percent risk of dying for females based on sibling history, compared with 4.8 percent from household deaths. The sibling data show declining adult mortality for both sexes, but more rapid declines for females (almost 50 percent over 10 years) than males (33 percent over 10 years). For the period 10-14 years before the survey, females have more than a 5 percent excess risk of dying between the age 15 and 50 relative to males, but this male advantage declines sharply to reverse the relationship in the period 0 to 4 years before the survey. The nature of the sibling mortality data precludes the calculation of differentials because the persons at risk (siblings) do not necessarily share the geographic or socioeconomic characteristics of the respondent.

Table 3.12 Direct estimates of mortality rates from the sibling listings for specific periods preceding the survey, Bangladesh 2010

| | Male | | | | Female | | | |
|---|---|---|---|---|---|---|---|---|
| Age group | 1996-2000 | 2001-2005 | 2006-2010 | 2008-2010 | 1996-2000 | 2001-2005 | 2006-2010 | 2008-2010 |
| 0-4 | 0.01649 | 0.01280 | 0.01231 | 0.01142 | 0.01772 | 0.01326 | 0.01089 | 0.00940 |
| 5-9 | 0.00241 | 0.00210 | 0.00135 | 0.00122 | 0.00285 | 0.00202 | 0.00068 | 0.00073 |
| 10-14 | 0.00132 | 0.00098 | 0.00057 | 0.00052 | 0.00132 | 0.00096 | 0.00075 | 0.00080 |
| 15-19 | 0.00099 | 0.00090 | 0.00074 | 0.00082 | 0.00163 | 0.00109 | 0.00109 | 0.00079 |
| 20-24 | 0.00124 | 0.00103 | 0.00084 | 0.00074 | 0.00157 | 0.00145 | 0.00113 | 0.00097 |
| 25-29 | 0.00136 | 0.00122 | 0.00120 | 0.00111 | 0.00174 | 0.00145 | 0.00122 | 0.00108 |
| 30-34 | 0.00177 | 0.00159 | 0.00135 | 0.00116 | 0.00226 | 0.00194 | 0.00136 | 0.00111 |
| 35-39 | 0.00243 | 0.00187 | 0.00200 | 0.00185 | 0.00287 | 0.00216 | 0.00178 | 0.00167 |
| 40-44 | 0.00546 | 0.00407 | 0.00328 | 0.00301 | 0.00472 | 0.00340 | 0.00246 | 0.00220 |
| 45-49 | 0.00691 | 0.00601 | 0.00509 | 0.00458 | 0.00657 | 0.00546 | 0.00341 | 0.00272 |
| Probability of dying | | | | | | | | |
| 35q15 | 0.09591 | 0.08015 | 0.06989 | 0.06419 | 0.10130 | 0.08130 | 0.06036 | 0.05128 |

## Summary

### *Chapter 4. Maternity Care*

- ANC by medically trained providers increased from 40 percent to 54 percent in the last 9 years.
- In addition, 17 percent of women reported receiving ANC from a non-medically trained provider.
- Although the proportion of women receiving the recommended number of ANC visits (4+) has doubled in the last 10 years, only one in four women is receiving the recommended number of ANC visits.
- Sylhet shows the least improvement in ANC coverage.
- Among women who received ANC, only one in three women was provided advice on danger signs.
- Delivery by trained providers increased from 12.2 percent in BMMS 2001 to 26.5 percent in BMMS 2010; the increase is predominantly due to the rise in facility deliveries which increased from 9.2 percent to 23.4 percent.
- Facility deliveries increased at a rate of two percentage points per year; the increase is more marked in the non-public sector than the public sector.
- Not all facility births were attended by trained providers; two percent of births at facilities were attended by untrained providers.
- Deliveries by C-section increased by almost five times in the last 10 years from 2.6 percent to 12.2 percent. Half of facility deliveries are performed by C-sections.
- Inequity, by wealth quintiles and education, in use of facilities for delivery has declined; yet women in the richest quintile are seven times more likely to deliver in a facility compared to women in the poorest quintile. Women with at least a secondary complete education are six times more likely to use facilities for delivery compared to women with no education.
- Only 4.4 percent of births delivered at home are attended by medically trained providers. This proportion has hardly changed since 2001, when 3.5 percent of births were delivered by a medically trained provider at home.
- Twenty-three percent of women received postnatal care from a medically trained provider within two days of delivery.
- There was a slow but steady increase in receiving post-natal care in the last five years.
- The proportion of women who received complete maternity care (ANC, delivery care, and PNC) increased from five percent in 2001 to 19 percent in 2010.
- One-fourth of currently pregnant women in their third trimester did not discuss or decide on a place of delivery.
- One-third of currently pregnant women in their third trimester did not discuss or decide on an attendant for delivery.
- One-fourth of currently pregnant women in their third trimester received information from a health worker during ANC visits about arranging money in case of emergency during pregnancy.
- Currently pregnant women in their third trimester have had some discussions with family members regarding emergency preparedness.
  - One-third discussed arrangements for money.
  - Sixteen percent discussed transportation.
- Currently pregnant women in their third trimester received information from health workers during ANC visits regarding emergency preparedness.
  - One-fourth received information on making arrangements for money.
  - Eighteen percent received information on arranging transportation.
  - One-third received information on danger signs of maternal complications.

# MATERNITY CARE 4

This chapter presents findings from the Bangladesh Maternal Mortality and Health care Survey 2010 (BMMS 2010) on aspects of antenatal care, delivery, and postnatal care decision making and behaviour among Bangladeshi couples.

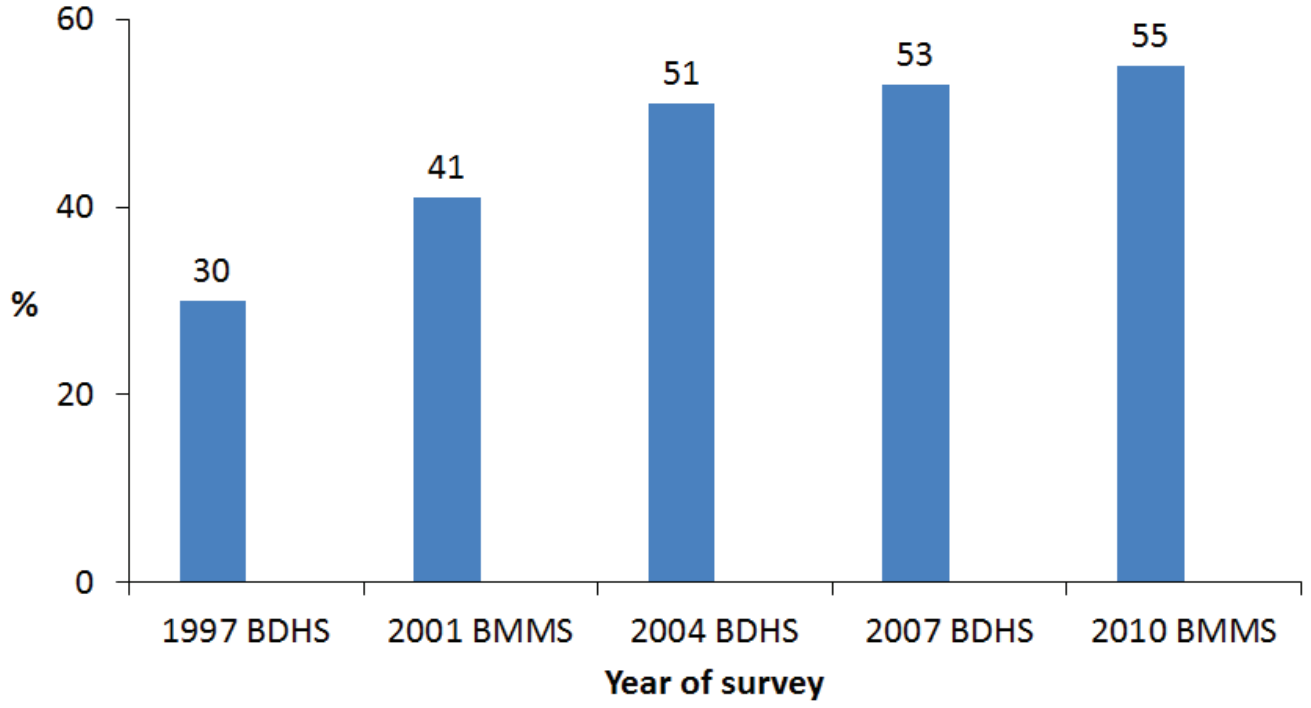
## 4.1 ANTENATAL CARE

Proper care during pregnancy and childbirth is important to the health of both the mother and child. Antenatal care (ANC) is recognized as a major component of comprehensive maternal health care. Antenatal care facilitates the detection and treatment of problems during pregnancy such as infections, hypertensive disease, and maternal anaemia, and provides an important and timely opportunity to provide health information to women and their families (Carroli et al., 2001a, 2001b). In addition, early and regular contact by women with the formal health care system can contribute to timely and effective use of services during delivery or obstetric complications. It is during an antenatal care visit that screening for complications occurs, the danger signs of pregnancy are discussed and advice on a range of issues (including place of delivery and referral of mothers with complications) is given.

A comparison of estimates of antenatal care across the various surveys is shown in Figure 4.1. Antenatal care (ANC) seeking has been increasing steadily over time, from 30 percent of births in the 1996-1997 BDHS survey to 55 percent of births in the 2010 BMMS survey, among those seeking at least one ANC from a medically trained provider.

**Figure 4.1 Trends in antenatal care from a medically trained provider.**

*Percent of last births in the three years preceding the survey that received at least one antenatal care from a medically trained provider by year of survey.*



### *4.1.1 Source of Antenatal Care*

In the BMMS 2010, women who had a live birth in the three years preceding the survey were asked a number of questions about antenatal care. Interviewers recorded the source of antenatal care, the person who provided that care, advice or information received on birth planning, and elements of antenatal care received. Table 4.1 shows the percent distribution of source of antenatal care received during pregnancy for the most recent births in the three years before the survey, according to background characteristics. Although interviewers were instructed to record all the providers a woman consulted for care, only the most qualified provider was considered in this analysis.

The data indicate that for the most recent births that occurred in the three years before the survey, almost three-quarters of mothers received any antenatal care from a trained or untrained provider during pregnancy.

The primary source of antenatal care was doctors (38 percent), followed by nurses, midwives, and family welfare visitors (FWVs) (15 percent). Community-based Skilled Birth Attendants (CSBAs) provided ANC in less than one percent of cases. Fewer than four percent of pregnant mothers women received antenatal care from trained or untrained traditional birth attendants (dais) or other untrained providers. Table 4.1 shows that there are substantial differences in levels of antenatal care among subgroups in Bangladesh. Antenatal care is more common among younger women and women with lower parity births. The percentage of births for which the mother had one or more antenatal care visits was significantly higher in urban than rural areas (83 and 68 percent, respectively), with differences largely due to the percentage seeking care from qualified doctors. The highest and lowest levels of antenatal care are found in Rajshahi division (74 percent) and Sylhet division (59 percent), respectively. The use of antenatal care is strongly associated with increased levels of education and increased household economic status. Mothers with a secondary education or higher education were almost twice as likely as mothers with no education to receive antenatal care, and mothers from the wealthiest households were two-thirds times more likely to obtain antenatal care compared to mothers from the poorest households.

The latter half of the decade has seen a rapid increase in ANC. The sample size of the 2010 BMMS allows estimation of ANC use for each of the five years preceding the survey. Figure 4.2 demonstrates the trend has been steadily increasing for ANC from any provider, from a medically trained provider, and for the proportion of women receiving the recommended four or more visits. However, the percent of births that received four or more visits is still very low.

**Figure 4.2 Trends in antenatal care (ANC) during 2005-2009.**

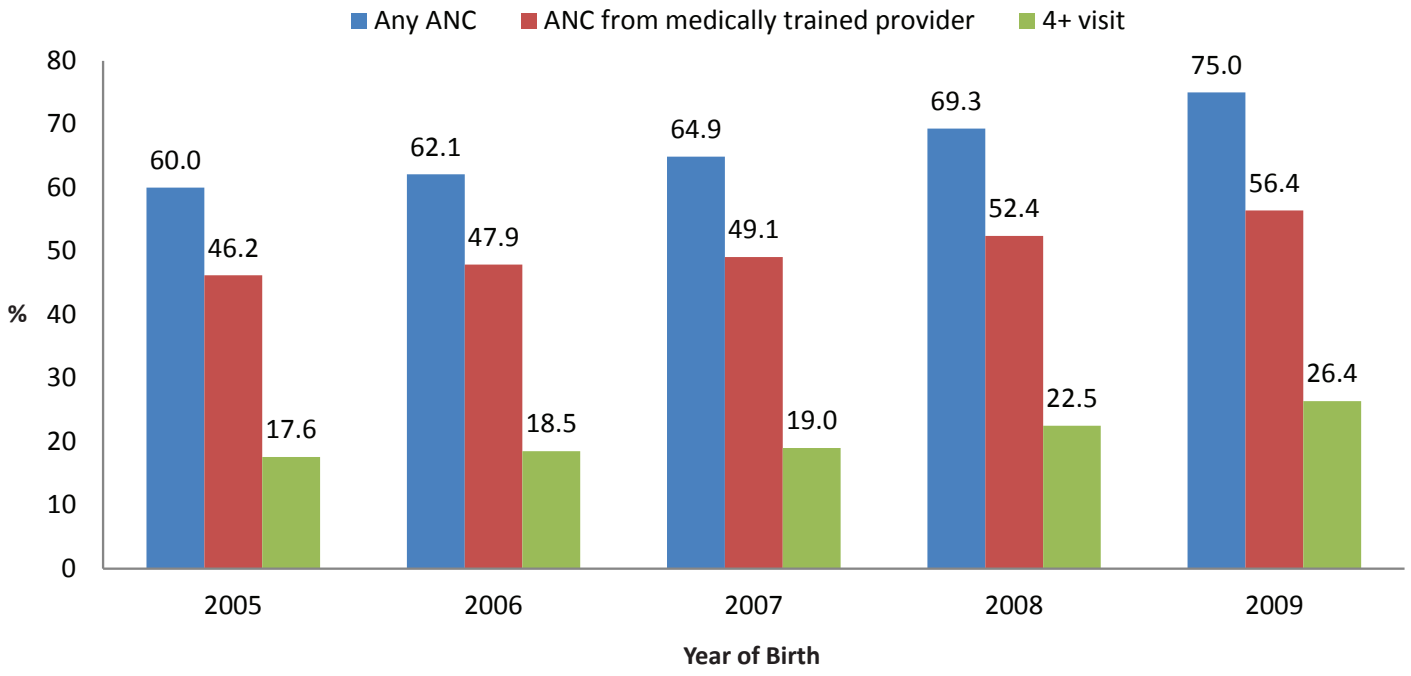


Table 4.1. Antenatal care

Percent distribution of women age 15-49 who had a live birth in the three years preceding the survey by antenatal care (ANC) provider during pregnancy for the most recent birth, according to background characteristics, Bangladesh 2010.

| | Medically trained provider | | | | | | | | | Percentage receiving: | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Background Characteristic | Qualified doctor | Nurse/midwife/ paramedic/ FWV | CSBA | MA/ SACMO | Community health worker[1] | Other | No one | Missing | Total | Any ANC | ANC from medically trained provider | Number of women |
| **Mothers' age at birth** | | | | | | | | | | | | |
| Below 15 | 28.3 | 15.9 | .8 | .0 | 21.4 | 6.0 | 27.6 | .0 | 100.0 | 72.4 | 45.0 | 107 |
| 15-19 | 36.8 | 18.3 | .7 | .2 | 15.2 | 4.4 | 24.4 | .0 | 100.0 | 75.6 | 56.0 | 4,307 |
| 20-24 | 39.7 | 14.7 | .6 | .3 | 13.6 | 3.6 | 27.4 | .1 | 100.0 | 72.6 | 55.4 | 6,137 |
| 25-29 | 39.3 | 13.9 | .5 | .2 | 13.8 | 3.0 | 29.1 | .1 | 100.0 | 70.8 | 54.0 | 3,833 |
| 30-34 | 34.8 | 13.2 | .8 | .1 | 11.2 | 3.7 | 36.2 | .0 | 100.0 | 63.8 | 48.9 | 1,828 |
| 35-39 | 30.8 | 12.4 | .5 | .0 | 12.1 | 4.5 | 39.6 | .2 | 100.0 | 60.2 | 43.7 | 708 |
| 40-44 | 24.9 | 11.2 | .0 | .9 | 8.7 | 5.6 | 48.7 | .0 | 100.0 | 51.3 | 37.0 | 190 |
| 45-49 | 15.0 | 18.5 | .0 | .0 | 6.0 | 4.5 | 56.0 | .0 | 100.0 | 44.0 | 33.5 | 38 |
| **Residence** | | | | | | | | | | | | |
| Urban | 52.6 | 14.9 | .2 | .2 | 12.0 | 2.7 | 17.3 | .1 | 100.0 | 82.6 | 67.9 | 3,994 |
| Rural | 33.2 | 15.2 | .7 | .3 | 14.3 | 4.1 | 32.2 | .1 | 100.0 | 67.7 | 49.4 | 13,156 |
| **Division** | | | | | | | | | | | | |
| Barisal | 27.6 | 20.4 | .5 | .4 | 14.5 | 1.3 | 35.4 | .0 | 100.0 | 64.6 | 48.8 | 1,005 |
| Chittagong | 43.7 | 13.5 | .4 | .5 | 8.4 | 5.0 | 28.4 | .1 | 100.0 | 71.5 | 58.1 | 3,899 |
| Dhaka | 43.0 | 8.8 | .9 | .3 | 15.1 | 5.0 | 26.8 | .1 | 100.0 | 73.1 | 53.0 | 5,681 |
| Khulna | 35.3 | 23.8 | .8 | .2 | 10.4 | 1.4 | 28.1 | .0 | 100.0 | 71.9 | 60.1 | 1,621 |
| Rajshahi | 26.0 | 25.2 | .4 | .0 | 20.7 | 1.7 | 26.1 | .0 | 100.0 | 73.9 | 51.6 | 3,616 |
| Sylhet | 40.1 | 4.9 | .3 | .1 | 8.1 | 5.2 | 41.2 | .1 | 100.0 | 58.8 | 45.5 | 1,328 |
| **Mother's education** | | | | | | | | | | | | |
| No education | 18.2 | 12.6 | .6 | .3 | 17.1 | 4.3 | 46.8 | .1 | 100.0 | 53.1 | 31.6 | 3,923 |
| Primary incomplete | 27.4 | 16.4 | 1.1 | .3 | 15.5 | 4.3 | 35.1 | .0 | 100.0 | 64.9 | 45.1 | 2,735 |
| Primary complete | 30.6 | 17.1 | .8 | .2 | 16.1 | 4.7 | 30.6 | .1 | 100.0 | 69.4 | 48.6 | 2,769 |
| Secondary incomplete | 47.2 | 17.0 | .5 | .3 | 12.1 | 3.3 | 19.5 | .0 | 100.0 | 80.4 | 65.0 | 5,946 |
| Secondary complete & higher | 76.4 | 9.7 | .1 | .0 | 5.3 | 1.4 | 7.1 | .1 | 100.0 | 92.8 | 86.2 | 1,777 |
| **Household wealth index** | | | | | | | | | | | | |
| 1 | 14.2 | 15.8 | .8 | .3 | 18.5 | 5.0 | 45.3 | .1 | 100.0 | 54.6 | 31.2 | 3,789 |
| 2 | 22.5 | 17.6 | .9 | .2 | 16.9 | 4.8 | 37.0 | .1 | 100.0 | 62.9 | 41.2 | 3,358 |
| 3 | 34.4 | 16.4 | .5 | .2 | 13.9 | 4.1 | 30.4 | .1 | 100.0 | 69.5 | 51.5 | 3,450 |
| 4 | 50.3 | 15.6 | .6 | .4 | 11.2 | 2.8 | 19.0 | .0 | 100.0 | 80.9 | 66.9 | 3,285 |
| 5 | 71.5 | 10.0 | .2 | .1 | 7.4 | 1.6 | 9.1 | .0 | 100.0 | 90.9 | 81.9 | 3,268 |
| **Total** | 37.7 | 15.1 | .6 | .2 | 13.7 | 3.7 | 28.7 | .1 | 100.0 | 71.2 | 53.7 | 17,149 |

Note: If more than one source of ANC was mentioned, only the provider with the highest qualifications is considered in the tabulation.

[1] Includes health assistant (HA), family welfare assistance (FWA), BRAC, and other NGO health providers.

FWV = family welfare visitor; CSBA = community skilled birth attendant; MA = medical assistant; SACMO = sub-assistant community medical officer.

While ANC provision by medically trained providers increased, provision by non-medically trained providers also increased. In BMMS 2001, 7 percent of women used non-medically trained providers. Whereas 17.4 percent of women were using non-medically trained providers in BMMS 2010. About half of these non-medically trained providers were BRAC workers (8%), almost half were government field staff, FWAs (7%), with small numbers of other community workers (3%) and unqualified doctors (4%).

### *4.1.2 Number and Initial Timing of Antenatal Care*

Both the number of antenatal care visits and the timing of the first check-up are considered important in detecting and preventing an adverse pregnancy outcome (Carolli et al., 2001a). Care is most effective if the visits are started early during pregnancy and continued at regular intervals throughout the pregnancy. The Government of Bangladesh recommends a minimum of three antenatal care visits, with one visit taking place in each pregnancy trimester.

Table 4.2 shows the frequency and timing of the initial antenatal visit for live births and stillbirths that occurred in the three years preceding the survey. For a minority of these birth outcomes (29 percent) no antenatal care was sought. Among the 71 percent of women who made an ANC visit, the median number of antenatal visits sought per live birth was 2.7. Almost two in five births was characterized by three or more antenatal visits.

The table also shows that the timing of the initial first antenatal care visit for many Bangladeshi women was quite late, a median of 4.8 months into the pregnancy. Among births to women who sought antenatal care, only one in five sought initial antenatal care during the first trimester (21 percent). Table 4.2 also shows that early initiation of antenatal care was more common among women who resided in urban areas.

The median number of antenatal visits was highest among women with first births, women in urban or metropolitan areas, women who completed secondary school or higher, and women in households in the highest wealth quintile, with substantial percentages of each subgroup reporting four or more antenatal care visits (data not shown).

Table 4.2. Number of antenatal care visits and timing of first visit

Percent distribution of women aged 15-49 who had a live birth in the three years preceding the survey by number of antenatal care visits for the most recent live birth and by the timing of the first visit, according to residence, Bangladesh 2010.

| Number and timing of ANC visits | Residence | | Total |
|---|---|---|---|
| | Urban | Rural | |
| **Number of ANC visits** | | | |
| None | 17.3 | 32.2 | 28.7 |
| 1 | 14.6 | 18.3 | 17.4 |
| 2 | 15.4 | 16.1 | 15.9 |
| 3 | 16.4 | 13.8 | 14.4 |
| 4+ | 36.1 | 19.6 | 23.4 |
| Don't know/missing | 0.1 | 0.1 | 0.1 |
| Total | 100.0 | 100.0 | 100.0 |
| Median number of visits (for those with ANC) | 3.2 | 2.5 | 2.7 |
| **Number of months pregnant at time of first ANC visit** | | | |
| No antenatal care | 17.3 | 32.2 | 28.7 |
| <4 | 31.7 | 18.1 | 21.3 |
| 4-5 | 28.3 | 23.8 | 24.8 |
| 6-7 | 15.4 | 17.7 | 17.2 |
| 8+ | 6.9 | 8.2 | 7.9 |
| Don't know/missing | 0.2 | 0.1 | 0.1 |
| Total | 100.0 | 100.0 | 100.0 |
| Median months pregnant at first visit (for those with ANC) | 4.3 | 5.0 | 4.8 |
| Number of women with ANC | 3,301 | 8,918 | 12,219 |
| Number of women | 3,994 | 13,156 | 17,149 |

### 4.1.3 Reasons for Not Seeking Antenatal Care

Among the 29 percent of pregnant women who did not seek ANC, 62 percent said the reason was "not needed" (Table 4.3). This predominant reason has not changed since the BMMS 2001. An additional 7 percent who said they did not know of a need for care could be added, as this reason also indicates a lack of understanding of the potential preventive benefits of ANC.

Table 4.3. Reasons for not seeking ANC

Percentage of women mentioning specific reasons why they did not seek ANC during pregnancy for last born child, Bangladesh 2010.

| Reasons | Weighted percent | Number of women |
|---|---|---|
| Too far | 7.2 | 356 |
| Inconvenient service hour | 0.7 | 35 |
| Unpleasant staff | 0.8 | 41 |
| Lack of expert. staff | 0.6 | 32 |
| Lack of privacy | 1.0 | 48 |
| Inadequate drug supply | 1.0 | 49 |
| Long waiting time | 0.6 | 29 |
| Service too expensive | 26.3 | 1297 |
| Religious reason | 3.6 | 176 |
| Not needed | 61.6 | 3038 |
| Did not know of need for care | 6.8 | 334 |
| Unable to go/not permitted to leave house | 5.6 | 274 |
| Did not know of a place | 2.4 | 120 |
| Other | 1.8 | 90 |

Financial barriers have increased slightly from 21 percent in 2001 to 26 percent, possibly reflecting the rising importance of doctors in the provision of ANC (assuming fee for service private practice, rather than free public services). Family or religious barriers have declined to 9 percent (from 14 percent in 2001). Access issues (9 percent) remain largely unchanged, as do service quality issues.

### 4.1.4 Place of ANC

As women are recommended to have at least four ANC visits, there is the possibility of multiple sources, which are shown in Table 4.4. The public sector remains the dominant source (42 percent), followed surprisingly by the private sector (37 percent). Almost one in five women received ANC at home, but the meaning and content of these visits is uncertain. Further analysis of the providers of ANC in the home—traditional birth attendants—may shed light on this issue.

There was no particular age pattern to these provider selections. Home ANC tends to be utilized more among women with lower socioeconomic status, women with lower educational attainment, and women with high parity births. Consistent with economic factors, ANC in the home was most common in the relatively poor Rajshahi Division, and least common in the relatively wealthy divisions Sylhet and Chittagong where the private sector is the leading choice in these better off divisions, Dhaka included. The public sector remains popular across most economic and education groups. The NGO sector has a mixed clientele, with the majority of clients being women with lower educational attainment. Some women with higher economic standing are also using NGOs, though these may be the higher quality service NGOs.

The components of ANC for women who received ANC are shown in Table 4.5. The vast majority of women had their blood pressure measured (91 percent) and were weighed (84 percent). Half have had their urine checked for protein, a sign of (pre) eclampsia, and one in three (37%) had a blood test for anaemia. Aside from measurement of blood pressure, economic and geographic disparities exist where women with lower socioeconomic status, women with lower educational attainment, and women from rural areas were less likely to have their blood or urine tested. This pattern persists not only at individual level, but also at the divisional level. Residents of the poorer divisions—Barisal, Khulna and Rajshahi—were also less likely to be asked for biological specimens during ANC visits.

Table 4.4. Place of antenatal care

Among women age 15-49 who had a live birth in the three years preceding the survey, the percentage who received antenatal care (ANC) during the pregnancy of the most recent birth by place of ANC, according to background characteristics, Bangladesh, 2010.

| Background Characteristic | Place of antenatal care[1] | | | | | Number of women (who received ANC ) |
|---|---|---|---|---|---|---|
| | Home | Public sector | Private sector | NGO sector | Other | |
| **Mother's age at birth** | | | | | | |
| Below 15 | 23.0 | 40.8 | 25.0 | 19.5 | .4 | 78 |
| 15-19 | 21.1 | 43.2 | 32.6 | 14.7 | 1.2 | 3,258 |
| 20-24 | 17.9 | 41.2 | 38.6 | 13.1 | 1.2 | 4,454 |
| 25-29 | 17.7 | 41.7 | 38.4 | 12.5 | 1.2 | 2,713 |
| 30-34 | 16.5 | 42.2 | 38.7 | 11.4 | 1.5 | 1,167 |
| 35-39 | 20.5 | 38.5 | 41.2 | 12.5 | 1.3 | 426 |
| 40-44 | 15.8 | 47.1 | 29.8 | 13.3 | .0 | 98 |
| 45-49 | 14.7 | 72.7 | 4.8 | 9.3 | .0 | 17 |
| **Birth order** | | | | | | |
| 1 | 16.4 | 41.8 | 39.5 | 14.6 | 1.2 | 4,745 |
| 2-3 | 19.6 | 41.7 | 36.0 | 12.7 | 1.2 | 5,643 |
| 4-5 | 22.1 | 43.4 | 32.6 | 11.0 | 1.6 | 1,387 |
| 6+ | 20.5 | 41.6 | 34.0 | 12.6 | 1.1 | 434 |
| **Residence** | | | | | | |
| Urban | 12.9 | 35.3 | 39.8 | 23.5 | 1.2 | 3,299 |
| Rural | 20.8 | 44.4 | 35.8 | 9.4 | 1.2 | 8,911 |
| **Division** | | | | | | |
| Barisal | 15.0 | 59.3 | 23.7 | 9.7 | .3 | 649 |
| Chittagong | 10.3 | 36.8 | 47.9 | 11.7 | 1.9 | 2,787 |
| Dhaka | 19.3 | 35.4 | 42.4 | 16.1 | 1.7 | 4,156 |
| Khulna | 18.1 | 53.0 | 27.5 | 13.2 | .1 | 1,166 |
| Rajshahi | 29.4 | 50.0 | 20.3 | 12.7 | .2 | 2,672 |
| Sylhet | 12.3 | 36.5 | 49.8 | 8.8 | 2.3 | 780 |
| **Mother's education** | | | | | | |
| No education | 25.3 | 42.4 | 23.2 | 15.7 | 1.4 | 2,081 |
| Primary incomplete | 23.7 | 44.0 | 27.5 | 13.6 | 1.8 | 1,775 |
| Primary complete | 22.5 | 44.7 | 29.7 | 14.2 | 1.0 | 1,921 |
| Secondary incomplete | 16.1 | 42.1 | 41.5 | 12.5 | 1.3 | 4,783 |
| Secondary complete or higher | 7.9 | 35.5 | 59.1 | 10.9 | .5 | 1,649 |
| **Household wealth index** | | | | | | |
| 1 | 27.2 | 48.2 | 20.7 | 11.0 | 2.0 | 2,070 |
| 2 | 25.8 | 48.2 | 24.0 | 10.4 | 1.4 | 2,113 |
| 3 | 21.0 | 46.4 | 33.3 | 11.0 | 1.2 | 2,399 |
| 4 | 16.1 | 40.2 | 42.7 | 14.5 | .9 | 2,658 |
| 5 | 8.1 | 31.2 | 54.9 | 17.5 | 1.0 | 2,970 |
| Total | 18.7 | 41.9 | 36.9 | 13.2 | 1.2 | 12,210 |

[1] Multiple responses possible.

Table 4.5. Components of antenatal care

Percentage of women with a live birth in the three years preceding the survey for which mothers received specific antenatal care services for the most recent birth, by background characteristics, Bangladesh, 2010.

| Background Characteristic | Percentage receiving ANC | Number of women with a live birth | Procedure performed during antenatal care | | | | Number of women receiving ANC |
|---|---|---|---|---|---|---|---|
| | | | Blood pressure measured | Urine tested | Blood test done | Weighed | |
| **Mother's age at birth** | | | | | | | |
| Below 15 | 72.4 | 107 | 85.5 | 40.8 | 30.0 | 82.0 | 78 |
| 15-19 | 75.6 | 4,307 | 88.5 | 47.3 | 33.5 | 82.5 | 3,258 |
| 20-24 | 72.6 | 6,137 | 91.9 | 52.4 | 39.6 | 85.4 | 4,454 |
| 25-29 | 70.8 | 3,833 | 90.9 | 50.8 | 38.2 | 83.6 | 2,713 |
| 30-34 | 63.8 | 1,828 | 90.2 | 51.0 | 40.6 | 81.2 | 1,167 |
| 35-39 | 60.2 | 708 | 89.4 | 43.0 | 32.9 | 77.1 | 426 |
| 40-44 | 51.3 | 190 | 92.8 | 38.4 | 28.2 | 83.6 | 98 |
| 45-49 | 44.0 | 38 | 95.1 | 49.1 | 26.2 | 86.8 | 17 |
| **Birth order** | | | | | | | |
| 1 | 81.1 | 5,849 | 91.1 | 55.1 | 43.5 | 86.4 | 4,745 |
| 2-3 | 70.5 | 8,004 | 91.0 | 48.7 | 35.8 | 83.8 | 5,643 |
| 4-5 | 58.1 | 2,386 | 88.1 | 41.1 | 25.7 | 78.4 | 1,387 |
| 6+ | 47.7 | 911 | 84.6 | 41.7 | 27.1 | 65.4 | 434 |
| **Residence** | | | | | | | |
| Urban | 82.6 | 3,994 | 92.9 | 58.2 | 48.4 | 88.1 | 3,299 |
| Rural | 67.7 | 13,156 | 89.6 | 47.0 | 33.3 | 81.8 | 8911 |
| **Division** | | | | | | | |
| Barisal | 64.6 | 1,005 | 92.7 | 38.5 | 31.4 | 88.9 | 649 |
| Chittagong | 71.5 | 3,899 | 87.4 | 53.5 | 42.1 | 78.6 | 2,787 |
| Dhaka | 73.1 | 5,681 | 89.7 | 54.7 | 42.7 | 79.6 | 4,156 |
| Khulna | 71.9 | 1,621 | 92.5 | 43.9 | 33.5 | 92.9 | 1,166 |
| Rajshahi | 73.9 | 3,616 | 94.3 | 42.8 | 25.7 | 91.9 | 2,672 |
| Sylhet | 58.8 | 1,328 | 87.3 | 56.5 | 42.5 | 74.9 | 780 |
| **Mother's education** | | | | | | | |
| No education | 53.1 | 3,923 | 85.9 | 36.9 | 22.3 | 75.4 | 2,081 |
| Primary incomplete | 64.9 | 2,735 | 88.9 | 42.4 | 26.0 | 82.0 | 1,775 |
| Primary complete | 69.4 | 2,769 | 90.0 | 42.6 | 28.5 | 81.1 | 1,921 |
| Secondary incomplete | 80.4 | 5,946 | 91.8 | 54.4 | 42.3 | 85.0 | 4,783 |
| Secondary complete or higher | 92.8 | 1,777 | 94.8 | 70.9 | 64.7 | 93.9 | 1,649 |
| Household wealth index | | | | | | | |
| 1 | 54.6 | 3,789 | 86.5 | 33.8 | 17.6 | 76.6 | 2,070 |
| 2 | 62.9 | 3,358 | 88.8 | 38.9 | 21.9 | 79.7 | 2,113 |
| 3 | 69.5 | 3,450 | 89.0 | 45.5 | 31.0 | 81.7 | 2,399 |
| 4 | 80.9 | 3,285 | 90.9 | 53.8 | 43.2 | 84.5 | 2,658 |
| 5 | 90.9 | 3,268 | 95.2 | 69.7 | 62.1 | 91.7 | 2,970 |
| Total | 71.2 | 17,149 | 90.5 | 50.1 | 37.4 | 83.5 | 12,210 |

If the services provided are examined by type of provider, as shown in Table 4.6, it is clear that virtually all providers measured blood pressure, but other tests were given more frequently by qualified doctors. For urine and blood tests, as well as weighing, nurses, midwives, paramedics, FWVs, and MA/SACMOs also offered the services.

The BMMS 2010 included a question on information given during ANC visits, including questions concerning advice on diet, danger signs of pregnancy, and where to go if complications arise.

Table 4.6. Components of antenatal care by provider of ANC

Percentage of women with a live birth in the three years preceding the survey for which mothers received specific antenatal care services for the most recent birth, by ANC provider, Bangladesh, 2010.

| ANC provider (hierarchical order) | Procedure performed during antenatal care | | | | Number of women with ANC |
|---|---|---|---|---|---|
| | Blood pressure measured | Urine tested | Blood test done | Weighed | |
| Qualified doctor | 94.2 | 66.5 | 57.8 | 88.1 | 6,470 |
| Nurse/midwife/paramedics/FWV | 88.3 | 35.7 | 19.2 | 87.1 | 2,597 |
| CSBA | 86.6 | 26.8 | 6.8 | 71.5 | 105 |
| MA/SACMO | 90.2 | 31.4 | 25.9 | 81.6 | 41 |
| Community health worker | 86.3 | 28.5 | 9.8 | 78.6 | 2,356 |
| Other | 77.6 | 26.2 | 11.8 | 43.2 | 641 |
| Total | 90.5 | 50.1 | 37.4 | 83.5 | 12,210 |

### *4.1.5 Information Given During ANC*

As seen in Table 4.7, 71 percent of women received some form of ANC. Of these, only one in three (35 percent) were warned of danger signs of pregnancy (Table 4.7a).

The CSBAs were more likely than other providers to talk about danger signs (43 percent). However, relatively few women used a CSBA for ANC, so the impact is limited. The providers least likely to offer such advice were MA or SACMO (16 percent).

In addition to provision of information about danger signs of pregnancy, some women were given information on sources of referral for delivery.

Table 4.7. Advise danger signs during ANC

Percentage of women advised about danger signs during ANC visit, Bangladesh 2010.

| Advise danger signs during ANC | Frequency | Percent |
|---|---|---|
| Yes | 4,249 | 24.8 |
| No | 7,959 | 46.4 |
| Total | 12,208 | 71.2 |
| Missing | 12 | 0.1 |
| Did not receive ANC | 4,930 | 28.7 |
| Total | 17,149 | 100.0 |

Table 4.7a. Talked about danger signs during ANC visits (ANC provider hierarchical)

Among those who had at least one ANC visit, percentage of women talked to about danger signs during pregnancy by type of provider, BMMS 2010.

| ANC provider (Multiple response) | Proportion advised danger signs of pregnancy | Number of women who had ANC |
|---|---|---|
| Qualified doctor | 36.3 | 6,470 |
| Nurse/midwife/paramedics/FWV | 32.8 | 2,597 |
| CSBA | 42.9 | 105 |
| MA/SACMO | 15.5 | 41 |
| Community health worker | 37.5 | 2,356 |
| Other | 17.2 | 641 |
| Total | 34.8 | 12,210 |

## 4.2 DELIVERY CARE

### *4.2.1 Place of Delivery*

Table 4.8 presents data on the place of delivery for all live births and stillbirths that occurred during the three years preceding the survey. Delivery at home occurred 76 percent of the time, which represents a dramatic decline. Ten percent of deliveries occurred in a public sector clinical facility (hospital, Upazila health complex, maternal and child welfare centre, or Upazila health and family welfare centre), almost double that in 2001, and 11 percent occurred in a private hospital or clinic, up from three percent in 2001. Thirty-eight percent of urban deliveries took place in a facility (almost double the 2001 level), compared with only 19 percent of rural deliveries (more than double the 7 percent in 2001).

Delivery in a facility was more common for women having their first child (34 percent), women with higher education (61 percent of secondary or higher), and for women in the wealthiest households (53 percent). There was an association between the frequency of antenatal care visits and place of delivery.

Table 4.8 Place of delivery

Percent distribution of live births in the three years preceding the survey by place of delivery, and percentage delivered in a health facility, according to background characteristics, Bangladesh, 2010.

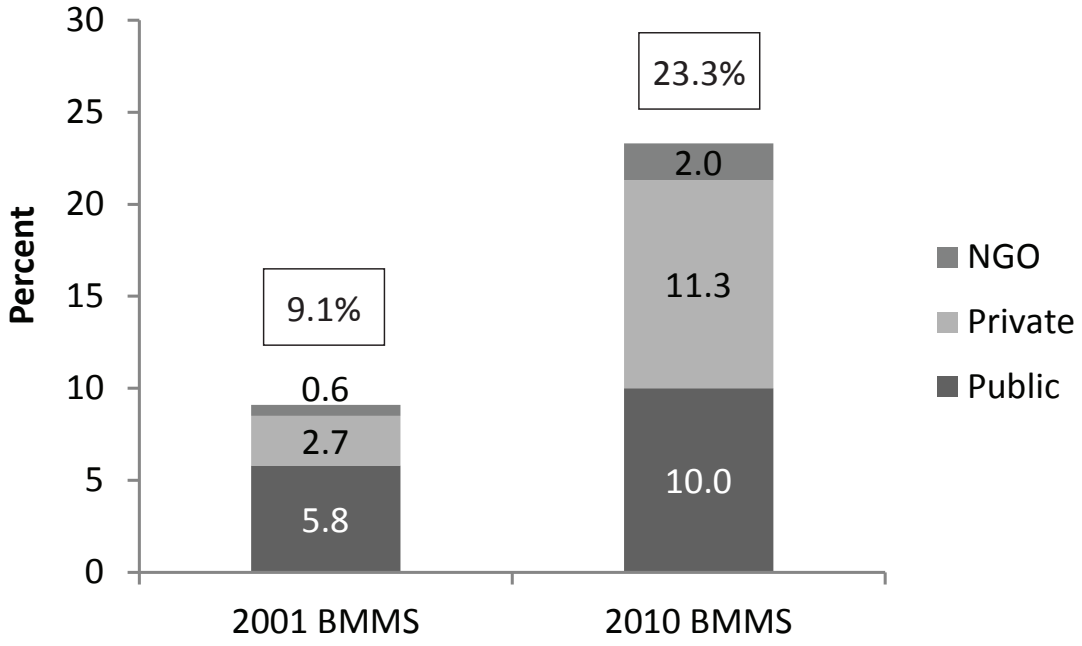
| Background Characteristic | Health facility | | | Home | Other/ missing | Total | Percentage delivered in a health facility[1] | Number of births |
|---|---|---|---|---|---|---|---|---|
| | Public | Private | NGO | | | | | |
| **Mother's age at birth** | | | | | | | | |
| Below 15 | 9.3 | 5.3 | 3.6 | 80.6 | 1.2 | 100.0 | 18.2 | 115 |
| 15-19 | 11.2 | 9.7 | 2.4 | 76.5 | 0.3 | 100.0 | 23.2 | 4,677 |
| 20-24 | 10.0 | 12.6 | 2.1 | 74.9 | 0.4 | 100.0 | 24.7 | 6,522 |
| 25-29 | 9.8 | 12.8 | 1.8 | 74.9 | 0.7 | 100.0 | 24.4 | 4,042 |
| 30-34 | 9.2 | 10.4 | 1.8 | 78.0 | 0.6 | 100.0 | 21.4 | 1,917 |
| 35-39 | 7.7 | 9.0 | 1.3 | 81.6 | 0.4 | 100.0 | 18.0 | 730 |
| 40-44 | 6.0 | 3.3 | .9 | 89.1 | 0.6 | 100.0 | 10.2 | 196 |
| 45-49 | 6.8 | 8.5 | .0 | 84.7 | 0.0 | 100.0 | 15.3 | 38 |
| **Birth order** | | | | | | | | |
| 1 | 14.6 | 16.8 | 2.9 | 65.2 | 0.6 | 100.0 | 34.3 | 6,320 |
| 2-3 | 8.7 | 10.3 | 1.8 | 78.8 | 0.4 | 100.0 | 20.8 | 8,410 |
| 4-5 | 5.7 | 4.5 | 1.2 | 88.1 | 0.4 | 100.0 | 11.5 | 2,538 |
| 6+ | 2.6 | 2.9 | .9 | 93.3 | 0.4 | 100.0 | 6.3 | 969 |
| **Residence** | | | | | | | | |
| Urban | 14.1 | 17.8 | 5.8 | 61.9 | 0.4 | 100.0 | 37.7 | 4,203 |
| Rural | 8.8 | 9.4 | .9 | 80.4 | 0.5 | 100.0 | 19.1 | 14,033 |
| **Division** | | | | | | | | |
| Barisal | 7.8 | 8.1 | 1.1 | 82.7 | 0.2 | 100.0 | 17.0 | 1,056 |
| Chittagong | 7.8 | 10.9 | 1.9 | 78.7 | 0.7 | 100.0 | 20.7 | 4,181 |
| Dhaka | 9.9 | 13.0 | 2.8 | 73.6 | 0.6 | 100.0 | 25.7 | 6,021 |
| Khulna | 14.3 | 15.7 | 1.8 | 68.0 | 0.2 | 100.0 | 31.9 | 1,680 |
| Rajshahi | 12.3 | 10.0 | 1.6 | 75.8 | 0.3 | 100.0 | 24.0 | 3,806 |
| Sylhet | 7.2 | 6.7 | 1.1 | 84.5 | 0.5 | 100.0 | 15.0 | 1,493 |
| **Mother's education** | | | | | | | | |
| No education | 5.1 | 3.3 | 1.3 | 90.0 | 0.2 | 100.0 | 9.8 | 4,185 |
| Primary incomplete | 7.1 | 5.1 | 1.7 | 85.5 | 0.6 | 100.0 | 13.9 | 2,937 |
| Primary complete | 8.1 | 6.3 | 1.8 | 83.5 | 0.2 | 100.0 | 16.3 | 2,967 |
| Secondary incomplete | 12.4 | 14.6 | 2.2 | 70.3 | 0.6 | 100.0 | 29.1 | 6,296 |
| Secondary complete or higher | 20.5 | 36.5 | 4.0 | 38.1 | 0.9 | 100.0 | 61.0 | 1,852 |
| **Household wealth index** | | | | | | | | |
| 1 | 4.4 | 2.4 | .7 | 92.1 | 0.4 | 100.0 | 7.5 | 4,089 |
| 2 | 7.6 | 3.7 | .7 | 87.7 | 0.2 | 100.0 | 12.1 | 3,592 |
| 3 | 9.2 | 8.6 | 1.2 | 80.6 | 0.4 | 100.0 | 19.0 | 3,662 |
| 4 | 13.3 | 14.2 | 2.0 | 69.9 | 0.7 | 100.0 | 29.4 | 3,453 |
| 5 | 16.7 | 30.1 | 6.0 | 46.4 | 0.7 | 100.0 | 52.8 | 3,440 |
| Total | 10.0 | 11.3 | 2.0 | 76.1 | 0.5 | 100.0 | 23.4 | 18,236 |

Includes public, private & NGO facility but excludes "other."

This welcomed increase in use of facility delivery did not occur across all sources; the private sector leapfrogged the public sector since 2001, when private facilities were only used by half as many women as public sector facilities. The proportion of births taking place in the private sector now exceeds the proportion of births in the public sector (Figure 4.3).

**Figure 4.3 Change in facility deliveries by type of facility.**

*Percent of births in the three years preceding the survey delivered in a health facility by type of facility.*




The annual levels show a crossover of private versus public sector in 2006 (Table 4.8a). The public sector has made some progress (3.7 percent increase) over the five years before the survey, but the private sector is taking off more steeply (5.3 percent increase). The NGO sector played a minor role in facility delivery despite the fact that considerable resources were directed to that area.

Table 4.8a Trends in facility delivery (last child)

Percent distribution of last live births in the five years preceding the survey by place of delivery, and percentage delivered in a health facility, by birth year, Bangladesh, 2010.

| | Health facility | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Birth year | Public | Private | NGO | Home | Other/ missing | Total | Percentage delivered in a health facility | Number of births |
| 2005 | 7.5 | 7.4 | .7 | 83.9 | .4 | 100.0 | 15.7 | 3,677 |
| 2006 | 7.4 | 9.3 | 1.4 | 81.5 | .4 | 100.0 | 18.1 | 4,424 |
| 2007 | 8.4 | 9.8 | 1.3 | 80.0 | .4 | 100.0 | 19.6 | 5,526 |
| 2008 | 10.0 | 11.1 | 1.5 | 76.9 | .5 | 100.0 | 22.6 | 5,919 |
| 2009 | 11.2 | 12.7 | 2.5 | 73.1 | .5 | 100.0 | 26.4 | 5,772 |

### *4.2.2 Assistance During Delivery*

Increasing the proportion of births delivered by skilled health personnel constitutes one of the main indicators of maternal health in Millennium Development Goal 5 (UNFPA, 2003). Table 4.9 shows the types of persons providing assistance during delivery, according to background characteristics, for all live births in the three years preceding the survey.

When more than one type of attendant was reported to have assisted at delivery, only the most qualified person was shown. Twenty-seven percent of births were assisted by medically trained providers, either doctors or nurses, midwives, or family welfare visitors. Two in three births (68%) in Bangladesh were assisted by traditional birth attendants (i.e. dais) and 4 percent by relatives or friends.

Younger age, urban residence, and higher education or socioeconomic status are all associated with a greater likelihood of delivery assistance by a trained medical professional (doctors, nurses, midwives, or family welfare visitors).

If we look at trends in type of assistance during delivery, then it is clear that there has been a substantial increase—more than double—in the use of medically trained providers (from 12 percent in 2001 to 27 percent in 2010). This was primarily due to the increase in births attended by qualified doctors. The increase was greatest in urban areas (17 percent to 30 percent), although rural areas have also seen a notable increase in use of doctors from a lower base (5 percent to 15 percent). There was also a small increase in the use of nurse/midwives (5 percent to 8 percent) but virtually no change in the use of CSBAs. The impact of the rising use of qualified doctors means a welcome reduction in the use of TBAs (75 percent in 2001 to 68 percent in 2010), and in relatives/friends/neighbors (11 percent in 2001 to 4 percent in 2010).

Table 4.9 Assistance during delivery, single response

Percentage distribution of live births in the three years preceding the survey by person providing assistance during delivery, percentage attended by a medically trained provider, and percentage delivered by caesarean section, according to background characteristics, Bangladesh, 2010.

| | Medically trained providers | | | Non-medically trained providers | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Background Characteristic | Qualified doctor | Nurse/ midwife/ paramedic/ FWV/ | CSBA | Trained TBA | Untrained TBA | Relatives/ friends/ neighbors | Other | No one | Missing | Total | Percentage delivered by a medically trained provider | Percentage delivered by C-section | Number of births |
| **Mother's age at birth** | | | | | | | | | | | | | |
| Below 15 | 13.9 | 6.5 | 1.2 | 12.1 | 61.6 | 2.0 | 1.4 | .0 | 1.2 | 100.0 | 21.6 | 7.0 | 115 |
| 15-19 | 16.9 | 9.7 | .4 | 12.3 | 56.6 | 3.3 | .3 | .5 | .0 | 100.0 | 27.0 | 10.6 | 4,677 |
| 20-24 | 19.7 | 7.9 | .2 | 11.3 | 56.2 | 3.3 | .3 | .9 | .1 | 100.0 | 27.8 | 13.2 | 6,522 |
| 25-29 | 19.6 | 6.8 | .1 | 11.7 | 55.3 | 4.5 | .4 | 1.4 | .1 | 100.0 | 26.6 | 13.6 | 4,042 |
| 30-34 | 17.1 | 7.0 | .5 | 11.3 | 56.3 | 5.6 | .5 | 1.5 | .1 | 100.0 | 24.6 | 11.4 | 1,917 |
| 35-39 | 14.6 | 6.2 | .0 | 12.0 | 60.0 | 3.9 | .3 | 3.0 | .0 | 100.0 | 20.8 | 10.4 | 730 |
| 40-44 | 7.5 | 4.3 | .1 | 5.1 | 72.0 | 6.6 | .0 | 3.7 | .6 | 100.0 | 11.9 | 5.0 | 196 |
| 45-49 | 9.7 | 5.6 | .0 | 3.0 | 80.9 | .0 | .0 | .8 | .0 | 100.0 | 15.3 | 9.2 | 38 |
| **Residence** | | | | | | | | | | | | | |
| Urban | 30.3 | 10.8 | .1 | 9.6 | 45.0 | 2.6 | .6 | 1.0 | .1 | 100.0 | 41.2 | 20.1 | 4,203 |
| Rural | 14.7 | 7.0 | .3 | 12.2 | 60.0 | 4.2 | .3 | 1.1 | .1 | 100.0 | 22.1 | 9.8 | 14,033 |
| **Division** | | | | | | | | | | | | | |
| Barisal | 13.5 | 7.5 | .1 | 11.6 | 62.1 | 4.0 | .3 | .8 | .0 | 100.0 | 21.1 | 9.5 | 1,056 |
| Chittagong | 17.8 | 7.1 | .3 | 8.9 | 62.1 | 2.8 | .2 | .6 | .1 | 100.0 | 25.2 | 10.3 | 4,181 |
| Dhaka | 21.8 | 5.8 | .4 | 11.3 | 55.0 | 4.0 | .5 | 1.2 | .1 | 100.0 | 28.0 | 14.9 | 6,021 |
| Khulna | 23.6 | 11.8 | .4 | 13.3 | 46.9 | 3.5 | .1 | .3 | .0 | 100.0 | 35.9 | 17.2 | 1,680 |
| Rajshahi | 14.5 | 11.5 | .2 | 14.7 | 51.9 | 4.9 | .3 | 1.9 | .0 | 100.0 | 26.2 | 10.5 | 3,806 |
| Sylhet | 12.5 | 5.2 | .1 | 11.0 | 66.1 | 3.8 | .2 | 1.0 | .1 | 100.0 | 17.8 | 7.3 | 1,493 |
| **Mother's education** | | | | | | | | | | | | | |
| No education | 6.2 | 4.4 | .2 | 10.9 | 70.8 | 5.1 | .3 | 2.1 | .1 | 100.0 | 10.7 | 3.5 | 4,185 |
| Primary incomplete | 9.9 | 5.8 | .4 | 12.8 | 64.6 | 4.4 | .5 | 1.6 | .0 | 100.0 | 16.1 | 6.3 | 2,937 |
| Primary complete | 11.6 | 7.2 | .2 | 11.7 | 64.0 | 4.0 | .3 | 1.0 | .1 | 100.0 | 19.0 | 7.3 | 2,967 |
| Secondary incomplete | 22.7 | 10.5 | .3 | 12.3 | 50.0 | 3.3 | .3 | .5 | .1 | 100.0 | 33.5 | 15.1 | 6,296 |
| Secondary complete or higher | 54.9 | 11.6 | .4 | 9.0 | 21.8 | 1.9 | .2 | .1 | .1 | 100.0 | 66.9 | 39.3 | 1,852 |
| **Household wealth index** | | | | | | | | | | | | | |
| 1 | 4.4 | 4.6 | .2 | 11.6 | 71.4 | 5.9 | .2 | 1.6 | .1 | 100.0 | 9.2 | 2.6 | 4,089 |
| 2 | 7.7 | 6.1 | .3 | 14.1 | 65.8 | 4.1 | .3 | 1.4 | .1 | 100.0 | 14.2 | 4.4 | 3,592 |
| 3 | 14.2 | 8.0 | .3 | 12.2 | 60.7 | 3.3 | .3 | 1.1 | .0 | 100.0 | 22.4 | 9.3 | 3,662 |
| 4 | 22.7 | 10.7 | .2 | 11.6 | 50.2 | 3.5 | .3 | .6 | .0 | 100.0 | 33.7 | 14.8 | 3,453 |
| 5 | 45.8 | 10.8 | .4 | 8.4 | 31.2 | 2.2 | .5 | .6 | .1 | 100.0 | 57.0 | 32.2 | 3,440 |
| Total | 18.3 | 7.9 | .3 | 11.6 | 56.5 | 3.9 | .3 | 1.1 | .1 | 100.0 | 26.5 | 12.2 | 18,236 |

Note: If the respondent mentioned more than one person attending during delivery, only the most qualified person is considered in the tabulation.

Table 4.9a shows births assisted by medically trained provider by place of delivery. As expected in public and private health facilities almost all deliveries are assisted by medically trained providers. About one in five deliveries at NGO facilities receive no assistance from a medically trained provider. There has been hardly any change in use of medically trained provider for home deliveries between 2001 BMMS and 2010 BMMS. Only 4 percent of those who deliver at home receive assistance from a medically trained provider.

Table 4.9a Assistance during delivery by place of delivery

Percentage distribution of live births among women 15-49 in the three years preceding the survey by person providing assistance during delivery, according to place of delivery, Bangladesh 2010.

| | Medically trained providers | | | Non-medically trained providers | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Place of delivery | Qualified doctor | Nurse/ midwife/ paramedic/ FWV | CSBA | Trained TBA | Untrained TBA | Relatives/ friends/ neighbors | Other[1] | No one | Missing | Total | Number of births |
| Public facility | 62.8 | 36.1 | 0.0 | 0.1 | 0.3 | 0.3 | 0.2 | 0.0 | 0.2 | 100.0 | 1,826 |
| Private | 90.9 | 8.8 | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 100.0 | 2,069 |
| NGO | 54.3 | 28.1 | 0.0 | 5.8 | 1.6 | 4.5 | 5.7 | 0.0 | 0.0 | 100.0 | 372 |
| Home | 0.6 | 3.4 | 0.4 | 15.0 | 74.1 | 4.9 | 0.2 | 1.4 | 0.0 | 100.0 | 13,882 |
| Other/missing | 34.7 | 16.6 | 0.0 | 4.9 | 14.8 | 7.0 | 5.2 | 5.3 | 11.4 | 100.0 | 88 |
| Total | 18.3 | 7.9 | 0.3 | 11.6 | 56.5 | 3.9 | 0.3 | 1.1 | 0.1 | 100.0 | 18,236 |

Note: If the respondent mentioned more than one person attending during delivery, only the most qualified person is considered in the tabulation.

[1] 'Other' includes MA/SACMO,HA, FWA, Brac health worker, other health worker, etc.

One of the challenges of interpreting assistance at delivery is that usually the highest level service provider (in terms of medical training) is reported as delivering, even if they were not still physically present at the exact time of delivery. This inaccuracy has particular implications for responding to obstetric emergencies. Thus, a question was asked in the 2010 survey as to who actually performed the delivery ("caught the baby"). In fact, the difference between who was initially reported as delivering the baby and who actually delivered it was small (Table 4.10). The baby was actually delivered by a doctor in 15 percent of cases rather than 18 percent, compensated for by a nurse/midwife or FWA in 10 percent of cases compared to 8 percent initially reported. All other service providers, including non-medically trained ones, reported the same to both questions. This suggests that a doctor may have been present for some period of time before or after the delivery, but another staff member took responsibility for the actual delivery.

Table 4.10 Who actually performed the delivery

Percentage distribution of live births in the three years preceding the survey among women aged 15-49 by person who actually performed the delivery, according to background characteristics, Bangladesh, 2010.

| | Medically trained providers | | | Non-medically trained providers | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Background Characteristic | Qualified doctor | Nurse/ midwife/ FWV/ | CSBA | Trained TBA | Untrained TBA | Relatives/ friends/ neighbors | Other | No one | Missing | Total | Number of births |
| **Mother's age at birth** | | | | | | | | | | | |
| Before 15 | 11.1 | 9.3 | 1.2 | 12.1 | 61.1 | .9 | 3.1 | .0 | 1.2 | 100.0 | 115 |
| 15-19 | 13.8 | 11.9 | .4 | 12.4 | 56.8 | 2.9 | 1.3 | .5 | .0 | 100.0 | 4,677 |
| 20-24 | 16.4 | 10.5 | .2 | 11.4 | 56.2 | 3.1 | 1.1 | .9 | .1 | 100.0 | 6,522 |
| 25-29 | 16.6 | 9.6 | .1 | 11.7 | 55.0 | 3.8 | 1.7 | 1.4 | .1 | 100.0 | 4,042 |
| 30-34 | 13.8 | 9.6 | .5 | 11.4 | 55.6 | 5.8 | 1.5 | 1.5 | .1 | 100.0 | 1,917 |
| 35-39 | 12.1 | 8.5 | .0 | 11.8 | 60.0 | 3.3 | 1.2 | 3.0 | .0 | 100.0 | 730 |
| 40-44 | 6.8 | 5.0 | .1 | 4.3 | 71.9 | 5.3 | 2.3 | 3.7 | .6 | 100.0 | 196 |
| 45-49 | 9.7 | 5.6 | .0 | 3.0 | 80.9 | .0 | .0 | .8 | .0 | 100.0 | 38 |
| **Residence** | | | | | | | | | | | |
| Urban | 25.4 | 14.9 | .1 | 9.8 | 45.0 | 2.1 | 1.7 | 1.0 | .1 | 100.0 | 4,203 |
| Rural | 12.1 | 9.1 | .3 | 12.2 | 59.8 | 3.9 | 1.3 | 1.1 | .1 | 100.0 | 14,033 |
| **Division** | | | | | | | | | | | |
| Barisal | 11.1 | 9.5 | .1 | 11.4 | 61.8 | 4.2 | 1.1 | .8 | .0 | 100.0 | 1,056 |
| Chittagong | 14.2 | 10.1 | .3 | 9.0 | 62.2 | 2.6 | .8 | .6 | .1 | 100.0 | 4,181 |
| Dhaka | 17.9 | 9.1 | .4 | 11.4 | 54.8 | 3.3 | 1.9 | 1.2 | .1 | 100.0 | 6,021 |
| Khulna | 20.7 | 14.5 | .3 | 13.2 | 46.5 | 3.6 | .8 | .3 | .0 | 100.0 | 1,680 |
| Rajshahi | 12.9 | 12.5 | .2 | 14.6 | 51.9 | 4.3 | 1.6 | 1.9 | .0 | 100.0 | 3,806 |
| Sylhet | 9.9 | 7.4 | .1 | 10.9 | 65.8 | 3.7 | 1.1 | 1.0 | .1 | 100.0 | 1,493 |
| **Mother's education** | | | | | | | | | | | |
| No education | 4.8 | 5.5 | .2 | 10.9 | 70.5 | 4.9 | 1.0 | 2.1 | .1 | 100.0 | 4,185 |
| Primary incomplete | 8.4 | 6.8 | .3 | 12.8 | 64.4 | 4.2 | 1.4 | 1.6 | .0 | 100.0 | 2,937 |
| Primary complete | 8.9 | 9.3 | .2 | 11.8 | 63.9 | 3.8 | 1.0 | 1.0 | .1 | 100.0 | 2,967 |
| Secondary incomplete | 18.8 | 13.5 | .3 | 12.3 | 50.0 | 2.6 | 1.8 | .5 | .1 | 100.0 | 6,296 |
| Secondary complete or higher | 47.2 | 18.4 | .4 | 9.2 | 22.0 | 1.3 | 1.2 | .1 | .1 | 100.0 | 1,852 |
| **Household wealth index** | | | | | | | | | | | |
| 1 | 3.4 | 4.9 | .2 | 11.5 | 71.5 | 5.5 | 1.2 | 1.6 | .1 | 100.0 | 4,089 |
| 2 | 5.7 | 7.6 | .3 | 14.1 | 65.6 | 3.8 | 1.3 | 1.4 | .1 | 100.0 | 3,592 |
| 3 | 11.5 | 10.3 | .3 | 12.2 | 60.4 | 3.2 | 1.0 | 1.1 | .0 | 100.0 | 3,662 |
| 4 | 19.2 | 13.8 | .2 | 11.6 | 50.0 | 3.1 | 1.4 | .6 | .0 | 100.0 | 3,453 |
| 5 | 38.9 | 16.8 | .4 | 8.7 | 31.2 | 1.4 | 2.0 | .6 | .1 | 100.0 | 3,440 |
| Total | 15.2 | 10.4 | .3 | 11.6 | 56.4 | 3.5 | 1.4 | 1.1 | .1 | 100.0 | 18,236 |

The pattern of not initially reporting who 'actually' delivered the baby is limited to facility births. A doctor as the delivery person was over-reported in about 12 percent of cases (75 versus 63 percent actual), while nurse/midwife/FWV was under-reported in about 11 percent (22 versus 33 percent) of cases (Table 4.11).

Table 4.11. Assistance and who actually performed delivery, by place and provider

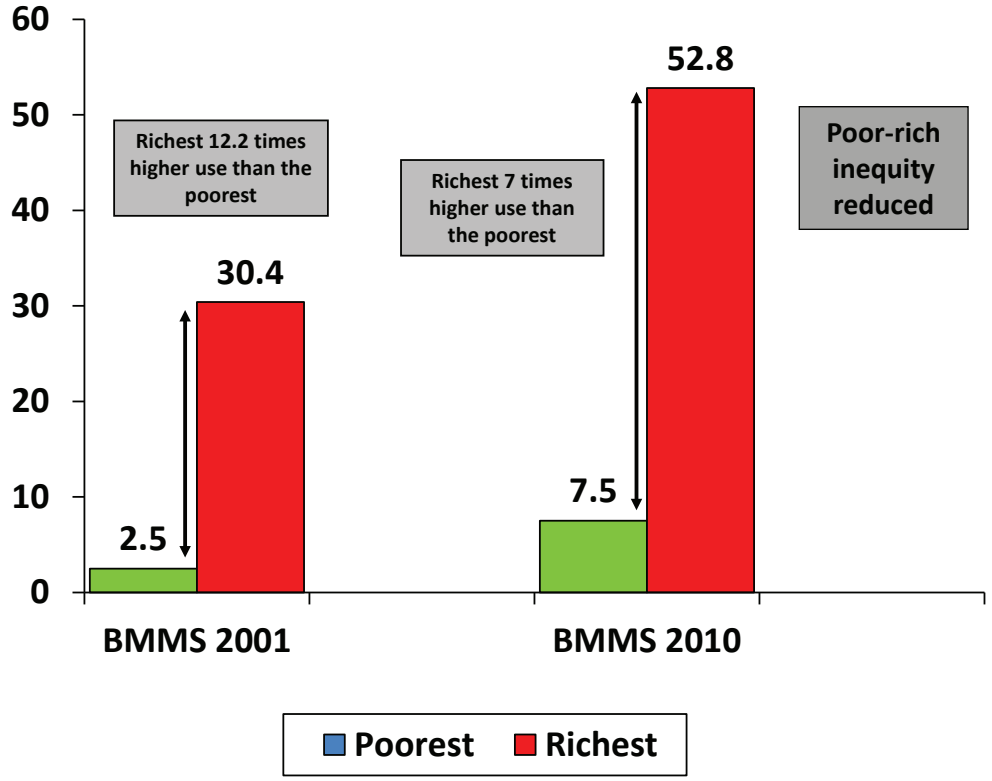
Percentage distribution of live births in the three years preceding the survey among women aged 15-49 by person who assisted during delivery and percentage actually performing the delivery, according to place and provider of delivery, Bangladesh, 2010.

| Place of delivery and provider | Assistance during delivery | Person who actually performed the delivery |
|---|---|---|
| **Births at facility** | | |
| Qualified doctor | 74.9 | 63.1 |
| Nurse/midwife/FWV | 22.1 | 33.2 |
| CSBA | 0 | 0 |
| Trained TBA | 0.7 | 0.8 |
| Untrained TBA | 0.6 | 0.7 |
| Relatives/friends/neighbors | 0.7 | 0.3 |
| Other | 0.7 | 1.5 |
| No one | 0.1 | 0.1 |
| Missing | 0.3 | 0.3 |
| Total | 100 | 100 |
| N | 4,354 | 4,354 |
| **Births at home** | | |
| Qualified doctor | 0.6 | 0.2 |
| Nurse/midwife/FWV | 3.4 | 3.3 |
| CSBA | 0.4 | 0.4 |
| Trained TBA | 15.0 | 15.0 |
| Untrained TBA | 74.1 | 73.9 |
| Relatives/friends/neighbors | 4.9 | 4.5 |
| Other | 0.2 | 1.4 |
| No one | 1.4 | 1.4 |
| Missing | 0.0 | 0.0 |
| Total | 100 | 100 |
| N | 13,883 | 13,883 |

Inequity in the use of maternal health services across socio-economic groups is a major concern in Bangladesh. One way of assessing whether there are improvements in reducing inequity in use of services is to examine whether the ratio of maternal health service use rates among the rich and the poor (rich:poor) is declining over time. Figure 4.4 shows that in the 2001 BMMS, women in the richest wealth quintile were 12.2 times more likely than women in the poorest wealth quintile to deliver in a health facility. This ratio has declined in 2010 BMMS to 7, indicating some improvements toward equitable use of maternal health services in the 9 years between the two surveys.

**Figure 4.4 Poor-rich inequity in use of health facilities for delivery, 2001 and 2010.**

*Percent of births in the three years preceding the survey delivered at a health facility, among women in the poorest and richest wealth quintiles, by year of survey.*




### *4.2.3 Reasons for Delivering at a Health Facility*

The reasons cited by respondents for delivering in a health facility are discussed below. For recent births in a health facility, the reason most commonly cited for using the facility was to ensure a safe delivery (51 percent) (table not shown). Health or delivery-related problems were the second most commonly cited reason for delivering in a facility (38 percent). Other less frequently cited reasons included the availability of a doctor/modern facility (9 percent), referred by a doctor or health worker (7 percent), the baby being overdue (7 percent), and the preceding birth delivered through a Caesarean section (5 percent). Concern for safe delivery, as the reason for delivering in a facility, is more commonly cited by women with lower parity births, and women in wealthier households. Women with more antenatal visits were more likely to cite concern for safe delivery and were correspondingly less likely to cite health or delivery problems as reasons for delivering in a facility. This suggests that such visits may have been motivated largely for preventive care, rather than in response to pregnancy-related problems.

The reasons women cited for not delivering in a health facility are discussed below (table not shown). Among the high proportion of women who delivered at home, the most frequently cited reason for not delivering in a facility was the perceived absence of need ("not necessary"), cited by 68 percent of such women; 9 percent said that the practice of facility-based delivery was "not customary." Cost was mentioned by 18 percent of women as a reason for not going to a health facility for delivery. Service-related factors were also important, with 10 percent mentioning poor quality service, 6 percent mentioning access or transport problems, and smaller numbers of women citing fear of service (4 percent) or not wanting to be attended by a male doctor (1 percent). As would be expected, women with lower levels of education and women in poorer households were more likely to cite cost as a reason for not going to a health facility for delivery. Women with more antenatal visits were less likely to cite cost or access as factors and were somewhat more likely to cite poor quality and fear of service as reasons for delivering outside of a facility, although the differences were small.

### 4.2.4 *Source of Referral for Delivery*

The major source of referral to a facility for delivery, according to the data in Table 4.12, was "relatives" (44 percent), followed by MBBS doctor (24 percent). This is not surprising as doctors are the major medically trained provider of ANC, and thus a frequent point of contact for pregnant women. However, nurses, midwives and paramedics were also an important provider of ANC and yet they played only a very minor role in referring women to deliver in facilities (7 percent). Two possibilities could explain this discrepancy. Doctors made medically-based decisions on the basis of the pregnant women's condition, although it is not clear where this took place, since few doctors make home visits. It is also possible that doctors were simply advising pregnant women during their ANC visits to deliver in a facility, as recommended, though the rising number of Caesarean sections may also play a role here. Alternatively, relatives may have advised their pregnant relative to go to a facility when she experienced complications of pregnancy. This is also a desirable pattern if the advice is given sufficiently early for the complications to be successfully managed.

Table 4.12 Percent distribution for sources of referral for delivery

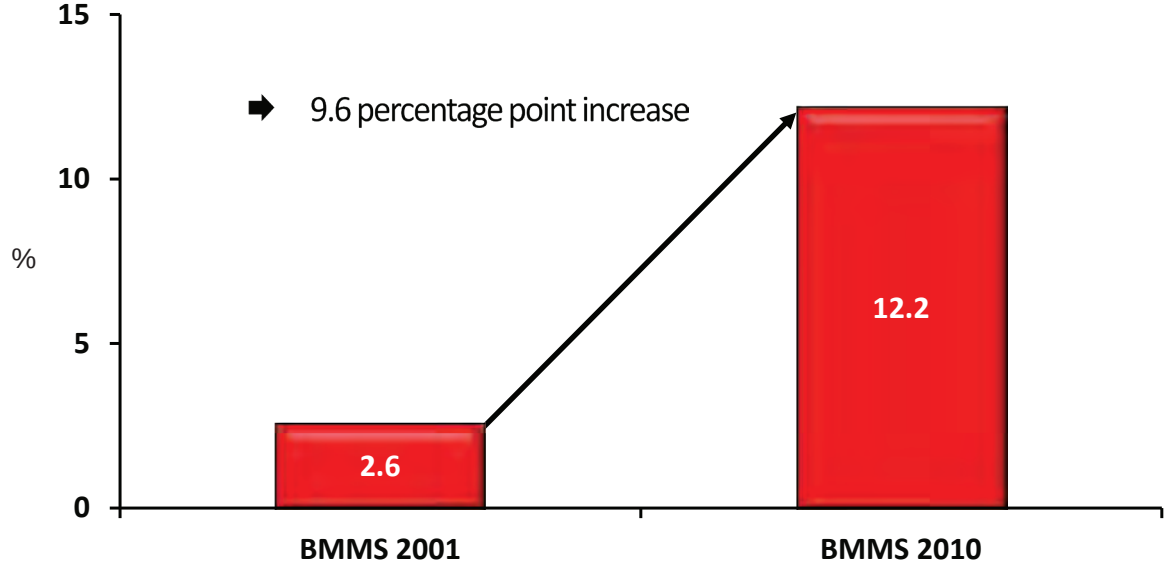
Percentage distribution of sources of referral for facility delivery among women aged 15-49 who delivered in a facility for live births in the three years preceding the survey, Bangladesh, 2010.

| | | Number of women | |
|---|---|---|---|
| | Weighted percent | Weighted | Un-weighted |
| **Sources of referral** | | | |
| MBBS Doctor | 24.4 | 1,064 | 1,211 |
| Nurse/midwife/paramedic/FWV | 6.6 | 286 | 329 |
| CSBA | .3 | 11 | 10 |
| SACMO/HA/FWA | 1.6 | 68 | 73 |
| TTBA | 1.7 | 73 | 66 |
| UTBA | 4.9 | 212 | 207 |
| Unqualified doctor | 2.9 | 127 | 105 |
| Relatives | 44.1 | 1,918 | 2,043 |
| Neighbors/friends | 6.2 | 269 | 276 |
| BRAC/Other health workers | 3.1 | 133 | 118 |
| Other field worker/others | .7 | 29 | 36 |
| Total referred | 78.2 | 3,406 | 3,609 |
| Number non-home delivery | 100.0 | 4,354 | 4,666 |

### 4.2.5 *Delivery by Caesarean Section*

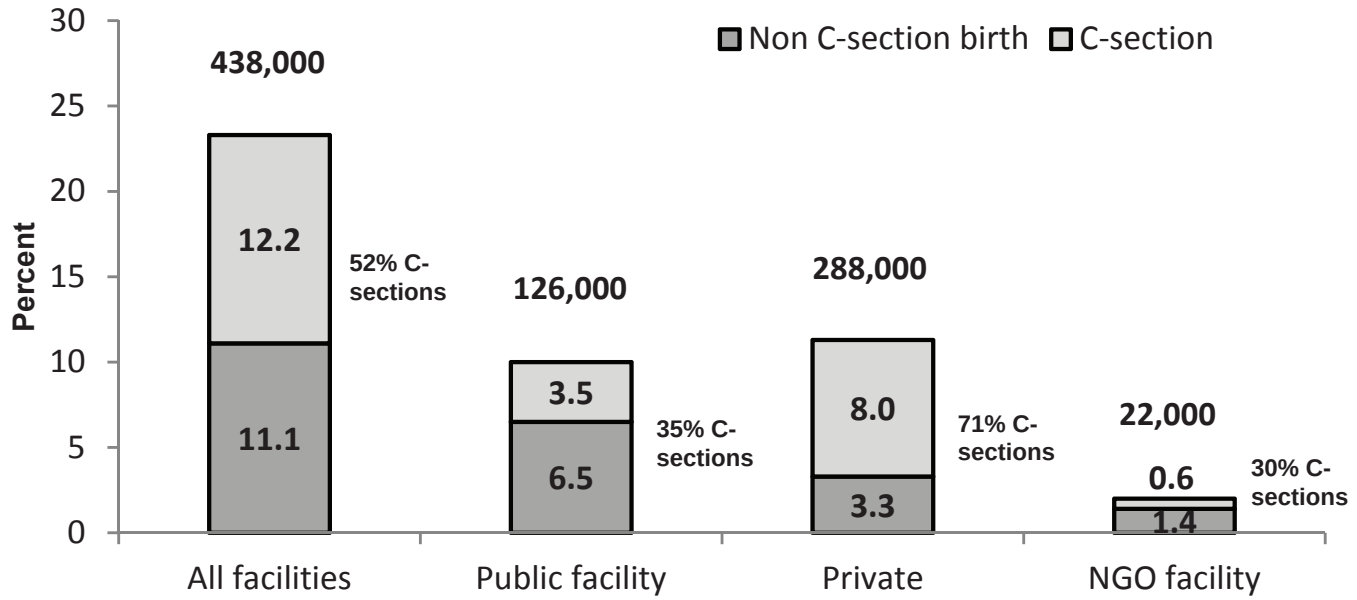
**Figure 4.5a Deliveries by C-section, 2001 and 2010.**

Percent of births in the three years preceding the survey that were delivered by C-section, by year of survey.



Delivery by C-section increased by almost five times between the 2001 BMMS and 2010 BMMS as shown in figure 4.5a. Overall 23 percent of deliveries occurred in a facility (figure 4.5b). Of these, 12 percent (just over half of all births that occurred in a facility) were delivered by C-section, and 11 percent were delivered vaginally. This equates to about 438,000 C-sections nationwide each year. However, this proportion varied greatly by type of facility. About one-third of deliveries in public facilities (35% or 126,000 births) were delivered by C-section, compared to almost three-quarters in the private sector (71 percent or 288,000 births). The NGO community played a very minor role with a proportion similar to the public sector (30 percent or 22,000 births), but the proportion of births that occur in an NGO facility is much smaller in terms of volume.

**Figure 4.5b Proportion of births delivered by C-section, by type of facility, three years before the survey.**




The steep rise in private sector facility deliveries appears to be driven by the rapid increase of births by C-section, with its associated financial and physical costs. The private sector is poorly regulated and very little information is available through the MOHFW routine MIS system on the number of deliveries taking place in this way and whether or not the procedure is medically indicated. There is also very little information on the certification of these private clinics or on the training of their staff to carry out this surgical procedure.

## 4.3 POSTNATAL CARE

The postpartum period is a time when mothers and infants can experience problems, even after a safe delivery. Thus, postnatal check-ups and care are recognized as an integral component of comprehensive maternity and delivery care. In the BMMS 2010, for each live birth in the three years preceding the survey, women were asked whether they went for a check-up for either themselves or their baby during the two months following delivery and, if so, the timing, the types of providers seen, and the facility visited. Those who did not go for a check-up were asked their reasons for not doing so.

### *4.3.1 Source of Postnatal Care — Mothers*

Table 4.13 shows that only 23 percent of women with recent deliveries reported having a postnatal check-up for themselves with a medically trained provider, with 18 percent reporting having been seen by a qualified doctor and 10 percent reporting having been seen by an unqualified doctor.

Women whose pregnancy resulted in a first birth, women from urban areas, women with higher levels of education, and women in wealthier households were more likely to have had a postnatal check-up. Significant differences appear to exist across geographical divisions in the propensity to have a postnatal check-up, with only 10 to 18 percent of women in Barisal, Rajshahi, and Sylhet divisions reporting a postnatal visit, compared with 21 to 28 percent of women in Khulna, Chittagong, and Dhaka divisions. Not surprisingly, more frequent antenatal visits were associated with a greater likelihood of having a postnatal check-up.

### *4.3.2 Timing of Postnatal Care — Mothers*

The utilization of postnatal care (PNC) has been historically low, partly because facility deliveries were uncommon, and because custom dictates that mothers and their newborn babies should remain within the house for up to 40 days after delivery. However, the rise in facility deliveries means that a growing number of women and their babies are receiving PNC (Table 4.14). It is encouraging that the total proportion of women availing PNC (some 41 percent) exceeds the proportion having a facility delivery (23 percent), so women are increasingly seeking PNC either for themselves, for their baby, or for both. And the majority of those who do receive PNC tend to do so within four hours of delivery (24 of the 41 percent). As expected with use of maternity services, the patterns of use are very skewed to those women with higher education, higher economic status, those living in urban areas, for first born children, and for mothers in their twenties. Finally, the prompt or early use of PNC is much higher in Dhaka and Chittagong divisions than in the rest of the country.

Table 4.13 Source of postnatal care: women

Among women age 15-49 giving birth in the three years preceding the survey, the percent distribution by type of provider of the mother's first postnatal check-up for the last live birth, and the percentage receiving post-natal care from a medically trained provider within two days of delivery, according to background characteristics, Bangladesh 2010.

| | Medically trained provider | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Background Characteristic | Qualified doctor | Nurse/ midwife/ paramedic/ FWV | CSBA | MA/ SACMO | Non-medically trained provider[1] | No postnatal check-up[2] | Total | Percentage receiving postnatal care from a medically trained provider | Number of women |
| **Mother's age at birth** | | | | | | | | | |
| Before 15 | 11.7 | 5.1 | 1.3 | 0.0 | 11.0 | 71.0 | 100.0 | 18.1 | 107 |
| 15-19 | 17.4 | 4.6 | 0.1 | 0.1 | 10.3 | 67.4 | 100.0 | 22.2 | 4,307 |
| 20-24 | 19.7 | 4.5 | 0.1 | 0.1 | 8.9 | 66.7 | 100.0 | 24.4 | 6,137 |
| 25-29 | 18.2 | 4.1 | 0.1 | 0.0 | 9.8 | 67.8 | 100.0 | 22.4 | 3,833 |
| 30-34 | 16.0 | 4.0 | 0.3 | 0.0 | 8.9 | 70.8 | 100.0 | 20.3 | 1,828 |
| 35-39 | 13.7 | 4.5 | 0.0 | 0.1 | 9.4 | 72.3 | 100.0 | 18.3 | 708 |
| 40-44 | 8.9 | 3.3 | 0.0 | 0.0 | 10.3 | 77.5 | 100.0 | 12.2 | 190 |
| 45-49 | 11.6 | 4.1 | 0.0 | 0.0 | 0.6 | 83.7 | 100.0 | 15.7 | 38 |
| **Birth order** | | | | | | | | | |
| 1 | 26.5 | 5.7 | 0.1 | 0.1 | 9.1 | 58.4 | 100.0 | 32.5 | 5,849 |
| 2-3 | 16.1 | 3.9 | 0.1 | 0.1 | 9.2 | 70.7 | 100.0 | 20.2 | 8,004 |
| 4-5 | 8.1 | 3.5 | 0.1 | 0.0 | 11.1 | 77.2 | 100.0 | 11.7 | 2,386 |
| 6+ | 5.6 | 2.2 | 0.0 | 0.0 | 10.4 | 81.8 | 100.0 | 7.8 | 911 |
| **Residence** | | | | | | | | | |
| Urban | 30.1 | 6.7 | 0.1 | 0.0 | 11.3 | 51.8 | 100.0 | 37.0 | 3,994 |
| Rural | 14.3 | 3.7 | 0.1 | 0.1 | 8.9 | 72.9 | 100.0 | 18.2 | 13,156 |
| **Division** | | | | | | | | | |
| Barisal | 8.1 | 1.6 | 0.0 | 0.1 | 0.7 | 89.5 | 100.0 | 9.7 | 1,005 |
| Chittagong | 20.1 | 4.7 | 0.1 | 0.1 | 16.5 | 58.4 | 100.0 | 25.1 | 3,899 |
| Dhaka | 23.2 | 4.7 | 0.2 | 0.1 | 13.9 | 57.8 | 100.0 | 28.3 | 5,681 |
| Khulna | 15.6 | 4.9 | 0.0 | 0.0 | 1.2 | 78.3 | 100.0 | 20.5 | 1,621 |
| Rajshahi | 12.2 | 4.6 | 0.0 | 0.0 | 1.5 | 81.6 | 100.0 | 16.9 | 3,616 |
| Sylhet | 15.2 | 2.5 | 0.1 | 0.0 | 8.4 | 73.8 | 100.0 | 17.8 | 1,328 |
| **Mother's education** | | | | | | | | | |
| No education | 6.4 | 2.7 | 0.0 | 0.0 | 9.8 | 81.1 | 100.0 | 9.2 | 3,923 |
| Primary incomplete | 10.1 | 3.4 | 0.2 | 0.1 | 9.8 | 76.3 | 100.0 | 13.8 | 2,735 |
| Primary complete | 12.2 | 3.9 | 0.0 | 0.1 | 10.9 | 72.9 | 100.0 | 16.2 | 2,769 |
| Secondary incomplete | 23.1 | 5.1 | 0.2 | 0.0 | 9.8 | 61.7 | 100.0 | 28.5 | 5,946 |
| Secondary complete or higher | 47.6 | 7.6 | 0.2 | 0.1 | 5.0 | 39.5 | 100.0 | 55.5 | 1,777 |
| **Household wealth index** | | | | | | | | | |
| 1 | 5.0 | 2.2 | 0.1 | 0.1 | 8.7 | 83.9 | 100.0 | 7.4 | 3,789 |
| 2 | 8.0 | 2.8 | 0.2 | 0.0 | 8.3 | 80.7 | 100.0 | 11.0 | 3,358 |
| 3 | 13.3 | 4.7 | 0.0 | 0.0 | 10.5 | 71.4 | 100.0 | 18.1 | 3,450 |
| 4 | 22.1 | 5.8 | 0.1 | 0.1 | 11.2 | 60.7 | 100.0 | 28.0 | 3,285 |
| 5 | 44.2 | 6.7 | 0.2 | 0.1 | 8.8 | 40.1 | 100.0 | 51.1 | 3,268 |
| Total | 18.0 | 4.4 | 0.1 | 0.1 | 9.5 | 68.0 | 100.0 | 22.5 | 17,149 |

[1] Includes HA, FWA,TTBA, UTBA, unqualified doctor, and "other."
[2] Includes those who had PNC after two days of delivery.

Table 4.14 Timing of first postnatal check-up: women

Among women age 15-49 giving birth in the three years preceding the survey, the percent distribution of the mother's first postnatal check-up for the last live birth by time after delivery, and the percentage who had a postnatal check-up within two days of delivery, according to background characteristics, Bangladesh 2010.

| Background Characteristic | Timing after delivery of mother's first postnatal check-up | | | | | Total | Percentage receiving check-up within 2 days of delivery from any provider | Percentage receiving check-up within 2 days of delivery from a medically trained provider[1] | Number of women |
|---|---|---|---|---|---|---|---|---|---|
| | <4 hours | 4-23 hours | Within 1-2 days | Within two months | No postnatal check-up | | | | |
| **Mother's age at birth** | | | | | | | | | |
| Before 15 | 18.8 | 4.6 | 5.6 | 6.3 | 64.7 | 100.0 | 29.0 | 18.1 | 107 |
| 15-19 | 24.3 | 2.6 | 5.6 | 7.9 | 59.5 | 100.0 | 32.6 | 22.1 | 4,307 |
| 20-24 | 25.0 | 3.3 | 4.9 | 8.3 | 58.4 | 100.0 | 33.3 | 24.4 | 6,137 |
| 25-29 | 24.2 | 2.9 | 5.1 | 8.3 | 59.5 | 100.0 | 32.2 | 22.4 | 3,833 |
| 30-34 | 21.5 | 2.8 | 4.9 | 9.7 | 61.1 | 100.0 | 29.2 | 20.3 | 1,828 |
| 35-39 | 20.0 | 3.8 | 3.9 | 12.2 | 60.1 | 100.0 | 27.7 | 18.2 | 708 |
| 40-44 | 16.3 | 2.7 | 3.5 | 11.1 | 66.4 | 100.0 | 22.5 | 12.2 | 190 |
| 45-49 | 10.2 | 2.4 | 3.7 | 12.2 | 71.5 | 100.0 | 16.3 | 15.7 | 38 |
| **Birth order** | | | | | | | | | |
| 1 | 32.0 | 3.7 | 5.8 | 8.3 | 50.1 | 100.0 | 41.6 | 32.4 | 5,849 |
| 2-3 | 21.8 | 2.7 | 4.8 | 7.5 | 63.1 | 100.0 | 29.3 | 20.1 | 8,004 |
| 4-5 | 15.9 | 2.7 | 4.3 | 11.0 | 66.2 | 100.0 | 22.8 | 11.7 | 2,386 |
| 6+ | 11.2 | 2.3 | 4.7 | 12.6 | 69.2 | 100.0 | 18.2 | 7.8 | 911 |
| **Residence** | | | | | | | | | |
| Urban | 39.8 | 2.9 | 5.5 | 8.1 | 43.7 | 100.0 | 48.2 | 36.9 | 3,994 |
| Rural | 19.1 | 3.0 | 5.0 | 8.7 | 64.2 | 100.0 | 27.1 | 18.1 | 13,156 |
| **Division** | | | | | | | | | |
| Barisal | 6.6 | 1.8 | 2.2 | 8.2 | 81.3 | 100.0 | 10.5 | 9.7 | 1,005 |
| Chittagong | 30.7 | 3.4 | 7.5 | 11.1 | 47.2 | 100.0 | 41.6 | 25.0 | 3,899 |
| Dhaka | 34.9 | 2.7 | 4.6 | 9.4 | 48.4 | 100.0 | 42.2 | 28.2 | 5,681 |
| Khulna | 12.4 | 4.1 | 5.2 | 5.9 | 72.4 | 100.0 | 21.7 | 20.5 | 1,621 |
| Rajshahi | 11.1 | 3.3 | 4.0 | 3.7 | 77.9 | 100.0 | 18.4 | 16.9 | 3,616 |
| Sylhet | 19.1 | 2.0 | 5.1 | 13.6 | 60.2 | 100.0 | 26.2 | 17.8 | 1,328 |
| **Mother's education** | | | | | | | | | |
| No education | 12.9 | 2.1 | 4.0 | 8.8 | 72.3 | 100.0 | 18.9 | 9.1 | 3,923 |
| Primary incomplete | 17.5 | 1.9 | 4.3 | 8.7 | 67.7 | 100.0 | 23.7 | 13.8 | 2,735 |
| Primary complete | 19.7 | 3.1 | 4.3 | 8.7 | 64.2 | 100.0 | 27.1 | 16.1 | 2,769 |
| Secondary incomplete | 28.9 | 3.3 | 6.2 | 8.1 | 53.7 | 100.0 | 38.3 | 28.4 | 5,946 |
| Secondary complete or higher | 48.3 | 5.9 | 6.3 | 9.1 | 30.4 | 100.0 | 60.5 | 55.4 | 1,777 |
| **Household wealth index** | | | | | | | | | |
| 1 | 10.6 | 1.6 | 3.9 | 7.7 | 76.2 | 100.0 | 16.1 | 7.3 | 3,789 |
| 2 | 13.0 | 2.2 | 4.2 | 8.7 | 71.9 | 100.0 | 19.3 | 11.0 | 3,358 |
| 3 | 20.2 | 3.2 | 5.1 | 8.4 | 63.0 | 100.0 | 28.6 | 18.0 | 3,450 |
| 4 | 28.9 | 3.8 | 6.6 | 9.4 | 51.4 | 100.0 | 39.3 | 28.0 | 3,285 |
| 5 | 49.5 | 4.5 | 5.9 | 8.6 | 31.6 | 100.0 | 59.9 | 51.1 | 3,268 |
| Total | 23.9 | 3.0 | 5.1 | 8.5 | 59.4 | 100.0 | 32.0 | 22.5 | 17,149 |

[1] Includes HA, FWA,TTBA, UTBA, unqualified doctor, and "other."

As expected, the use of PNC was higher among women who delivered in a facility where they were likely to be seen by an MBBS doctor (Table 4.15). Nurses/midwives also played an important role for facility deliveries, but considerably less so than doctors. Very few women (about one in six) who delivered at home made a PNC within the first two days after delivery.

Table 4.15. Type of provider of PNC for women within two days by place of delivery

Percent distribution of last live births in the three years preceding the survey by type of provider of PNC for women within two days according to place of delivery, Bangladesh, 2010.

| | Place of delivery | | |
|---|---|---|---|
| Type of provider of PNC | Facility | Home | Total |
| Qualified doctor | 65.7 | 2.7 | 18.0 |
| Nurse/midwife/paramedic/FWV | 13.0 | 1.6 | 4.4 |
| CSBA | 0.0 | 0.2 | 0.1 |
| MA/SACMO | 0.1 | 0.1 | 0.1 |
| Community health worker[1] | 1.1 | 0.9 | 0.9 |
| Other | 0.3 | 11.2 | 8.6 |
| No postnatal check-up within two days | 19.9 | 83.4 | 68.0 |
| Total | 100 | 100 | 100 |
| Number | 4,164 | 12,985 | 17,149 |

[1] Community health worker includes HA, FWA, BRAC health worker, and other NGO health worker.

### *4.3.3 Source of Postnatal Care — Children*

Table 4.16 indicates that the proportions of women seeking postnatal care for their babies were also very low (23 percent). Qualified doctors were the most frequently reported providers of postnatal baby care (18 percent), followed by unqualified doctors (10 percent). Differences in seeking postnatal care for the baby closely mirrored those found for postnatal care for the mother. Thus, infants of mothers with low parity births, mothers from urban areas, mothers with higher levels of education, and mothers from wealthier households were much more likely to receive a postnatal check-up. The percentage of women who brought their babies for a postnatal check-up ranged from a low of 11 percent in Barisal division to a high of 28 percent in Dhaka division.

### *4.3.4 Timing of Postnatal Care — Children*

As expected, the timing of PNC visits for babies (children) matches closely with the timing for mothers themselves (Table 4.17), as these visits are usually dual purpose with mother and baby attending.

Table 4.16 Postnatal care: children

Among women age 15-49 giving birth in the three years preceding the survey, the percent distribution by type of provider of the children's first postnatal check-up for the last live birth within two days of delivery, and the percentage receiving postnatal care from a medically trained provider, according to background characteristics, Bangladesh 2010.

| Background Characteristic | Medically trained provider | | | | Non-medically trained provider[1] | No postnatal check-up[2] | Total | Percentage receiving postnatal care from a medically trained provider | Number of women |
|---|---|---|---|---|---|---|---|---|---|
| | Qualified doctor | Nurse/ midwife/ paramedic/ FWV | CSBA | MA/ SACMO | | | | | |
| **Mother's age at birth** | | | | | | | | | |
| Before 15 | 12.2 | 3.4 | 1.3 | 0.0 | 11.3 | 71.8 | 100.0 | 16.9 | 107 |
| 15-19 | 18.2 | 4.7 | 0.1 | 0.1 | 10.2 | 66.8 | 100.0 | 23.0 | 4,307 |
| 20-24 | 19.9 | 4.1 | 0.1 | 0.1 | 9.2 | 66.7 | 100.0 | 24.1 | 6,137 |
| 25-29 | 18.8 | 3.8 | 0.0 | 0.1 | 9.5 | 67.7 | 100.0 | 22.7 | 3,833 |
| 30-34 | 16.5 | 3.3 | 0.3 | 0.0 | 9.1 | 70.8 | 100.0 | 20.1 | 1,828 |
| 35-39 | 13.4 | 4.3 | 0.0 | 0.0 | 8.2 | 74.1 | 100.0 | 17.7 | 708 |
| 40-44 | 9.1 | 2.3 | 0.0 | 0.0 | 8.7 | 80.0 | 100.0 | 11.3 | 190 |
| 45-49 | 11.6 | 3.7 | 0.0 | 0.0 | .4 | 84.3 | 100.0 | 15.3 | 38 |
| **Birth order** | | | | | | | | | |
| 1 | 27.2 | 5.5 | 0.1 | 0.1 | 9.0 | 58.1 | 100.0 | 32.9 | 5,849 |
| 2-3 | 16.4 | 3.6 | 0.1 | 0.1 | 9.5 | 70.3 | 100.0 | 20.2 | 8,004 |
| 4-5 | 8.4 | 3.0 | 0.1 | 0.0 | 10.7 | 77.8 | 100.0 | 11.5 | 2,386 |
| 6+ | 5.4 | 2.1 | 0.0 | 0.0 | 8.9 | 83.6 | 100.0 | 7.5 | 911 |
| **Residence** | | | | | | | | | |
| Urban | 30.4 | 6.2 | 0.1 | 0.0 | 11.6 | 51.7 | 100.0 | 36.7 | 3,994 |
| Rural | 14.8 | 3.4 | 0.1 | 0.1 | 8.8 | 72.8 | 100.0 | 18.4 | 13,156 |
| **Division** | | | | | | | | | |
| Barisal | 8.9 | 1.7 | 0.0 | 0.0 | .6 | 88.8 | 100.0 | 10.6 | 1,005 |
| Chittagong | 21.1 | 4.3 | 0.1 | 0.1 | 15.2 | 59.2 | 100.0 | 25.6 | 3,899 |
| Dhaka | 23.4 | 4.3 | 0.2 | 0.1 | 14.1 | 57.8 | 100.0 | 28.1 | 5,681 |
| Khulna | 15.7 | 4.7 | 0.0 | 0.0 | 1.1 | 78.5 | 100.0 | 20.4 | 1,621 |
| Rajshahi | 12.4 | 4.4 | 0.0 | 0.0 | 2.8 | 80.4 | 100.0 | 16.8 | 3,616 |
| Sylhet | 15.8 | 2.3 | 0.2 | 0.0 | 7.9 | 73.7 | 100.0 | 18.4 | 1,328 |
| **Mother's education** | | | | | | | | | |
| No education | 6.7 | 2.6 | 0.0 | 0.0 | 9.7 | 80.9 | 100.0 | 9.4 | 3,923 |
| Primary incomplete | 10.6 | 3.2 | 0.2 | 0.1 | 9.9 | 76.1 | 100.0 | 14.0 | 2,735 |
| Primary complete | 12.1 | 3.7 | 0.0 | 0.1 | 11.2 | 72.9 | 100.0 | 15.9 | 2,769 |
| Secondary incomplete | 23.5 | 4.9 | 0.2 | 0.0 | 9.7 | 61.6 | 100.0 | 28.7 | 5,946 |
| Secondary complete or higher | 48.8 | 6.4 | 0.2 | 0.1 | 4.8 | 39.7 | 100.0 | 55.5 | 1,777 |
| **Household wealth index** | | | | | | | | | |
| 1 | 4.8 | 2.1 | 0.1 | 0.1 | 8.7 | 84.2 | 100.0 | 7.2 | 3,789 |
| 2 | 8.5 | 2.7 | 0.2 | 0.0 | 8.7 | 80.0 | 100.0 | 11.3 | 3,358 |
| 3 | 13.9 | 4.3 | 0.0 | 0.1 | 9.9 | 71.7 | 100.0 | 18.3 | 3,450 |
| 4 | 22.7 | 5.6 | 0.1 | 0.0 | 11.3 | 60.3 | 100.0 | 28.5 | 3,285 |
| 5 | 44.7 | 6.0 | 0.2 | 0.1 | 8.8 | 40.2 | 100.0 | 51.0 | 3,268 |
| Total | 18.4 | 4.1 | 0.1 | 0.1 | 9.5 | 67.9 | 100.0 | 22.6 | 17,149 |

[1] Includes HA, FWA,TTBA, UTBA, unqualified doctor, and "other."
[2] Includes children who did not have PNC within two days.

Table 4.17 Timing of first postnatal check-up: children

Among women age 15-49 giving birth in the three years preceding the survey, the percent distribution of the child's first postnatal check-up for the last live birth by time after delivery, and the percentage who had a postnatal check-up within two days of delivery, according to background characteristics, Bangladesh 2010.

| Background Characteristic | Timing after delivery of mother's first postnatal check-up | | | | No postnatal check-up | Total | Percentage receiving check-up within 2 days of delivery from any provider | Percentage receiving check-up within 2 days of delivery from a medically trained provider[1] | Number of women |
|---|---|---|---|---|---|---|---|---|---|
| | <4 hours | 4-23 hours | Within 1-2 days | Within two months | | | | | |
| **Mother's age at birth** | | | | | | | | | |
| Before 15 | 18.4 | 2.8 | 7.1 | 23.3 | 48.4 | 100.0 | 28.2 | 16.9 | 107 |
| 15-19 | 24.3 | 2.4 | 6.4 | 14.6 | 52.2 | 100.0 | 33.2 | 23.0 | 4,307 |
| 20-24 | 24.5 | 3.1 | 5.8 | 15.0 | 51.7 | 100.0 | 33.3 | 24.1 | 6,137 |
| 25-29 | 24.1 | 2.6 | 5.6 | 13.6 | 54.1 | 100.0 | 32.3 | 22.7 | 3,833 |
| 30-34 | 21.1 | 2.7 | 5.4 | 14.4 | 56.4 | 100.0 | 29.2 | 20.1 | 1,828 |
| 35-39 | 19.7 | 2.7 | 3.5 | 14.1 | 60.0 | 100.0 | 25.9 | 17.7 | 708 |
| 40-44 | 15.4 | 2.8 | 1.9 | 15.3 | 64.7 | 100.0 | 20.0 | 11.3 | 190 |
| 45-49 | 10.1 | 1.9 | 3.7 | 13.6 | 70.7 | 100.0 | 15.7 | 15.3 | 38 |
| **Birth order** | | | | | | | | | |
| 1 | 31.9 | 3.4 | 6.6 | 14.1 | 44.0 | 100.0 | 41.9 | 32.9 | 5,849 |
| 2-3 | 21.7 | 2.4 | 5.6 | 14.1 | 56.2 | 100.0 | 29.7 | 20.2 | 8,004 |
| 4-5 | 15.0 | 2.5 | 4.7 | 16.1 | 61.8 | 100.0 | 22.2 | 11.5 | 2,386 |
| 6+ | 10.4 | 2.0 | 4.0 | 16.3 | 67.3 | 100.0 | 16.4 | 7.5 | 911 |
| **Residence** | | | | | | | | | |
| Urban | 39.3 | 2.6 | 6.4 | 13.8 | 37.9 | 100.0 | 48.3 | 36.7 | 3,994 |
| Rural | 18.9 | 2.8 | 5.5 | 14.7 | 58.1 | 100.0 | 27.2 | 18.4 | 13,156 |
| **Division** | | | | | | | | | |
| Barisal | 7.4 | 1.7 | 2.0 | 11.3 | 77.6 | 100.0 | 11.2 | 10.6 | 1,005 |
| Chittagong | 29.6 | 3.2 | 8.0 | 21.6 | 37.6 | 100.0 | 40.8 | 25.6 | 3,899 |
| Dhaka | 34.0 | 2.4 | 5.8 | 16.7 | 41.1 | 100.0 | 42.2 | 28.1 | 5,681 |
| Khulna | 12.9 | 3.4 | 5.2 | 7.5 | 71.0 | 100.0 | 21.5 | 20.4 | 1,621 |
| Rajshahi | 12.3 | 3.0 | 4.2 | 4.8 | 75.6 | 100.0 | 19.6 | 16.8 | 3,616 |
| Sylhet | 18.3 | 2.1 | 5.9 | 21.5 | 52.2 | 100.0 | 26.3 | 18.4 | 1,328 |
| **Mother's education** | | | | | | | | | |
| No education | 12.3 | 2.1 | 4.6 | 14.5 | 66.5 | 100.0 | 19.1 | 9.4 | 3,923 |
| Primary incomplete | 16.9 | 1.8 | 5.1 | 15.7 | 60.4 | 100.0 | 23.9 | 14.0 | 2,735 |
| Primary complete | 19.2 | 2.5 | 5.4 | 15.4 | 57.5 | 100.0 | 27.1 | 15.9 | 2,769 |
| Secondary incomplete | 28.8 | 3.0 | 6.6 | 14.4 | 47.2 | 100.0 | 38.4 | 28.7 | 5,946 |
| Secondary complete or higher | 48.6 | 5.1 | 6.5 | 11.8 | 28.0 | 100.0 | 60.3 | 55.5 | 1,777 |
| **Household wealth index** | | | | | | | | | |
| 1 | 10.2 | 1.7 | 4.0 | 14.4 | 69.8 | 100.0 | 15.8 | 7.2 | 3,789 |
| 2 | 13.0 | 2.0 | 5.0 | 14.6 | 65.4 | 100.0 | 20.0 | 11.3 | 3,358 |
| 3 | 19.4 | 2.9 | 5.9 | 15.5 | 56.2 | 100.0 | 28.3 | 18.3 | 3,450 |
| 4 | 28.7 | 3.3 | 7.7 | 14.5 | 45.8 | 100.0 | 39.7 | 28.5 | 3,285 |
| 5 | 49.6 | 4.0 | 6.3 | 13.4 | 26.8 | 100.0 | 59.8 | 51.0 | 3,268 |
| Total | 23.6 | 2.7 | 5.7 | 14.5 | 53.4 | 100.0 | 32.1 | 22.6 | 17,149 |

[1] Includes HA, FWA,TTBA, UTBA, unqualified doctor, and "other."

### *4.3.5 Postnatal Care by Place of Delivery*

The patterns of PNC by place of delivery follow expectations. MBBS doctors played a role as providers in about half of all facility deliveries in the public and NGO sectors. This was the case in almost four out of five deliveries in the private sector, where patients often pay substantial fees, and may expect higher-level providers (Table 4.18). Consistent with cost differentials, nurses/midwives provided the PNC in almost one in five cases in the public and NGO sectors, whereas they provided only PNC in one in fifteen cases in the private sector. For home deliveries, almost no mothers received PNC from a medically trained provider within two days after delivery, although one in eight saw a non-medically trained provider.

Table 4.18. Postnatal care by place of delivery

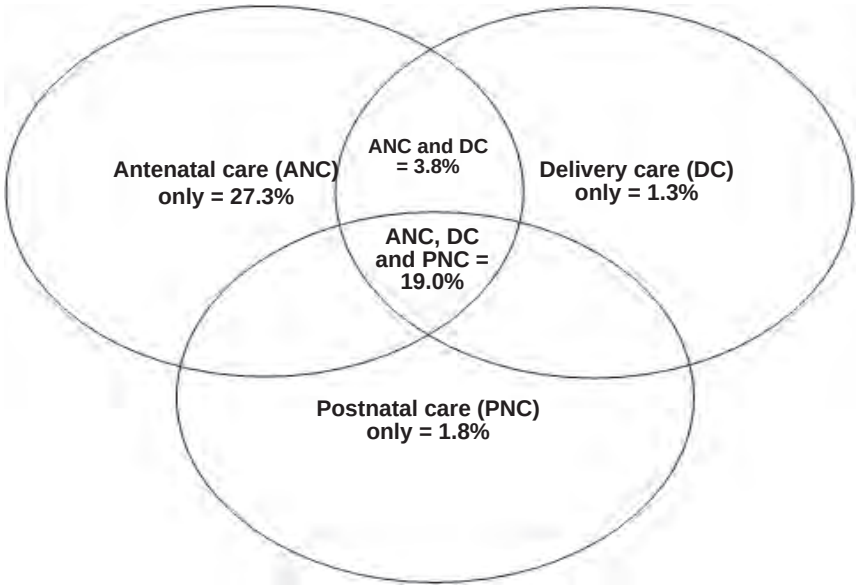
Among women age 15-49 giving birth in the three years preceding the survey, the percent distribution by type of provider of the' mother's first postnatal check-up for the last live birth, and the percentage receiving post-natal care from a medically trained provider,' according to place of delivery, Bangladesh 2010.

| | Postnatal care within 2 days | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Place of delivery | Qualified doctor | Nurse/ midwife/ paramedic/ FWV | CSBA | MA/ SACMO | Non-medically trained provider | No postnatal check-up | Total | Percentage receiving PNC within 2 days from medically trained provider | Number of women |
| Public | 55.5 | 18.6 | 0.0 | 0.1 | 0.5 | 25.4 | 100.0 | 74.1 | 1,748 |
| Private | 78.5 | 6.9 | 0.0 | 0.0 | 0.0 | 14.7 | 100.0 | 85.3 | 1,978 |
| NGO | 51.7 | 18.4 | 0.0 | 0.0 | 11.7 | 18.2 | 100.0 | 70.1 | 358 |
| Home | 2.7 | 1.6 | 0.2 | 0.1 | 12.1 | 83.4 | 100.0 | 4.5 | 12,985 |
| Other/missing | 34.0 | 17.9 | 0.0 | 2.4 | 10.0 | 35.6 | 100.0 | 54.4 | 80 |
| Total | 18.0 | 4.4 | 0.1 | 0.1 | 9.5 | 68.0 | 100.0 | 22.5 | 17,149 |

Many reasons were cited for not seeking a postnatal check-up for the mother, among women who did not obtain a postnatal check-up for themselves. The primary reason for not having a postnatal check-up was the perceived absence of need (56 percent). Concern about cost was the second most commonly cited reason (22 percent). Other service-related factors (access, transportation, poor service quality, reluctance to be seen by a male provider) were cited by much smaller percentages of respondents. Cost was much more likely to be cited as a factor in not seeking care among older women, women of higher parity, women with lower education, and women in poorer households. Higher percentages of more educated or wealthier respondents cited the absence of need as a primary reason for not seeking postnatal care.

To summarize, only one in five women (19 percent) have appropriate ANC, delivery care, and PNC. Much remains to be done to increase this to a satisfactory level where women are accessing the care they need.

**Figure 4.6 Maternity Care in Bangladesh.**

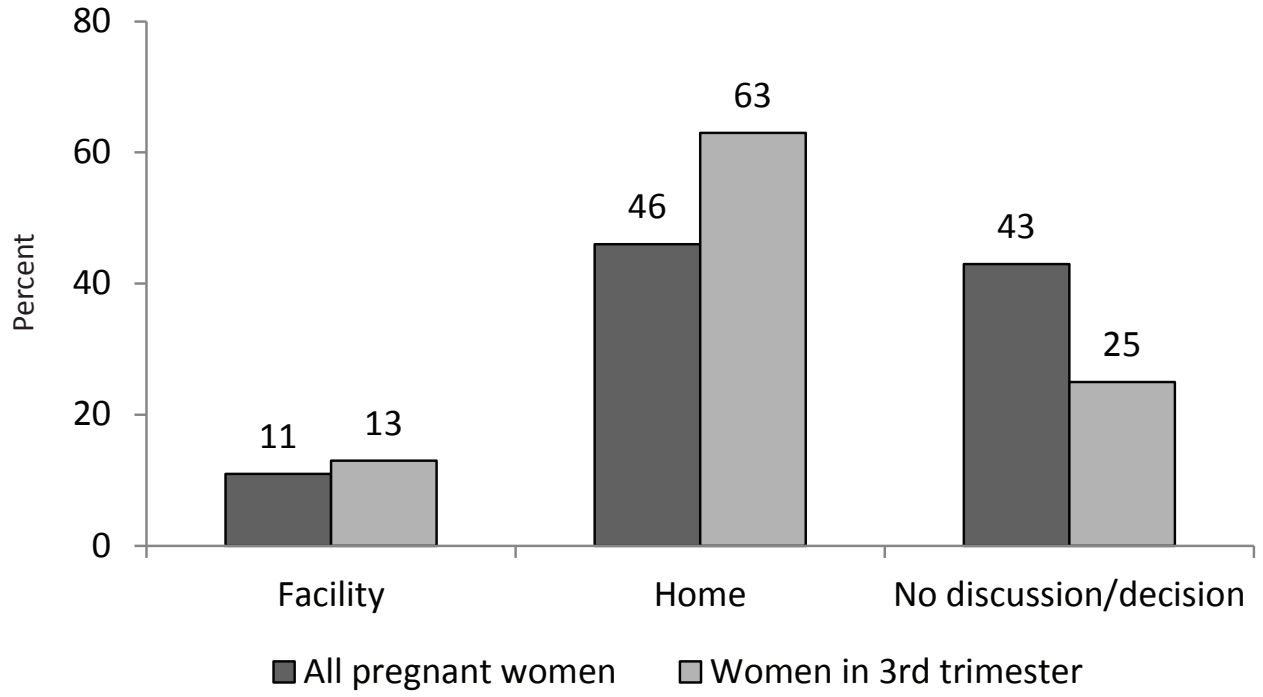


## 4.4 BIRTH PLANNING

Under the Safe Motherhood Initiative, birth planning is promoted under the assumption that women who have a plan are more likely to prepare for emergencies and use health services during pregnancy, delivery, and the post-partum period. In the BMMS 2010, information was collected on different components of birth planning among women who were pregnant at the time of the interview. In particular, information was collected on discussion and/or decision on place of delivery, attendance at delivery, and preparedness for emergencies. Women were also asked about delivery advice received during ANC visits.

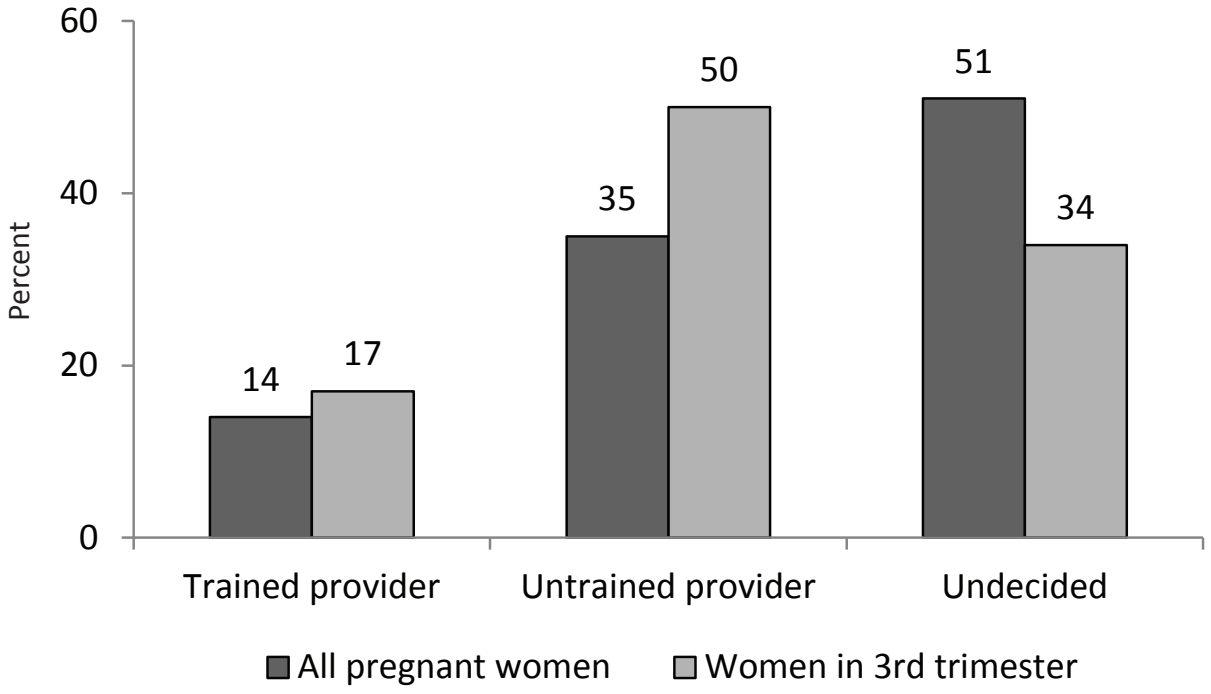
Figure 4.7 shows that 43 percent of currently pregnant women had neither discussed nor made a decision concerning place of delivery. Only 11 percent discussed or decided to deliver in a facility and 46 percent discussed or decided to deliver at home. The likelihood of having discussed or decided where to deliver increased as pregnancy progressed; however, this improvement was less marked in choosing a facility compared to choosing to deliver in the home. One in every four women in their third trimester still had not discussed or decided where to deliver. The intention to deliver in a facility is higher for urban women, more educated women, high parity women, and women in wealthier households.

**Figure 4.7 Discussion/decision about place of delivery.**




All pregnant women other than those who had discussed or decided to deliver in a facility were asked whether they had discussed or decided who would assist them during delivery. As shown in Figure 4.8, discussion or decision about a delivery provider was also minimal among these women. One in every three women (34 percent) in their 3rd trimester was still undecided about who would assist their delivery. Half of these women had decided to deliver with assistance from an untrained provider and only 17 percent decided to deliver with assistance from a trained provider. As shown in Table 4.19, women younger than 19 and older than 45 who were pregnant for the first time and lived in rural areas were less likely to have discussed or decided on a delivery attendant.

**Figure 4.8 Discussion/decision about provider for delivery.**




An important component of birth planning is to prepare for emergencies. Women were asked whether they had any family discussion or decision about what to do in case of emergency during their current pregnancy (i.e., where to go to seek assistance and who to call). They were also asked whether they had made any arrangements for transport and/or money in case of emergency. As shown in Table 4.20 and Figure 4.9, overall there was very poor emergency preparedness during pregnancy. Only one third of women in their 3rd trimester had discussed financial planning for emergencies, who to call or where to seek assistance. As expected, discussion about emergency preparedness during pregnancy was higher among urban women, more educated women, and women in wealthier households.

**Figure 4.9 Pregnant women discussing preparedness for emergency with family members.**

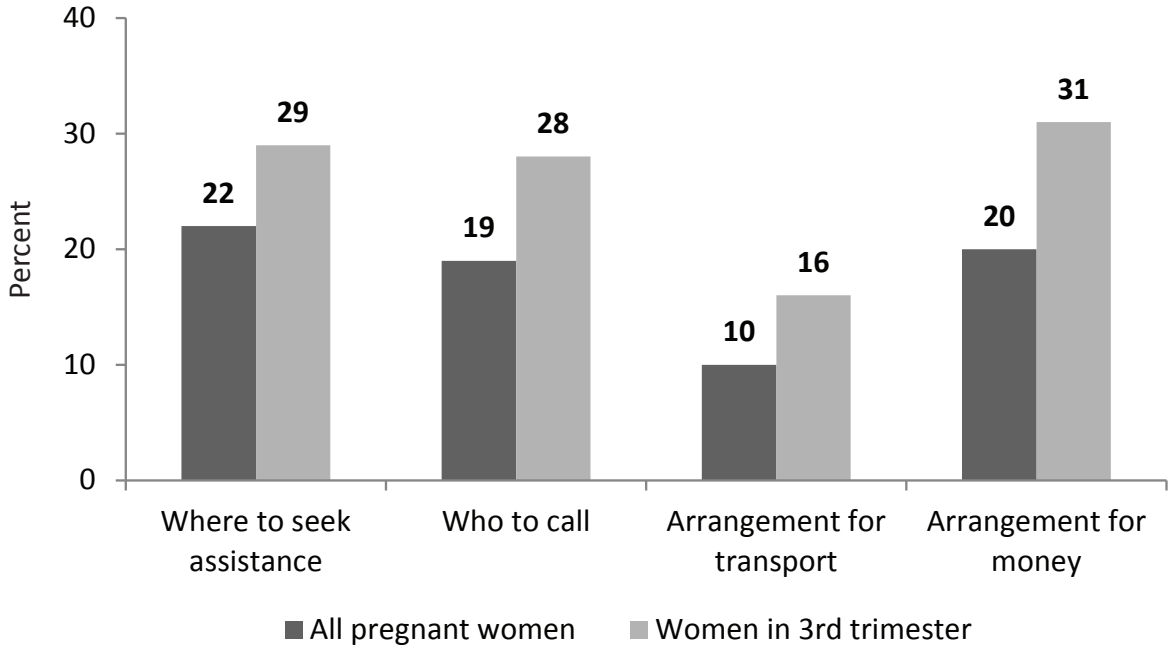


Table 4.19 Family discussion/decision about place and person of delivery

Percentage of women currently pregnant at the time of interview having discussion/decision about place and attendant for delivery, Bangladesh 2010.

| Background Characteristics | Decided/ discussed delivery at facility | Decided/discussed delivery at home: Qualified doctor | Nurse/ midwife/ paramedic/ FWV | CSBA | Trained TBA | Untrained TBA | Relatives/ friends/ neighbors/ others | Undecided | No decision or discussion where delivery will take place: Qualified doctor | Nurse/ midwife/ paramedic/ FWV/ | CSBA | Trained TBA | Untrained TBA | Relatives/ friends/ neighbors/ others | Undecided | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Age** | | | | | | | | | | | | | | | | |
| 15-19 | 6.4 | 0.2 | 1.6 | 0.3 | 5.7 | 19.8 | 1.5 | 17.7 | 0.1 | 0.3 | 0.2 | 0.6 | 2.4 | 0.7 | 42.6 | 1,060 |
| 20-24 | 12.0 | 0.6 | 1.3 | 0.3 | 6.7 | 21.3 | 1.9 | 13.9 | 0.1 | 0.5 | 0.1 | 0.7 | 4.7 | 0.5 | 35.4 | 1,286 |
| 25-29 | 14.2 | 0.0 | 1.1 | 0.0 | 6.9 | 23.1 | 2.1 | 13.8 | 0.3 | 0.2 | 0.0 | 1.3 | 4.1 | 0.4 | 32.5 | 795 |
| 30-34 | 14.7 | 0.5 | 1.1 | 1.3 | 6.8 | 22.4 | 1.0 | 11.0 | 1.3 | 0.0 | 0.0 | 2.4 | 5.1 | 0.5 | 32.0 | 309 |
| 35-39 | 9.2 | 0.0 | 0.0 | 0.0 | 7.2 | 23.0 | 0.0 | 11.4 | 0.0 | 0.0 | 0.0 | 1.7 | 7.1 | 0.0 | 40.3 | 104 |
| 40-44 | 1.0 | 0.0 | 0.0 | 0.0 | 10.4 | 38.6 | 0.0 | 1.9 | 0.0 | 0.0 | 0.0 | 0.0 | .0 | 0.0 | 48.1 | 17 |
| 45-49 | 7.4 | 0.0 | 0.0 | 0.0 | 6.9 | 11.1 | 0.0 | 29.1 | 0.0 | 0.0 | 0.0 | 0.0 | .0 | 0.0 | 45.5 | 5 |
| **Trimester** | | | | | | | | | | | | | | | | |
| 1st | 8.2 | 0.3 | 0.9 | 0.0 | 3.8 | 11.8 | 1.2 | 11.2 | 0.1 | 0.4 | 0.0 | 0.9 | 4.3 | 0.1 | 56.8 | 1,016 |
| 2nd | 11.5 | 0.2 | 0.8 | 0.2 | 5.2 | 20.7 | 1.4 | 16.7 | 0.4 | 0.2 | 0.1 | 0.8 | 3.8 | 0.8 | 37.2 | 1,447 |
| 3rd | 12.7 | 0.4 | 2.2 | 0.6 | 10.6 | 31.3 | 2.6 | 15.1 | 0.3 | 0.4 | 0.2 | 1.2 | 3.8 | 0.6 | 18.1 | 1,113 |
| **Birth order[1]** | | | | | | | | | | | | | | | | |
| 1 | 11.6 | 0.3 | 1.4 | 0.3 | 5.7 | 16.7 | 1.2 | 18.2 | 0.1 | 0.4 | 0.1 | 0.5 | 2.2 | 0.5 | 40.8 | 1,430 |
| 2-3 | 12.2 | 0.4 | 1.4 | 0.1 | 7.0 | 23.5 | 1.8 | 12.3 | 0.5 | 0.3 | 0.1 | 0.8 | 4.7 | 0.6 | 34.2 | 1,591 |
| 4-5 | 6.5 | 0.0 | 0.6 | 0.9 | 6.7 | 27.1 | 2.5 | 13.0 | 0.0 | 0.3 | 0.0 | 2.4 | 6.1 | 0.5 | 33.5 | 455 |
| 6+ | 0.3 | 0.0 | 0.2 | 0.0 | 8.8 | 32.5 | 1.8 | 9.9 | 0.0 | 0.0 | 0.0 | 3.2 | 6.8 | 0.0 | 36.4 | 100 |
| **Residence** | | | | | | | | | | | | | | | | |
| Urban | 23.2 | 0.6 | 2.8 | 0.2 | 5.1 | 17.2 | 2.2 | 14.5 | 0.9 | 0.3 | 0.0 | 0.2 | 2.4 | 0.2 | 30.0 | 864 |
| Rural | 7.0 | 0.2 | 0.8 | 0.3 | 6.9 | 22.8 | 1.5 | 14.7 | 0.1 | 0.3 | 0.1 | 1.2 | 4.4 | 0.7 | 39.0 | 2,712 |
| **Division** | | | | | | | | | | | | | | | | |
| Barisal | 4.3 | 0.4 | 1.4 | 0.0 | 7.3 | 23.3 | 1.2 | 17.3 | 0.0 | 0.3 | 0.0 | 1.0 | 3.4 | 0.4 | 39.6 | 184 |
| Chittagong | 10.0 | 0.2 | 1.6 | 0.3 | 4.5 | 24.3 | 1.3 | 13.1 | 0.2 | 0.6 | 0.2 | 0.6 | 4.0 | 0.3 | 38.8 | 893 |
| Dhaka | 13.1 | 0.7 | 1.4 | 0.5 | 6.6 | 22.4 | 2.5 | 15.3 | 0.3 | 0.2 | 0.1 | 0.8 | 4.1 | 0.3 | 31.7 | 1,242 |
| Khulna | 16.1 | 0.0 | 1.0 | 0.0 | 8.3 | 13.6 | 1.2 | 14.0 | 0.9 | 0.1 | 0.0 | 0.9 | 2.9 | 0.7 | 40.3 | 290 |
| Rajshahi | 9.8 | 0.0 | 0.9 | 0.2 | 7.7 | 16.5 | 1.5 | 17.4 | 0.1 | 0.3 | 0.0 | 1.5 | 2.6 | 1.1 | 40.4 | 690 |
| Sylhet | 6.0 | 0.1 | 0.9 | .00 | 6.6 | 27.4 | 0.7 | 8.9 | 0.4 | 0.2 | 0.0 | 1.2 | 7.7 | 0.8 | 38.9 | 277 |

Table 4.19 Family discussion/decision about place and person of delivery

Percentage of women currently pregnant at the time of interview having discussion/decision about place and attendant for delivery, Bangladesh 2010.

| Background Characteristics | Decided/ discussed delivery at facility | Decided/discussed delivery at home | | | | | | | No decision or discussion where delivery will take place | | | | | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Quali-fied doctor | Nurse/ midwife/ paramedic/ FWV | CSBA | Trained TBA | Un-trained TBA | Relatives/ friends/ neighbors/ others | Unde-cided | Quali-fied doctor | Nurse/ midwife/ paramedic/ FWV/ | CSBA | Trained TBA | Un-trained TBA | Relatives/ friends/ neighbors/ others | Undecided | |
| **Mother's education** | | | | | | | | | | | | | | | | |
| No education | 2.2 | 0.0 | 0.1 | 0.0 | 6.8 | 28.1 | 1.0 | 11.4 | 0.0 | 0.1 | 0.0 | 1.8 | 6.8 | 0.8 | 40.8 | 654 |
| Primary incomplete | 5.0 | 0.0 | 1.5 | 0.4 | 5.0 | 28.9 | 2.5 | 13.5 | 0.3 | 0.1 | 0.0 | 1.4 | 5.7 | 0.6 | 35.3 | 525 |
| Primary complete | 8.4 | 0.3 | 0.7 | 0.0 | 7.1 | 25.4 | 2.5 | 15.4 | 0.0 | 0.1 | 0.2 | 1.0 | 2.6 | 0.4 | 35.8 | 593 |
| Secondary incomplete | 11.7 | 0.3 | 1.9 | 0.4 | 6.6 | 18.4 | 1.8 | 17.0 | 0.1 | 0.5 | 0.1 | 0.5 | 3.4 | 0.5 | 36.6 | 1,400 |
| Secondary complete or higher | 33.5 | 1.1 | 1.5 | 0.5 | 6.7 | 6.0 | 0.1 | 12.1 | 1.6 | 0.7 | 0.0 | 0.5 | 1.0 | 0.3 | 34.5 | 406 |
| **Household wealth index** | | | | | | | | | | | | | | | | |
| 1 | 2.5 | 0.0 | 0.6 | 0.0 | 7.5 | 27.2 | 2.6 | 11.3 | 0.0 | 0.0 | 0.0 | 1.4 | 4.9 | 0.8 | 41.3 | 692 |
| 2 | 4.2 | 0.3 | 0.5 | 0.4 | 6.4 | 23.2 | 1.7 | 14.9 | 0.2 | 0.2 | 0.2 | 1.2 | 4.7 | 0.2 | 41.6 | 739 |
| 3 | 7.1 | 0.0 | 0.7 | 0.6 | 7.5 | 24.1 | 1.2 | 16.5 | 0.0 | 0.4 | 0.0 | 1.1 | 5.3 | 1.0 | 34.4 | 697 |
| 4 | 13.6 | 0.4 | 2.1 | 0.4 | 6.1 | 19.7 | 1.9 | 16.4 | 0.0 | 0.2 | 0.0 | 0.8 | 2.7 | 0.3 | 35.6 | 740 |
| 5 | 27.2 | 0.7 | 2.5 | 0.0 | 5.1 | 13.3 | 1.2 | 14.0 | 1.1 | 0.6 | 0.2 | 0.3 | 2.2 | 0.4 | 31.1 | 709 |
| Total | 10.9 | 0.3 | 1.3 | 0.3 | 6.5 | 21.5 | 1.7 | 14.6 | 0.3 | 0.3 | 0.1 | 1.0 | 3.9 | 0.5 | 36.8 | 3,576 |

Table 4.20 Pregnant women discussing preparedness for emergency with family members

Percent of women pregnant at the time of interview who had discussions with family members on emergency preparedness during pregnancy, Bangladesh 2010.

| Background Characteristic | Discussed with family members | | | | Number of women |
|---|---|---|---|---|---|
| | Where to seek assistance in case of emergency | Who to call in case of emergency | Make arrangement for transport in case of emergency | Make arrangement for money in case of emergency | |
| **Age** | | | | | |
| 15-19 | 20.3 | 17.0 | 7.7 | 17.6 | 1,060 |
| 20-24 | 22.8 | 20.8 | 11.9 | 21.7 | 1,286 |
| 25-29 | 23.6 | 19.1 | 12.5 | 20.7 | 795 |
| 30-34 | 20.1 | 18.6 | 8.2 | 19.7 | 309 |
| 35-39 | 15.2 | 14.5 | 3.9 | 8.6 | 104 |
| 40-44 | 5.7 | 13.0 | 8.8 | 9.7 | 17 |
| 45-49 | 11.5 | 22.6 | 15.3 | 22.6 | 5 |
| **Trimester** | | | | | |
| 1st | 12.7 | 10.8 | 5.7 | 11.2 | 1,016 |
| 2nd | 22.2 | 17.8 | 8.7 | 17.1 | 1,447 |
| 3rd | 29.1 | 27.6 | 16.4 | 30.7 | 1,113 |
| **Birth order** | | | | | |
| 1 | 23.9 | 20.1 | 11.3 | 22.8 | 1,430 |
| 2-3 | 22.7 | 19.6 | 11.4 | 19.5 | 1,591 |
| 4-5 | 14.4 | 14.6 | 5.1 | 13.1 | 455 |
| 6+ | 7.5 | 9.7 | .0 | 6.3 | 100 |
| **Residence** | | | | | |
| Urban | 34.8 | 28.1 | 17.0 | 30.7 | 864 |
| Rural | 17.5 | 15.9 | 8.1 | 16.1 | 2,712 |
| **Division** | | | | | |
| Barisal | 12.9 | 13.0 | 6.8 | 15.7 | 184 |
| Chittagong | 21.2 | 20.0 | 9.1 | 19.9 | 893 |
| Dhaka | 25.8 | 22.1 | 12.8 | 21.1 | 1,242 |
| Khulna | 25.2 | 18.8 | 11.0 | 17.1 | 290 |
| Rajshahi | 17.5 | 14.3 | 7.6 | 19.5 | 690 |
| Sylhet | 17.6 | 16.5 | 10.3 | 18.0 | 277 |
| **Mother's education** | | | | | |
| No education | 13.9 | 12.6 | 3.8 | 8.7 | 654 |
| Primary incomplete | 14.4 | 13.2 | 7.1 | 13.8 | 525 |
| Primary complete | 18.5 | 14.4 | 8.4 | 15.7 | 593 |
| Secondary incomplete | 23.8 | 20.6 | 10.8 | 22.0 | 1,400 |
| Secondary complete or higher | 40.9 | 37.1 | 25.3 | 42.6 | 406 |
| **Household wealth index** | | | | | |
| 1 | 11.7 | 10.3 | 5.1 | 9.5 | 692 |
| 2 | 13.2 | 12.8 | 4.8 | 12.9 | 739 |
| 3 | 19.7 | 17.1 | 8.3 | 17.3 | 697 |
| 4 | 25.0 | 21.4 | 10.8 | 20.5 | 740 |
| 5 | 38.7 | 32.9 | 22.3 | 38.0 | 709 |
| Total | 21.7 | 18.9 | 10.2 | 19.7 | 3,576 |

One of the main purposes of antenatal care is to make pregnant women aware of danger signs of pregnancy and to provide them with information about safe delivery. In BMMS 2010, currently pregnant women who had received antenatal care were asked whether they had any discussion with ANC providers about where to deliver, delivery by a skilled attendant, where to go in case of emergency, arrangements for transport and money in case of emergency, and danger signs of pregnancy. Overall, 26 percent of pregnant women who sought ANC received information on the danger signs of pregnancy during an ANC visit (Table 4.21). Similar percentages of women were told about where to deliver and where to go in case of emergency.

The likelihood of discussion with ANC providers on these matters was slightly higher as pregnancy advanced; however, a wide gap in the provision of essential information during ANC visits persisted. As shown in Figure 4.10, only one in three women in their 3rd trimester of pregnancy had received information on danger signs of pregnancy, place of delivery, and where to go for emergencies. Discussion on other matters was even less frequent. Arrangements for transport as a means of planning for emergencies was particularly low at 18 percent in the 3rd trimester.

**Figure 4.10 Birth planning information given during ANC visits.**

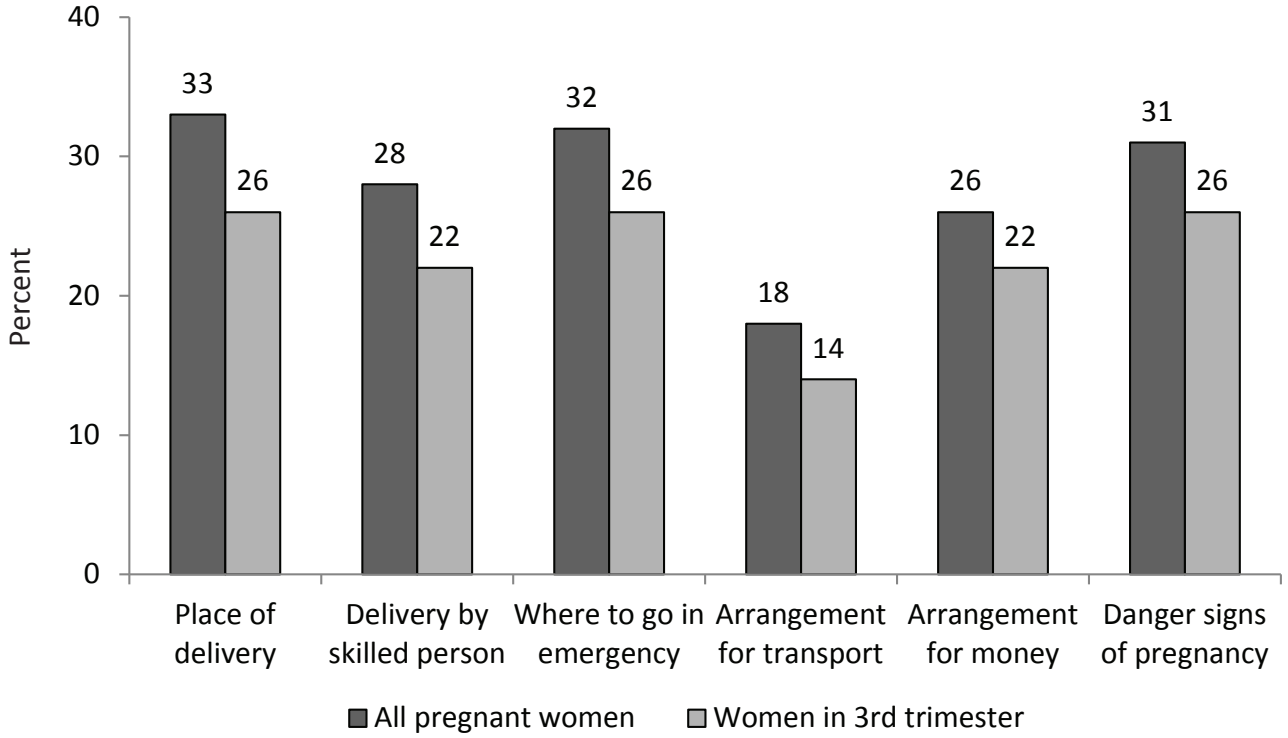


Table 4.21 Discussions with a health worker during ANC on preparedness for emergency

Percentage of women pregnant at the time of interview who sought ANC and had discussions on emergency preparedness during ANC with a health worker, Bangladesh 2010.

| Background Characteristic | Discussed with health worker during ANC check-up | | | | | | Number of women who sought ANC |
|---|---|---|---|---|---|---|---|
| | Place of delivery | Delivery by a skilled person | Where to go in case of emergency | Arrangement for transport in case of emergency | Arrangement for money in case of emergency | Danger signs of pregnancy | |
| **Age** | | | | | | | |
| 15-19 | 19.6 | 17.3 | 21.0 | 10.5 | 16.9 | 22.8 | 480 |
| 20-24 | 31.1 | 23.9 | 29.7 | 17.2 | 24.1 | 28.8 | 603 |
| 25-29 | 26.4 | 22.8 | 25.9 | 14.0 | 23.3 | 25.6 | 363 |
| 30-34 | 30.3 | 23.1 | 28.1 | 16.3 | 24.8 | 29.4 | 145 |
| 35-39 | 22.7 | 30.1 | 22.1 | 15.5 | 17.7 | 27.4 | 36 |
| 40-44 | 7.4 | 7.4 | 7.4 | 7.4 | 7.4 | 7.4 | 4 |
| 45-49 | 25.6 | 0.0 | 25.6 | 25.6 | 25.6 | 25.6 | 2 |
| **Trimester** | | | | | | | |
| 1st | 13.0 | 10.4 | 15.6 | 7.8 | 14.5 | 15.9 | 240 |
| 2nd | 24.5 | 19.7 | 23.1 | 13.2 | 20.4 | 25.0 | 692 |
| 3rd | 32.7 | 27.6 | 32.3 | 17.8 | 25.5 | 31.1 | 702 |
| **Birth order** | | | | | | | |
| 1 | 25.4 | 20.2 | 25.2 | 13.3 | 21.9 | 25.4 | 743 |
| 2-3 | 28.3 | 24.2 | 27.8 | 16.2 | 22.5 | 27.4 | 690 |
| 4-5 | 24.0 | 18.9 | 24.7 | 14.2 | 20.4 | 26.6 | 162 |
| 6+ | 19.7 | 20.2 | 11.6 | 4.6 | 8.0 | 20.6 | 39 |
| **Residence** | | | | | | | |
| Urban | 32.6 | 25.1 | 32.4 | 16.9 | 27.5 | 31.1 | 524 |
| Rural | 23.4 | 20.1 | 22.9 | 13.2 | 19.0 | 24.0 | 1,110 |
| **Division** | | | | | | | |
| Barisal | 21.1 | 17.9 | 18.4 | 10.3 | 16.8 | 22.7 | 65 |
| Chittagong | 25.0 | 17.4 | 21.1 | 8.9 | 20.6 | 19.2 | 395 |
| Dhaka | 25.2 | 20.6 | 27.9 | 15.3 | 21.0 | 27.6 | 603 |
| Khulna | 33.9 | 30.9 | 34.8 | 18.9 | 22.6 | 29.5 | 130 |
| Rajshahi | 32.7 | 29.0 | 29.5 | 19.7 | 27.2 | 36.4 | 330 |
| Sylhet | 12.5 | 13.2 | 16.3 | 10.1 | 14.8 | 12.6 | 110 |
| **Mother's education** | | | | | | | |
| No education | 21.6 | 16.7 | 23.3 | 10.8 | 17.7 | 23.8 | 219 |
| Primary incomplete | 30.2 | 22.3 | 25.1 | 16.5 | 23.8 | 25.8 | 183 |
| Primary complete | 22.6 | 19.1 | 24.8 | 12.8 | 17.2 | 26.5 | 256 |
| Secondary incomplete | 25.2 | 21.9 | 24.4 | 14.1 | 20.6 | 25.6 | 698 |
| Secondary complete or higher | 33.8 | 27.4 | 33.7 | 18.2 | 30.3 | 30.0 | 277 |
| **Household wealth index** | | | | | | | |
| 1 | 21.7 | 19.0 | 19.3 | 15.2 | 20.6 | 23.0 | 231 |
| 2 | 27.4 | 26.2 | 28.9 | 15.6 | 21.8 | 26.0 | 252 |
| 3 | 25.4 | 16.8 | 22.8 | 9.7 | 19.2 | 24.5 | 294 |
| 4 | 25.4 | 20.8 | 26.2 | 14.1 | 21.3 | 28.6 | 383 |
| 5 | 29.4 | 24.5 | 29.4 | 16.5 | 24.0 | 27.3 | 473 |
| Total | 26.3 | 21.7 | 26.0 | 14.4 | 21.7 | 26.3 | 1,634 |

## Summary

***Chapter 5. Maternal Health Problems and Treatment-Seeking Behavior***

- More than half of pregnancies/deliveries (53 percent) had complications, as reported by women.
- Almost 7 in 10 women (68 percent) who experienced maternal complications sought treatment from a provider.
- Treatment-seeking in a health facility for maternal complications increased from 16 percent to 29 percent in the last 9 years.
- The poor-rich inequity in seeking treatment in a facility for maternal complications has declined. Still, women in the richest quintile are three times more likely to seek facility care for complications compared to those in the poorest quintile.
- The likelihood of seeking treatment in facilities increases with increasing levels of education. Between BMMS 2001 and 2010, treatment seeking from a facility for complications among women with no education increased rapidly while there was no change among women with secondary complete education level. As a result, the inequity in health service use between these two education groups declined substantially.
- The median cost for delivery varied considerably by complications associated with the pregnancy and by the type of place where the delivery occurred. The median cost for deliveries with complications was nearly four times the median cost for deliveries without complications (1,999 Taka and 568 Taka, respectively).
- Deliveries at private facilities, with or without complications, cost substantially more than deliveries conducted in any other type of facility. Despite government policy that public services are free of charge, the cost of delivery is second highest in public facilities.

# MATERNAL HEALTH PROBLEMS AND TREATMENT-SEEKING BEHAVIOR 5

Despite the limitations of self-reported reproductive morbidity in general and maternal morbidity in particular, and poor correspondence between women's self-reported and clinically diagnosed conditions (Jejeebhoy et al., 2003; Fortney and Smith, 1999), obtaining information on women's self-reported morbidity is crucial for understanding how women perceive such conditions, their perceived severity and treatment-seeking behavior in response to such complications (Cleland and Harlow, 2003). The BMMS 2010 collected information on women's self-reported complications during pregnancy, during delivery, and after delivery along with related treatment-seeking behavior. This chapter presents self-reported maternal health complications among women who had one or more live births during the three-year period preceding the survey. In particular, the frequency of women's self-reported complications and treatment-seeking behavior in relation to the most recent complication are discussed. The household expenditure for the treatment of last reported complication and inequity in treatment-seeking behavior for maternal complications by basic background characteristics are also presented. The key changes in treatment-seeking patterns for maternal complications between BMMS 2001 and BMMS 2010 are also reported.

## 5.1 WOMEN'S REPORTING OF MATERNAL COMPLICATIONS

Women who had one or more live births in the three-years before the survey were asked whether they had experienced any of the listed complications in the questionnaire during pregnancy, during delivery or after delivery. As shown in Figure 5.1, more than half of women report one or more of the listed complications at any stage of the pregnancy cycle. With respect to timing of complications, the complications were most common during pregnancy (40 percent), followed by delivery (28 percent), and after delivery (20 percent).[1] When compared to BMMS 2001, a higher percentage of women (61 percent) reported one or more complication during the pregnancy cycle; however, the reported pattern of complications was similar as most of the reported complications occurred during pregnancy.

**Figure 5.1 Percent of women reporting maternal complications during pregnancy, during delivery or after delivery.**

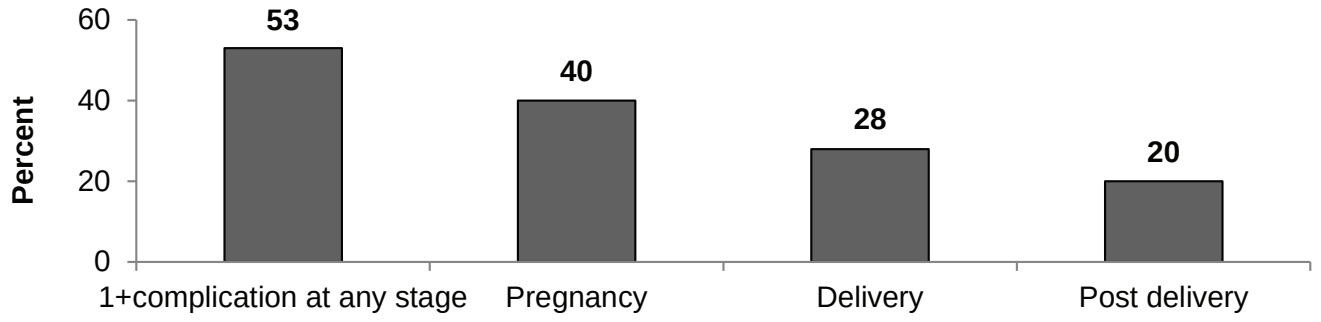



Table 5.1 shows the frequency of reported complications across different stages of pregnancy. As shown in the table, the most commonly reported complications were symptoms of pre-eclampsia (38 percent) followed by obstructed/prolonged labor (19 percent), excessive bleeding (9 percent) and convulsion (6 percent). Less commonly reported complications included retained placenta (3 percent) followed by high fever with foul-smelling discharge (1 percent). The importance of specific types of complications varied over specific stages of pregnancy/delivery. For example, symptoms of pre-eclampsia are most common during pregnancy (35 percent), whereas severe/heavy bleeding and convulsions/fits are most common after delivery (7 percent and 3 percent, respectively).

[1] It is possible that the same complication persisted over multiple stages of pregnancy or delivery. In such cases, the complication would be included in the prevalence of all stages in which it occurred.

Table 5.1 Women reporting recent maternal complications at last birth

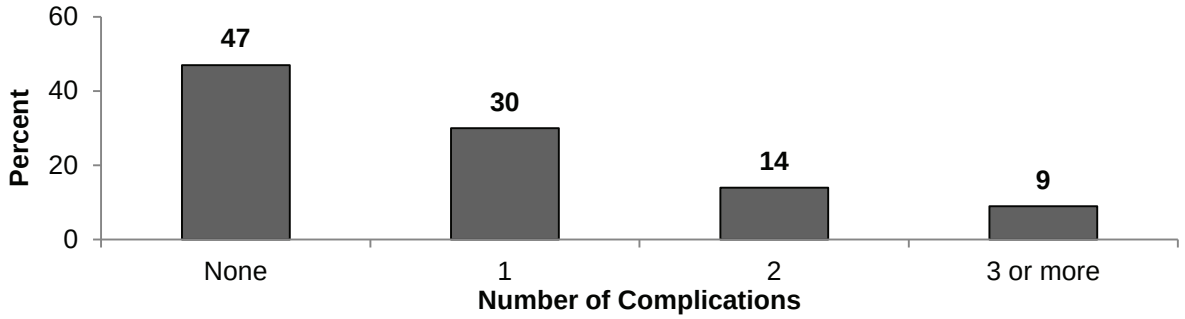
Percentage of last live birth in the last **three** years for which women had complications during pregnancy, during delivery, or after delivery for last birth, by type of complication, Bangladesh 2010.

| Type of complication | Complications | | | |
|---|---|---|---|---|
| | During pregnancy | During delivery | After delivery | Any stage |
| No complication | 59.7 | 72.0 | 80.1 | 47.1 |
| Had one or more complication | 40.1 | 28.0 | 19.9 | 52.9 |
| Symptoms of pre-eclampsia* | 34.5 | 13.6 | 12.0 | 37.8 |
| Obstructed/Prolonged labor** | 7.7 | 13.8 | - | 19.0 |
| Severe/heavy bleeding | 1.5 | 3.3 | 6.5 | 9.4 |
| Retained placenta | - | 1.3 | 1.6 | 2.6 |
| High fever with smelly discharge | - | - | 1.4 | 1.4 |
| Convulsion/fits | 2.3 | 1.7 | 3.0 | 6.4 |
| N | 17,149 | 17,149 | 17,149 | 17,149 |

* Includes severe headache with blurred vision/High blood pressure/Oedema face/feet/body.
** Includes Leaking membrane and no labor pain for >6 hours/Mal-presentation/Prolonged labor (>12 hours).

While 47 percent women reported no complication, 30 percent reported one complication, 14 percent reported two complications, and the remaining 9 percent reported three or more complications (Figure 5.2).

**Figure 5.2 Percent of women by number of reported complications.**




## 5.2 TREATMENT-SEEKING BEHAVIOR FOR REFERENCE COMPLICATION

One of the major objectives of BMMS 2010 was to understand women's treatment-seeking behavior in response to perceived complications and to see whether there was any change in the treatment-seeking behavior since BMMS 2001. All women who had reported one or more complication were asked a series of questions concerning treatment-seeking behavior in relation to the most recent complication during the reference period. When women reported more than one complication, information was collected for the last reported complication only (N=9,069).

Table 5.2 shows the percentage of live births with complications for which the mother sought some form of care according to selected background characteristics. Overall, 68 percent of women who reported complications sought care from at least one provider.[2] For all perceived complications, care was most likely sought for convulsion/fits (83 percent), severe bleeding (81 percent), obstructed/prolonged labor (81 percent), and retained placenta (74 percent), and least likely to be sought for symptoms of pre-eclampsia (55 percent).

[2] Includes those who brought medicine to treat the complication.

The likelihood of seeking care for maternal complications was higher among urban residents, along with more educated and wealthier women. Women in Chittagong division had the highest likelihood of seeking care for maternal complications (74 percent) whereas women in Dhaka division sought care the least (63 percent). Women who had complications and only one live birth in the past were more likely to seek care compared to those with more than one live birth (data not shown). However, there was no observed relationship between women's age and seeking care for maternal complications (not shown).

Table 5.2 Care seeking by type of maternal complications

Percentage of last live births in the three years preceding the survey with complications during pregnancy, during delivery, or after delivery for which treatment was sought for last/last serious complication, by type of complication, Bangladesh 2010.

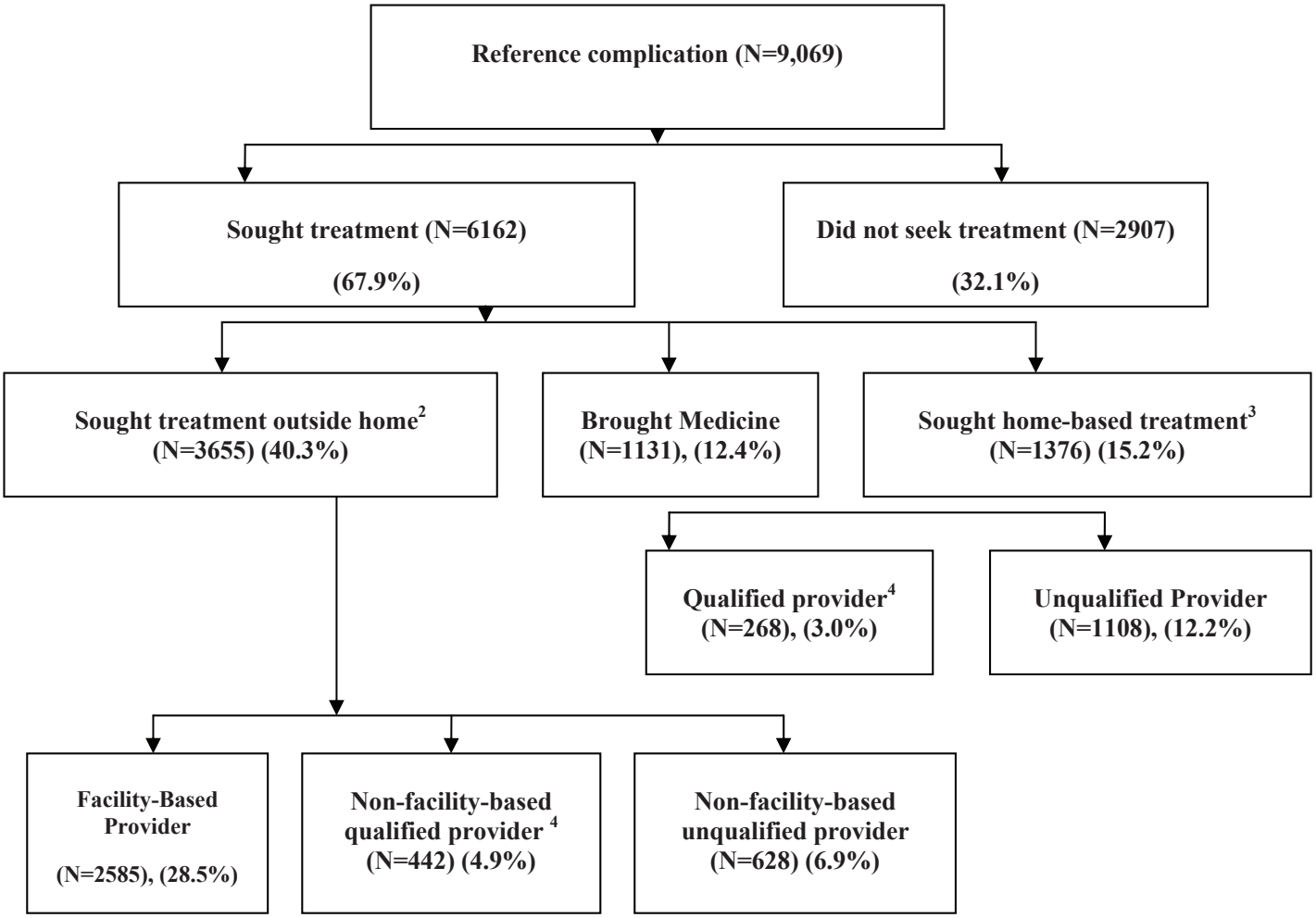
| Type of complication | Sought Treatment[1] | Number of women with complication |
|---|---|---|
| Symptoms of preeclampsia | 55.1 | 4,439 |
| Excessive bleeding | 81.3 | 1,156 |
| High fever with smelly discharge | 71.7 | 157 |
| Convulsion/fits | 82.6 | 562 |
| Obstructed/prolonged labor | 80.6 | 2,427 |
| Retained placenta | 73.7 | 329 |
| **Residence** | | |
| Urban | 70.8 | 2,235 |
| Rural | 67.0 | 6,834 |
| **Division** | | |
| Barisal | 68.5 | 415 |
| Chittagong | 74.1 | 2,486 |
| Dhaka | 63.0 | 3,425 |
| Khulna | 71.8 | 622 |
| Rajshahi | 68.5 | 1,305 |
| Sylhet | 65.9 | 816 |
| **Mother's education** | | |
| No education | 59.2 | 2,041 |
| Primary incomplete | 63.2 | 1515 |
| Primary complete | 64.7 | 1,426 |
| Secondary incomplete | 73.3 | 3,154 |
| Secondary complete & higher | 81.9 | 932 |
| **Household wealth index** | | |
| Poorest | 60.5 | 1,953 |
| Poorer | 62.7 | 1,733 |
| Middle | 69.4 | 1,819 |
| Richer | 70.8 | 1,785 |
| Richest | 76.9 | 1,778 |
| Total | 67.9 | 9,069 |

[1] Includes those who brought medicine to treat the complication.
[2] Excludes six cases who had multiple complications and could not identify the complication that occurred last.

Figure 5.3 shows the path diagram of treatment-seeking behavior for the most recent complication among 9,069 women who reported one or more complication. Overall, one in three women who had complications did not seek any form of care. Out of the 68 percent of women who sought care, 36 percent sought care at a facility or from a qualified provider (either at home or at the provider's place), 19 percent from an unqualified provider—either at home or outside of the home, and 12 percent sent someone to buy medicine to treat the condition.

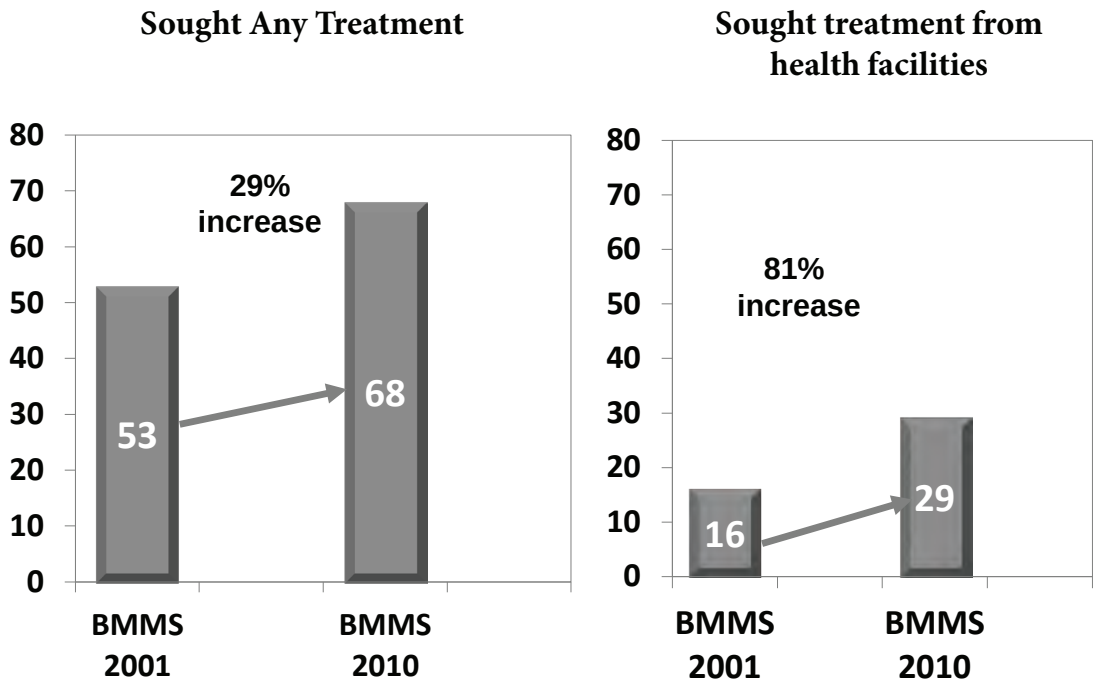
Although some maternal complications are minor in nature and can be managed at home, some of them are serious and require immediate attention managed by a qualified provider at the facility level. Thus, it is important to see whether there was any improvement in the overall treatment-seeking pattern for maternal complications and treatment-seeking from a facility and/or a qualified provider in particular. When compared between the two surveys, 53 percent of women having one or more complication sought some form of care in BMMS 2001 compared to 68 percent in BMMS 2010, which is a 29 percent increase. What is more striking is the percentage increase in women who seek treatment from health facilities—an 81 percent increase from 16 percent in BMMS 2001 to 29 percent in BMMS 2010 (Figure 5.4), though treatment-seeking from facilities remained low.

**Figure 5.3 Path diagram of treatment-seeking behavior[1] for maternal complications.**




[1] Treatment places are hierarchically presented as treatment was sought from multiple sources in some cases.
[2] May have received treatment at home as well.
[3] Did not seek treatment outside of home.
[4] Qualified providers include MBBS/nurse/paramedic/FWV/CSBA/MA/SACMO.

**Figure 5.4 Change in treatment seeking for maternal complications, 2001-2010.**




### *5.2.1 Place of Seeking Treatment*

The women who sought some form of care (except those for whom someone brought medicine from outside) were asked about all the places where treatment was sought for the referenced complication. If more than one place was mentioned, the sequence of seeking care from different places was recorded. If treatment was sought from more than two places, information on the process of seeking care was collected for the first and the last place of care only.

Table 5.3 First source where treatment was sought for complication

First source of care for last complication occurring during pregnancy, delivery, or after delivery by complication type, Bangladesh 2010.

| | Source of first care | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Type of complication | Home | Govt. Facility | NGO Facility | Private Sector: Facility or Qualified Doctor | Private Sector: Pharmacy or Unqualified Doctor | Other | Total | Number who sought treatment[1] |
| Symptoms of preeclampsia | 14.5 | 24.6 | 4.9 | 35.5 | 18.1 | 2.4 | 100.0 | 1,822 |
| Prolonged/obstructed labor | 46.1 | 22.4 | 3.7 | 23.0 | 3.9 | 0.7 | 100.0 | 1,792 |
| Severe bleeding/retained placenta | 45.7 | 20.5 | 2.5 | 20.7 | 9.7 | 0.9 | 100.0 | 944 |
| High fever with smelly discharge | 39.2 | 20.3 | 0.0 | 16.5 | 21.4 | 2.6 | 100.0 | 77 |
| Convulsion/fits | 41.9 | 23.2 | 2.0 | 24.2 | 7.8 | 0.8 | 100.0 | 397 |
| Total | 34.1 | 22.9 | 3.7 | 27.1 | 10.7 | 1.4 | 100.0 | 5,031 |

[1] Excludes those who reported only getting medicine.

Table 5.3 presents the first source of care by type of reported complication. Out of the women who sought care, 34 percent received care at home as the first point of care. Among those who sought treatment outside of their home, the most commonly mentioned first source was from the private sector. These private sources included private health facilities and the offices of qualified doctors—where 27 percent of all cases with complications were treated. A public sector facility (such as District Hospital, Upazila Health Complex, or Maternal and Child Welfare Center) was mentioned by 23 percent of respondents as the first point of care. Another 11 percent reported visiting the office of an unqualified private doctor or pharmacy. Only 4 percent went to a NGO facility as the first source of care.

The first source of care varied greatly by last complication. For instance, the most commonly mentioned first source of care for all reported complications was home except for symptoms of pre-eclampsia where the most commonly mentioned first source of care was a private sector facility or a qualified doctor followed by government facility.

### *5.2.2 Number of Places Visited*

Table 5.4 shows the number of places visited by women who sought care for maternal complications. Out of 5,031 women who sought treatment, the vast majority (84 percent) sought care from only one place. An additional 13 percent sought care from two places and the remaining 3 percent sought care from three or more places. Women who reported prolonged/obstructed labor or high fever with smelly discharge had the highest chance (20 percent) of seeking care from two or more sources compared to other reported complications (Figure 5.5).

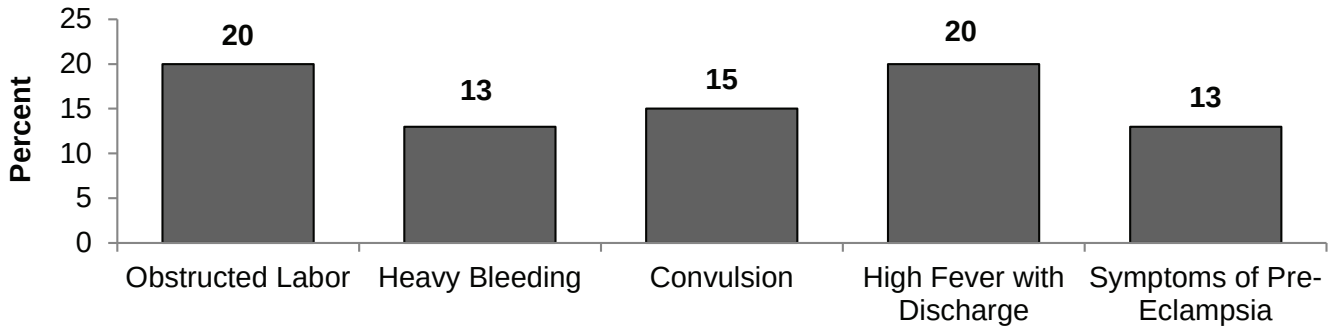
Table 5.4 Number of places where care was sought, by complication

Number of places where care was sought for last complication occurring during pregnancy, delivery or after delivery, by complication type, Bangladesh 2010.

| | Number of places where care sought | | | | |
|---|---|---|---|---|---|
| Type of complication | One place only | Two places | Three or more places | Total | Number who sought treatment[1] |
| Symptoms of pre-eclampsia | 86.9 | 9.1 | 4.0 | 100.0 | 1,822 |
| Prolonged labor/obstructed labor | 79.7 | 18.3 | 2.0 | 100.0 | 1,792 |
| Severe/heavy bleeding/retained placenta | 87.4 | 10.4 | 2.2 | 100.0 | 944 |
| High fever with smelly discharge | 80.2 | 17.2 | 2.6 | 100.0 | 77 |
| Convulsion/fits | 84.6 | 12.6 | 2.8 | 100.0 | 397 |
| Total | 84.2 | 13.0 | 2.7 | 100.0 | 5,031 |

[1] Excludes those who reported only getting medicine.

**Figure 5.5 Percent of women seeking care from two or more sources by type of complication.**



### 5.2.3 Decision about First Care for Maternal Complications

Information was collected on the person(s) who decided where the first level of care was sought. The woman's husband was the primary decision-maker when the first level of care was home (58 percent) or outside the home (71 percent). Parents and parents-in-law were the second level decision-makers when the home was chosen as the first level of care. When a facility was chosen as the first level of care, the woman herself made the decision unless the decision (42 percent) was made by her husband. In choosing between home care or care outside of the home, the role of other members of the family or people outside of the family was negligible (less than 10 percent).

The decision to seek care at home was made quickly compared to the decision to go for care outside of the home. For instance, when care was sought at home as the first point of care, 77 percent of the time the decision was made within a day. However, when treatment was sought from a facility or an outside provider, the decision was made within a day only 47 percent of the time. For 32 percent of women, it took one month to decide to seek care and for the remaining 31 percent of women it took more than one month to decide to seek care.

### 5.2.4 Time to Seek First Care

As expected, time to seek care at home was shorter than time to seek care outside of the home. Out of the women who sought first care at home, almost half of them sought care within six hours (Table 5.5). The shortest delay in time to seek home care was observed for severe conditions like retained placenta, convulsions or fits, and severe bleeding where the majority of women sought care within six hours; however, for these serious conditions calling someone for help at home even within six hours may not be ideal as these conditions need to be managed at the facility level by a qualified provider. For conditions like prolonged/obstructed labor, symptoms of pre-eclampsia or high fever with smelly discharge, most of the women sought home care after six hours, which may be related to a perceived lower severity.

Table 5.5 Time to seek first care

| | Home care | | | | | | | Outside home care | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Complications | <6 hours | 6-23 hours | 1-2 days | 3-6 days | 7+ days | Total | N | <6 hours | 6-23 hours | 1-2 days | 3-6 days | 7+ days | Total | N |
| Symptoms of preeclampsia | 37.8 | 9.5 | 15.7 | 15.4 | 21.6 | 100.0 | 264 | 19.6 | 4.1 | 18.2 | 19.3 | 38.9 | 100.0 | 1,558 |
| Severe/heavy bleeding | 60.8 | 15.1 | 14.7 | 6.2 | 3.2 | 100.0 | 283 | 44.6 | 11.2 | 17.2 | 13.2 | 13.8 | 100.0 | 458 |
| High fever with smelly discharge | 25.9 | 38.5 | 33.1 | 2.5 | .0 | 100.0 | 30 | 26.4 | 6.8 | 34.2 | 11.2 | 21.5 | 100.0 | 47 |
| Convulsion/fits | 89.2 | 4.1 | 5.0 | .8 | .9 | 100.0 | 166 | 68.1 | 7.8 | 14.4 | 3.7 | 6.0 | 100.0 | 231 |
| Prolonged labor/ obstructed labor | 32.6 | 46.7 | 16.5 | 3.3 | 1.0 | 100.0 | 825 | 25.0 | 43.8 | 24.0 | 5.9 | 1.3 | 100.0 | 965 |
| Retained placenta | 93.5 | 5.7 | .8 | .0 | .0 | 100.0 | 148 | 79.3 | 12.6 | 7.0 | 1.0 | .0 | 100.0 | 55 |
| Total | 48.7 | 27.9 | 13.9 | 5.1 | 4.4 | 100.0 | 1,716 | 29.1 | 17.1 | 19.5 | 13.1 | 21.3 | 100.0 | 3,313 |

For women who sought care outside of the home, only 29 percent did so within six hours. An additional 17 percent sought care within 6-23 hours, but the rest (54 percent) waited for more than one day before seeking any treatment from outside sources. For conditions like severe bleeding, eclampsia, or retained placenta where immediate facility management by a trained provider is needed, a significant percentage of women did not do anything on the first day and sought outside care after one day or more (44 percent for severe bleeding, 24 percent for eclampsia, and 8 percent for retained placenta).

### 5.2.5 Referral from First Point of Care

In BMMS 2010, women were asked whether they felt any better after seeking the first level of care and if they were referred to any other places. Out of the women who sought first care at home, one in ten reported that their condition deteriorated after the care, and 11 percent felt no change in their condition after the treatment. One in five women first treated at home was referred to outside care for further treatment. These referrals include Upazila Health Complexes, District hospitals, and private hospitals and clinics.

Ten percent of women who sought outside home care felt that their condition remained the same and three percent felt that their condition worsened but only seven percent were referred to other facilities. These women were referred to a higher level of facility such as medical college hospitals, district hospitals, or private hospitals/clinics for further care.

### *5.2.6 Reasons for Not Seeking Treatment*

Table 5.6 shows the reasons for not seeking care for the most recent complication. The most commonly cited reason for not seeking care was a perception that treatment was not necessary or that the condition was not serious, mentioned by 60 percent of women. The second prominent reason was related to economics as the services were costly, cited by 41 percent of women who did not seek care. Prohibition by family members (6 percent), transport and access issues (6 percent), and concerns over quality (3 percent) were less frequently cited reasons for not seeking care for maternal complications.

Table 5.6 Reason for not seeking treatment

Percentage of live births in the last three years for which the last complication occurred during pregnancy, during delivery, or after delivery and for which treatment was not sought, by type of complications and reason for not seeking treatment, Bangladesh 2010.

| | Reason for not seeking treatment | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Type of complications | Not necessary, not serious | Cost too much, lack of money | Access problem* | Family did not allow | Poor quality, better quality at home | Other** | Not customary | Number of births |
| Symptoms of preeclampsia | 60.8 | 37.0 | 4.2 | 5.2 | 2.9 | 3.2 | 3.3 | 1,992 |
| Severe/heavy bleeding | 42.0 | 53.1 | 6.1 | 11.9 | 1.3 | 3.2 | 3.6 | 216 |
| High fever with smelly discharge | 45.9 | 65.0 | 7.8 | 2.5 | 4.7 | .0 | 11.2 | 44 |
| Convulsion/fits | 42.0 | 52.7 | 10.0 | 4.9 | 7.1 | 1.8 | 2.6 | 98 |
| Prolonged/obstructed labor | 45.6 | 45.5 | 10.6 | 6.5 | 5.0 | 10.6 | 6.7 | 471 |
| Retained placenta | 53.3 | 41.5 | 8.2 | 4.6 | 7.6 | 3.7 | 1.7 | 87 |
| Total | 55.9 | 40.7 | 5.7 | 5.8 | 3.4 | 4.3 | 3.9 | 2,907 |

*Access problems include "too far," "transport problem," "no one to accompany," "not known how to go," and "not known where to go."

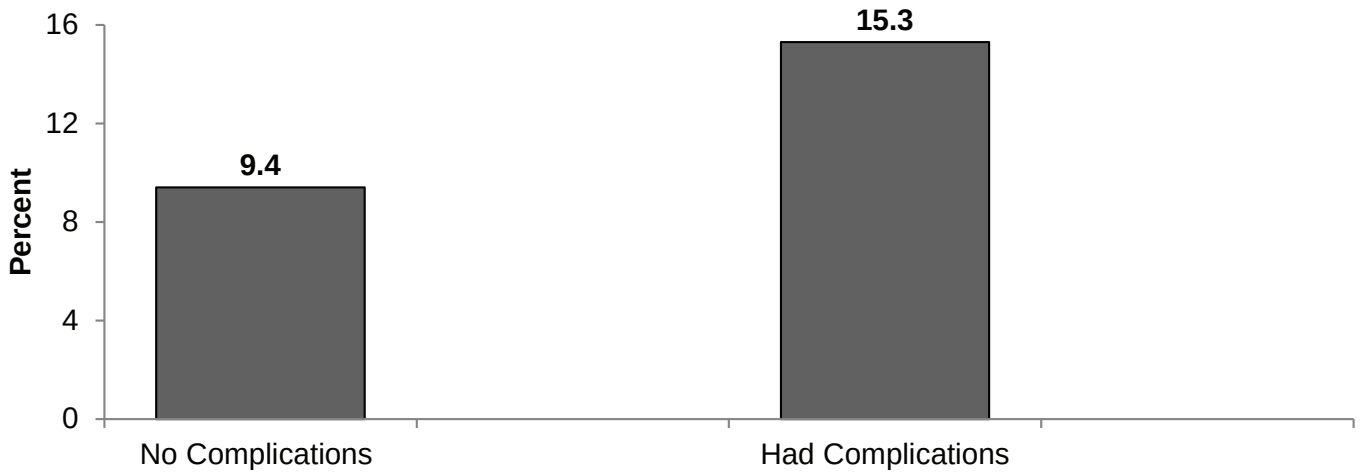
** Others include "Better care at home," "no time to go," "not want service from male doctor," "afraid to go," and "clinic/hospital insist caesarian."

## 5.3 MATERNAL COMPLICATIONS AND C-SECTION

Caesarean section (C-section) is recommended when vaginal delivery might pose a risk to the mother or baby. The internationally accepted standard for C-section rates per live births per country, as outlined by the World Health Organization and the Pan American Health Organization, is between 10-15 percent; however, evidence suggests that the use of C-section has been increasing steadily worldwide for the past two decades. While there are some absolute indications to perform C-section, in some cases the procedure is performed for reasons other than medical necessity. Evidence from Asia—in both developed and developing nations—suggests that C-section births only reduced risks of major complications for mother and child if they were medically indicated. The best outcomes for mothers and babies appear to occur with C-section rates of 5-10 percent; rates above 15 percent seem to do more harm than good (Althabe and Belizan 2006).

In BMMS 2010, 13 percent of women who had live births in the last three years reported a C-section and some of these women did not perceive any maternal complications. Women who reported a complication had a C-section 15 percent of the time, whereas the same figure is 9 percent for the women who did not perceive any complication (Figure 5.6).

**Figure 5.6 Percent of births delivered by C-section, by whether or not there were maternal complications.**




As expected, the percentage of women reporting C-section varied greatly by type of reported complications. A C-section was performed for women who reported symptoms of obstructed labor/prolonged labor (21 percent), followed by convulsions/fits (15 percent), and symptoms of pre-eclampsia (14 percent). Less than 10 percent of women reporting heavy bleeding and symptoms of puerperal infection had a C-section (Table 5.7).

Table 5.7 Women who had C-section by type of complication

Percentage of last live birth in the last three years for which women had C-section, by no complications, by type of complication (grouped) at any stage, Bangladesh 2010.

| | Proportion who had C-section | Number of women |
|---|---|---|
| No complications | 9.4 | 8,070 |
| Complication (group) at any stage | | |
| Symptoms of pre-eclapmsia | 14.2 | 6,488 |
| Leaking membrane and no labor pain for >6 hours/Mal-presentation/ Prolonged labor (>12 hours) | 21.2 | 3,263 |
| Severe/heavy bleeding/retained placenta | 8.5 | 1,955 |
| High fever with smelly discharge | 8.8 | 240 |
| Convulsion/fits | 14.8 | 1,093 |
| Any of the above complication | 15.2 | 9,069 |
| Total | 12.5 | 17,149 |

## 5.4 INEQUITY IN TREATMENT-SEEKING FOR MATERNAL COMPLICATIONS

Women's education and economic status had direct implications on the treatment-seeking pattern for maternal complications. As expected, women with higher levels of education were more likely to seek any form of care for complications, more likely to seek care from a facility, and more likely to seek care from a qualified provider compared to those women with no education or primary education (Table 5.8). Similarly, wealthier women were more likely to seek care for complications, more likely to seek care from a facility, and more likely to seek care from a qualified provider compared to women who were poor (Table 5.9).

Table 5.8 Care seeking behavior for maternal complication for last births in the three years preceding the survey by education, Bangladesh 2010

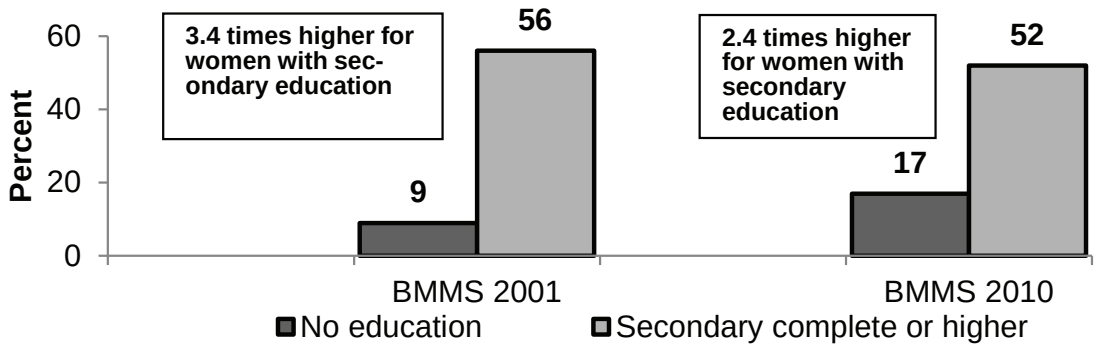
| | Women's education | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | No education | | Primary incomplete | | Primary complete | | Secondary incomplete | | Secondary complete or higher | | Total | |
| Care seeking behavior | % | N | % | N | % | N | % | N | % | N | % | N |
| **Sought treatment outside home from:** | | | | | | | | | | | | |
| Facility-based provider | 16.9 | 344 | 21.8 | 330 | 23.4 | 334 | 34.5 | 1090 | 52.2 | 487 | 28.5 | 2,585 |
| Non-facility-based qualified provider | 4.0 | 82 | 4.0 | 61 | 5.4 | 77 | 5.2 | 163 | 6.3 | 59 | 4.9 | 442 |
| Non-facility-based unqualified provider | 7.6 | 154 | 8.8 | 134 | 7.3 | 105 | 6.0 | 189 | 5.0 | 46 | 6.9 | 628 |
| **Sought home-based treatment from:** | | | | | | | | | | | | |
| Qualified provider | 1.7 | 35 | 2.9 | 45 | 2.5 | 36 | 3.5 | 112 | 4.3 | 40 | 3.0 | 268 |
| Unqualified provider | 12.3 | 251 | 12.6 | 191 | 13.3 | 190 | 12.9 | 406 | 7.6 | 71 | 12.2 | 1,108 |
| Someone brought medicine | 16.7 | 340 | 13.0 | 197 | 12.7 | 181 | 11.2 | 352 | 6.4 | 60 | 12.5 | 1,131 |
| Did not seek treatment | 40.8 | 833 | 36.8 | 558 | 35.3 | 503 | 26.7 | 844 | 18.1 | 169 | 32.1 | 2,907 |
| Total | 100.0 | 2,041 | 100.0 | 1,515 | 100.0 | 1,426 | 100.0 | 3,154 | 100.0 | 932 | 100.0 | 9,069 |

Table 5.9 Care seeking behavior for maternal complications for the last births in the three years preceding the survey, by wealth quintile, Bangladesh 2010

| | Household wealth index | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Poorest | | Poorer | | Middle | | Richer | | Richest | | Total | |
| Care seeking behavior | % | N | % | N | % | N | % | N | % | N | % | N |
| **Sought treatment outside home from:** | | | | | | | | | | | | |
| Facility-based provider | 14.5 | 284 | 19.4 | 336 | 28.4 | 517 | 34.6 | 618 | 46.7 | 830 | 28.5 | 2,585 |
| Non-facility-based qualified provider | 4.1 | 80 | 4.3 | 75 | 5.0 | 91 | 5.0 | 89 | 6.0 | 107 | 4.9 | 442 |
| Non-facility-based unqualified provider | 8.4 | 165 | 8.7 | 151 | 7.4 | 135 | 5.7 | 102 | 4.3 | 76 | 6.9 | 628 |
| **Sought home-based treatment from:** | | | | | | | | | | | | |
| Qualified provider | 2.5 | 49 | 2.5 | 43 | 2.5 | 45 | 3.5 | 63 | 3.8 | 67 | 3.0 | 268 |
| Unqualified provider | 15.3 | 299 | 15.3 | 265 | 14.1 | 256 | 9.7 | 173 | 6.5 | 115 | 12.2 | 1,108 |
| Someone brought medicine | 15.6 | 304 | 12.5 | 217 | 12.0 | 218 | 12.3 | 219 | 9.7 | 172 | 12.5 | 1,131 |
| Did not seek treatment | 39.5 | 772 | 37.3 | 647 | 30.6 | 556 | 29.2 | 521 | 23.1 | 411 | 32.1 | 2,907 |
| Total | 100.0 | 1,953 | 100.0 | 1,733 | 100.0 | 1,819 | 100.0 | 1,785 | 100.0 | 1,778 | 100.0 | 9,069 |

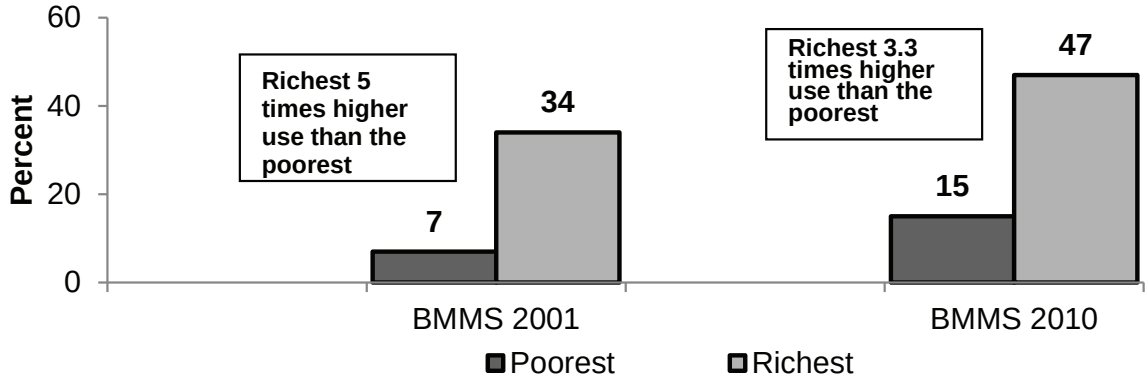
Between the two surveys, the likelihood of seeking facility care for maternal complications has increased with increased levels of women's education (Figure 5.7). Between BMMS 2001 and BMMS 2010, treatment-seeking from a facility among women with no education increased rapidly (from 9 percent to 17 percent, respectively), while there was no change among women who completed secondary education (from 56 percent to 52 percent). As a result, the inequity in health service use between these two education groups declined over the last 9-year period.

**Figure 5.7 Treatment-seeking from facilities for maternal complications by education.**




The poor-rich inequity in seeking facility care for maternal complications also declined. During the 9-year period between the two surveys, seeking care from a facility for maternal complications among women from the poorest quintile doubled (from 7 percent to 15 percent), whereas the increase was less marked for the richest women. In the 2010 survey, women in the richest quintile were three times more likely to seek facility care for complications compared to those in the poorest quintile (Figure 5.7). The same figure was five times that in the 2001 survey, indicating that the inequity in use of health facility for maternal complications between the poorest and the richest declined during the 9-year period. Care seeking behavior for maternal complications by women's wealth quintile is presented in Table 5.9.

**Figure 5.8 Treatment-seeking from facilities for maternal complications by wealth quintiles.**



## 5.5 DELIVERY EXPENDITURES

Table 5.10 shows the reported total household expenditures for all live births during the three years preceding the survey. The median cost for delivery varied considerably by complications associated with the pregnancy and by the type of place where the delivery occurred. For pregnancy/deliveries without complications, 13 percent of cases involved no cost and in 30 percent of cases, less than 500 Taka was spent. Overall, median expenditure for deliveries without complications was 568 Taka; however, the median expenditure was considerably higher among the deliveries without complications that took place in a private facility (14,903 Taka). The median expenditure for deliveries without complications was somewhat lower in NGO facilities than the deliveries that took place in public facilities (2,865 Taka versus 4,060 Taka).

For pregnancy/deliveries with complications, the median cost for deliveries was nearly four times the median cost for deliveries without complications (1,999 Taka and 568 Taka, respectively). The median expenditure for deliveries with complications was substantially higher if the delivery took place in a private facility (16,107 Taka). The median cost was higher for public facilities compared to NGO facilities for deliveries with complications. These expenditure data suggest that deliveries at private facilities, with or without complications, cost substantially more than deliveries conducted in any other type of facility. Despite government policy that public services are free of charge, the cost of delivery is second highest in public facilities.

Table 5.10 Treatment cost for deliveries

Among the live births in the last three years among women 15-49, percent distribution by amount spent for delivery according to type of delivery, Bangladesh 2010.

| | Amount spent for last delivery (taka) | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Type of deliveries | Nothing | <500 | 500-999 | 1000-4,999 | 5000-9,999 | 10,000 or more | DK/ missing | Total | Number | Mean | Median |
| **Delivery without complications** | 13.0 | 30.2 | 14.0 | 25.3 | 6.1 | 10.0 | 1.4 | 100.0 | 8,080 | 3,273 | 568 |
| Home | 15.8 | 36.9 | 16.2 | 25.7 | 3.3 | 0.9 | 1.3 | 100.0 | 6,504 | 976 | 393 |
| Public facility | 1.9 | 4.0 | 8.7 | 36.2 | 22.0 | 25.6 | 1.5 | 100.0 | 643 | 7,848 | 4,060 |
| Private facility | 0.3 | 0.1 | 0.7 | 9.8 | 15.4 | 72.0 | 1.7 | 100.0 | 749 | 18,568 | 14,903 |
| NGO | 2.6 | 12.5 | 9.8 | 35.4 | 13.3 | 22.3 | 4.0 | 100.0 | 152 | 6,758 | 2,865 |
| Other | 24.2 | 0.0 | 13.1 | 31.3 | 10.4 | 19.1 | 1.8 | 100.0 | 33 | 6,081 | 2,884 |
| **Delivery with complications** | 5.5 | 14.0 | 12.3 | 34.6 | 13.0 | 19.2 | 1.4 | 100.0 | 9,069 | 5,917 | 1,999 |
| Home | 7.4 | 19.1 | 16.1 | 41.0 | 10.8 | 4.3 | 1.4 | 100.0 | 6,481 | 2,307 | 1,001 |
| Public facility | 0.7 | 1.4 | 3.4 | 30.5 | 25.3 | 37.0 | 1.7 | 100.0 | 1,106 | 10,090 | 6,889 |
| Private facility | 0.1 | 0.3 | 0.8 | 5.6 | 12.6 | 79.2 | 1.5 | 100.0 | 1,229 | 20,564 | 16,107 |
| NGO | 4.1 | 5.4 | 8.7 | 26.0 | 17.5 | 36.0 | 2.5 | 100.0 | 206 | 9,888 | 5,048 |
| Other | 4.1 | 11.8 | 2.9 | 47.0 | 13.7 | 20.4 | 0.0 | 100.0 | 47 | 6,120 | 2,919 |
| Total | 9.0 | 21.7 | 13.1 | 30.2 | 9.8 | 14.9 | 1.4 | 100.0 | 17,149 | 4,671 | 1,025 |

## Summary

***Chapter 6. Fertility, Family Planning and Childhood Mortality***

- Bangladesh is on track to achieve MDG 4. Under-five mortality has declined by 39 percent between 2001 and 2010 with an average rate of decline of 4 deaths per 1,000 live births per year. Khulna and Rajshahi divisions have already achieved the MDG 4 target, mainly due to low child and post-neonatal mortality rates, but Sylhet division requires a 42 percent reduction of under-five mortality to achieve MDG 4.
- Between BMMS 2001 and BMMS 2010, the Total Fertility Rate fell from 3.2 to 2.5, a 22 percent decline in 9 years. TFR is the highest in Sylhet division. Khulna and Rajshahi divisions have almost achieved replacement level fertility.
- The median birth interval has increased from 39 months in 2001 to 46 months in 2010, an increase of 19 percent in 9 years.
- The proportion of adolescents who had begun childbearing has decreased from 34 percent in 2001 to 27 percent in 2010. Adolescents' fertility is highest in Rajshahi division (33 percent) and lowest in Sylhet division (20 percent).
- Contraceptive use has increased by 13 percentage points in the last 9 years, from 50 percent in 2001 to 63 percent in 2010. Modern methods are much more widely used (54 percent), with oral pills being the most commonly used method (31 percent).
- The use of contraception varies by division. Rajshahi has the highest and Sylhet the lowest contraceptive use rates (61 percent and 35 percent respectively).
- The public sector is the predominant source for contraceptive methods, providing to more than half of all modern method users (53 percent). Forty-two percent of modern method users acquire their supplies from a private source, with the pharmacy being the most important source, serving 36 percent of users; only five percent of users obtained their contraceptive methods from an NGO source.

# FERTILITY, FAMILY PLANNING AND CHILDHOOD MORTALITY 6

This chapter presents the 2010 BMMS findings on fertility, current use of contraception, and childhood mortality. This information can provide information to assist in planning appropriate improvements in health and family planning services. A substantial amount of related information was collected on a complete birth history (since births are the basis for the denominator of the maternal mortality ratio) and a recent pregnancy history (to ensure that all pregnancy completions were included) for the measurement of maternal mortality and health care in the 2010 BMMS. This provides an opportunity for analyzing fertility transition, fertility regulation, and mortality risk among under-five children.

## 6.1 FERTILITY

### *6.1.1 Introduction*

Fertility is the most important component of population dynamics and plays a major role in determining Bangladesh's population growth which affects economic development. This section presents a discussion on levels, trends, and differentials in fertility, birth intervals, and adolescent fertility.

The fertility measures presented here are based on the complete birth histories collected from ever-married women age 15-49. Several measures and procedures were used to obtain complete and accurate reporting of births, deaths, and the timing of these events. Each woman was asked to provide information on the number of sons and daughters to whom she had given birth who were living with her, the number living elsewhere, and the number who had died. The woman was then asked for a history of all her live births, including such information as name, month and year of birth, sex, and survival status. For children who had died, age at death was solicited. Interviewers were given extensive training in probing techniques designed to help respondents report this information accurately.

Despite the measures to improve data quality, the information obtained during the BMMS is subject to the same types of error that are inherent in all retrospective sample surveys, namely, the omission of some births (especially births of children who died at a young age) and the difficulty in determining the date of birth of each child accurately. These difficulties can bias estimates of fertility trends. Indicators of the quality of the 2010 BMMS fertility data appear in Appendix D, Table D.2 and suggest that such errors are minimal.

### *6.1.2 Current Fertility*

Measures of current fertility are presented in Table 6.1. The most widely used measures of current fertility are the total fertility rate (TFR) and its component age-specific fertility rates (ASFRs). ASFRs are calculated by dividing the number of births to women in a specific age group by the number of woman-years lived during a given period,[1] and the TFR is defined as the average number of children a woman would have if she went through her entire reproductive period (15-49 years) reproducing at the prevailing ASFR. Other measures of fertility reported in this section are the general fertility rate (GFR), which represents the annual number of births per 1,000 women age 15-44, and the crude birth rate (CBR), which represents the annual number of births per 1,000 population. All these measures are calculated using the birth history data for the three-year period before the survey, which roughly corresponds to the calendar years 2007-2009.

[1] Numerators of the ASFRs are calculated by summing the number of live births that occurred 1 to 36 months preceding the survey (determined by the date of interview and the date of birth of the child) and classifying them by the age (in five-year groups) of the mother at the time of birth (determined by the mother's date of birth). The denominators are the number of woman-years lived in each of the specified five-year age groups during the 1 to 36 months preceding the survey. Since women who had ever married were interviewed in the BMMS survey, the numbers of women in the denominators of the rates were inflated by factors calculated from information in the household questionnaire on ratios of all women to ever married women in order to produce a count of all women. Never-married women are presumed not to have given birth.

Table 6.1 Current fertility

Age-specific and cumulative fertility rates, general fertility rates, and the crude birth rate for the three years preceding the survey (1-36 months) by urban-rural residence, Bangladesh 2010.

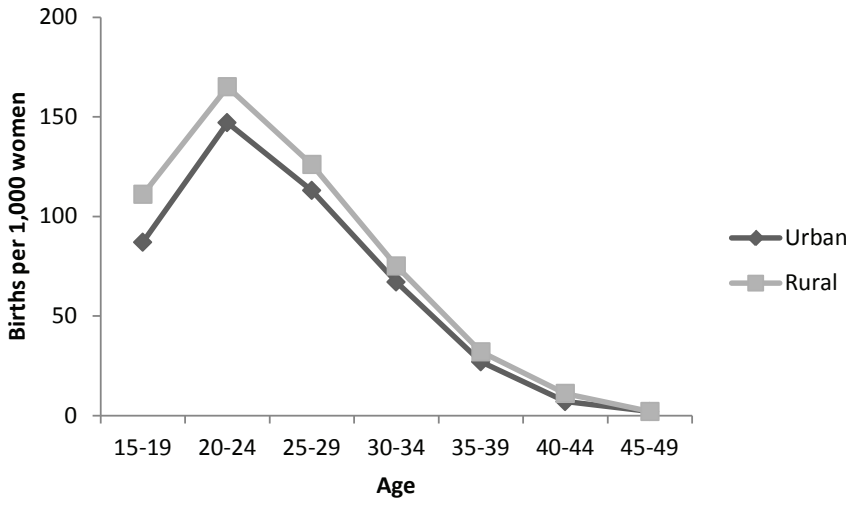
| Age group | Urban | Rural | Total |
|---|---|---|---|
| 15-19 | 87 | 111 | 105 |
| 20-24 | 147 | 165 | 160 |
| 25-29 | 113 | 126 | 123 |
| 30-34 | 67 | 75 | 73 |
| 35-39 | 27 | 32 | 31 |
| 40-44 | 7 | 11 | 10 |
| 45-49 | 2 | 2 | 2 |
| TFR 15-49 | 2.25 | 2.62 | 2.52 |
| TFR 15-44 | 2.13 | 2.60 | 2.51 |
| GFR | 87 | 100 | 97 |
| CBR | 21.6 | 22.8 | 22.5 |

TFR: Total fertility rate, expressed per woman.
GFR: General fertility rate, expressed per 1,000 women.
CBR: Crude birth rate, expressed per 1,000 population.

The results indicate that the total fertility rate for the three year period before the survey is 2.5 children per woman age 15-49. This means that a Bangladeshi woman would have, on average, 2.5 children in her lifetime if the current age specific fertility rates remain constant. This is 22 percent lower than the TFR of 3.2 children found by the 2001 BMMS. Like previous BMMS and BDHS surveys, the age-specific rates indicate a pattern of early childbearing with a peak in the 20-24 age group. Seventy-seven percent of childbearing occurs before age 30 with a similar pattern occurring in both urban and rural areas. The GFR in Bangladesh was 97 births per 1,000 women of reproductive age while the CBR was 23 births per 1,000 population for the same group of women.

The TFR is higher in rural areas (2.6 children per woman) than in urban areas (2.3 children per woman). Like the TFR, the GFR and CBR also vary by residence. Thus, the GFR of 100 per 1,000 for rural women is about 15 percent higher than that of urban women (87 per 1,000). Similarly, the CBR in the rural areas (23 per 1,000 population) is also higher than the CBR in the urban areas (22 per 1,000 population).

**Figure 6.1 Age-specific fertility rates by urban-rural residence, Bangladesh 2010.**



### *6.1.3 Fertility Differentials*

Differentials in fertility levels by residence, administrative division, mother's educational level, and household wealth quintile are shown in Table 6.2 and Figure 6.2. Data show large differences in the level of fertility among divisions. Khulna has the lowest TFR (2.1) and has reached replacement level fertility. The TFR of Rajshahi division (2.2) is also very close to replacement level. Sylhet division (3.6) has the highest TFR followed by Chittagong (2.9). The TFR of Dhaka and Barisal divisions are similar to the national estimate.

There is a strong association between fertility and education (United Nations 1995; Bongaarts 2003; Chowdhury 1977; Akmam 2002) with TFR declining as the level of education increases. At current rates, a woman with no formal education gives birth to an average of 2.9 children in her lifetime, while a woman who completed secondary education or higher has already reached replacement level fertility (TFR 2.0). Like education, household wealth is also negatively associated with fertility. The difference in fertility between women in the poorest and the richest wealth quintiles amounts to 1.1 child per woman.

Table 6.2 Fertility by background characteristics

Total fertility rate for the three years preceding the survey, percentage of women currently pregnant and mean number of children ever born to women age 40-49, by background characteristics, Bangladesh 2010.

| Background characteristics | Total fertility rate[1] | Percentage of women age 15-49 currently pregnant[2] | Mean number of children ever born to women age 40-49 |
|---|---|---|---|
| **Residence** | | | |
| Urban | 2.25 | 4.26 | 4.05 |
| Rural | 2.62 | 4.55 | 4.51 |
| **Division** | | | |
| Barisal | 2.50 | 4.63 | 3.73 |
| Chittagong | 2.85 | 4.94 | 5.37 |
| Dhaka | 2.53 | 4.29 | 4.85 |
| Khulna | 2.09 | 3.94 | 3.39 |
| Rajshahi | 2.23 | 4.19 | 3.61 |
| Sylhet | 3.60 | 5.18 | 5.58 |
| **Mother's education** | | | |
| No education | 2.90 | 2.95 | 4.61 |
| Primary incomplete | 2.75 | 4.28 | 4.53 |
| Primary complete | 2.66 | 5.19 | 4.31 |
| Secondary incomplete | 2.41 | 5.49 | 3.76 |
| Secondary complete & higher | 2.02 | 4.85 | 2.79 |
| **Household wealth index** | | | |
| 1 | 3.17 | 4.98 | 4.54 |
| 2 | 2.67 | 4.55 | 4.62 |
| 3 | 2.47 | 4.31 | 4.64 |
| 4 | 2.30 | 4.51 | 4.41 |
| 5 | 2.12 | 4.10 | 3.82 |
| Total | 2.52 | 4.47 | 4.40 |

[1] Rates for women 15-49.
[2] All women.

At the time of the survey, 4.5 percent of the women interviewed reported that they were pregnant. This proportion is probably an underestimate because some women who are in the early stages of pregnancy might not yet know that they are pregnant, and some women may not want to declare that they are pregnant. The percentage of women currently pregnant is slightly higher in rural areas than urban areas (4.6 percent and 4.3 percent, respectively). Khulna division has the lowest proportion currently pregnant (3.9 percent), whereas the highest proportion pregnant is reported in Sylhet division (5.2 percent). Interestingly, the proportions pregnant by divisions and by wealth quintile track the TFR differential closely, but the proportions pregnant by level of education show no clear pattern.

**Figure 6.2 Total fertility rates by background characteristics, Bangladesh 2010.**

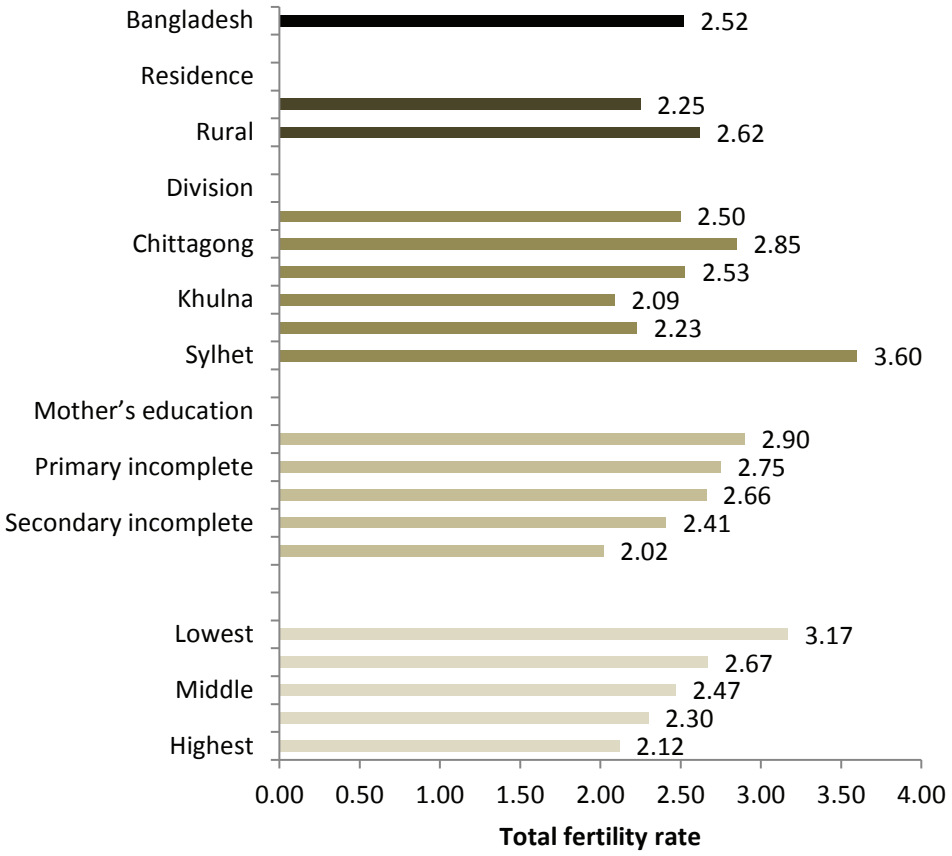



Table 6.2 also allows a crude assessment of differential trends in fertility over time among population subgroups. The mean number of children ever born to women by the end of their reproductive period, age 40-49, is a measure of the average completed fertility. If fertility remained constant in the recent past and if the reported data on children ever born and births during the three years preceding the survey are reasonably accurate, the average completed fertility should be equal to the total fertility rate. Comparison of the mean number of children ever born to women age 40-49 with the TFR suggests a decline of about two children per woman in Bangladesh over the last two decades. This decline is substantial in urban and rural areas and across all administrative units, education categories, and wealth quintiles. Fertility decline is more pronounced in Chittagong, Dhaka and Sylhet divisions than in the three other divisions. Fertility decline is also more pronounced for women from the wealthier households than for women from the poorer households.

### *6.1.4 Fertility Trends*

The changes in fertility levels over time can be tracked by examining fertility estimates from various surveys spanning the last three decades, beginning with the 1975 Bangladesh Fertility Survey (BFS). Data from the 2010 BMMS and previous surveys show that following a nearly decade-long plateau in fertility from 1993 to 2000, fertility in Bangladesh has resumed its decline. Figure 6.3 and Table 6.3 describe the ongoing fertility transition in Bangladesh. Fertility has declined sharply, from 6.3 births per woman in 1975 to 2.5 births per woman in 2010. There was an initial rapid decline in fertility of nearly two children per women up to the early 1990s. Fertility then plateaued at around 3.3 births per woman for most of the 1990s. This was followed by another notable decline in fertility from 2001.

Investigation of the age pattern of fertility shows that fertility has declined substantially among all age groups. Between 2001 and 2010, the fertility decline has been smallest for the 20-24 age group (14 percent) and largest for the oldest age group 45-49 (67 percent).

Table 6.3 Trends in current fertility rates

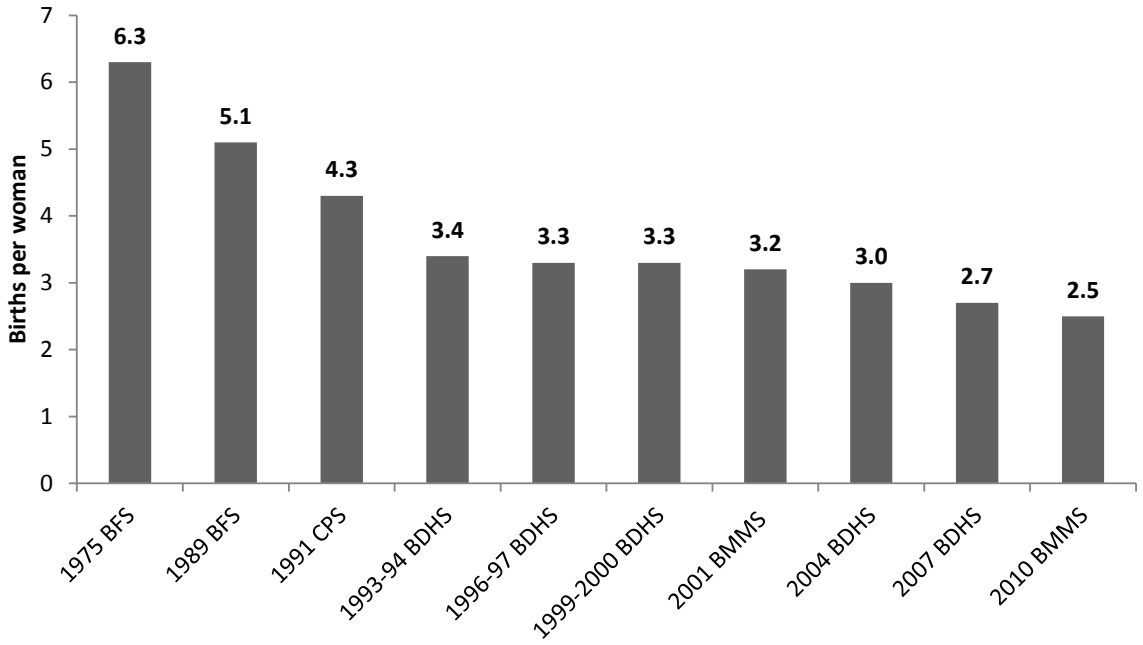
Age-specific fertility rates (per 1,000 women) and total fertility rates (TFRs) among women age 15-49, selected sources, Bangladesh, 1975-2010.

| | Survey and approximate time period | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1975 BFS | 1989 BFS | 1991 CPS | 1993-1994 BDHS | 1996-1997 BDHS | 1999-2000 BDHS | 2001 BMMS | 2004 BDHS | 2007 BDHS | 2010 BMMS |
| Age group | 1971-1975 | 1984-1988 | 1989-1991 | 1991-1993 | 1994-1996 | 1997-1999 | 1998-2000 | 2001-2003 | 2004-2006 | 2007-2009 |
| 15-19 | 109 | 182 | 179 | 140 | 147 | 144 | 134 | 135 | 126 | 105 |
| 20-24 | 289 | 260 | 230 | 196 | 192 | 188 | 185 | 192 | 173 | 160 |
| 25-29 | 291 | 225 | 188 | 158 | 150 | 165 | 149 | 135 | 127 | 123 |
| 30-34 | 250 | 169 | 129 | 105 | 96 | 99 | 97 | 83 | 70 | 73 |
| 35-39 | 185 | 114 | 78 | 56 | 44 | 44 | 53 | 41 | 34 | 31 |
| 40-44 | 107 | 56 | 36 | 19 | 18 | 18 | 20 | 16 | 10 | 10 |
| 45-49 | 35 | 18 | 13 | 14 | 6 | 3 | 6 | 3 | 1 | 2 |
| TFR 15-49 | 6.3 | 5.1 | 4.3 | 3.4 | 3.3 | 3.3 | 3.2 | 3.0 | 2.7 | 2.5 |

Note: For the 1975 Bangladesh Fertility Survey (BFS) and 1989 BFS, the rates refer to the five year period preceding the survey; for the other surveys, the rates refer to the three year period preceding the survey. The BFS, Bangladesh Demographic and Health Survey (BDHS), and Bangladesh Maternal Mortality and Health Care Survey (BMMS) utilized full birth histories, while the 1991 Contraceptive Prevalence Survey (CPS) used an eight year truncated birth history.

Sources: NIPORT et al., 2003, and NIPORT et al., 2012.

**Figure 6.3 Trends in total fertility rate, Bangladesh 1975 to 2010.**



### *6.1.5 Children Ever Born and Living*

Table 6.4 shows the distribution of all women and currently married women by age and number of children ever born. It also shows the mean number of children ever born to women in each five-year age group, an indicator of the momentum of childbearing. The mean number of children ever born for all women is 2.3, while currently married women have 2.7 births on average. Allowing for mortality of children, Bangladeshi women have, on average, 2.0 living children. Currently married women have an average of 2.4 living children.

Currently married women age 45-49 have given birth to an average of 4.8 children, of whom 4.0 survived. Among all women age 15-49, the average number of children who have died per woman is 0.25. Among currently married women, it is 0.28; that is, 10 percent of children born to currently married women have died. The percentage of children who have died increases with women's age; for example, the proportion of children who have died compared to children ever born increases from 6 percent for women age 20-24 to 16 percent for women age 45-49.

More than three-fourths of all women (79 percent) age 15-19 have never given birth. However, this proportion declines to 28 percent among women age 20-24 years and rapidly decreases further for older women. The percentage of women who have never given birth is extremely low, (less than 3 percent among women age 35-49) indicating that childbearing among Bangladeshi women is nearly universal. The same pattern is seen for currently married women, a little less than half (49 percent) of the currently married women age 15-19 have not borne a child. As with currently married women, this proportion diminishes, more rapidly, to 4 percent or less for women age 25-29 and further declines for the older women.

Table 6.4 Children ever born and living

Percent distribution of all women and currently married women age 15-49 by number of children ever born, mean number of children ever born, and mean number of living children, according to age group, Bangladesh 2010.

| | Number of children ever born | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Age | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10+ | Total | Number of women | Mean number of children ever born | Mean number of living children |
| ALL WOMEN | | | | | | | | | | | | | | | |
| 15-19 | 78.6 | 18.4 | 2.8 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 100.0 | 43,918 | 0.25 | 0.23 |
| 20-24 | 27.6 | 38.6 | 25.4 | 6.9 | 1.3 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 100.0 | 40,981 | 1.17 | 1.10 |
| 25-29 | 8.2 | 18.1 | 38.9 | 22.2 | 8.6 | 2.8 | 0.8 | 0.2 | 0.1 | 0.0 | 0.0 | 100.0 | 34,101 | 2.18 | 2.02 |
| 30-34 | 3.4 | 7.7 | 28.5 | 28.5 | 17.8 | 8.6 | 3.3 | 1.5 | 0.4 | 0.2 | 0.1 | 100.0 | 26,382 | 3.00 | 2.74 |
| 35-39 | 2.3 | 4.7 | 19.8 | 26.7 | 21.0 | 12.6 | 6.9 | 3.4 | 1.6 | 0.6 | 0.4 | 100.0 | 23,510 | 3.59 | 3.20 |
| 40-44 | 2.1 | 4.2 | 13.4 | 21.0 | 21.2 | 16.0 | 10.3 | 6.1 | 3.1 | 1.5 | 1.0 | 100.0 | 19,652 | 4.13 | 3.58 |
| 45-49 | 2.1 | 3.8 | 9.5 | 16.3 | 19.1 | 16.3 | 13.5 | 9.0 | 5.0 | 3.0 | 2.3 | 100.0 | 19808 | 4.65 | 3.91 |
| Total | 24.4 | 16.7 | 20.0 | 15.2 | 10.1 | 6.1 | 3.6 | 2.0 | 1.0 | 0.5 | 0.4 | 100.0 | 208,352 | 2.26 | 2.01 |
| CURRENTLY MARRIED WOMEN | | | | | | | | | | | | | | | |
| 15-19 | 49.1 | 43.7 | 6.6 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 100.0 | 18,171 | 0.59 | 0.55 |
| 20-24 | 13.9 | 45.5 | 30.4 | 8.3 | 1.6 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 100.0 | 33,683 | 1.39 | 1.31 |
| 25-29 | 4.1 | 18.2 | 41.0 | 23.5 | 9.1 | 2.9 | 0.9 | 0.2 | 0.1 | 0.0 | 0.0 | 100.0 | 31,686 | 2.29 | 2.13 |
| 30-34 | 1.8 | 7.1 | 28.9 | 29.2 | 18.4 | 8.8 | 3.4 | 1.5 | 0.5 | 0.2 | 0.1 | 100.0 | 24909 | 3.08 | 2.81 |
| 35-39 | 1.4 | 3.6 | 19.6 | 27.3 | 21.6 | 13.1 | 7.2 | 3.5 | 1.7 | 0.6 | 0.4 | 100.0 | 21,790 | 3.68 | 3.28 |
| 40-44 | 1.4 | 3.0 | 12.8 | 21.4 | 21.8 | 16.5 | 10.7 | 6.4 | 3.2 | 1.6 | 1.1 | 100.0 | 17,486 | 4.23 | 3.68 |
| 45-49 | 1.5 | 2.8 | 8.6 | 16.5 | 19.5 | 16.8 | 13.8 | 9.5 | 5.4 | 3.4 | 2.3 | 100.0 | 16,661 | 4.78 | 4.04 |
| Total | 9.8 | 19.8 | 24.1 | 18.3 | 12.0 | 7.1 | 4.2 | 2.4 | 1.2 | 0.6 | 0.4 | 100.0 | 164,386 | 2.68 | 2.40 |

The percentage of women in their forties who have never had children is an indicator of the level of primary infertility—that is, the proportion of women who are unable to bear children at all. Since voluntary childlessness is rare in Bangladesh, it is likely that married women with no births are unable to have children. The 2010 BMMS results suggest that primary infertility is low, at 2 percent. (This estimate does not include secondary infertility, where women may have had one or more birth but are unable to have additional children.)

### 6.1.6 Birth Intervals

BMMS 2010 data show that birth intervals in Bangladesh are typically long, with a median interval of 46 months (Table 6.5). Among non-first births, only 14 percent are born after an interval less than 24 months, which is considered "too short." Two out of three non-first births (66 percent) occur three or more years after the previous birth, while one in five of these births (21 percent) take place 24-35 months after the previous birth.

A comparison with earlier surveys shows that the median birth interval has increased markedly, rising from 35 months in 1993-94 to 39 months in 2001 and 46 months in 2010. Between 1993-94 and 2010, the median birth interval increased by 33 percent. It increased by 19 percent between 2001 and 2010.

Table 6.5 Trends in length of birth interval

Percent distribution of non-first births in the five years preceding the survey by number of months since previous births, Bangladesh 1993-2010.

| | Months since previous births | | | | | | |
|---|---|---|---|---|---|---|---|
| Survey | 7-17 | 18-23 | 24-35 | 36-47 | 48+ | Total | Median number of months since previous births |
| 1993-94 BDHS | 8.3 | 12.0 | 33.5 | 22.2 | 24.0 | 100 | 34.7 |
| 1996-97 BDHS | 7.1 | 10.6 | 30.3 | 23.1 | 28.9 | 100 | 36.6 |
| 1999-2000 BDHS | 6.6 | 9.7 | 26.9 | 21.8 | 35.0 | 100 | 38.8. |
| 2001 BMMS | 7.1 | 9.0 | 26.8 | 21.7 | 35.4 | 100 | 38.8 |
| 2004 BDHS | 6.5 | 9.9 | 25.5 | 21.4 | 36.7 | 100 | 39.3 |
| 2007 BDHS | 7.1 | 8.0 | 21.8 | 19.8 | 43.3 | 100 | 43.6 |
| 2010 BMMS | 6.0 | 7.6 | 20.8 | 18.4 | 47.2 | 100 | 46.0 |

### 6.1.7 Age at First Birth

One factor that determines the level of current fertility in a population is the age of women at first birth. Early childbearing can lead to a large family size and may be associated with increased health risks for the mother and potential health hazards for children. A rise in the median age at first birth is typically a sign of transition to lower fertility levels (Table 6.6).

Table 6.6 Age at first birth

Percentage of all women age 15-49 who gave birth by exact ages, percentage who have never given birth, and median age at first birth, according to current age, Bangladesh 2010.

| | Percentage who gave birth by exact age | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Current age | 15 | 18 | 20 | 22 | 25 | Percentage who have never given birth | Number of women | Median age at first birth |
| 15-19 | 2.4 | *na* | *na* | *na* | *na* | 78.6 | 43,918 | *a* |
| 20-24 | 5.7 | 33.7 | 56.4 | *na* | *na* | 27.6 | 40,981 | 19.0 |
| 25-29 | 6.6 | 40.9 | 64.9 | 79.8 | 88.7 | 8.2 | 34,101 | 18.3 |
| 30-34 | 7.5 | 44.3 | 68.3 | 82.8 | 91.5 | 3.4 | 26,382 | 18.0 |
| 35-39 | 7.5 | 44.6 | 68.4 | 82.7 | 91.9 | 2.3 | 23,510 | 18.0 |
| 40-44 | 8.4 | 45.3 | 68.5 | 82.6 | 92.2 | 2.1 | 19,652 | 17.9 |
| 45-49 | 8.4 | 43.2 | 64.3 | 78.6 | 90.5 | 2.2 | 19,808 | 18.2 |
| 20-49 | 7.1 | 41.0 | 64.2 | *na* | *na* | 10.0 | 164,434 | 18.3 |
| 25-49 | 7.5 | 43.4 | 66.8 | 81.2 | 90.7 | 4.1 | 123,453 | 18.1 |

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

Childbearing begins early in Bangladesh, with most women becoming mothers before age 20. The median age at first birth is 19 years for the youngest cohort (age 20-24) and 18 for all other age cohorts, except for women age 15-19 years, indicating a slight increase in the median age at first birth in recent years. A comparison of data between the 2001 and 2010 BMMS surveys shows no change in the median age at first birth for the younger cohort (age 20-24).

### *6.1.8 Adolescent Fertility and Motherhood*

Adolescent fertility in Bangladesh occupies a prime place in the design and implementation of reproductive health strategies, policies, and programs. The issue of adolescent fertility is important for both health and social reasons. First, children born to very young mothers are normally prone to higher risks of illness and death. Second, adolescent mothers are more likely to experience complications during pregnancy and are less likely to be prepared to deal with them, which can lead to maternal death. Third, early entry into reproduction denies young women the opportunity to pursue basic and further academic goals which is detrimental to career prospects.

Table 6.7 Adolescent fertility

Percentage of women age 15-19 who are mothers or pregnant with their first child, by background characteristics, Bangladesh 2010.

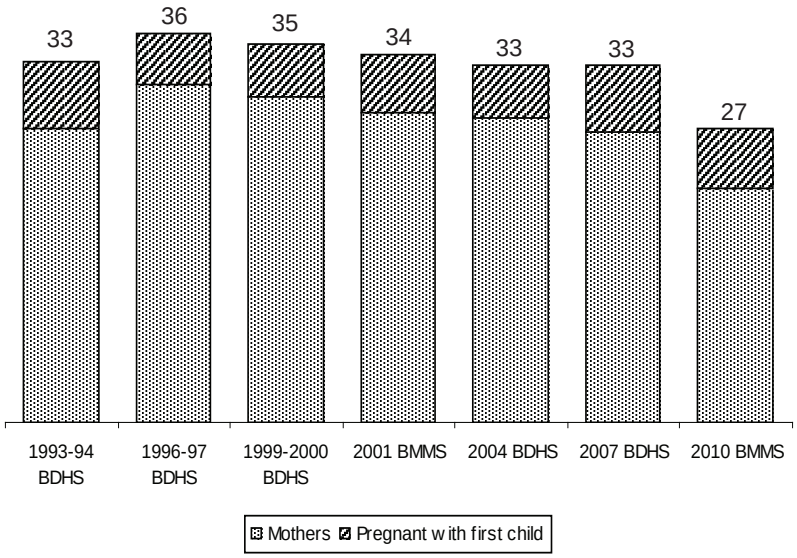
| Background characteristics | Percentage who are: Mothers | Percentage who are: Pregnant with first child | Percentage who have begun child bearing | Number of women |
|---|---|---|---|---|
| **Age** | | | | |
| 15 | 3.4 | 2.6 | 6.0 | 8822 |
| 16 | 9.6 | 4.7 | 14.4 | 8891 |
| 17 | 20.1 | 6.5 | 26.6 | 7959 |
| 18 | 28.2 | 7.2 | 35.4 | 10130 |
| 19 | 46.7 | 6.8 | 53.5 | 8115 |
| **Residence** | | | | |
| Urban | 17.9 | 5.1 | 23.0 | 11266 |
| Rural | 22.6 | 5.7 | 28.3 | 32717 |
| **Division** | | | | |
| Barisal | 18.3 | 4.8 | 23.2 | 2736 |
| Chittagong | 18.0 | 5.5 | 23.5 | 10355 |
| Dhaka | 21.6 | 5.9 | 27.5 | 14207 |
| Khulna | 23.2 | 5.8 | 29.0 | 4422 |
| Rajshahi | 27.1 | 5.8 | 32.8 | 8976 |
| Sylhet | 15.6 | 4.2 | 19.9 | 3265 |
| **Education** | | | | |
| No education | 37.1 | 5.5 | 42.6 | 3093 |
| Primary incomplete | 27.9 | 5.8 | 33.7 | 5467 |
| Primary complete | 28.6 | 6.8 | 35.4 | 6502 |
| Secondary incomplete | 19.8 | 5.8 | 25.6 | 22619 |
| Secondary complete & higher | 6.4 | 3.5 | 9.9 | 6262 |
| **Household wealth index** | | | | |
| 1 | 29.7 | 5.6 | 35.3 | 7007 |
| 2 | 24.9 | 6.0 | 30.9 | 8554 |
| 3 | 21.7 | 5.8 | 27.4 | 9224 |
| 4 | 18.7 | 5.8 | 24.5 | 9722 |
| 5 | 14.6 | 4.8 | 19.3 | 9466 |
| Total | 21.4 | 5.6 | 27.0 | 43918 |

Data in Table 6.7 show that 21 percent of adolescent women (age 15-19) in Bangladesh are already mothers with at least one child and 6 percent are currently pregnant, for a total of 27 percent who have started childbearing. The proportion of adolescents who have begun childbearing rises rapidly with age. Early childbearing among adolescent women is more common in rural than urban areas and in Rajshahi (33 percent) compared with other divisions. Childbearing begins later in Sylhet (20 percent) than in other divisions.

Delayed childbearing is strongly related to education among adolescent women. Only 10 percent of adolescents who completed secondary or higher education had begun child bearing, compared with 43 percent of those with no education. Childbearing begins earlier in the lowest wealth quintile—35 percent of adolescents in this group have begun childbearing, compared with only 19 percent of adolescents in the highest wealth quintiles.

Data from different surveys show the proportion of adolescents who had begun childbearing remained almost the same up to 2007 (Figure 6.4). However, a comparison of 2001 and 2010 BMMS surveys shows a decrease of 7 percentage points in the proportion of adolescents who had begun childbearing, from 34 percent in 2001 to 27 percent in 2010.

**Figure 6.4 Trends in teenage pregnancy and motherhood among women Age 15-19, 1993-94 to 2010.**




## 6.2 FAMILY PLANNING

In the BMMS 2010, information on the current use of contraception and the sources of supply of modern contraceptive methods was collected. Although ever-married women 13-49 were interviewed, only responses from currently married women age 15-49 are presented.

### *6.2.1 Current Use of Contraception*

The BMMS 2010 indicates that 63 percent of currently married women in Bangladesh are currently using a contraceptive method. Modern methods are much more widely used (54 percent) than traditional methods (9 percent).

The pill, used by 31 percent of currently married women, continues to be by far the most popular method of contraception. Twelve percent of currently married women use injectables, followed by condom and female sterilization (4 percent each). Less than 1 percent of women use IUD, implants, and male sterilization. The most popular traditional method is periodic abstinence, used by 8 percent of women (Table 6.8).

Table 6.8 Current use of contraception by background characteristics

Percent distribution of currently married women age 15-49 by contraceptive method currently used, according to background characteristics, BMMS 2010.

| Background Characteristic | Any method | Any modern method | Modern method | | | | | | | | Traditional method | | | | Not currently using | Number of women |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Pill | IUD | Inject-ables | Im-plants | Male condom | Female sterili-zation | Male sterili-zation | Other modern method | Any traditional method | Periodic absti-nence | With-drawal | Other | | |
| **Age group** | | | | | | | | | | | | | | | | |
| 15-19 | 46.7 | 43.2 | 29.4 | 0.2 | 7.5 | 0.3 | 5.6 | 0.1 | 0.0 | 0.0 | 3.5 | 2.7 | 0.8 | 0.0 | 53.3 | 18171 |
| 20-24 | 58.9 | 55.1 | 34.9 | 0.5 | 13.6 | 0.7 | 4.4 | 0.7 | 0.3 | 0.0 | 3.8 | 3.0 | 0.7 | 0.0 | 41.1 | 33684 |
| 25-29 | 66.9 | 62.1 | 36.5 | 0.7 | 16.0 | 1.2 | 4.2 | 2.8 | 0.6 | 0.0 | 4.8 | 4.0 | 0.6 | 0.2 | 33.1 | 31687 |
| 30-34 | 74.2 | 65.7 | 37.5 | 0.8 | 15.6 | 1.2 | 4.5 | 5.2 | 1.0 | 0.0 | 8.4 | 7.3 | 0.8 | 0.3 | 25.8 | 24909 |
| 35-39 | 76.6 | 62.2 | 33.2 | 1.0 | 14.2 | 1.1 | 3.9 | 7.8 | 1.0 | 0.0 | 14.4 | 13.0 | 0.9 | 0.4 | 23.4 | 21791 |
| 40-44 | 65.9 | 46.5 | 23.6 | 0.8 | 9.3 | 0.7 | 2.4 | 8.7 | 1.0 | 0.0 | 19.4 | 17.8 | 1.1 | 0.5 | 34.1 | 17486 |
| 45-49 | 40.3 | 25.3 | 10.3 | 0.3 | 3.7 | 0.3 | 1.0 | 9.0 | 0.6 | 0.0 | 15.0 | 14.0 | 0.7 | 0.3 | 59.7 | 16661 |
| **Residence** | | | | | | | | | | | | | | | | |
| Urban | 65.4 | 56.3 | 31.3 | 0.6 | 11.5 | 0.7 | 7.2 | 4.3 | 0.5 | 0.0 | 9.1 | 7.8 | 1.1 | 0.2 | 34.6 | 40113 |
| Rural | 61.7 | 52.9 | 31.0 | 0.6 | 12.6 | 0.9 | 2.8 | 4.3 | 0.7 | 0.0 | 8.8 | 7.9 | 0.7 | 0.2 | 38.3 | 124274 |
| **Division** | | | | | | | | | | | | | | | | |
| Barisal | 64.1 | 53.7 | 29.4 | 0.5 | 17.6 | 1.1 | 2.2 | 2.3 | 0.6 | 0.0 | 10.4 | 9.7 | 0.5 | 0.2 | 35.9 | 10,165 |
| Chittagong | 54.6 | 48.2 | 26.4 | 0.7 | 12.4 | 0.5 | 3.5 | 4.4 | 0.3 | 0.0 | 6.4 | 5.3 | 0.7 | 0.3 | 45.4 | 31,451 |
| Dhaka | 62.6 | 54.1 | 32.3 | 0.6 | 11.0 | 0.8 | 4.9 | 4.0 | 0.5 | 0.0 | 8.5 | 7.1 | 1.1 | 0.3 | 37.4 | 53,240 |
| Khulna | 68.5 | 56.0 | 31.5 | 0.6 | 12.7 | 0.9 | 4.3 | 5.2 | 0.8 | 0.0 | 12.5 | 11.6 | 0.8 | 0.1 | 31.5 | 19,790 |
| Rajshahi | 69.5 | 60.5 | 35.7 | 0.6 | 13.8 | 1.1 | 3.3 | 5.0 | 1.0 | 0.0 | 9.0 | 8.3 | 0.5 | 0.2 | 30.5 | 40,934 |
| Sylhet | 44.7 | 35.2 | 20.1 | 0.8 | 6.1 | 0.6 | 3.1 | 3.8 | 0.6 | 0.1 | 9.6 | 8.6 | 0.7 | 0.3 | 55.3 | 8,806 |
| **Educational attainment** | | | | | | | | | | | | | | | | |
| No education | 63.4 | 52.1 | 26.9 | 0.7 | 14.0 | 1.1 | 1.1 | 7.2 | 1.2 | 0.0 | 11.3 | 10.4 | 0.5 | 0.5 | 36.6 | 53969 |
| Primary incomplete | 64.6 | 56.1 | 31.2 | 0.9 | 15.3 | 1.2 | 2.0 | 4.7 | 0.8 | 0.0 | 8.5 | 7.7 | 0.6 | 0.2 | 35.4 | 25936 |
| Primary complete[1] | 63.5 | 55.2 | 33.0 | 0.6 | 13.9 | 0.8 | 3.0 | 3.4 | 0.5 | 0.0 | 8.2 | 7.4 | 0.7 | 0.2 | 36.5 | 23805 |
| Secondary incomplete | 60.3 | 53.9 | 35.0 | 0.5 | 10.3 | 0.6 | 5.3 | 2.0 | 0.2 | 0.0 | 6.4 | 5.4 | 0.9 | 0.1 | 39.7 | 45167 |
| Secondary complete/higher[2] | 62.0 | 53.0 | 31.2 | 0.6 | 4.8 | 0.3 | 14.4 | 1.9 | 0.1 | 0.0 | 8.9 | 7.2 | 1.7 | 0.0 | 38.0 | 15510 |
| **Wealth quintile** | | | | | | | | | | | | | | | | |
| Lowest | 63.9 | 55.6 | 29.8 | 0.6 | 16.5 | 1.3 | 0.9 | 5.1 | 1.4 | 0.0 | 8.3 | 7.5 | 0.4 | 0.4 | 36.1 | 30557 |
| Second | 64.2 | 55.0 | 31.9 | 0.7 | 14.4 | 1.0 | 1.6 | 4.7 | 0.8 | 0.0 | 9.2 | 8.3 | 0.6 | 0.3 | 35.8 | 32261 |
| Middle | 62.5 | 53.9 | 32.6 | 0.6 | 12.7 | 0.9 | 2.4 | 4.1 | 0.5 | 0.0 | 8.6 | 7.7 | 0.7 | 0.2 | 37.5 | 33167 |
| Fourth | 61.0 | 52.2 | 31.8 | 0.6 | 10.7 | 0.7 | 4.2 | 3.8 | 0.3 | 0.0 | 8.8 | 7.8 | 0.9 | 0.1 | 39.0 | 33714 |
| Highest | 61.6 | 52.3 | 29.4 | 0.6 | 7.8 | 0.4 | 9.8 | 4.1 | 0.2 | 0.0 | 9.4 | 8.0 | 1.3 | 0.1 | 38.4 | 34688 |
| Total | 62.6 | 53.8 | 31.1 | 0.6 | 12.3 | 0.8 | 3.9 | 4.3 | 0.6 | 0.0 | 8.9 | 7.9 | 0.8 | 0.2 | 37.4 | 164387 |

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

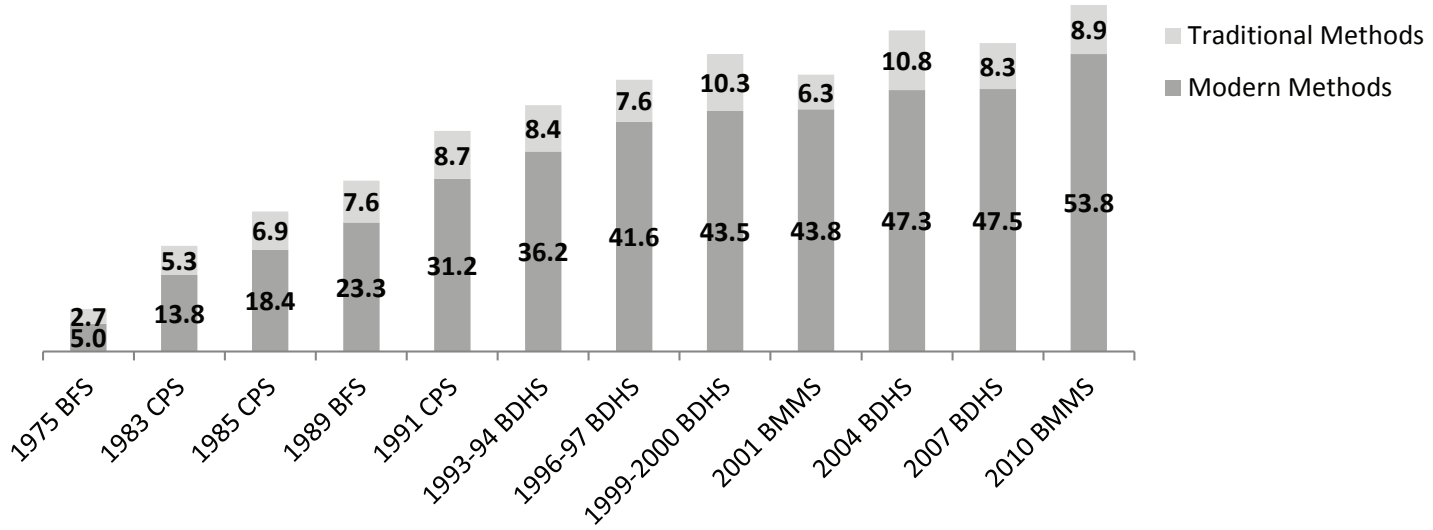
[1] Primary complete is defined as completing grade 5.

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

## *Trends in Current Use of Family Planning*

The contraceptive prevalence rate for married women in Bangladesh has increased from 8 percent in 1975 to 63 percent in 2010, a roughly eightfold increase over more than three decades (Figure 6.5). From 2001 to 2010, current contraceptive use has increased by 13 percentage points, an increase of 1.4 percent points each year.

**Figure 6.5 Trends in contraceptive use among currently married women under age 50.**




Note: Data from 2007 and 2010 are restricted to currently married women age 15-49.

The proportional share that each method contributes to the overall use of contraception, known as the method mix, changed over time. The use of modern methods increased by 10 percentage points over the last 9 years (2001 to 2010). Use of oral pills continued to rise, from 26 percent in 2001 to 31 percent in 2010 (Table 6.8). The use of injectables also increased from 8 percent in 2001 to 12 percent in 2010.

The use of long-lasting methods (female sterilization, IUD, and implants) declined slightly from 7 percent in 2001 to 6 percent in 2010. Use of sterilization was comparatively higher in the 80's and early 90's but then started to decline. The use of sterilization has declined from 10 percent in 1991 to 6 percent in 2001 and 5 percent in 2010.

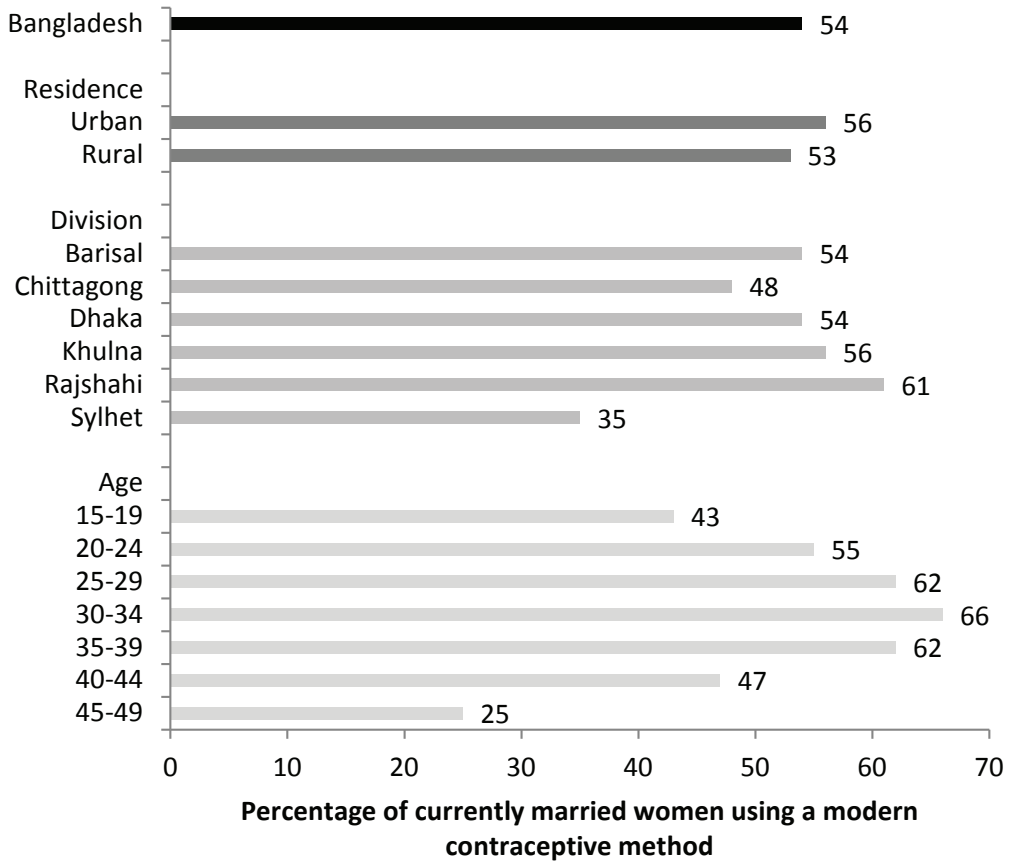
## *Differentials in Current Use of Family Planning*

Differentials in contraceptive use by women's background characteristics are not large. Contraceptive use varies slightly by urban-rural residence but greatly by division. Contraceptive use ranges from a high of 70 percent in Rajshahi to a low of 45 percent in Sylhet.

The pill is the most popular method among married women irrespective of education, residence, wealth and age, with one exception: women in the oldest age group 45-49 are more likely to use periodic abstinence. The second most widely used method among all women is injectables, with the exception of the oldest, most educated and wealthiest women. After the oral contraceptive pill, the male condom is more popular among more educated and wealthier women.

Since 2001, contraceptive use has increased in all groups of age, education, and wealth quintile. The increases in use of contraception are more pronounced among younger women (age 15-19), illiterate or with complete primary education, and poorest women. Contraceptive use also increased in all administrative divisions but more relatively in Sylhet and Chittagong divisions.

**Figure 6.6 Use of modern contraceptive method by background characteristics, Bangladesh 2010.**




### *6.2.2 Source of Family Planning Method*

In the 2010 BMMS, women who reported using a modern contraceptive method at the time of the survey were asked where they obtained the method the last time they acquired it. Since some women may not know the category into which the source they use falls (e.g., government hospital, health centre, or private clinic/hospital), interviewers were instructed to note the full name of the source or facility. Supervisors and field editors were then instructed to verify that the name and source type were consistent, and asked informants in the clusters for the names of local family planning outlets when necessary. This practice, used since the 1993 BDHS, was designed to improve the accuracy of source reporting.

Sources of family planning methods were classified into four major categories: public facilities (including government medical college/hospitals, Maternal Child Welfare Centers, Upazila Health Complexes, Family Welfare Centers, Satellite clinic/EPI outreach centers, community clinics and government fieldworkers), NGO sector sources (including static clinics, satellite clinics, depot holders, and NGO fieldworkers), private medical sources (including private hospitals/clinics, qualified doctors, unqualified doctors, and pharmacies), and other private sources (including shops and friends/relatives). Table 6.9 and Figure 6.7 show current modern method users by most recent source of method.

The public sector is the predominant source, providing contraceptive methods to more than half of all modern method users (53 percent). Government fieldworkers are the most important source in the public sector, supplying one in four users (27 percent) followed by Upazila Health Complexes and Family Welfare Centers (8 percent each, respectively). The private sector has also gained importance as a source of contraceptive supply. In BMMS 2010, 42 percent of modern method users acquire their supplies from a private source, with pharmacies serving 36 percent of users. Only 5 percent of users obtain their contraceptive methods from an NGO source.

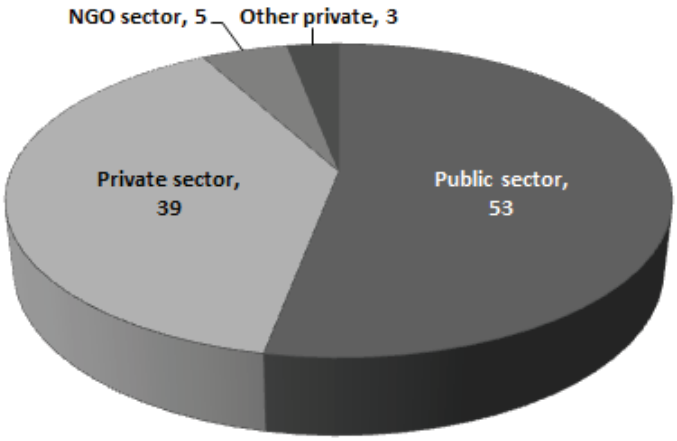
The public sector is the prime source for female and male sterilization, IUDs, injectables, and implants, while the private sector is the major source for pills and condoms. Upazila Health Complexes supply a larger proportion of long-term methods, such as implants (51 percent), and female sterilization (44 percent) and male sterilization (54 percent). Nevertheless, one-fifth of all women who are sterilized obtain the procedure at a private source, especially a private hospital or clinic, and only 4 percent are sterilized at an NGO static clinic.

Table 6.9 Source of modern contraception method

Percent distribution of users of modern contraceptive methods among women aged 15-49 by most recent source of method, according to method, BMMS 2010.

| | Modern Methods | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Source of modern methods | Pill | IUD | Injections | Implants | Male condom | Female sterilization | Male sterilization | Other modern method | All modern method |
| **Public sector** | 45.6 | 89.9 | 68.5 | 89.9 | 12.2 | 75.9 | 90.2 | 10.2 | 52.6 |
| Medical college/hospital | 0.2 | 5.3 | 0.9 | 9.4 | 0.2 | 17.9 | 23.6 | 5.5 | 2.3 |
| Maternal and child welfare center | 0.4 | 7.2 | 1.6 | 9.6 | 0.2 | 7.6 | 6.3 | 3.5 | 1.5 |
| Upazila health complex | 2.0 | 35.2 | 7.1 | 51.1 | 0.8 | 43.8 | 54.3 | 1.2 | 8.2 |
| Family welfare center | 4.6 | 35.8 | 17.4 | 16.7 | 1.4 | 5.6 | 4.3 | 0.0 | 7.9 |
| Satellite clinic or EPI outreach | 2.3 | 1.5 | 10.4 | 0.6 | 0.4 | 0.1 | 0.3 | 0.0 | 3.8 |
| Community clinic | 1.4 | 2.0 | 5.0 | 0.9 | 0.3 | 0.2 | 0.1 | 0.0 | 2.1 |
| Govt. field worker | 34.6 | 2.3 | 25.9 | 1.4 | 8.7 | 0.3 | 1.2 | 0.0 | 26.7 |
| Other public | 0.1 | 0.6 | 0.2 | 0.2 | 0.1 | 0.3 | 0.1 | 0.0 | 0.2 |
| **NGO sector** | 2.7 | 6.2 | 12.4 | 7.3 | 2.2 | 3.7 | 3.5 | 0.0 | 5.1 |
| Static clinic | 0.8 | 6.1 | 6.8 | 6.8 | 1.0 | 3.5 | 3.1 | 0.0 | 2.6 |
| Satellite clinic | 0.7 | 0.1 | 4.0 | 0.3 | 0.4 | 0.2 | 0.4 | 0.0 | 1.4 |
| Depot holder | 0.2 | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 |
| NGO field worker | 1.0 | 0.0 | 1.4 | 0.1 | 0.7 | 0.0 | 0.0 | 0.0 | 1.0 |
| Other NGO | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **Private sector** | 48.1 | 3.4 | 19.0 | 2.3 | 76.3 | 19.8 | 5.3 | 67.0 | 39.4 |
| Private hospital/clinic | 0.1 | 2.5 | 1.0 | 1.5 | 0.1 | 19.7 | 4.5 | 10.3 | 2.0 |
| Qualified doctor | 0.0 | 0.4 | 0.8 | 0.0 | 0.0 | 0.1 | 0.1 | 2.7 | 0.2 |
| Non-qualified doctor | 0.3 | 0.0 | 4.3 | 0.1 | 0.2 | 0.0 | 0.0 | 11.7 | 1.2 |
| Pharmacy | 47.7 | 0.4 | 12.9 | 0.7 | 76.0 | 0.1 | 0.7 | 42.2 | 36.1 |
| **Other private** | 3.6 | 0.4 | 0.1 | 0.2 | 8.9 | 0.3 | 0.2 | 18.8 | 2.8 |
| Shop | 3.2 | 0.0 | 0.0 | 0.0 | 8.6 | 0.0 | 0.0 | 0.0 | 2.5 |
| Friends/relatives | 0.3 | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 | 0.2 |
| Other | 0.1 | 0.4 | 0.1 | 0.2 | 0.1 | 0.3 | 0.2 | 18.8 | 0.1 |
| DK/missing | 0.1 | 0.1 | 0.1 | 0.3 | 0.4 | 0.3 | 0.8 | 4.1 | 0.1 |
| Number of women | 51,103 | 1,038 | 20,224 | 1,376 | 6,409 | 7,135 | 1,047 | 27 | 88,359 |

**Figure 6.7 Distribution of current user of modern contraceptive methods by most recent source of method, Bangladesh 2010.**




## 6.3 CHILDHOOD MORTALITY

Infant and child mortality rates reflect a country's level of socioeconomic development and quality of life. These measures are also used for monitoring and evaluating population and health programs. The 2010 BMMS asked all ever-married women age 13-49 to provide a complete history of their births. For each live birth, the sex, month and year of birth, survival status, and age at the time of the survey or age at death was asked. Age at death was recorded in days for children dying in the first month of life, in months for other children dying before their second birthday, and in years for children dying at later ages. This information was used to calculate the following direct estimates of infant and child mortality.[2]

| | |
|---|---|
| Neonatal mortality: | The probability of dying in the first month of life. |
| Post-neonatal mortality: | The probability of dying after the first month of life but before the first birthday. |
| Infant mortality (${}_1q_0$): | The probability of dying before the first birthday. |
| Child mortality (${}_4q_1$): | The probability of dying between the first and fifth birthdays. |
| Under-five mortality (${}_5q_0$): | The probability of dying before the fifth birthday. |

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

### *6.3.1 Childhood Mortality Rates: Levels and Trends*

Neonatal, post-neonatal, infant, child, and under-five mortality rates, by two-year and five-year periods preceding the survey, are shown in Table 7.10. Data from the 2010 BMMS show that under-five mortality during the five years preceding the survey (2005-2009) is 56 per 1,000 live births. This means that one in 18 children born in Bangladesh died before reaching their fifth birthday. The infant mortality rate is 45 deaths per 1,000 live births and the neonatal mortality rate is 32 per 1,000 live births. Deaths in the neonatal period account for 57 percent of all under-five deaths and 71 percent of all infant deaths.

Bangladesh experienced an impressive decline in childhood mortality in the last decade. The 2010 BMMS shows consistent declining trends in the childhood mortality rates in the three five-year periods preceding the survey. The under-five mortality rate declined by 39 deaths per 1,000 live births (from 95 to 56) when comparing the estimates for the period 10-14 years before the survey with the estimates for the period 0-4 years before the survey. This decline implies an average rate of decline of four under-five deaths per 1,000 live births per year. The infant death rate also decreased by 2.7 per 1,000 live births and the neonatal death rate decreased by 1.5 per 1,000 live births annually during this period.

[2] The mortality estimates are true probabilities calculated according to the conventional life-table approach. A detailed description of the method for calculating the probabilities presented here are given by Rutstein, S. O. Revised edition. WFS Comparative Studies No. 43. Voorburg, Netherland.

Table 6.10 Early childhood mortality rates

Neonatal, post neonatal, infant, child, and under-five mortality for two-year and five-year period preceding the survey , Bangladesh 2010.

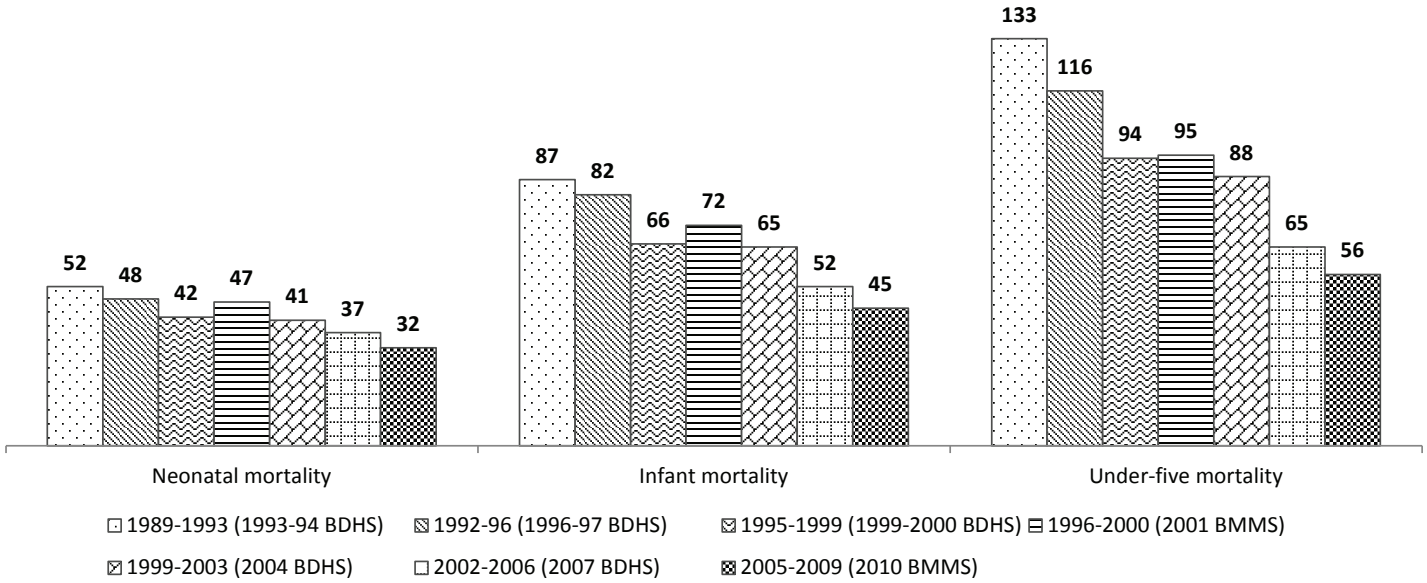
| Years preceding the survey | Approximate reference period | Neonatal mortality | Post-neonatal mortality[1] | Infant mortality ($_1q_0$) | Child mortality ($_4q_1$) | Under-five mortality ($_5q_0$) |
|---|---|---|---|---|---|---|
| **Two-year period** | | | | | | |
| 0-1 | 2008-2009 | 31 | 12 | 42 | 11 | 53 |
| 2-3 | 2006-2007 | 31 | 13 | 44 | 12 | 56 |
| 4-5 | 2004-2005 | 34 | 15 | 50 | 13 | 62 |
| 6-7 | 2002-2003 | 38 | 17 | 55 | 15 | 69 |
| 8-9 | 2000-2001 | 42 | 20 | 62 | 18 | 79 |
| **Five-year period** | | | | | | |
| 0-4 | 2005-2009 | 32 | 13 | 45 | 12 | 56 |
| 5-9 | 2000-2004 | 39 | 18 | 57 | 16 | 72 |
| 10-14 | 1995-1999 | 47 | 25 | 72 | 25 | 95 |

Note: Month of interview is excluded from analysis.

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

The 2010 BMMS provides evidence that Bangladesh is on track to achieve the MDG 4 target of reducing the under-five mortality rate from 151 deaths per 1,000 live births in 1990 to 48 deaths per 1,000 live births by 2015. Childhood mortality rates obtained for the five-years preceding successive BDHS and BMMS surveys since 1993-1994 confirm a declining trend in mortality (Figure 6.8). The strength of this comparison derives from the fact that these surveys used identical data collection instruments. Between the periods 1989-1993 and 2005-2009, under-five mortality declined from 133 to 56, a 58 percent decline in 16 years. The rate of decline was at an average of 3.6 percent per year, compared to the average annual rate of reduction of 2.7 percent required to achieve MDG 4. During the same period, infant mortality declined by 48 percent (3 percent per year) and neonatal mortality declined by 39 percent (2.4 percent per year). However, attaining MDG 4 will require additional efforts to achieve a further 14 percent reduction in the under-five mortality rate (from 56 to 48) in the next five years.

**Figure 6.8 Trends in infant and childhood mortality, 1989 to 2009.**




Note: Rates are for the five-year period preceding the surveys.

### *6.3.2 Socioeconomic Differentials in Childhood Mortality*

Figure 6.9 and Table 6.11 presents data on differentials in childhood mortality rates for the five-year period preceding the survey by socioeconomic characteristics. There is virtually no difference in childhood mortality rates between rural and urban areas. Khulna and Rajshahi divisions have already achieved the MDG 4 national target to reduce under-five mortality. The reduction is mainly due to low post-neonatal and child mortality rates. The under-five mortality rates in Chittagong, Barisal, and Dhaka divisions are similar to the current national rate. Sylhet division has the highest under-five mortality rate (83 per 1,000 live births) and will require a 42 percent reduction in under-five mortality in order to achieve MDG 4. A comparison of 2001 and 2010 data shows that under-five mortality has declined 42 percent in Sylhet division over the last nine years.

Table 6.11 Infant and child mortality by socioeconomic characteristics

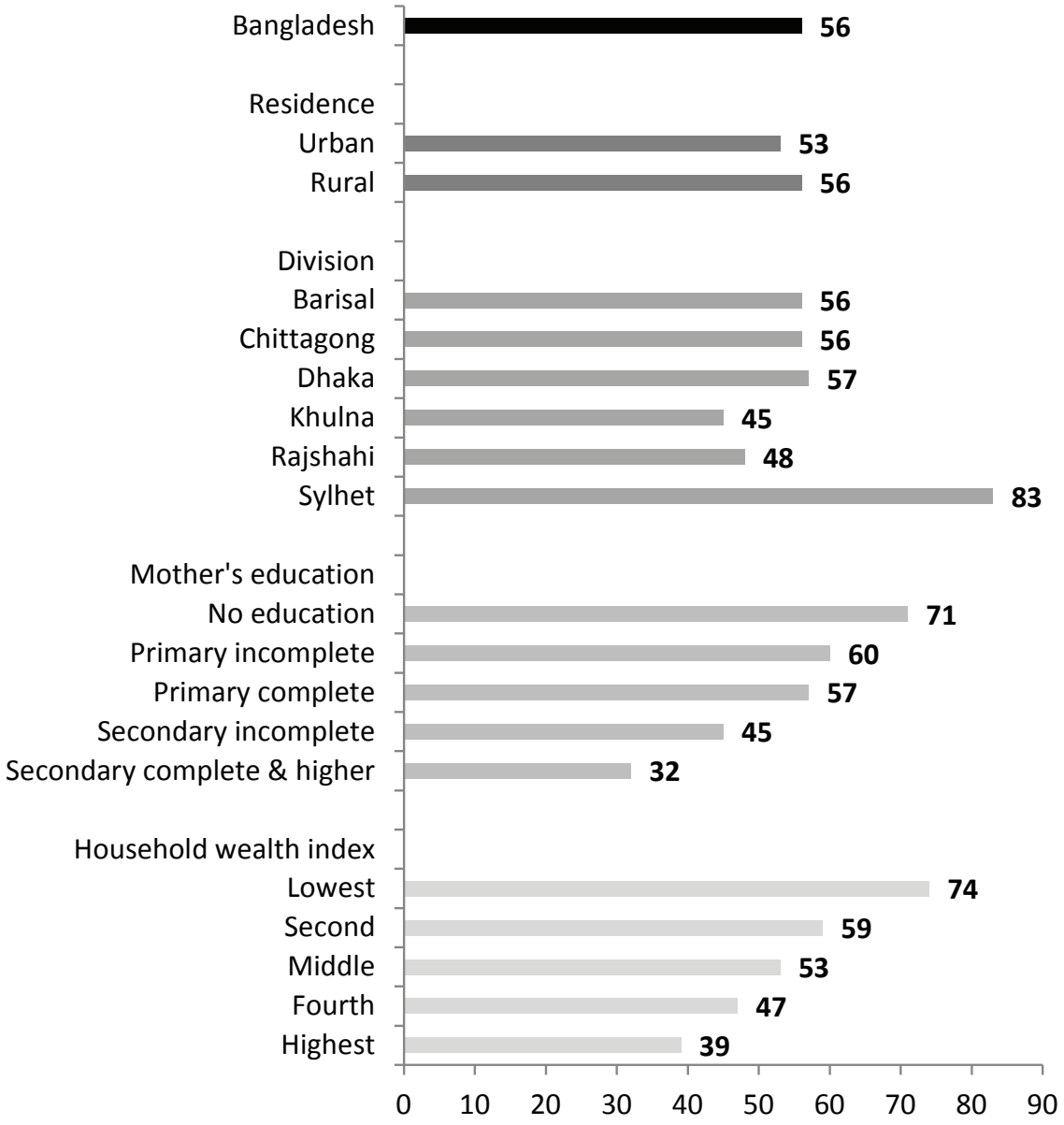
Neonatal, post neonatal, infant, child, and under-five mortality for the five-year period preceding the survey, by socioeconomic characteristics, Bangladesh 2010.

| Socioeconomic characteristics | Neonatal mortality | Post-neonatal mortality[1] | Infant mortality ($_1q_0$) | Child mortality ($_4q_1$) | Under-five mortality ($_5q_0$) |
|---|---|---|---|---|---|
| **Residence** | | | | | |
| Urban | 31 | 13 | 43 | 10 | 53 |
| Rural | 32 | 13 | 45 | 12 | 56 |
| **Division** | | | | | |
| Barisal | 29 | 12 | 40 | 16 | 56 |
| Chittagong | 28 | 12 | 40 | 16 | 56 |
| Dhaka | 33 | 14 | 47 | 10 | 57 |
| Khulna | 30 | 9 | 39 | 6 | 45 |
| Rajshahi | 30 | 10 | 40 | 9 | 48 |
| Sylhet | 45 | 22 | 67 | 17 | 83 |
| **Mother's education** | | | | | |
| No education | 36 | 19 | 55 | 17 | 71 |
| Primary incomplete | 33 | 16 | 48 | 12 | 60 |
| Primary complete | 35 | 14 | 49 | 9 | 57 |
| Secondary incomplete | 29 | 8 | 37 | 8 | 45 |
| Secondary complete or higher | 22 | 5 | 27 | 5 | 32 |
| **Household wealth index** | | | | | |
| 1 | 38 | 19 | 57 | 18 | 74 |
| 2 | 33 | 15 | 48 | 12 | 59 |
| 3 | 31 | 12 | 43 | 10 | 53 |
| 4 | 29 | 9 | 38 | 9 | 47 |
| 5 | 24 | 8 | 32 | 7 | 39 |
| Total | 32 | 13 | 45 | 12 | 56 |

Maternal education is strongly related to mortality. Children born to mothers with no education have much higher levels of mortality than children born to mothers with some education. The overall under-five mortality rate declines sharply with increasing education of mothers, ranging from 71 deaths per 1,000 live births for mothers with no education to a low of 32 deaths per 1,000 live births for mothers who have completed secondary education or higher. Other mortality indicators also decline similarly with increases in mother's education.

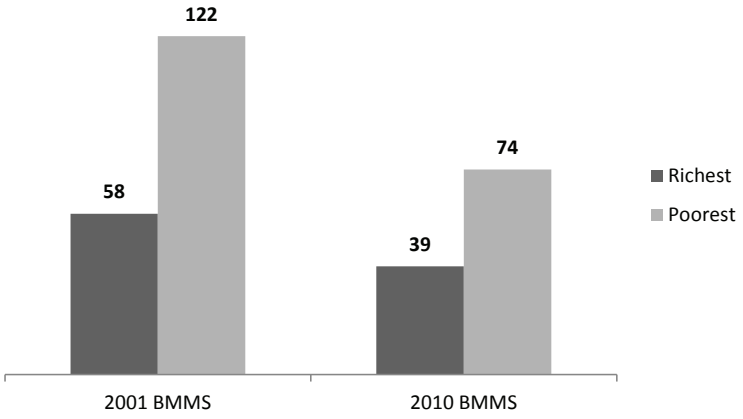
All indicators of childhood mortality decline substantially as household wealth increases. For example, the infant mortality rate for children in the wealthiest households is 32 deaths per 1,000 live births, whereas the corresponding rate for children in the poorest households is 57 deaths per 1,000 live births. A child from the poorest quintile is 1.9 times more likely to die before reaching age five compared to a child from the wealthiest quintile. Comparison of 2001 and 2010 data shows that the difference has declined marginally in the last nine years (Figure 6.10).

**Figure 6.9 Under-five mortality rates by socioeconomic characteristics, Bangladesh 2010.**




Note: Rates are for the five-year period preceding the surveys.

**Figure 6.10 Under-five mortality rates among rich and poor, Bangladesh 2001 and 2010.**




Note: Rates are for the five-year period preceding the surveys.

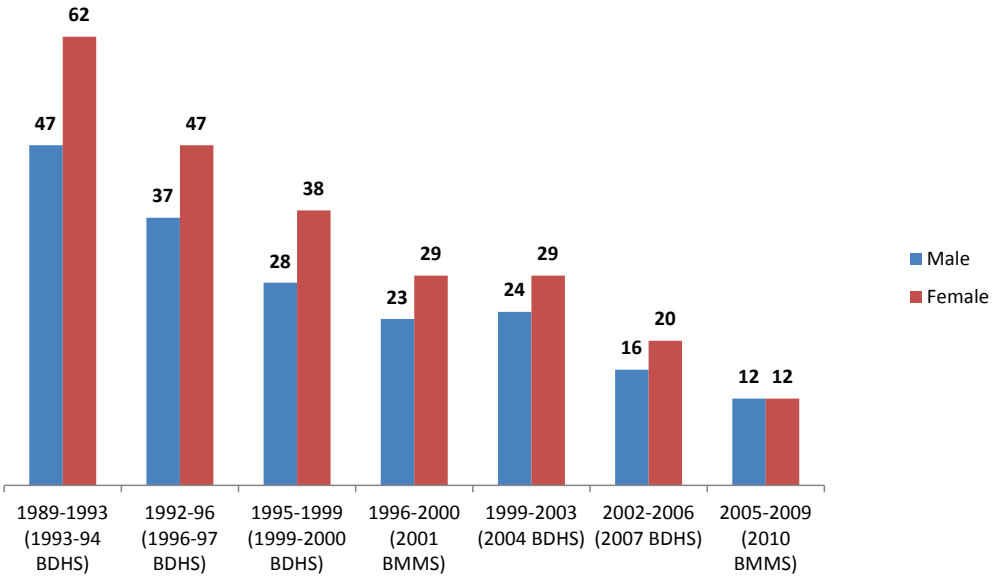
### *6.3.3 Demographic Differentials in Childhood Mortality*

This section examines differentials in childhood mortality by demographic characteristics of the child and the mother. Table 6.12 presents various indicators of infant and child mortality for the five-year period preceding the survey by sex of the child, mother's age at birth, and birth order.

Like elsewhere, Table 6.12 shows that the neonatal mortality rate during the five-year period before the survey is higher for boys than for girls (37 and 26 deaths per 1,000 live births, respectively). This difference creates higher infant and under-five mortality rates for boys. The 2010 BMMS provides evidence for equal child mortality for boys and girls, which is contrary to the pattern observed in previous surveys and other studies in South Asia (Das Gupta, 1987; Basu, 1989). This pattern reflects behavior change against socio-cultural discrimination towards girl children.

The maternal age at birth shows a U-shaped relationship with neonatal, infant and under-five mortality rates. The under-five mortality rate is the lowest for mother's age 20-29 years (49 deaths per 1,000 live births) and is substantially higher when the mother's age is less than 20 years (66 deaths) and or over 39 years (73 deaths). The higher under-five mortality in age groups less than 20 years and 40-49 years is mainly due to much higher neonatal mortality among these age groups. Children born to young mothers are more likely to be of low birth weight, which is likely an important factor contributing to higher neonatal mortality rates. Similarly, children born to mothers above age 40 are at a higher risk of experiencing congenital problems.

**Figure 6.11 Changes in child mortality rates, Bangladesh 1989 to 2009.**




Note: BMMS Rates refer to deaths in the five-year period and BDHS rates refer to deaths in the ten-year period preceding the surveys.

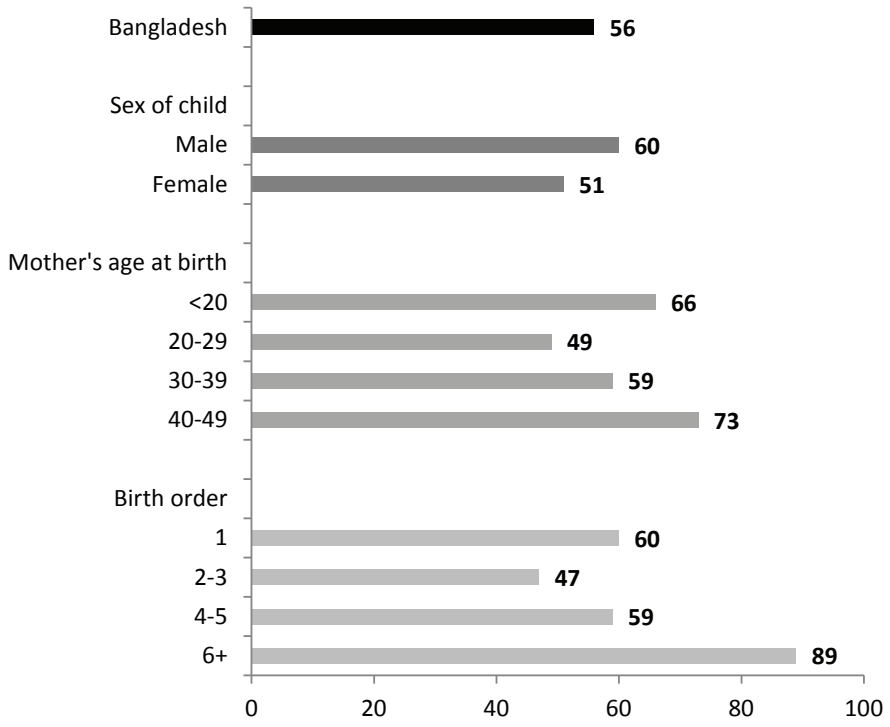
The birth order also shows a U-shaped relationship with neonatal mortality, but post-neonatal and child mortality increase steadily with birth order. This results in a reverse J-shaped relationship between the birth order and infant and under-five mortality. The under-five mortality rate is the highest for births of order six or higher (89 deaths per 1,000 live births). The rate is the lowest for births of order 2 or 3 (47) and increases further for first order births (60) (Figure 6.12).

Table 6.12 Infant and child mortality by demographic characteristics

Neonatal, post neonatal, infant, child, and under-five mortality for the five-year period preceding the survey, by demographic characteristics, Bangladesh 2010.

| Demographic characteristics | Neonatal mortality | Post-neonatal mortality[1] | Infant mortality ($_1q_0$) | Child mortality ($_4q_1$) | Under-five mortality ($_5q_0$) |
|---|---|---|---|---|---|
| **Sex of child** | | | | | |
| Male | 37 | 13 | 49 | 12 | 60 |
| Female | 26 | 13 | 40 | 12 | 51 |
| **Mother's age at birth** | | | | | |
| <20 | 41 | 15 | 56 | 11 | 66 |
| 20-29 | 27 | 11 | 38 | 11 | 49 |
| 30-39 | 29 | 16 | 45 | 15 | 59 |
| 40-49 | 46 | 17 | 64 | 9 | 73 |
| **Birth order** | | | | | |
| 1 | 39 | 12 | 51 | 9 | 60 |
| 2-3 | 26 | 10 | 36 | 11 | 47 |
| 4-5 | 30 | 17 | 47 | 13 | 59 |
| 6+ | 40 | 25 | 66 | 25 | 89 |
| **Total** | 32 | 13 | 45 | 12 | 56 |

**Figure 6.12 Under-five mortality rates by demographic characteristics, Bangladesh 2010.**




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

## 6.4 HIGH-RISK FERTILITY BEHAVIOR

The survival of infants and children depends in part on the demographic and biological characteristics of their mothers. Typically, the probability of dying in infancy is much greater among children born to mothers who are young (under age 18) or old (over age 34), children born after a short birth interval (less than 24 months after the preceding birth), and children born to mothers of high parity (more than three children). The risk is further elevated when a child is born to a mother who has a combination of these risk characteristics.

Table 6.13 shows the percentages of live births in the five years preceding the survey that fall into different child survival risk categories, as well as the distribution of all currently married women across these categories. It also shows the relative risks of children dying across the different risk categories. The purpose of this table is to identify areas in which changed reproductive behavior would likely have an effect on infant and child mortality. Mortality risks are represented by the proportion of children who were born during the five years preceding the survey and who had died by the time of the survey. The "risk ratio" is the ratio of the proportion of dead children in a given high-risk category to the proportion of dead children not in any high-risk category.

Table 6.13 High-risk fertility behavior

Percent distribution of children born in the five years preceding the survey by category of elevated risk of dying and the risk ratio, and percentage distribution of currently married women by category of risk if they were to conceive a child at the time of survey, Bangladesh 2010.

| Risk category | Births in five years preceding the survey | | Percentage of currently married women[1] |
|---|---|---|---|
| | Percentage of births | Risk-ratio | |
| Not in any high-risk category | 37.6 | 1.00 | 28.9 |
| Unavoidable risk category: first birth | 34.3 | 1.73 | 10.2 |
| **Single high-risk category** | | | |
| Mothers age <18 | 0.7 | 2.17 | 0.2 |
| Mother's age >34 | 0.9 | 1.68 | 6.6 |
| Birth interval <24 months | 5.3 | 2.54 | 7.4 |
| Birth order >3 | 12.7 | 1.30 | 13.4 |
| Subtotal | 19.6 | 1.68 | 27.6 |
| **Multiple high-risk category** | | | |
| Age <18 & birth interval <24 months[2] | 0.8 | 5.31 | 0.6 |
| Age >34 & birth interval <24 months | 0.0 | na | 0.1 |
| Age >34 & birth order >3 | 4.2 | 1.95 | 28.6 |
| Age >34 & birth interval <24 & birth order >3 | 0.5 | 4.08 | 0.8 |
| Birth interval <24 months & birth order >3 | 3.1 | 3.88 | 3.3 |
| Subtotal | 8.6 | 3.06 | 33.2 |
| In any avoidable high-risk category | 28.2 | 2.10 | 60.8 |
| Total | 100.0 | na | 100.0 |
| Number of births | 89,483 | na | 165,113 |

Note: Risk ratio is the ratio of the proportion of dead of births in a specific high-risk category to the proportion of dead of births *not in any high – risk category.*

[1] Women are assigned to the risk categories according to the status they would have at birth of a child if they were to conceive at the time of the survey: current age less than 17 years and 3 months or older than 34 years and 2 months, latest birth occurred less than 15 months ago. Or latest births being of order 3 or higher.

[2] Includes the combined categories age <18 & birth order >3.

[a] Includes sterilized women.

Among children born in the five years preceding the survey, slightly over one in three births (38 percent) were not in any high-risk category. Another one-third were first births—considered an unavoidable risk category—while 20 percent were in single high-risk categories and 9 percent were in multiple high-risk categories. The most common single high-risk category was high parity birth where the birth order was three or higher (13 percent), while the most common multiple high-risk category was maternal age (older than 34 years) and high parity (4 percent).

Risk ratios, which describe the relationship between a particular risk category and a reference category, are used to compare risk categories. While the "not in any high-risk category" has a risk ratio of 1.00, the unavoidable risk category (first births) has a risk ratio of 1.73. Risk ratios are higher for children in multiple high-risk categories than for those in single high-risk categories. The births of young women (age <18 years) with short preceding birth intervals (<24 months) are most vulnerable, and they are 5.3 times more likely to die than the children not in any high-risk category. Fortunately, less than one percent of births are in this multiple-risk category. Three percent of births occur among women who have three or more children and a short preceding birth interval; these children are almost four times more likely to die than their counterparts not in any high-risk category. The high parity births to women 34 or older and short birth interval have a similar risk of dying. However, the births of the most common multiple high-risk category (mothers older than 34 years and birth order three and more), which include 4 percent of total births, have double the risk of dying than the children not in any high-risk category. Among single high-risk categories, 5 percent of births occur among women who have short preceding birth intervals and these children are 2.5 times more likely to die than the children not in any high-risk category.

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# TABLES

Appendix A

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

Percent distribution of the de facto household population by five-year age groups, according to urban-rural residence and sex, Bangladesh 2010.

| | All urban | | | Metropolitan/town | | | Other urban | | | Rural | | | Total | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Age group | Male | Female | Total | Male | Female | Total | Male | Female | Total | Male | Female | Total | Male | Female | Total |
| 0-4 | 11.1 | 10.4 | 10.7 | 11.0 | 10.3 | 10.6 | 11.5 | 10.9 | 11.2 | 11.8 | 11.1 | 11.4 | 11.6 | 10.9 | 11.3 |
| 5-9 | 12.0 | 11.2 | 11.6 | 11.8 | 10.9 | 11.3 | 12.9 | 12.2 | 12.6 | 13.2 | 12.4 | 12.8 | 12.9 | 12.1 | 12.5 |
| 10-14 | 11.3 | 11.0 | 11.1 | 11.0 | 10.8 | 10.9 | 12.4 | 11.8 | 12.1 | 12.2 | 11.5 | 11.8 | 12.0 | 11.3 | 11.6 |
| 15-19 | 9.7 | 12.1 | 10.9 | 9.6 | 12.2 | 10.9 | 10.1 | 11.4 | 10.8 | 9.5 | 11.1 | 10.3 | 9.5 | 11.3 | 10.4 |
| 20-24 | 8.3 | 11.9 | 10.1 | 8.5 | 12.4 | 10.4 | 7.6 | 10.0 | 8.8 | 7.2 | 10.1 | 8.7 | 7.5 | 10.6 | 9.0 |
| 25-29 | 8.9 | 9.5 | 9.2 | 9.4 | 9.7 | 9.6 | 7.2 | 8.7 | 7.9 | 7.2 | 8.5 | 7.9 | 7.6 | 8.8 | 8.2 |
| 30-34 | 7.1 | 7.2 | 7.1 | 7.3 | 7.3 | 7.3 | 6.0 | 6.8 | 6.4 | 6.0 | 6.6 | 6.3 | 6.3 | 6.8 | 6.5 |
| 35-39 | 7.3 | 6.4 | 6.8 | 7.5 | 6.4 | 7.0 | 6.6 | 6.2 | 6.4 | 6.5 | 6.0 | 6.2 | 6.7 | 6.1 | 6.4 |
| 40-44 | 5.4 | 5.2 | 5.3 | 5.4 | 5.2 | 5.3 | 5.3 | 5.1 | 5.2 | 5.1 | 5.1 | 5.1 | 5.2 | 5.1 | 5.1 |
| 45-49 | 5.3 | 4.8 | 5.0 | 5.3 | 4.8 | 5.0 | 5.2 | 5.0 | 5.1 | 5.0 | 5.3 | 5.1 | 5.1 | 5.1 | 5.1 |
| 50-54 | 3.8 | 1.9 | 2.8 | 3.8 | 1.9 | 2.8 | 3.8 | 2.0 | 2.9 | 3.8 | 2.0 | 2.9 | 3.8 | 2.0 | 2.9 |
| 55-59 | 2.9 | 2.6 | 2.8 | 2.9 | 2.5 | 2.7 | 3.0 | 2.8 | 2.9 | 3.2 | 3.0 | 3.1 | 3.1 | 2.9 | 3.0 |
| 60-64 | 2.4 | 2.0 | 2.2 | 2.4 | 1.9 | 2.2 | 2.6 | 2.4 | 2.5 | 2.8 | 2.5 | 2.6 | 2.7 | 2.3 | 2.5 |
| 65-69 | 1.6 | 1.2 | 1.4 | 1.5 | 1.2 | 1.3 | 1.9 | 1.5 | 1.7 | 2.0 | 1.6 | 1.8 | 1.9 | 1.5 | 1.7 |
| 70-74 | 1.4 | 1.1 | 1.2 | 1.3 | 1.0 | 1.1 | 1.9 | 1.3 | 1.6 | 2.0 | 1.3 | 1.6 | 1.8 | 1.3 | 1.5 |
| 75-79 | 0.6 | 0.5 | 0.6 | 0.6 | 0.5 | 0.5 | 0.9 | 0.6 | 0.7 | 1.0 | 0.6 | 0.8 | 0.9 | 0.6 | 0.8 |
| 80+ | 0.9 | 1.0 | 1.0 | 0.8 | 0.9 | 0.9 | 1.3 | 1.3 | 1.3 | 1.5 | 1.3 | 1.4 | 1.4 | 1.2 | 1.3 |
| Missing/ Don't know | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Number | 92,933 | 95,161 | 188,094 | 74,296 | 75,861 | 150,158 | 18,636 | 19,300 | 37,936 | 291,269 | 300,989 | 592,258 | 384,202 | 396,150 | 780,352 |

# DATA QUALITY

Appendix B

## DATA QUALITY OF ADULT MORTALITY INFORMATION

The BMMS 2010 collected information on adult deaths in two ways, one through the household questionnaire and the other through a sibling history asked of ever-married women aged 13 to 49. The household questionnaire collected information on deaths of all household members since October 2006. The basic data collected about each death were name, sex, age at death, and date of death. The respondent was normally the head of the household or some other knowledgeable household member. The sibling history was obtained directly from eligible women, and consists of a complete listing of all the brothers and sisters of the respondent, with name, sex, whether still alive, age in completed years if still alive, and number of years ago the death occurred and age of the sibling at death if dead. Both types of data can suffer from reporting errors which may affect the resulting estimates of adult mortality. For example, deaths of household members may go unreported, or the age at death may be misreported. Similarly, brothers or sisters who have died may go unreported, or their ages at death may be misreported. This section assesses the quality of data from both sources.

There are a number of ways in which data quality can be evaluated. A first step is to look at data completeness: the frequency of missing values (for example, age) for reported events. A second step is the extent of systematic misreporting of characteristics, such as reporting ages of the living or the dead on round numbers. A third step is to examine internal consistency, for example the consistency of age patterns of the living with those of deaths, and the consistency of mortality indicators as obtained from household deaths with those obtained from the sibling histories. The final step is to examine external consistency, how well the estimates compare with "gold standard" estimates of mortality from independent sources.

### *1. Completeness of data*

As can be seen in the detailed data quality tables, data were missing for a very small proportion of cases, well below 0.1%. Such levels of "missingness" will have only minimal effects on estimates, and suggest generally high quality of data collection.

### *2. Systematic misreporting*

The data quality tables show extensive distortions due to one form or another of digital preference. For the household population, there is extensive digital preference for ages ending in 0 and to a lesser extent 5; the distortions are more pronounced for females than they are for males. The same distortions are evident for household deaths, to an even greater extent. The information from the sibling histories shows somewhat less pronounced digital preference for surviving siblings than that in the household listing, but shows clear digital preference on age at death and also for years ago of death (particularly for 10 years ago). Digital preference itself is not a very serious error, but it is a symptom of generally imprecise reporting that may be associated with more serious errors such as age exaggeration.

### *3. Internal consistency*

A well-established set of consistency checks for household deaths are based on a comparison of the age distribution of such deaths with the age distribution of the population (Brass, 1975; UN, 2002). The basic idea of the method is that in a population with negligible migration, the entry rate into an open-ended age group $x+$ minus the growth rate of that age group will be equal to the death rate of that age group. If the entry rate and the growth rate can be estimated from successive age distributions, residual estimates of the death rate can be compared with actual estimates derived from questions on household deaths. The most flexible methods take advantage of successive age distributions to estimate growth rates that are age-specific, that is, take into account the past population dynamics of a population. However, age distributions derived from sample surveys are often poor representations of true age distributions, which are best recorded by population censuses.

Unfortunately, results from the most recent Bangladeshi census are not yet available, so we cannot apply these more flexible methods. An alternative is a less flexible method that assumes a stable population, that is, a population with a constant growth rate at all ages, but can be used with data from a single survey. With an assumed stable population with a fixed growth rate at all ages, the entry rates into open-ended age groups *x*+ will be linearly related to the death rates in those age groups with a slope of one. If the reporting of deaths is incomplete, however, the death rates will be smaller than they should be and the slope will be greater than one; the slope of the relationship estimates the inverse of the completeness of recording of deaths.

This method is applied to data from the BMMS 2010 in Figures B.1 and B.2. As can be seen, the points do not lie exactly on a straight line, especially for the three left-hand most points in Figure B.2 (for age groups 5+, 10+ and 15+ respectively). Robust regression is used to fit a line to the points for ages 15+ to 60+; for males, the slope of this line is almost exactly 1.0, reflecting complete reporting of deaths relative to populations. For females, on the other hand, the slope of the line is 0.77, suggesting *over*-reporting of deaths by nearly 30 percent. However, given the deviation of the points for the three youngest age groups, and the non-stability of the Bangladeshi age distribution, such an estimate is not reliable.

**Figure B.1 Application of Brass Growth Balance Method to BMMS 2010 Data: Males.**

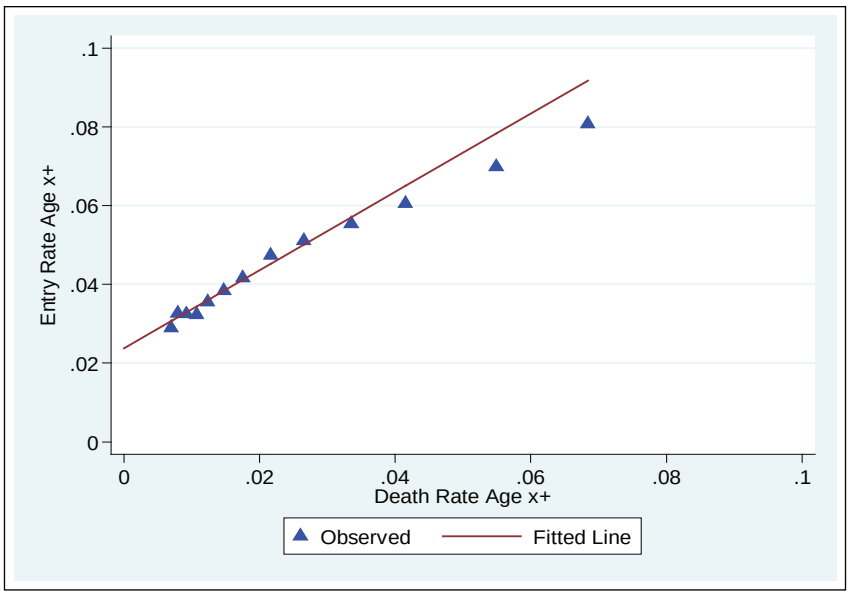
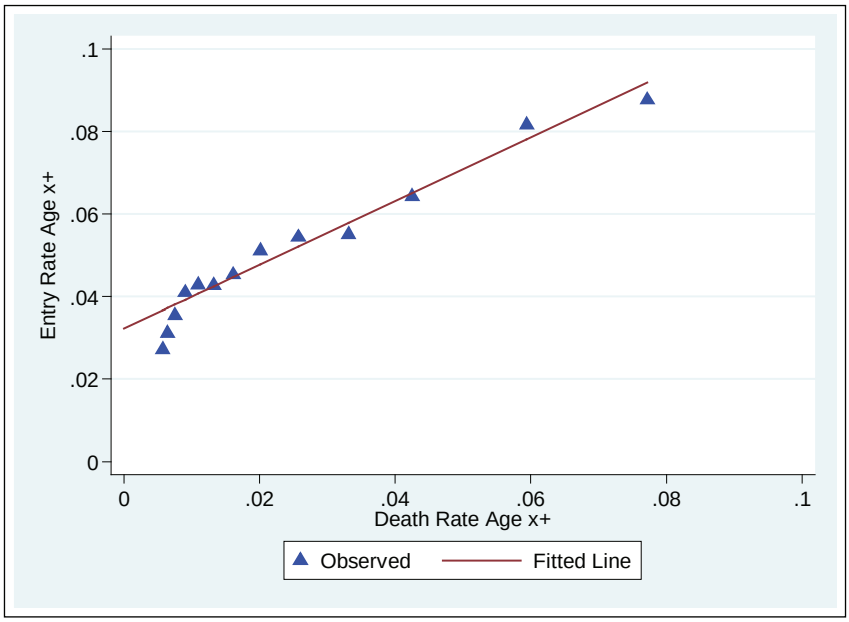



**Figure B.2 Application of Brass Growth Balance Method to BMMS 2010 Data: Females.**



## *4. Internal consistency (household deaths and sibling histories) and external consistency with a "gold standard"*

It is convenient to examine the internal consistency of the household death estimates with those of the sibling history estimates and the consistency of both with estimates of adult mortality from the Health and Demographic Surveillance System (HDSS) in Matlab Thana (ICDDR,B). The Matlab figures are averages of the calendar years 2006-08, whereas the other two sources refer to the three years before the BMMS 2010. Figure B.3 compares male age-specific mortality rates from the three sources, and Figure B.4 does the same for female rates. It is clear that the broad levels and age patterns are remarkably similar. One summary indicator that can be calculated from all three series is the probability of dying between the ages of 15 and 50, ${}_{35}q_{15}$. For males, the values are 0.072, 0.064 and 0.068 from household deaths, the sibling histories, and Matlab, respectively; for females, the corresponding probabilities are 0.048, 0.51 and 0.046. The closeness of the estimates is very reassuring.

**Figure B.3 Male Age-Specific Mortality Rates: BMMS 2010 Household and Sibling Mortality Rates (3 Years Before Survey) and Matlab Mortality Estimates (Average 2006-08).**

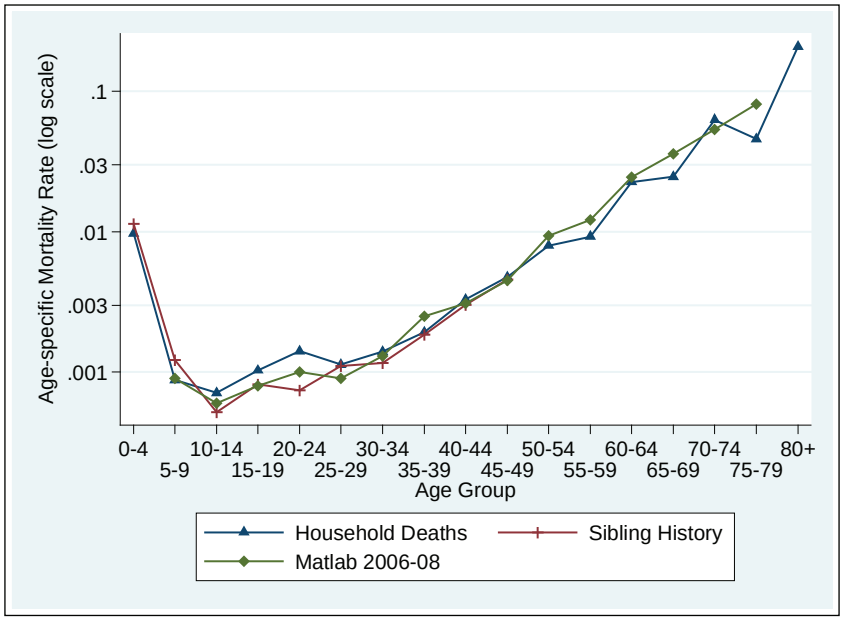
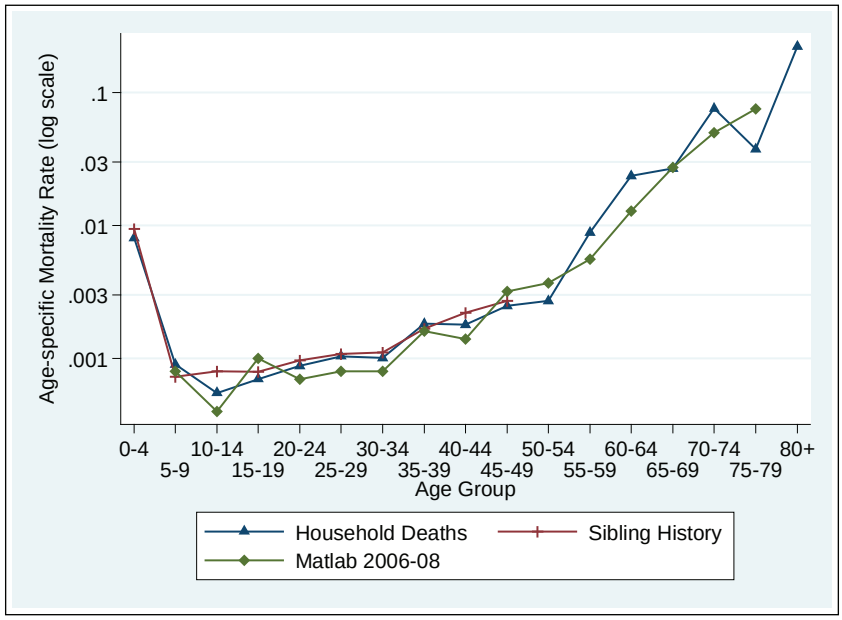



**Figure B.4 Female Age-Specific Mortality Rates: BMMS 2010 Household and Sibling Mortality Rates (3 Years Before Survey) and Matlab Mortality Estimates (Average 2006-08).**



### *Conclusion*

The BMMS 2010 collected information about adult mortality in two almost entirely independent ways, household deaths and full sibling histories (they can be regarded as independent because the respondent will usually have been different in most male-headed households and because the individuals reported on resided generally – except for cases of siblings living in the same households – in different households and different areas.

This evaluation examines data completeness, internal consistency, and external consistency. As the tables show, completeness of information was very high. The data show expected patterns of digital preference for reporting ages and dates, but such errors are unlikely to bias mortality estimates by a substantial margin. The internal consistency of the estimates from the household deaths and sibling histories is very high. Consistency does not imply accuracy, but the external consistency, with "gold standard" mortality estimates from a rural area of Bangladesh, also strongly support the case for validity.

Table B1 Household population by single year age, residence, and sex

Percent distribution of the de facto household population by single year, according to urban-rural residence and sex (weighted), Bangladesh 2010.

| | Urban | | | | Rural | | | | Total | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Male | | Female | | Male | | Female | | Male | | Female | |
| Age | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number | Percent |
| 0 | 1,910 | 2.1 | 1,827 | 1.9 | 6,140 | 2.1 | 5,931 | 2.0 | 8,050 | 2.1 | 7,758 | 2.0 |
| 1 | 1,878 | 2.0 | 1,911 | 2.0 | 6,338 | 2.2 | 6,373 | 2.1 | 8,216 | 2.1 | 8,285 | 2.1 |
| 2 | 2,163 | 2.3 | 2,085 | 2.2 | 7,532 | 2.6 | 7,054 | 2.3 | 9,695 | 2.5 | 9,139 | 2.3 |
| 3 | 2,147 | 2.3 | 2,073 | 2.2 | 7,272 | 2.5 | 7,318 | 2.4 | 9,420 | 2.5 | 9,391 | 2.4 |
| 4 | 2,180 | 2.3 | 1,990 | 2.1 | 7,102 | 2.4 | 6,741 | 2.2 | 9,282 | 2.4 | 8,731 | 2.2 |
| 5 | 2,149 | 2.3 | 2,026 | 2.1 | 7,194 | 2.5 | 6,872 | 2.3 | 9,343 | 2.4 | 8,899 | 2.2 |
| 6 | 2,261 | 2.4 | 2,108 | 2.2 | 7,780 | 2.7 | 7,430 | 2.5 | 10,040 | 2.6 | 9,538 | 2.4 |
| 7 | 2,273 | 2.4 | 2,281 | 2.4 | 8,141 | 2.8 | 8,171 | 2.7 | 10,414 | 2.7 | 10,451 | 2.6 |
| 8 | 2,287 | 2.5 | 2,204 | 2.3 | 8,043 | 2.8 | 7,832 | 2.6 | 10,330 | 2.7 | 10,036 | 2.5 |
| 9 | 2,166 | 2.3 | 2,044 | 2.1 | 7,199 | 2.5 | 7,015 | 2.3 | 9,365 | 2.4 | 9,059 | 2.3 |
| 10 | 2,491 | 2.7 | 2,321 | 2.4 | 8,645 | 3.0 | 8,054 | 2.7 | 11,136 | 2.9 | 10,375 | 2.6 |
| 11 | 1,907 | 2.1 | 1,840 | 1.9 | 6,312 | 2.2 | 6,124 | 2.0 | 8,219 | 2.1 | 7,964 | 2.0 |
| 12 | 2,262 | 2.4 | 2,205 | 2.3 | 7,837 | 2.7 | 7,505 | 2.5 | 10,098 | 2.6 | 9,709 | 2.5 |
| 13 | 1,875 | 2.0 | 2,006 | 2.1 | 6,195 | 2.1 | 6,192 | 2.1 | 8,070 | 2.1 | 8,198 | 2.1 |
| 14 | 1,966 | 2.1 | 2,074 | 2.2 | 6,465 | 2.2 | 6,588 | 2.2 | 8,431 | 2.2 | 8,662 | 2.2 |
| 15 | 1,895 | 2.0 | 2,197 | 2.3 | 6,419 | 2.2 | 6,780 | 2.3 | 8,314 | 2.2 | 8,977 | 2.3 |
| 16 | 1,936 | 2.1 | 2,242 | 2.4 | 5,995 | 2.1 | 6,842 | 2.3 | 7,931 | 2.1 | 9,084 | 2.3 |
| 17 | 1,674 | 1.8 | 2,112 | 2.2 | 4,999 | 1.7 | 5,992 | 2.0 | 6,674 | 1.7 | 8,103 | 2.0 |
| 18 | 2,162 | 2.3 | 2,799 | 2.9 | 6,302 | 2.2 | 7,639 | 2.5 | 8,465 | 2.2 | 10,438 | 2.6 |
| 19 | 1,347 | 1.4 | 2,146 | 2.3 | 3,828 | 1.3 | 6,107 | 2.0 | 5,176 | 1.3 | 8,252 | 2.1 |
| 20 | 1,994 | 2.1 | 2,648 | 2.8 | 6,004 | 2.1 | 7,161 | 2.4 | 7,998 | 2.1 | 9,810 | 2.5 |
| 21 | 1,248 | 1.3 | 2,088 | 2.2 | 3,311 | 1.1 | 5,841 | 1.9 | 4,559 | 1.2 | 7,929 | 2.0 |
| 22 | 1,960 | 2.1 | 2,535 | 2.7 | 5,266 | 1.8 | 6,371 | 2.1 | 7,226 | 1.9 | 8,907 | 2.2 |
| 23 | 1,223 | 1.3 | 2,040 | 2.1 | 3,303 | 1.1 | 5,614 | 1.9 | 4,526 | 1.2 | 7,654 | 1.9 |
| 24 | 1,264 | 1.4 | 2,013 | 2.1 | 3,157 | 1.1 | 5,530 | 1.8 | 4,421 | 1.2 | 7,544 | 1.9 |
| 25 | 2,612 | 2.8 | 2,110 | 2.2 | 7,116 | 2.4 | 5,990 | 2.0 | 9,728 | 2.5 | 8,100 | 2.0 |
| 26 | 1,557 | 1.7 | 1,868 | 2.0 | 3,877 | 1.3 | 5,266 | 1.7 | 5,434 | 1.4 | 7,134 | 1.8 |
| 27 | 1,394 | 1.5 | 1,764 | 1.9 | 3,293 | 1.1 | 5,073 | 1.7 | 4,687 | 1.2 | 6,837 | 1.7 |
| 28 | 1,976 | 2.1 | 1,771 | 1.9 | 4,723 | 1.6 | 4,853 | 1.6 | 6,699 | 1.7 | 6,625 | 1.7 |
| 29 | 748 | 0.8 | 1,550 | 1.6 | 1,869 | 0.6 | 4,480 | 1.5 | 2,617 | 0.7 | 6,030 | 1.5 |
| 30 | 3,437 | 3.7 | 1,678 | 1.8 | 9,507 | 3.3 | 4,694 | 1.6 | 12,945 | 3.4 | 6,372 | 1.6 |
| 31 | 508 | 0.5 | 1,393 | 1.5 | 1,388 | 0.5 | 3,929 | 1.3 | 1,895 | 0.5 | 5,322 | 1.3 |
| 32 | 1,510 | 1.6 | 1,379 | 1.4 | 3,859 | 1.3 | 4,030 | 1.3 | 5,369 | 1.4 | 5,409 | 1.4 |
| 33 | 620 | 0.7 | 1,266 | 1.3 | 1,548 | 0.5 | 3,775 | 1.3 | 2,168 | 0.6 | 5,041 | 1.3 |
| 34 | 499 | 0.5 | 1,155 | 1.2 | 1,306 | 0.4 | 3,493 | 1.2 | 1,805 | 0.5 | 4,648 | 1.2 |
| 35 | 3,275 | 3.5 | 1,351 | 1.4 | 9,240 | 3.2 | 3,842 | 1.3 | 12,514 | 3.3 | 5,193 | 1.3 |
| 36 | 824 | 0.9 | 1,114 | 1.2 | 2,266 | 0.8 | 3,518 | 1.2 | 3,090 | 0.8 | 4,632 | 1.2 |
| 37 | 649 | 0.7 | 1,110 | 1.2 | 1,712 | 0.6 | 3,370 | 1.1 | 2,362 | 0.6 | 4,480 | 1.1 |
| 38 | 1,254 | 1.3 | 1,128 | 1.2 | 3,294 | 1.1 | 3,446 | 1.1 | 4,547 | 1.2 | 4,574 | 1.2 |
| 39 | 817 | 0.9 | 1,345 | 1.4 | 2,335 | 0.8 | 3,868 | 1.3 | 3,151 | 0.8 | 5,213 | 1.3 |
| 40 | 2,820 | 3.0 | 1,233 | 1.3 | 8,394 | 2.9 | 3,581 | 1.2 | 11,214 | 2.9 | 4,815 | 1.2 |
| 41 | 425 | 0.5 | 1,016 | 1.1 | 1,343 | 0.5 | 3,100 | 1.0 | 1,767 | 0.5 | 4,116 | 1.0 |

Table B1 Household population by single year age, residence, and sex

Percent distribution of the de facto household population by single year, according to urban-rural residence and sex (weighted), Bangladesh 2010.

| | Urban | | | | Rural | | | | Total | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Male | | Female | | Male | | Female | | Male | | Female | |
| Age | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number | Percent |
| 42 | 1,024 | 1.1 | 1,001 | 1.1 | 2,862 | 1.0 | 3,073 | 1.0 | 3,886 | 1.0 | 4,074 | 1.0 |
| 43 | 393 | 0.4 | 827 | 0.9 | 1,179 | 0.4 | 2,765 | 0.9 | 1,572 | 0.4 | 3,593 | 0.9 |
| 44 | 363 | 0.4 | 860 | 0.9 | 1,103 | 0.4 | 2,707 | 0.9 | 1,466 | 0.4 | 3,567 | 0.9 |
| 45 | 2,669 | 2.9 | 992 | 1.0 | 7,975 | 2.7 | 3,162 | 1.1 | 10,644 | 2.8 | 4,154 | 1.0 |
| 46 | 549 | 0.6 | 955 | 1.0 | 1,553 | 0.5 | 2,895 | 1.0 | 2,102 | 0.5 | 3,850 | 1.0 |
| 47 | 456 | 0.5 | 904 | 1.0 | 1,545 | 0.5 | 3,025 | 1.0 | 2,002 | 0.5 | 3,929 | 1.0 |
| 48 | 837 | 0.9 | 754 | 0.8 | 2,266 | 0.8 | 2,803 | 0.9 | 3,103 | 0.8 | 3,558 | 0.9 |
| 49 | 373 | 0.4 | 990 | 1.0 | 1,291 | 0.4 | 3,919 | 1.3 | 1,664 | 0.4 | 4,909 | 1.2 |
| 50 | 2,061 | 2.2 | 96 | 0.1 | 6,396 | 2.2 | 367 | 0.1 | 8,457 | 2.2 | 463 | 0.1 |
| 51 | 334 | 0.4 | 300 | 0.3 | 1,060 | 0.4 | 879 | 0.3 | 1,394 | 0.4 | 1,178 | 0.3 |
| 52 | 617 | 0.7 | 462 | 0.5 | 1,918 | 0.7 | 1,591 | 0.5 | 2,535 | 0.7 | 2,053 | 0.5 |
| 53 | 249 | 0.3 | 441 | 0.5 | 791 | 0.3 | 1,486 | 0.5 | 1,040 | 0.3 | 1,927 | 0.5 |
| 54 | 228 | 0.2 | 517 | 0.5 | 774 | 0.3 | 1,782 | 0.6 | 1,002 | 0.3 | 2,299 | 0.6 |
| 55 | 1,578 | 1.7 | 875 | 0.9 | 5,367 | 1.8 | 2,925 | 1.0 | 6,945 | 1.8 | 3,801 | 1.0 |
| 56 | 308 | 0.3 | 476 | 0.5 | 1,087 | 0.4 | 1,833 | 0.6 | 1,395 | 0.4 | 2,309 | 0.6 |
| 57 | 313 | 0.3 | 423 | 0.4 | 958 | 0.3 | 1,568 | 0.5 | 1,271 | 0.3 | 1,991 | 0.5 |
| 58 | 337 | 0.4 | 366 | 0.4 | 1,135 | 0.4 | 1,307 | 0.4 | 1,472 | 0.4 | 1,673 | 0.4 |
| 59 | 184 | 0.2 | 321 | 0.3 | 758 | 0.3 | 1,369 | 0.5 | 943 | 0.2 | 1,690 | 0.4 |
| 60 | 1,632 | 1.8 | 1,116 | 1.2 | 5,681 | 2.0 | 4,076 | 1.4 | 7,313 | 1.9 | 5,192 | 1.3 |
| 61 | 147 | 0.2 | 222 | 0.2 | 535 | 0.2 | 844 | 0.3 | 682 | 0.2 | 1,066 | 0.3 |
| 62 | 271 | 0.3 | 290 | 0.3 | 1,074 | 0.4 | 1,225 | 0.4 | 1,345 | 0.4 | 1,515 | 0.4 |
| 63 | 116 | 0.1 | 147 | 0.2 | 431 | 0.1 | 593 | 0.2 | 547 | 0.1 | 741 | 0.2 |
| 64 | 106 | 0.1 | 144 | 0.2 | 463 | 0.2 | 651 | 0.2 | 569 | 0.1 | 795 | 0.2 |
| 65 | 1,017 | 1.1 | 801 | 0.8 | 4,152 | 1.4 | 3,155 | 1.0 | 5,169 | 1.3 | 3,956 | 1.0 |
| 66 | 84 | 0.1 | 79 | 0.1 | 350 | 0.1 | 393 | 0.1 | 434 | 0.1 | 472 | 0.1 |
| 67 | 133 | 0.1 | 88 | 0.1 | 439 | 0.2 | 524 | 0.2 | 572 | 0.1 | 612 | 0.2 |
| 68 | 155 | 0.2 | 115 | 0.1 | 570 | 0.2 | 497 | 0.2 | 725 | 0.2 | 611 | 0.2 |
| 69 | 76 | 0.1 | 90 | 0.1 | 399 | 0.1 | 391 | 0.1 | 475 | 0.1 | 481 | 0.1 |
| 70 | 2,774 | 3.0 | 2,452 | 2.6 | 13,293 | 4.6 | 9,765 | 3.2 | 16,067 | 4.2 | 12,217 | 3.1 |
| DK/Missing | 4 | 0.0 | 10 | 0.0 | 14 | 0.0 | 34 | 0.0 | 17 | 0.0 | 44 | 0.0 |
| Total | 92,933 | 100.0 | 95,161 | 100.0 | 291,269 | 100.0 | 300,989 | 100.0 | 384,202 | 100.0 | 396,150 | 100.0 |

# SAMPLE IMPLEMENTATION

*Appendix* C

Table C.1 Sampling implementation

Percent distribution of household and eligible women in the sample by results of the interview, and household, eligible women and overall response rates, according to residence and division, Bangladesh 2010.

| Results of interview and response rates | Residence | | | | Division | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | All Urban | Metropoli-tan/town | Other urban | Rural | Barisal | Chit-tagong | Dhaka | Khulna | Rajshahi | Sylhet | Total |
| **Selected households** | | | | | | | | | | | |
| Completed (C) | 95.6 | 95.3 | 96.1 | 96.3 | 94.8 | 95.7 | 95.4 | 96.7 | 97.4 | 95.5 | 96.0 |
| Household present but no competent respondent at home (HP) | 1.4 | 1.5 | 1.3 | 1.2 | 2.2 | 0.9 | 0.9 | 1.8 | 1.6 | 0.8 | 1.3 |
| Household absent (HA) | 1.6 | 1.7 | 1.5 | 1.5 | 0.6 | 2.7 | 2.7 | 0.3 | 0.2 | 2.5 | 1.5 |
| Postponed (P) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Refused (R) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 |
| Dwelling vacant (DV) | 0.4 | 0.5 | 0.3 | 0.2 | 0.2 | 0.3 | 0.6 | 0.1 | 0.0 | 0.6 | 0.3 |
| Dwelling destroyed (DD) | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.1 | 0.2 | 0.0 | 0.0 | 0.1 | 0.1 |
| Swelling not found (DNF) | 0.3 | 0.4 | 0.2 | 0.1 | 0.6 | 0.2 | 0.1 | 0.3 | 0.0 | 0.2 | 0.2 |
| Other (O) | 0.5 | 0.5 | 0.5 | 0.6 | 1.5 | 0.2 | 0.2 | 0.8 | 0.8 | 0.2 | 0.6 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Number of sampled households | 73,964 | 42,374 | 31,590 | 101,636 | 19,234 | 31,306 | 42,770 | 26,390 | 38,220 | 17,680 | 175,600 |
| Household response rate (HRR)[1] | 98.3 | 98.0 | 98.5 | 98.7 | 97.1 | 98.9 | 99.0 | 97.9 | 98.4 | 98.9 | 98.5 |
| **Eligible women** | | | | | | | | | | | |
| Completed (EWC) | 96.9 | 96.4 | 97.5 | 97.7 | 97.2 | 96.9 | 96.8 | 97.7 | 98.2 | 97.0 | 97.3 |
| Not at home(EWNH) | 3.0 | 3.5 | 2.3 | 2.1 | 2.6 | 2.9 | 3.0 | 2.2 | 1.7 | 2.8 | 2.5 |
| Postponed (EWP) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Refused (EWR) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Partly completed(EWPC) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Incapacitated(EWI) | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| Other (EWO) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Number of women | 76,640 | 44,022 | 32,618 | 103,782 | 19,312 | 32,655 | 42,450 | 27,800 | 40,097 | 18,108 | 180,422 |
| Eligible women response rate (EWRR)[2] | 96.9 | 96.4 | 97.6 | 97.8 | 97.3 | 97.0 | 96.9 | 97.7 | 98.2 | 97.1 | 97.4 |
| Overall response rate (ORR)[3] | 95.2 | 94.5 | 96.1 | 96.5 | 94.5 | 95.9 | 95.9 | 95.6 | 96.6 | 96.0 | 95.9 |

[1] Using the number of household falling into specific response categories, the household response rate (HRR) is calculated as:

$$\frac{100xC}{C + HP + R + DNF}$$

[2] Using the number of eligible women falling into specific response categories, the eligible women rate (EWRR) is calculated as:

$$\frac{100xEWC}{EWC + EWNH + EWR + EWPC + EWI + EWO}$$

[3] The overall response rate (ORR) is calculated as:

(ORR=HRR*EWRR)/100

# SAMPLING ERRORS

Appendix D

Table D.1 List of selected variables for sampling errors, Bangladesh 2010

| Variable | Description | Base Population |
|---|---|---|
| No education | Proportion | Ever-married women 15-49 |
| With secondary education or higher | Proportion | Ever-married women 15-49 |
| Currently married | Proportion | Ever-married women 15-49 |
| Children ever born | Mean | Currently married women 15-49 |
| Children surviving | Mean | Currently married women 15-49 |
| Currently using any method | Proportion | Currently married women 15-49 |
| Currently using a modern method | Proportion | Currently married women 15-49 |
| Mother received ANC from trained personnel | Proportion | Last live births in the in the past 3-years |
| Mother received medical care at birth | Proportion | Live births in the in the past 3-years |
| Mother received PNC from trained personnel | Proportion | Last live births in the in the past 3-years |
| One or more complications during pregnancy, delivery or after delivery | Proportion | Last live births in the in the past 3-years |
| Total fertility rate (3 years) | Rate | Women-years of exposure of childbearing |
| Neonatal mortality rate | Rate | Number of births exposed to deaths |
| Postnatal mortality rate | Rate | Number of births exposed to deaths |
| Infant mortality rate | Rate | Number of births exposed to deaths |
| Child mortality rate | Rate | Number of births exposed to deaths |
| Under-five mortality rate | Rate | Number of births exposed to deaths |

Table D.2 Sampling errors for selected variables, National sample, Bangladesh 2010

| Variable | Value (R) | Standard error (SE) | Number of cases: Unweighted (N) | Number of cases: Weighted (WN) | Design effect (DEFT) | Relative error (SE/R) | Confidence intervals: Value-2SE | Confidence intervals: Value +2SE |
|---|---|---|---|---|---|---|---|---|
| No education | 0.344 | 0.003 | 174,901 | 174,881 | 2.249 | 0.007 | 0.339 | 0.349 |
| With secondary education or higher | 0.091 | 0.001 | 174,901 | 174,881 | 2.116 | 0.016 | 0.088 | 0.094 |
| Currently married | 0.940 | 0.001 | 174,901 | 174,881 | 1.126 | 0.001 | 0.939 | 0.941 |
| Children ever born | 2.680 | 0.008 | 164,003 | 164,387 | 1.711 | 0.003 | 2.663 | 2.696 |
| Children surviving | 2.401 | 0.007 | 164,003 | 164,387 | 1.665 | 0.003 | 2.387 | 2.415 |
| Currently using any method | 0.626 | 0.002 | 164,003 | 164,387 | 1.564 | 0.003 | 0.622 | 0.630 |
| Currently using a modern method | 0.537 | 0.002 | 164,003 | 164,387 | 1.542 | 0.004 | 0.534 | 0.541 |
| Mother received ANC from trained personnel | 0.537 | 0.005 | 17,140 | 17,149 | 1.406 | 0.010 | 0.527 | 0.548 |
| Mother received medical care at birth | 0.265 | 0.005 | 18,256 | 18,236 | 1.417 | 0.017 | 0.256 | 0.274 |
| Mother received PNC from trained personnel | 0.225 | 0.004 | 17,140 | 17,149 | 1.361 | 0.019 | 0.216 | 0.233 |
| One or more complications during pregnancy, delivery or after delivery | 0.529 | 0.004 | 17,140 | 17,149 | 1.139 | 0.008 | 0.521 | 0.538 |
| Total fertility rate (3 years) | 2.521 | 0.011 | na | na | 1.711 | 0.004 | 2.499 | 2.543 |
| Neonatal mortality rate | 31.659 | 0.750 | 90,208 | 90,339 | 1.286 | 0.024 | 30.159 | 33.158 |
| Postnatal mortality rate | 12.914 | 0.476 | 87,536 | 87,696 | 1.246 | 0.037 | 11.963 | 13.866 |
| Infant mortality rate | 44.573 | 0.943 | 87,861 | 88,116 | 1.355 | 0.021 | 42.686 | 46.460 |
| Child mortality rate | 11.706 | 0.555 | 89,190 | 89,533 | 1.540 | 0.047 | 10.597 | 12.815 |
| Under-five mortality rate | 55.757 | 1.093 | 92,338 | 92,776 | 1.447 | 0.020 | 53.572 | 57.942 |

na = Not applicable.

Table D.3 Sampling errors for selected variables, Urban sample, Bangladesh 2010

| Variable | Value (R) | Standard error (SE) | Number of cases: Unweighted (N) | Number of cases: Weighted (WN) | Design effect (DEFT) | Relative error (SE/R) | Confidence intervals: Value-2SE | Confidence intervals: Value +2SE |
|---|---|---|---|---|---|---|---|---|
| No education | 0.285 | 0.004 | 73966 | 42968 | 2.654 | 0.015 | 0.276 | 0.294 |
| With secondary education or higher | 0.156 | 0.005 | 73966 | 42968 | 3.379 | 0.029 | 0.147 | 0.165 |
| Currently married | 0.934 | 0.001 | 73966 | 42968 | 1.376 | 0.001 | 0.931 | 0.936 |
| Children ever born | 2.422 | 0.012 | 69057 | 40113 | 1.825 | 0.005 | 2.398 | 2.447 |
| Children surviving | 2.196 | 0.010 | 69057 | 40113 | 1.786 | 0.005 | 2.175 | 2.217 |
| Currently using any method | 0.654 | 0.003 | 69057 | 40113 | 1.561 | 0.004 | 0.648 | 0.660 |
| Currently using a modern method | 0.563 | 0.003 | 69057 | 40113 | 1.482 | 0.005 | 0.557 | 0.568 |
| Mother received ANC from trained personnel | 0.679 | 0.008 | 6950 | 3994 | 1.413 | 0.012 | 0.663 | 0.695 |
| Mother received medical care at birth | 0.412 | 0.009 | 7356 | 4203 | 1.539 | 0.021 | 0.394 | 0.429 |
| Mother received PNC from trained personnel | 0.369 | 0.009 | 6950 | 3994 | 1.587 | 0.025 | 0.351 | 0.388 |
| One or more complications during pregnancy, delivery or after delivery | 0.560 | 0.008 | 6950 | 3994 | 1.260 | 0.013 | 0.545 | 0.575 |
| Total fertility rate (3 years) | 2.246 | 0.013 | na | na | 1.825 | 0.006 | 2.219 | 2.273 |
| Neonatal mortality rate | 30.866 | 1.053 | 36157 | 20767 | 1.157 | 0.034 | 28.761 | 32.971 |
| Postnatal mortality rate | 12.559 | 0.666 | 35138 | 20195 | 1.122 | 0.053 | 11.226 | 13.892 |
| Infant mortality rate | 43.425 | 1.325 | 35172 | 20199 | 1.220 | 0.031 | 40.774 | 46.076 |
| Child mortality rate | 10.465 | 0.748 | 35554 | 20397 | 1.386 | 0.071 | 8.969 | 11.961 |
| Under-five mortality rate | 53.435 | 1.528 | 36755 | 20993 | 1.302 | 0.029 | 50.380 | 56.490 |

na = Not applicable.

Table D.4 Sampling errors for selected variables, Rural sample, Bangladesh 2010

| Variable | Value (R) | Standard error (SE) | Number of cases: Unweighted (N) | Number of cases: Weighted (WN) | Design effect (DEFT) | Relative error (SE/R) | Confidence intervals: Value-2SE | Confidence intervals: Value +2SE |
|---|---|---|---|---|---|---|---|---|
| No education | 0.363 | 0.003 | 100935 | 131913 | 2.024 | 0.008 | 0.357 | 0.369 |
| With secondary education or higher | 0.070 | 0.001 | 100935 | 131913 | 1.548 | 0.018 | 0.067 | 0.072 |
| Currently married | 0.942 | 0.001 | 100935 | 131913 | 1.010 | 0.001 | 0.941 | 0.944 |
| Children ever born | 2.763 | 0.010 | 94946 | 124274 | 1.568 | 0.004 | 2.742 | 2.783 |
| Children surviving | 2.467 | 0.008 | 94946 | 124274 | 1.524 | 0.003 | 2.451 | 2.484 |
| Currently using any method | 0.617 | 0.002 | 94946 | 124274 | 1.456 | 0.004 | 0.613 | 0.622 |
| Currently using a modern method | 0.529 | 0.002 | 94946 | 124274 | 1.445 | 0.004 | 0.524 | 0.534 |
| Mother received ANC from trained personnel | 0.494 | 0.006 | 10190 | 13156 | 1.307 | 0.013 | 0.481 | 0.507 |
| Mother received medical care at birth | 0.221 | 0.005 | 10900 | 14033 | 1.330 | 0.024 | 0.210 | 0.231 |
| Mother received PNC from trained personnel | 0.181 | 0.005 | 10190 | 13156 | 1.263 | 0.027 | 0.171 | 0.190 |
| One or more complications during pregnancy, delivery or after delivery | 0.520 | 0.005 | 10190 | 13156 | 1.045 | 0.010 | 0.510 | 0.530 |
| Total fertility rate (3 years) | 2.617 | 0.013 | na | na | 1.568 | 0.005 | 2.591 | 2.643 |
| Neonatal mortality rate | 31.909 | 1.069 | 54052 | 69572 | 1.414 | 0.034 | 29.771 | 34.047 |
| Postnatal mortality rate | 13.035 | 0.679 | 52398 | 67501 | 1.371 | 0.052 | 11.676 | 14.394 |
| Infant mortality rate | 44.945 | 1.345 | 52690 | 67916 | 1.491 | 0.030 | 42.254 | 47.636 |
| Child mortality rate | 12.043 | 0.798 | 53636 | 69136 | 1.694 | 0.066 | 10.448 | 13.638 |
| Under-five mortality rate | 56.446 | 1.558 | 55583 | 71782 | 1.592 | 0.028 | 53.330 | 59.562 |

na = Not applicable.

Table D.5 Sampling errors for selected variables, Barisal sample, Bangladesh 2010

| Variable | Value (R) | Standard error (SE) | Number of cases Unweighted (N) | Number of cases Weighted (WN) | Design effect (DEFT) | Relative error (SE/R) | Confidence intervals Value-2SE | Confidence intervals Value +2SE |
|---|---|---|---|---|---|---|---|---|
| No education | 0.231 | 0.007 | 18686 | 10756 | 2.264 | 0.030 | 0.217 | 0.245 |
| With secondary education or higher | 0.104 | 0.004 | 18686 | 10756 | 1.665 | 0.036 | 0.097 | 0.112 |
| Currently married | 0.945 | 0.002 | 18686 | 10756 | 1.061 | 0.002 | 0.942 | 0.949 |
| Children ever born | 2.826 | 0.024 | 17638 | 10165 | 1.566 | 0.008 | 2.778 | 2.874 |
| Children surviving | 2.504 | 0.021 | 17638 | 10165 | 1.617 | 0.008 | 2.463 | 2.546 |
| Currently using any method | 0.641 | 0.005 | 17638 | 10165 | 1.345 | 0.008 | 0.631 | 0.651 |
| Currently using a modern method | 0.537 | 0.006 | 17638 | 10165 | 1.522 | 0.011 | 0.526 | 0.549 |
| Mother received ANC from trained personnel | 0.488 | 0.015 | 1706 | 1005 | 1.274 | 0.032 | 0.458 | 0.519 |
| Mother received medical care at birth | 0.211 | 0.012 | 1791 | 1056 | 1.202 | 0.055 | 0.188 | 0.235 |
| Mother received PNC from trained personnel | 0.097 | 0.007 | 1706 | 1005 | 0.988 | 0.073 | 0.083 | 0.111 |
| One or more complications during pregnancy, delivery or after delivery | 0.413 | 0.013 | 1706 | 1005 | 1.116 | 0.032 | 0.387 | 0.440 |
| Total fertility rate (3 years) | 2.496 | 0.030 | na | na | 1.566 | 0.012 | 2.436 | 2.556 |
| Neonatal mortality rate | 28.737 | 1.833 | 8793 | 5185 | 1.029 | 0.064 | 25.072 | 32.402 |
| Postnatal mortality rate | 11.667 | 1.156 | 8574 | 5043 | 0.997 | 0.099 | 9.354 | 13.980 |
| Infant mortality rate | 40.403 | 2.302 | 8598 | 5074 | 1.084 | 0.057 | 35.799 | 45.007 |
| Child mortality rate | 16.321 | 1.671 | 8725 | 5171 | 1.232 | 0.102 | 12.979 | 19.663 |
| Under-five mortality rate | 56.065 | 2.752 | 9362 | 5546 | 1.158 | 0.049 | 50.561 | 61.569 |

na = Not applicable.

Table D.6 Sampling errors for selected variables, Chittagong sample, Bangladesh 2010

| Variable | Value (R) | Standard error (SE) | Number of cases Unweighted (N) | Number of cases Weighted (WN) | Design effect (DEFT) | Relative error (SE/R) | Confidence intervals Value-2SE | Confidence intervals Value +2SE |
|---|---|---|---|---|---|---|---|---|
| No education | 0.296 | 0.007 | 31592 | 33466 | 2.653 | 0.023 | 0.283 | 0.310 |
| With secondary education or higher | 0.116 | 0.004 | 31592 | 33466 | 2.331 | 0.036 | 0.108 | 0.125 |
| Currently married | 0.940 | 0.001 | 31592 | 33466 | 0.957 | 0.001 | 0.937 | 0.942 |
| Children ever born | 2.915 | 0.020 | 29681 | 31451 | 1.607 | 0.007 | 2.876 | 2.954 |
| Children surviving | 2.633 | 0.016 | 29681 | 31451 | 1.562 | 0.006 | 2.600 | 2.666 |
| Currently using any method | 0.546 | 0.005 | 29681 | 31451 | 1.679 | 0.009 | 0.536 | 0.555 |
| Currently using a modern method | 0.482 | 0.005 | 29681 | 31451 | 1.656 | 0.010 | 0.472 | 0.491 |
| Mother received ANC from trained personnel | 0.581 | 0.012 | 3681 | 3899 | 1.432 | 0.020 | 0.558 | 0.605 |
| Mother received medical care at birth | 0.252 | 0.010 | 3941 | 4181 | 1.506 | 0.041 | 0.231 | 0.273 |
| Mother received PNC from trained personnel | 0.250 | 0.010 | 3681 | 3899 | 1.341 | 0.038 | 0.231 | 0.269 |
| One or more complications during pregnancy, delivery or after delivery | 0.638 | 0.009 | 3681 | 3899 | 1.101 | 0.014 | 0.621 | 0.656 |
| Total fertility rate (3 years) | 2.851 | 0.029 | na | na | 1.607 | 0.010 | 2.794 | 2.908 |
| Neonatal mortality rate | 28.046 | 1.308 | 19025 | 20395 | 1.093 | 0.047 | 25.430 | 30.662 |
| Postnatal mortality rate | 12.247 | 0.856 | 18547 | 19851 | 1.059 | 0.070 | 10.536 | 13.958 |
| Infant mortality rate | 40.293 | 1.658 | 18671 | 20005 | 1.152 | 0.041 | 36.978 | 43.608 |
| Child mortality rate | 16.098 | 1.197 | 18932 | 20293 | 1.309 | 0.074 | 13.704 | 18.492 |
| Under-five mortality rate | 55.742 | 2.020 | 19508 | 20940 | 1.230 | 0.036 | 51.702 | 59.782 |

na = Not applicable.

Table D.7 Sampling errors for selected variables, Dhaka sample, Bangladesh 2010

| Variable | Value (R) | Standard error (SE) | Number of cases: Unweighted (N) | Number of cases: Weighted (WN) | Design effect (DEFT) | Relative error (SE/R) | Confidence intervals: Value-2SE | Confidence intervals: Value +2SE |
|---|---|---|---|---|---|---|---|---|
| No education | 0.355 | 0.005 | 40934 | 56463 | 2.156 | 0.014 | 0.344 | 0.365 |
| With secondary education or higher | 0.092 | 0.003 | 40934 | 56463 | 2.188 | 0.034 | 0.086 | 0.099 |
| Currently married | 0.943 | 0.001 | 40934 | 56463 | 1.097 | 0.001 | 0.940 | 0.945 |
| Children ever born | 2.598 | 0.017 | 38559 | 53240 | 1.708 | 0.006 | 2.565 | 2.631 |
| Children surviving | 2.316 | 0.013 | 38559 | 53240 | 1.635 | 0.006 | 2.289 | 2.342 |
| Currently using any method | 0.626 | 0.004 | 38559 | 53240 | 1.510 | 0.006 | 0.619 | 0.634 |
| Currently using a modern method | 0.541 | 0.004 | 38559 | 53240 | 1.454 | 0.007 | 0.534 | 0.548 |
| Mother received ANC from trained personnel | 0.530 | 0.010 | 4119 | 5681 | 1.314 | 0.019 | 0.510 | 0.551 |
| Mother received medical care at birth | 0.280 | 0.009 | 4356 | 6021 | 1.347 | 0.033 | 0.262 | 0.298 |
| Mother received PNC from trained personnel | 0.282 | 0.009 | 4119 | 5681 | 1.324 | 0.033 | 0.264 | 0.301 |
| One or more complications during pregnancy, delivery or after delivery | 0.604 | 0.008 | 4119 | 5681 | 1.084 | 0.014 | 0.588 | 0.621 |
| Total fertility rate (3 years) | 2.531 | 0.020 | na | na | 1.708 | 0.008 | 2.491 | 2.571 |
| Neonatal mortality rate | 32.689 | 1.358 | 21457 | 29765 | 1.119 | 0.042 | 29.973 | 35.405 |
| Postnatal mortality rate | 14.393 | 0.895 | 20830 | 28883 | 1.084 | 0.062 | 12.603 | 16.183 |
| Infant mortality rate | 47.083 | 1.731 | 20802 | 28875 | 1.179 | 0.037 | 43.620 | 50.546 |
| Child mortality rate | 10.25 | 0.931 | 20992 | 29195 | 1.339 | 0.091 | 8.388 | 12.112 |
| Under-five mortality rate | 56.85 | 1.974 | 21809 | 30230 | 1.259 | 0.035 | 52.902 | 60.798 |

na = Not applicable.

Table D.8 Sampling errors for selected variables, Khulna sample, Bangladesh 2010

| Variable | Value (R) | Standard error (SE) | Number of cases: Unweighted (N) | Number of cases: Weighted (WN) | Design effect (DEFT) | Relative error (SE/R) | Confidence intervals: Value-2SE | Confidence intervals: Value +2SE |
|---|---|---|---|---|---|---|---|---|
| No education | 0.309 | 0.005 | 27027 | 21046 | 1.942 | 0.018 | 0.298 | 0.319 |
| With secondary education or higher | 0.083 | 0.003 | 27027 | 21046 | 1.797 | 0.036 | 0.077 | 0.089 |
| Currently married | 0.940 | 0.002 | 27027 | 21046 | 1.124 | 0.002 | 0.937 | 0.944 |
| Children ever born | 2.435 | 0.017 | 25365 | 19790 | 1.570 | 0.007 | 2.402 | 2.469 |
| Children surviving | 2.218 | 0.014 | 25365 | 19790 | 1.551 | 0.006 | 2.190 | 2.247 |
| Currently using any method | 0.685 | 0.004 | 25365 | 19790 | 1.295 | 0.006 | 0.677 | 0.692 |
| Currently using a modern method | 0.560 | 0.004 | 25365 | 19790 | 1.261 | 0.007 | 0.552 | 0.568 |
| Mother received ANC from trained personnel | 0.601 | 0.014 | 2069 | 1621 | 1.293 | 0.023 | 0.573 | 0.629 |
| Mother received medical care at birth | 0.359 | 0.013 | 2147 | 1680 | 1.241 | 0.036 | 0.333 | 0.384 |
| Mother received PNC from trained personnel | 0.205 | 0.010 | 2069 | 1621 | 1.132 | 0.049 | 0.185 | 0.225 |
| One or more complications during pregnancy, delivery or after delivery | 0.384 | 0.012 | 2069 | 1621 | 1.088 | 0.030 | 0.360 | 0.407 |
| Total fertility rate (3 years) | 2.093 | 0.021 | na | na | 1.570 | 0.010 | 2.051 | 2.135 |
| Neonatal mortality rate | 30.169 | 2.063 | 10694 | 8386 | 1.247 | 0.068 | 26.043 | 34.295 |
| Postnatal mortality rate | 8.615 | 1.096 | 10392 | 8167 | 1.209 | 0.127 | 6.423 | 10.807 |
| Infant mortality rate | 38.784 | 2.482 | 10456 | 8234 | 1.314 | 0.064 | 33.820 | 43.748 |
| Child mortality rate | 6.338 | 1.145 | 10707 | 8452 | 1.493 | 0.181 | 4.047 | 8.629 |
| Under-five mortality rate | 44.876 | 2.722 | 11397 | 9020 | 1.404 | 0.061 | 39.432 | 50.320 |

na = Not applicable.

Table D.9 Sampling errors for selected variables, Rjashahi sample, Bangladesh 2010

| Variable | Value (R) | Standard error (SE) | Number of cases: Unweighted (N) | Number of cases: Weighted (WN) | Design effect (DEFT) | Relative error (SE/R) | Confidence intervals: Value-2SE | Confidence intervals: Value +2SE |
|---|---|---|---|---|---|---|---|---|
| No education | 0.389 | 0.004 | 39144 | 43535 | 1.821 | 0.012 | 0.380 | 0.398 |
| With secondary education or higher | 0.077 | 0.002 | 39144 | 43535 | 1.411 | 0.025 | 0.073 | 0.081 |
| Currently married | 0.940 | 0.001 | 39144 | 43535 | 1.128 | 0.001 | 0.938 | 0.943 |
| Children ever born | 2.553 | 0.016 | 36716 | 40934 | 1.688 | 0.006 | 2.522 | 2.584 |
| Children surviving | 2.294 | 0.013 | 36716 | 40934 | 1.670 | 0.006 | 2.268 | 2.320 |
| Currently using any method | 0.695 | 0.003 | 36716 | 40934 | 1.386 | 0.005 | 0.688 | 0.701 |
| Currently using a modern method | 0.605 | 0.004 | 36716 | 40934 | 1.424 | 0.006 | 0.597 | 0.612 |
| Mother received ANC from trained personnel | 0.516 | 0.012 | 3224 | 3616 | 1.331 | 0.023 | 0.492 | 0.539 |
| Mother received medical care at birth | 0.262 | 0.009 | 3390 | 3806 | 1.227 | 0.035 | 0.244 | 0.281 |
| Mother received PNC from trained personnel | 0.169 | 0.008 | 3224 | 3616 | 1.210 | 0.047 | 0.153 | 0.185 |
| One or more complications during pregnancy, delivery or after delivery | 0.361 | 0.009 | 3224 | 3616 | 1.063 | 0.025 | 0.343 | 0.379 |
| Total fertility rate (3 years) | 2.233 | 0.018 | na | na | 1.688 | 0.008 | 2.197 | 2.269 |
| Neonatal mortality rate | 30.179 | 1.471 | 16931 | 19086 | 1.119 | 0.049 | 27.237 | 33.121 |
| Postnatal mortality rate | 9.849 | 0.835 | 16456 | 18557 | 1.084 | 0.085 | 8.180 | 11.518 |
| Infant mortality rate | 40.028 | 1.792 | 16628 | 18770 | 1.179 | 0.045 | 36.444 | 43.612 |
| Child mortality rate | 8.511 | 0.944 | 16997 | 19194 | 1.339 | 0.111 | 6.623 | 10.399 |
| Under-five mortality rate | 48.199 | 2.031 | 17627 | 19934 | 1.259 | 0.042 | 44.137 | 52.261 |

na = Not applicable.

Table D.10 Sampling errors for selected variables, Sylhet sample, Bangladesh 2010

| Variable | Value (R) | Standard error (SE) | Number of cases: Unweighted (N) | Number of cases: Weighted (WN) | Design effect (DEFT) | Relative error (SE/R) | Confidence intervals: Value-2SE | Confidence intervals: Value +2SE |
|---|---|---|---|---|---|---|---|---|
| No education | 0.449 | 0.009 | 17518 | 9615 | 2.424 | 0.020 | 0.431 | 0.467 |
| With secondary education or higher | 0.054 | 0.003 | 17518 | 9615 | 1.640 | 0.052 | 0.048 | 0.060 |
| Currently married | 0.916 | 0.003 | 17518 | 9615 | 1.227 | 0.003 | 0.911 | 0.921 |
| Children ever born | 3.298 | 0.028 | 16044 | 8806 | 1.464 | 0.008 | 3.243 | 3.353 |
| Children surviving | 2.876 | 0.023 | 16044 | 8806 | 1.419 | 0.008 | 2.831 | 2.922 |
| Currently using any method | 0.447 | 0.007 | 16044 | 8806 | 1.664 | 0.015 | 0.434 | 0.460 |
| Currently using a modern method | 0.351 | 0.007 | 16044 | 8806 | 1.773 | 0.019 | 0.338 | 0.364 |
| Mother received ANC from trained personnel | 0.455 | 0.016 | 2341 | 1328 | 1.547 | 0.035 | 0.423 | 0.487 |
| Mother received medical care at birth | 0.178 | 0.011 | 2631 | 1493 | 1.452 | 0.061 | 0.156 | 0.199 |
| Mother received PNC from trained personnel | 0.178 | 0.011 | 2341 | 1328 | 1.337 | 0.059 | 0.157 | 0.199 |
| One or more complications during pregnancy, delivery or after delivery | 0.615 | 0.014 | 2341 | 1328 | 1.367 | 0.022 | 0.587 | 0.642 |
| Total fertility rate (3 years) | 3.598 | 0.047 | na | na | 1.464 | 0.013 | 3.504 | 3.692 |
| Neonatal mortality rate | 44.802 | 2.213 | 13311 | 7522 | 1.234 | 0.049 | 40.376 | 49.228 |
| Postnatal mortality rate | 22.205 | 1.562 | 12739 | 7194 | 1.196 | 0.070 | 19.081 | 25.329 |
| Infant mortality rate | 67.007 | 2.885 | 12708 | 7157 | 1.301 | 0.043 | 61.236 | 72.778 |
| Child mortality rate | 16.836 | 1.678 | 12840 | 7226 | 1.478 | 0.100 | 13.480 | 20.192 |
| Under-five mortality rate | 82.715 | 3.404 | 12637 | 7107 | 1.389 | 0.041 | 75.908 | 89.522 |

na = Not applicable.

# PERSONNEL INVOLVED IN BMMS 2010

Appendix E

***NIPORT***

Shelina Afroza, Director General
K C Mondal, Former Director General
Md. Rafiqul Islam Sarker, Director (Research)
A M M Anisul Awwal, Former Director (Research)
Shahin Sultana, Sr. Research Associate
Subrata K. Bhadra, Sr. Research Associate
Mohammed Ahsanul Alam, Evaluation Specialist

***icddr,b***

Peter Kim Streatfield
Quamrun Nahar
Shams-El-Arifeen
Jannatul Ferdous
Md. Abdul Quaiyum
Hafizur Rahman Chowdhury
Kazi Mizanur Rahman
Muhammad Ashique Haider Chowdhury
Gulshan Ara Khanom

***MEASURE Evaluation***

Peter M. Lance, Director, Bangladesh Program
Ahmed Al-Sabir
Kenneth Hill
Han Raggers
Katharine Lee McFadden
Nitai Chakraborty

***USAID Bangladesh***

Kanta Jamil, Monitoring and Evaluation Advisor

***Special thanks to***

Prof. Farhana Dewan
Prof. Samina Chowdhury
Prof. Nusrat Fatema

## Associates for Community and Population Research (ACPR)
## 3/10, Block A, Lalmatia, Dhaka-1207
## Bangladesh

### List of Field Personnel Involved in the Bangladesh Maternal Mortality and Health Care Survey (BMMS) 2010

***Team Leader***

Dr. M. Sekander Hayat Khan

***Deputy Team Leader***

Mr. A. P. M. Shafiur Rahman

***Field Coordinator***

Ms. Tauhida Nasrin

***Public Health Expert***

Dr. M. H. Faruque

***Demographer***

Dr. S. Shafiqul Islam

***Computer Programmer***

Mr. Kh. Khairul Bashar

***Divisional Coordinator***

Mr. S. M. Salamat Ullah
Ms. Mahfuza Begum
Ms. Dilruba Akter Banu

***Quality Control Officer***

Ms. Tahmina Afrin
Ms. Jannatul Ferdous
Ms. Effat Jahan
Ms. Shiria Khanam
Ms. Nasrin Sultana
Ms. Akija Khatun
Ms. Sabrina Momtaz (Tuli)

***Male Supervisor***

Mr. Ajoy Kumar Halder
Mr. Md. Israfil Hossain (Mithu)
Mr. Md. Abu Kawsar
Mr. Pronob Kumar Biswas
Mr. Md. Niamul Bashir
Mr. Md. Torikul Islam
Mr. Md. Khaled Sarder
Mr. Md. A Matin
Mr. Md. Kabir Hossain
Mr. Md. Mostafa Kamal
Mr. Md. Shahanur Alam
Mr. Mohammad Sayedul Hoq
Mr. Aktarul Islam
Mr. Md. Abdul Jobbar
Mr. Md. Ashiquzzaman Molla
Mr. Md. Musfiqur Rahman
Mr. Nurul Amin
Mr. Md. Rezaul Karim
Mr. Md. Abdullah Bin Masud
Mr. Md. Habibur Rahman
Mr. Arzun Chandra Modak
Mr. Md. Ekhtiar Uddin Talukder
Mr. Md. Liakot Hossain
Mr. Md. Akram Hossain
Mr. Md. Abu Sayed
Mr. Mohammad Akram Hossain

***Female Supervisor***

Ms. Shahinur Akter
Ms. Tania Akter
Ms. Parvin Sultana
Ms. Touhida Sultana
Ms. Afroza Akter
Ms. Sumaiya Akter Riba
Ms. Mariom Akter (Moon)
Ms. Mamota Parvin Belly
Ms. Shipu Rani Halder
Ms. Taslima Nasrin
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Ms. Rowshan Ara Begum
Ms. Shajada Khatun
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Ms. Shanzida Parvin
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Ms. Shammi Akhter Nila
Ms. Airin Ara
Ms. Ruma Begum
Ms. Sharifa Begum
Ms. Mahfuza Khanam
Ms. Popy Khatun
Ms. Tanuja Khanam

***Interviewer***

Ms. Sajeda Begum (Maya)
Ms. Nasrin Parvin
Ms. Rabeya Akter
Ms. Ashia Begum
Ms. Airin Ara
Ms. Rupa Akter
Ms. Panna Akter Salma
Ms. Sufia Begum
Ms. Antara Sikder
Ms. Shahida Begum
Ms. Afroza Khatun
Ms. Asima Khatun
Most. Nasrin Khatun
Ms. Bilkis Akter Eity
Ms. Lucky Sultana
Ms. Dilruba Akter
Ms. Selina Akther
Ms. Rubi
Ms. Hosneara Khatun
Ms. Yasmin Khatun
Ms. Laila Fardous
Ms. Jesmin Aktar
Mst. Mahlema Khatun
Ms. Shilpi Barai
Ms. Hosnara (Sheshir)
Ms. Shamima Akter
Ms. Rima Parvin
Ms. Rumana Begum
Ms. Luna Akter
Ms. Shirin Akter
Ms. Ummay Kulsum
Ms. Hasina Khatun (Rumi)
Most. Mamina Zesmin
Ms. Binita Biswas
Ms. Nazmun Naher
Ms. Mukta Barai
Ms. Rupali Khatun
Ms. Hasina Khatun (Hashi)
Ms. Rehana Khatun
Ms. Rojina Begum
Mrs. Aysha Khatun
Mst. Irin Akhter Banu
Ms. Salina
Ms. Thomina Aktar
Ms. Julakha Khatun
Ms. Limita Roy
Ms. Rohima Khatun
Ms. Jahanara Begum
Ms. Rehana Parvin
Ms. Soma Akthar
Most. Eti Begum
Ms. Sayera
Ms. Laily Khatun
Ms. Aysha Siddika
Most. Fuljahan Begum
Ms. Rehana Akter
Mst. Rina Begum
Ms. Shilpi Begum Ruku
Ms. Asma Akter
Ms. Shafali Khatun
Ms. Sharmin Rozhana
Ms. Ferdousi Akter
Ms. Ayesha Siddika (Esha)
Ms. Rabeya Sultana
Ms. Shamsun Naher
Ms. Shahida Akhter Banu
Ms. Sagoreka Jamaly
Ms. Ferdasi Khatun
Ms. Shakira Khatun
Ms. Suraiya Khatun
Ms. Nadira
Ms. Salma Akter
Ms. Mohuya Sultana Nipa
Ms. Rime Maje
Ms. Sharmin Jahan
Ms. Sirajum Monira (Moni)
Ms. Shibani Mondol
Ms. Nahida Khanam
Most. Rokshana Yesmin
Ms. Ananna Rani Mazumder
Ms. Saleha Khatun
Ms. Tonima Akter
Ms. Rupali Rani Sutradhar
Ms. Rini Khatun
Mst. Papia Khatun
Ms. Amina Khatun
Ms. Fahima Khatun
Ms. Shirina Akter
Ms. Asma ul Hosna
Ms. Mazeda Khatun
Ms. Laboni Akter
Ms. Sabana Khatun
Ms. Rekha
Ms. Salina Khanam
Ms. Hamida Alam
Ms. Hasina Akter
Ms. Rokeya Akter
Ms. Selina Shaikh
Ms. Laila Khatun
Ms. Yeasmin Khatun
Ms. Kazi Najmin Sultana
Ms. Sapna Begum
Ms. Lucky Khatun
Ms. Romana Akter Shilpi

***Listing Supervisor***

Mr. Ehosan Ali Molla
Mr. Md. Abul Kalam Azad
Mr. Md. Niamul Bashir

***Lister***

Mr. Md. A. Based
Mr. Mohammad Azharul Islam
Mr. Md. Abul Kashem
Mr. Md. Abdul Hannan
Mr. Md. Salim Miah
Mr. Md. Mosharof Hossain
Mr. Sharup Kumar Biswas
Mr. Koyes Ahmed
Mr. Md. Salim
Mr. Md. Nuruzzaman (Sagor)
Mr. Md. Shahabuddin
Mr. Zahidul Islam Molla
Mr. Md. Abdus Sattar
Mr. Md. Habibur Rahman
Mr. Bulbul Ahmed
Mr. Md. Razaul Karim Khan
Mr. Md. Noor Nobi
Mr. Md. Alimuzzaman
Mr. Abdur Rahman
Mr. Khandaker Saiful Islam
Mr. Md. Asaduzzaman Chowdhury
Mr. Md. Shariful Islam
Mr. Md. Nadim Hossain
Mr. Md. Azizur Rahman
Mr. Ahsan Habib
Mr. S. M. Anowar Hossain
Mr. Rakibul Islam
Mr. Md. Arifuzzaman
Mr. Sohel Ranna
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Mr. Md. Aminul Islam
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Mr. Md. Amir Hossain
Mr. Md. Nazrul Islam Bhuiyan
Mr. Md. Jobaer Hossain
Mr. Md. Shakil Ahmed Murad
Mr. Solaiman
Mr. Sajal Chandra Das
Mr. Khaled Hasan
Mr. Md. Zubaer Islam
Mr. Shaharia (Shohel)

***Registration cum Documentation Officer***

Ms. Shefali Begum

***Editor cum Coder***

Ms. Nazma Khanam
Ms. Mala Parvin
Ms. Taslima Akter Bakul
Ms. Habiba Hawa
Ms. Tanuja Khanam
Ms. Shilpi Barai
Ms. Tania Akhter
Ms. Mafuza Khanam
Ms. Khurshid Jahan
Ms. Azizun Nahar
Mr. Md. Ashraful Alam
Mr. Md. Rakibul Islam
Mr. Md. Shamim Hossain

***Data Entry Supervisor***

Ms. Nurun Nahar

***Data Entry Operator***

Mr. Kazi Mahbubur Rahman
Mrs. Nasrin Mahmud
Mr. Foysal Bhuiyan
Mr. K. M. Mosaddique Uddin
Mr. Md. Hadiul Islam
Mr. Md. Shah Salman
Mr. Md. Shahajada Hasan
Mr. Md. Foysal Hosain Mallik (Rajib)
Mrs. Dalia Sultana Lipi
Mr. Md. Khairul Islam
Mr. Md. Milon
Mr. Ghulam Mohammad Azad
Ms. Rokon Azad Keya
Mr. Md. Ashikur Rahman Talukder
Mr. Nahiduzzaman
Mr. Md. Rezaul Karim

**Mitra and Associates**
**2/17, Iqbal Road**
**Mohammadpur, Dhaka-1207**
**Bangladesh**

## List of Field Personnel Involved in the Bangladesh Maternal Mortality and Health Care Survey (BMMS) 2010

***Team Leader***

Mr. S. N. Mitra

***Deputy Team Leader***

Mr. Shahidul Islam

***Project Manager***

Mr. S. Fuad Pasha
(Administration and Finance)

***Research Officers***

Mr. A.B.S. Mozumder
Mr. Jahangir Sharif
Mr. Marful Alam
Ms. Sayera Banu
Mr. N.C. Barman

***Listing Supervisors***

Mr. Najim Uddin
Mr. Sankar Ch. Banik
Mr. Abdul Latif
Mr. Emran Hossain Sohag
Mr. Mohibul Maula
Mr. Almas Sikder

***Listers/Mappers***

Mr. Abul Kalam Azad
Mr. Ala Uddin
Mr. Ashiqul Islam
Mr. Hirok Kumar Sarker
Mr. Rasel
Mr. Animesh Das
Mr. Harun -Or- Rashid
Mr. Aminul Islam
Mr. Zillur Rahman
Mr. Rashidul Islam
Mr. Al-Amin
Mr. Nashir Uddin
Mr. Abdul Alim
Mr. Sarder Humayan Kabir
Mr. Mahbubur Rahman Akndho
Mr. Sohel Hossain
Mr. Shaheen Uddin
Mr. Mejanur Rahman
Mr. Azim Uddin
Mr. Muzammel Haque
Mr. Shamal Chandra Ghosh
Mr. Syed Mijanur Rahman
Mr. Ruhul Amin
Mr. Md. Forkan Uddin
Mr. Mominuzzaman
Mr. Yakub Biswas
Mr. Shafiqul Islam
Mr. Moshiur Rahman
Mr. Omor Faruque
Mr. Shekh Mustafizur Rahman
Mr. Nayeem Uddin
Mr. Hafizur Rahman
Mr. Rafiqul Alam
Mr. Rafiqul Islam
Mr. Hafizur Rahman
Mr. Jahangir Alam
Mr. Sayed Jahidul Islam
Mr. Meshbahur Rahman
Mr. Amit Biswas
Mr. Abdul Barek

***Quality Control Officers***

Mr. Najim Uddin
Mr. Sanjoy Bhowmik
Mr. Sankar Ch. Banik
Mr. Saiful Islam Mukul
Mr. Mominul Haque
Ms. Roksana Banu
Ms. Nasrin Sultana
Ms. Sabina Easmin
Ms. Sabita Yasmin
Ms. Smriti Rani Saha

***Field Supervisors***

Mr. Abdur Razzak
Mr. Ahsan Habib
Mr. Bazar Ali
Mr. Billal Hossain
Mr. Elias Kabir
Mr. Helal Uddin Bhuiyan

Mr. Nurul Islam(Serajgong)
Mr. Saifullah
Mr. Shafi Ahmed Ali Siddiki
Mr. Shahidul Islam Milon
Mr. Solayman Khan
Mr. Swapon Kumar Halder
Mr. Wahiduzzaman
Mr. Abu Bakar Siddique
Mr. Hamidul Islam
Mr. Hasan Al-Mamun
Mr. Sanjib Baral
Mr. Noor Sabbir Siddique
Mr. Nurul Islam(Jamalpur)
Mr. Munsur Ali
Mr. Abdul Halim Khadem
Mr. Abdul Motaleb
Mr. Jafor Iqbal Ripon
Mr. Kabir Hossain
Mr. Kafe Chowdhury
Mr. Nasim Nixon

***Field Editors***

Ms. Amena Khatun
Ms. Nazmoon Jahan
Ms. Ashrafi Sultana
Ms. Asma Ahemed Bithi
Ms. Lovely Akter
Ms. Farzana Mehanaz
Ms. Laili Lija
Ms. Mahfuja Sultana
Ms. Nargis Sultana
Ms. Nurun Nahar
Ms. Rumana Khatun
Ms. Tahmina Khatun
Ms. Shayla Jasmin
Ms. Shilpi Rani Adhikari
Ms. Umme Habiba
Ms. Morjina Khatun
Ms. Nasrin Akter (Ch)
Ms. Tahsan Azima Azum
Ms. Parven Akter Ploy
Ms. Chitra Roy
Ms. Rubina Akhter Shakina
Ms. Shushoma Shorif
Ms. Syeda Shanzida
Ms. Fatama Shely
Ms. Lipi Mitra
Ms. Jesmin Dipa Biswas

***Interviewers***

Ms. Asma Akther
Ms. Nargis Akter
Ms. Beuti Begum
Ms. Zinnat Ara
Ms. Julekha Akter
Ms. Meherunnessa
Ms. Rubina Afroj
Ms. Rashida Akter
Ms. Juma Akter
Ms. Renufa Khatun
Ms. Mahbuba Rahman
Ms. Roksana Jesmin
Ms. Nibedita Mandal
Ms. Nisama Akter
Ms. Marzina Khanam
Ms. Latifa Lylack
Ms. Fayzunnesa
Ms. Swapna Barman
Ms. Farzana Begum
Ms. Joshafa Akter
Ms. Silina Khatun
Ms. Sheuli Khatun
Ms. Nilufa Akter
Ms. Himadrika Sen
Ms. Monowara Begum
Ms. Minara Akter(N)
Ms. Meryna Parvin
Ms. Israt Jahan Ranu
Ms. Rozina Khatun(J)
Ms. Nasima Khatun
Ms. Deiloara Begum
Ms. Shahida Parvin
Ms. Lipe Sultana
Ms. Rekha Rani Bachar
Ms. Nabila Nusrat Jahan
Ms. Tahara Tajnen
Ms. Umme Kulsum
Ms. Fahmida Sharmin
Ms. Kazi Mahmuda Akter
Ms. Jubaida Gulshanara
Ms. Champa Rani Mondol
Ms. Joshafa Akter
Ms. Marjan Begum
Ms. Ratna Akter
Ms. Sumya Begum
Ms. Madhabi Rani Nath
Ms. Shahnaz Parvin(Munni)
Ms. Shiuli Akter
Ms. Afsana Ferdousi
Ms. Roksana Khatun
Ms. Saida Sultana (Naju)
Ms. Minara Akter (N)
Ms. Razia Sultana
Ms. Kabita Biswas
Ms. Sima Khatun
Ms. Rozina Sultana
Ms. Sultana Razia

Ms. Khaleda Begum
Ms. Suraiya Begum
Ms. Zoly Pervin
Ms. Fatima Begum
Ms. Latifa Kanam
Ms. Saifa Begum
Ms. Ayesha Akter
Ms. Rokshana Begum(Ritu)
Ms. Mallika Roy
Ms. Dipali Roy
Ms. Rupali Khatun
Ms. Maria Kihtia Shanti
Ms. Anju Ara
Ms. Hosne Ara Bilashi
Ms. Amena Khanam Trisha
Ms. Faujia Akter
Ms. Runa Laila
Ms. Mariom Sultana
Ms. Rabeya Akter
Ms. Mita Roy
Ms. Sayeada Nurun Nahar
Ms. Mukti Rani Das
Ms. Nadia Sarmin Bonni
Ms. Najma Chowdhury
Ms. Nasrin Akter
Ms. Roksana Begum
Ms. Samsunnahar Lucky
Ms. Nadira Khatun
Ms. Farhana Pervin
Ms. Nurun Nahar
Ms. Mousumi Bagum
Ms. Laki
Ms. Rabeya Sultana
Ms. Reva Datta
Ms. Armina Nahar
Ms. Falguni Hamid
Ms. Amena Khatun
Ms. Alif Nur Banu
Ms. Salma Sultana
Ms. Kowsar Parvin
Ms. Melaka Khanam
Ms. Dalia Sultana Lipi
Ms. Nasrin Yesmin(Shikha)
Ms. Morzina Begum
MS. Faridunnessa
Ms. Mayna Akter
Ms. Rokeya Akter
Ms. Kabita
Ms. Azizunnahar
Ms. Jannatul Ferdous
Ms. Etiara Banu
Ms. Hera Parvin
Ms. Hera Pervin
Ms. Nazmin Nahar
Ms. Alo Ojah
Ms. Rehena Akter
Ms. Sakira Khatun
Ms. Mousumi Tamanna
Ms. Nadira Khatun
Ms. Tanvir Hoque Aly
Ms. Monira Pathan Lutfa
Ms. Asma Khatun
Ms. Shiuly Akter
Ms. Sharmin Akter
Ms. Beauty Khatun
Ms. Sultana Arefa
Ms. Nazmun Nahar
Ms. Gulnahar Khatun
Ms. Shipu Rani Halder
Ms. Aziza Begum

***Computer Programmers***

Mr. Shishir Paul
Mr. Haradhan Kumar Sen

***Office Editors***

Ms. Mahmuda Akter
Ms Sima saha
Ms. Mousumi Alter
Ms. Sonia Akter
Mr. Abu Saleh Mallik

***Data Entry Operators***

Mr. Ziaur Rahman
Mr. Ripon Barman
Mr. Arifur Rahman
Mr. Ataur Rahman
Mr. Pranab Das
Mr. Humayun Kabir
Mr. Faraque Hossain
Mr. Mir Rashidul Islam
Ms. Jharna Rani Deb
Ms. Rokshana Khatun
Ms. Badrun Nahar Siddique
Ms. Ishrat Jahan
Ms. Mahbuba Monoara

***Accounts Officer***

Mr. Bimal Chandra Datta

***Office Secretary***

Mr. Joybal Abdin

# Bangladesh Maternal Mortality and Health Care Survey (BMMS) 2010

## Review Committee (RC)

| | | |
|---|---|---|
| 1. | Director General, NIPORT | Chairperson |
| 2. | Joint Chief, Ministry of Health and Family Welfare | Member |
| 3. | Deputy Secretary (Program), Ministry of Health and Family Welfare | Member |
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| 5. | Deputy Chief (Health), Ministry of Health and Family Welfare | Member |
| 6. | Sr. Assistant Chief (FW-6), Planning Wing, Ministry of Health and Family Welfare | Member |
| 7. | Sr. Assistant Chief (FW-8), Planning Wing, Ministry of Health and Family Welfare | Member |
| 8. | Dr. Md. Saikhul Islam Helal, Member, PPC-MOHFW | Member |
| 9. | Deputy Chief, Population Planning Wing, Planning Commission | Member |
| 10. | Line Director (ESD), Directorate General of Health Services | Member |
| 11. | Program Manager (RH), Directorate General of Health Services | Member |
| 12. | Director (Planning and Research), Directorate General of Health Services | Member |
| 13. | Line Director (MC-RH) and Director (MCH Services), Directorate General of Family Planning | Member |
| 14. | Program Manager (MCH), Directorate General of Family Planning | Member |
| 15. | Director (Planning and Research), Directorate General of Family Planning | Member |
| 16. | Executive Director, National Nutrition Program (NNP) | Member |
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| 18. | Prof. M. Kabir, Department of Statistics, Jahangeernagar University | Member |
| 19. | Prof. A.K.M. Nurun Nabi, Department of Population Sciences, University of Dhaka | Member |
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| 25. | Health Manager, DFID-Bangladesh | Member |
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| 27. | Sr. Health Economist, World Bank | Member |
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| 29. | First Secretary Development, CIDA | Member |
| 30. | HNPSP Coordinator, GTZ | Member |
| 31. | Dr. Yoshimura Yokie, Adviser, JICA | Member |
| 32. | Project Director, UPHCP | Member |
| 33. | Dr. Kowser Afsana, Program Manager, BRAC Health Program | Member |
| 34. | Prof. Md. Shah Alam, Secretary General, OGSB | Member |
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| 39. | Dr. Shams El Arifeen, Head, Child Health Program, ICDDR,B | Member |
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| 41. | Mr. S N Mitra, Executive Director, Mitra and Associates | Member |
| 42. | Mr. A P M Shafiur Rahman, Director, ACPR | Member |
| 43. | Mrs. Shahin Sultana, Sr. Research Associate, NIPORT | Member |
| 44. | Mr. Subrata K. Bhadra, Sr. Research Associate, NIPORT | Member |
| 45. | Mr. Mohammed Ahsanul Alam, Evaluation Specialist and Deputy Program Manager (R&D), NIPORT | Member |
| 46. | Director (Research), NIPORT | Member Secretary |

# QUESTIONNAIRES

*Appendix* F

# BANGLADESH MATERNAL MORTALITY AND HEALTH CARE SURVEY (BMMS) 2010

## SHORT QUESTIONNAIRE

## Household and Woman's Questionnaire

**National Institute of Population Research and Training (NIPORT)**
**Ministry of Health and Family Welfare**
**Associates for Community and Population Research (ACPR)**
**Mitra and Associates**
**icddr,b**
**MEASURE Evaluation**

## HOUSEHOLD QUESTIONNAIRE

### Face Sheet

**IDENTIFICATION**

DIVISION.....

DISTRICT.....

UPAZILA/THANA.....

UNION/WARD.....

MOUZA/ MOHOLLA.....

VILLAGE/MOHOLLA/BLOCK_____

SEGMENT NUMBER.....

TYPE OF CLUSTER: RURAL 1 URBAN 2 OTHER URBAN 3

CLUSTER NUMBER.....

HOUSEHOLD NUMBER.....

TYPE OF QUESTIONNAIRE: SHORT 1 LONG 2

CSBA AREA YES 1 NO 2

NAME OF THE HOUSEHOLD HEAD _____

NAME OF THE RESPONDENT _____

**INTERVIEWER VISITS**

| | 1 | 2 | 3 | FINAL VISIT |
|---|---|---|---|---|
| DATE | _____ | _____ | _____ | DAY<br>MONTH<br>YEAR |
| INTERVIEWER'S NAME | _____ | _____ | _____ | INTV. CODE |
| RESULT* | | | | RESULT |
| NEXT VISIT: DATE | _____ | _____ | | TOTAL NO. OF VISITS |
| TIME | _____ | _____ | | |

*RESULT CODES:
1 COMPLETED
2 NO HOUSEHOLD MEMBER AT HOME OR NO COMPETENT RESPONDENT AT HOME AT TIME OF VISIT
3 ENTIRE HOUSEHOLD ABSENT FOR EXTENDED PERIOD OF TIME
4 POSTPONED
5 REFUSED
6 DWELLING VACANT OR ADDRESS NOT A DWELLING
7 DWELLING DESTROYED
8 DWELLING NOT FOUND
9 OTHER_____
(SPECIFY)

TOTAL PERSONS IN HOUSEHOLD

TOTAL ELIGIBLE WOMEN

LINE NO. OF RESP. TO HOUSEHOLD SCHEDULE

| SUPERVISOR | FIELD EDITOR | OFFICE EDITOR | KEYED BY |
|---|---|---|---|
| NAME _____<br>DATE _____ | NAME _____<br>DATE _____ | | |

## Introduction and Consent

আসসালামু আলাইকুম/আদাব,

আমার নাম_____। বর্তমানে আমরা স্বাস্থ্য ও পরিবার কল্যাণ মন্ত্রণালয়ের আওতায় জাতীয় জনসংখ্যা গবেষণা ও প্রশিক্ষণ ইনস্টিটিউট (নিপোর্ট) এর তত্বাবধানে একটি জাতীয় নমুনা জরীপের কাজে নিয়োজিত। আপনি এই জরীপে অংশগ্রহণ করলে আমরা খুবই খুশী হব। আমি আপনার এবং আপনার বাচ্চার স্বাস্থ্য সম্পর্কে কিছু প্রশ্ন জিজ্ঞেস করতে চাই। এই তথ্যসমূহ সরকারকে মাতৃ ও শিশু স্বাস্থ্যসেবা সম্পর্কে পরিকল্পনা প্রণয়নে সাহায্য করবে। এই সাক্ষাৎকার গ্রহণে মোটামুটিভাবে ১০ থেকে ১৫ মিনিটের মত সময় লাগবে। আপনার দেয়া সমস্ত তথ্য সম্পূর্ণভাবে গোপন রাখা হবে এবং অন্য কাউকে দেখানো হবে না।

এই জরীপে অংশগ্রহণ সম্পূর্ণভাবে আপনার ইচ্ছার উপর নির্ভর করছে এবং আপনি ইচ্ছা করলে কোন একটি প্রশ্নের বা সম্পূর্ণ প্রশ্নমালার উত্তর নাও দিতে পারেন। তারপরও আমি আশা করব আপনি এই জরীপে অংশগ্রহণ করবেন কারণ আপনার মতামত এই জরীপের জন্য অত্যন্ত গুরুত্বপূর্ণ।

এখন আপনি জরীপ সম্পর্কে জানতে চাইলে আমাকে জিজ্ঞাসা করতে পারেন।

আমি কি এখন সাক্ষাৎকার নেওয়া শুরু করতে পারি?

**Signature of interviewer:**_____ **Date:**_____

উত্তরদাতা উত্তর দিতে রাজী হয়েছেন ..... [1] ↓ উত্তরদাতা উত্তর দিতে রাজী হন নি..... [2] → **END**

**HOUSEHOLD SCHEDULE**

**HH Interview start time: Hour** ☐☐ **Min** ☐☐

Now I would like to know some information about the people who usually live in your household or who stayed last night in your house.

| LINE NO. | USUAL RESIDENS AND VISITORS | RELATIONSHIP TO HEAD OF HOUSEHOLD | SEX | RESIDENCE | | AGE | IF AGE 10 YEARS OR OLDER MARITAL STATUS | WOMAN ELIGIBILITY | IF AGE 5 YEARS OR OLDER EDUCATION | |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Please give me the names of the persons who usually live in your household and guests of the household who stayed here last night, starting with the head of the household.** | **What is the relationship of (NAME) to the head of the household?***<br>**SEE CODES BELOW** | **Is (NAME) male or female?** | **Does (NAME) usually live here?** | **Did (NAME) stay here last night?** | **How old is (NAME)?**<br>**IF AGE LESS THAN 1 YEAR WRITE '00'**<br>**IF 95 OR MORE, RECORD 95.** | **What is (NAME's) current marital status?**** | **CIRCLE LINE NUMBER OF ALL EVER MARRIED WOMEN AGED 13-49 YEARS**<br>**(Q4=2, Q7=13-49 & Q8=1 OR 2)** | **Has (NAME) ever attended school?** | **What is the highest class (NAME) completed?***** |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) |
| | | | M F | YES NO | YES NO | IN YEARS | CM FM NM | | YES NO | CLASS |
| 01 | | ☐☐ | 1 2 | 1 2 | 1 2 | ☐☐ | 1 2 3 | 01 | 1 2 | ☐☐ |
| 02 | | ☐☐ | 1 2 | 1 2 | 1 2 | ☐☐ | CM FM NM<br>1 2 3 | 02 | 1 2 | ☐☐ |
| 03 | | ☐☐ | 1 2 | 1 2 | 1 2 | ☐☐ | CM FM NM<br>1 2 3 | 03 | 1 2 | ☐☐ |
| 04 | | ☐☐ | 1 2 | 1 2 | 1 2 | ☐☐ | CM FM NM<br>1 2 3 | 04 | 1 2 | ☐☐ |
| 05 | | ☐☐ | 1 2 | 1 2 | 1 2 | ☐☐ | CM FM NM<br>1 2 3 | 05 | 1 2 | ☐☐ |
| 06 | | ☐☐ | 1 2 | 1 2 | 1 2 | ☐☐ | CM FM NM<br>1 2 3 | 06 | 1 2 | ☐☐ |
| 07 | | ☐☐ | 1 2 | 1 2 | 1 2 | ☐☐ | CM FM NM<br>1 2 3 | 07 | 1 2 | ☐☐ |
| 08 | | ☐☐ | 1 2 | 1 2 | 1 2 | ☐☐ | CM FM NM<br>1 2 3 | 08 | 1 2 | ☐☐ |
| 09 | | ☐☐ | 1 2 | 1 2 | 1 2 | ☐☐ | CM FM NM<br>1 2 3 | 09 | 1 2 | ☐☐ |
| 10 | | ☐☐ | 1 2 | 1 2 | 1 2 | ☐☐ | CM FM NM<br>1 2 3 | 10 | 1 2 | ☐☐ |
| 11 | | ☐☐ | 1 2 | 1 2 | 1 2 | ☐☐ | CM FM NM<br>1 2 3 | 11 | 1 2 | ☐☐ |

| LINE NO. | USUAL RESIDENS AND VISITORS | RELATIONSHIP TO HEAD OF HOUSEHOLD | SEX | RESIDENCE | | AGE | IF AGE 10 YEARS OR OLDER<br>MARITAL STATUS | WOMAN ELIGIBILITY | IF AGE 5 YEARS OR OLDER<br>EDUCATION | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Please give me the names of the persons who usually live in your household and guests of the household who stayed here last night, starting with the head of the household. | What is the relationship of (NAME) to the head of the household?*<br><br>SEE CODES BELOW | Is (NAME) male or female? | Does (NAME) usually live here? | Did (NAME) stay here last night? | How old is (NAME)?<br><br>IF AGE LESS THAN 1 YEAR WRITE '00'<br>IF 95 OR MORE, RECORD 95. | What is (NAME's) current marital status?** | CIRCLE LINE NUMBER OF ALL EVER MARRIED WOMEN AGED 13-49 YEARS<br>(Q4=2, Q7=13-49 & Q8=1 OR 2) | Has (NAME) ever attended school? | What is the highest class (NAME) completed?*** |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) |
| 12 | | | 1 2 | 1 2 | 1 2 | | CM FM NM<br>1 2 3 | 12 | 1 2 | |
| 13 | | | 1 2 | 1 2 | 1 2 | | CM FM NM<br>1 2 3 | 13 | 1 2 | |
| 14 | | | 1 2 | 1 2 | 1 2 | | CM FM NM<br>1 2 3 | 14 | 1 2 | |
| 15 | | | 1 2 | 1 2 | 1 2 | | CM FM NM<br>1 2 3 | 15 | 1 2 | |
| 16 | | | 1 2 | 1 2 | 1 2 | | CM FM NM<br>1 2 3 | 16 | 1 2 | |
| 17 | | | 1 2 | 1 2 | 1 2 | | CM FM NM<br>1 2 3 | 17 | 1 2 | |
| 18 | | | 1 2 | 1 2 | 1 2 | | CM FM NM<br>1 2 3 | 18 | 1 2 | |
| 19 | | | 1 2 | 1 2 | 1 2 | | CM FM NM<br>1 2 3 | 19 | 1 2 | |
| 20 | | | 1 2 | 1 2 | 1 2 | | CM FM NM<br>1 2 3 | 20 | 1 2 | |

**TICK HERE IF ADDITIONAL SHEET USED** ☐

1) Are there any other persons such as small children or infants that we have not listed? YES ☐ < ENTEP EACH IN TABΛE ← ☐ NO

2) In addition, are there any other people who may not be members of your family, such as domestic servants, lodgers or friends who usually live here? YES ☐ < ENTEP EACH IN TABΛE ← ☐ NO

3) Are there any guests or temporary visitors staying here, or anyone else who slept here last night, who have not been listed? YES ☐ < ENTEP EACH IN TABΛE ☐ NO

**12. TOTAL NUMBER OF ELIGIBLE WOMEN (CIRCLED IN COLUMN 9)** ☐

| *** CODES FOR Q.3 RELATIONSHIP TO HEAD OF HOUSEHOLD** | | ****CODES FOR Q8 MARITAL STATUS** | *****CODES FOR Q11 HIGHEST CLASS COMPLETED** |
|---|---|---|---|
| 01 = HEAD<br>02 = WIFE OR HUSBAND<br>03 = SON OR DAUGHTER<br>04 = SON-IN-LAW OR DAUGHTER-IN-LAW<br>05 = GRANDCHILD<br>06 = PARENT | 07 = PARENT-IN-LAW<br>08 = BROTHER OR SISTER<br>09 = OTHER RELATIVE<br>10 = ADOPTED/FOSTER/ STEPCHILD<br>11 = NOT RELATED<br>98 = DON'T KNOW | 1 = CURRENTLY MARRIED (CM)<br>2 = DIVORCED/ SEPARATED/ DESERTED/WIDOWED (FM)<br>3 = NEVER- MARRIED (NM) | 00 = LESS THAN 1 YEAR COMPLETED<br>98 = DON'T KNOW |

| NO. | QUESTIONS AND FILTERS | CODING CATEGORIES | SKIP |
|---|---|---|---|
| 13 | What is the main source of drinking water for members of your household? | PIPED WATER<br>PIPED INTO DWELLING ..... 11<br>PIPED TO YARD/PLOT ..... 12<br>PUBLIC TAP/STANDPIPE ..... 13<br>TUBE WELL OR BOREHOLE ..... 21<br>DUG WELL<br>PROTECTED WELL ..... 31<br>UNPROTECTED WELL ..... 32<br>WATER FROM SPRING<br>PROTECTED SPRING ..... 41<br>UNPROTECTED SPRING ..... 42<br>RAINWATER ..... 51<br>TANKER TRUCK ..... 61<br>CART WITH SMALL TANK ..... 71<br>SURFACE WATER (RIVER/DAM/ LAKE/POND/STREAM/CANAL/ IRRIGATION CHANNEL) ..... 81<br>BOTTLED WATER ..... 91<br><br>OTHER _____ 96<br>(SPECIFY) | |
| 14 | What kind of toilet facility do members of your household usually use? | FLUSH OR POUR FLUSH TOILET<br>FLUSH TO PIPED SEWER SYSTEM ..... 11<br>FLUSH TO SEPTIC TANK ..... 12<br>FLUSH TO PIT LATRINE ..... 13<br>FLUSH TO SOMEWHERE ELSE ..... 14<br>FLUSH, DONOT KNOW WHERE ..... 15<br>PIT LATRINE<br>VENTILATED IMPROVED PIT LATRINE ..... 21<br>PIT LATRINE WITH SLAB ..... 22<br>PIT LATRINE WITHOUT SLAB/ OPEN PIT ..... 23<br>COMPOSTING TOILET ..... 24<br>BUCKET TOILET ..... 31<br>HANGING TOILET/LATRINE ..... 51<br>NO FACILITY/BUSH/FIELD ..... 61<br><br>OTHER _____ 96<br>(SPECIFY) | →16 |
| 15 | Do you share this toilet facility with other households? | YES ..... 1<br>NO ..... 2 | |
| 16 | Does your household (or any member of your household) have: (ask for each item)<br><br>Electricity?<br>A radio?<br>A television?<br>A mobile telephone?<br>A non-mobile telephone?<br>A refrigerator/fridge?<br>An almirah/wardrobe?<br>A table?<br>A chair?<br>An electric fan?<br>A bicycle?<br>A motorcycle/motor scooter/ tempo/CNG? | YES NO<br><br>ELECTRICITY ..... 1 2<br>RADIO ..... 1 2<br>TELEVISION ..... 1 2<br>MOBILE PHONE ..... 1 2<br>NON-MOBILE PHONE ..... 1 2<br>REFRIGERATOR ..... 1 2<br>ALMIRAH ..... 1 2<br>TABLE ..... 1 2<br>CHAIR ..... 1 2<br>ELCTRIC FAN ..... 1 2<br>BICYLE ..... 1 2<br>MOTORCYCLE/CNG ..... 1 2<br>ANIMAL-DRAWN CART ..... 1 2 | |

| NO. | QUESTIONS AND FILTERS | CODING CATEGORIES | SKIP |
|---|---|---|---|
| | An animal drawn cart?<br>A car/truck/bus/microbus?<br>A boat with a motor/ troller?<br>A ricksha/van?<br>A DVD/VCD player?<br>A water pump? | CAR/TRUCK/BUS/MICROBUS ... 1 2<br>BOAT WITH MOTOR..... 1 2<br>RICKSHA/VAN..... 1 2<br>DVD/VCD PLAYER..... 1 2<br>WATER PUMP..... 1 2 | |
| 17 | MAIN MATERIAL OF THE FLOOR.<br><br>RECORD OBSERVATION. | NATURAL FLOOR<br>EARTH/SAND..... 11<br>RUDIMENTARY FLOOR<br>WOODPLANKS ..... 21<br>PALM/BAMBOO ..... 22<br>FINISHED FLOOR<br>PARQUET OR POLISHED WOOD .... 31<br>CERAMIC TILES ..... 32<br>CEMENT..... 33<br>CARPET ..... 34<br><br>OTHER _____ 96<br>(SPECIFY) | |
| 18 | MAIN MATERIAL OF THE ROOF.<br><br>RECORD OBSERVATION. | NATURAL ROOFING<br>NO ROOF ..... 11<br>THATCH/PALM LEAF..... 12<br>RUDIMENTARY ROOFING<br>BAMBOO ..... 21<br>WOOD PLANKS ..... 22<br>CARDBOARD ..... 23<br>FINISHED ROOFING<br>TIN ..... 31<br>WOOD ..... 32<br>CERAMIC TILES ..... 33<br>CEMENT..... 34<br>WOOD……..35<br>ROOFING SHINGLES..... 36<br><br>OTHER _____ 96<br>(SPECIFY) | |
| 19 | MAIN MATERIAL OF THE EXTERIOR WALLS<br><br>RECORD OBSERVATION. | NATURAL WALLS<br>NO WALLS ..... 11<br>CANE/PALM/TRUNKS ..... 12<br>DIRT/MUD ..... 13<br>RUDIMENTARY WALLS<br>BAMBOO WITH MUD/BAMBOO..... 21<br>STONE WITH MUD ..... 22<br>PLYWOOD..... 23<br>CARDBOARD ..... 24<br>FINISHED WALLS<br>TIN ..... 31<br>CEMENT..... 32<br>STONE WITH LIME/CEMENT..... 33<br>BRICKS..... 34<br>WOOD PLANKS ..... 35<br><br>OTHER _____ 96<br>(SPECIFY) | |
| 20 | Does this household own any livestock, herds, other farm animals, or poultry? | YES..... 1<br>NO..... 2 → | 22 |

| NO. | QUESTIONS AND FILTERS | CODING CATEGORIES | SKIP |
|---|---|---|---|
| 21 | How many of the following animals does this household own? ( ask for each animal)<br><br>IF NONE, ENTER '00'<br>IF MORE THAN 95, ENETR '95'<br>IF UNKNOWN, ENTER '98'.<br><br>Cows or bulls or buffalos?<br><br>Goats or sheep?<br><br>Chickens or ducks? | COWS/BULLS/BUFFALOS …….. ☐☐<br><br>GOATS/SHEEP …….. ☐☐<br><br>CHICKENS/DUCKS …… . ☐☐ | |
| 22 | Does your household own any homestead?<br><br>IF 'NO', PROBE:<br>Does your household own homestead any other places? | YES ..... 1<br>NO ..... 2 | |
| 23 | Does your household own any land (other than the homestead land)? | YES ..... 1<br>NO ..... 2 → | 25 |
| 24 | How much land does your household own (other than the homestead land)?<br><br>AMOUNT _____<br>SPECIFY UNIT_____ | ☐☐ ACRES ☐☐ DECIMALS | |
| 25 | Did any usual resident of this household die since October 2006 (Kartik 1413)? | YES ..... 1<br>NO ..... 2 → | 40 |
| 26 | How many persons died? | TOTAL PERSONS ..... ☐☐ | |

**NOTE TO SUPERVISORS: PLEASE ASK NEIGHBORS ABOUT ANY DEATH THAT HAPPENED IN THIS HOUSEHOLD SINCE OCTOBER 2006 (KARTIK 1413). VERIFY INFROMATION RECORDED IN Q25 AND Q26 AND CORRECT ACCORDINGLY WITH NOTES. INFORM RESPECTIVE INTERVIEWER.**

I would like to know about the person died in your household since October 2006 (Kartik 1413)? Please provide me the information first on recent death.

| 27 | 28 | 29 | 30 | 31 | FOR 13-49 YEARS OLD WOMEN | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 32 | 33 | 34 | 35 | 36 | 37 | 38 |
| Tell me the name(s) of the person(s) who died since October 2006 (Kartik 1413).<br><br>Start with the last person died. | Was (NAME) a male or female? | How old was he/she when he/she died?<br><br>RECORD DAYS IF LESS THAN ONE MONTH; MONTHS IF LESS THAN TWO YEARS; YEARS IF TWO YEARS OR MORE. | In what month and year did (NAME) die? | **CHECK 28 AND 29:**<br><br>IF DECEASED WAS A FEMALE AGED 13-49 AT THE TIME OF DEATH, CIRCLE CODE '1'.<br><br>Q28=1 & Q29=13-49 | What was (NAME) marital status at the time when she died? | Was (NAME) pregnant when she died? | Did (NAME) die during childbirth/ miscarriage/ abortion/ MR? | Did (NAME) die within one and half month (6 weeks) after the end of a pregnancy or childbirth/ miscarriage/ abortion/ MR? | Did (NAME) die after one and half month (6 weeks) but within 12 months after the end of pregnancy or childbirth/ miscarriage/ abortion/ MR? | **ELIGIBILITY FOR VERBAL AUTOPSY:**<br><br>**IF CIRCLE "1" IN Q 31 THEN CIRCLE LINE NUMBER** | Did (NAME) die at home or outside home? |
| 01<br>_____<br>(NAME) | FEMALE ... 1<br>MALE..... 2 | DAYS.....1<br>MONTHS...2<br>YEARS.....3 | MONTH<br>YEAR | YES ..... 1<br>NO ..... 2<br>(GO TO NEXT DEATH) | CM .....1<br>FM.....2<br>NM .....3<br>(GO TO 37) | YES.....1<br>(GO TO 37)<br>NO .....2 | YES .....1<br>(GO TO 37)<br>NO .....2 | YES ..... 1<br>(GO TO 37)<br>NO..... 2 | YES.....1<br>NO .....2 | 01 | AT HOME.....1<br>OUTSIDE HOME.....2 |
| 02<br>_____<br>(NAME) | FEMALE ... 1<br>MALE..... 2 | DAYS.....1<br>MONTHS...2<br>YEARS.....3 | MONTH<br>YEAR | YES ..... 1<br>NO ..... 2<br>(GO TO NEXT DEATH) | CM .....1<br>FM.....2<br>NM .....3<br>(GO TO 37) | **YES.....1**<br>**(GO TO 37)**<br>**NO .....2** | YES .....1<br>(GO TO 37)<br>NO .....2 | YES ..... 1<br>(GO TO 37)<br>NO..... 2 | YES.....1<br>NO .....2 | 02 | AT HOME.....1<br>OUTSIDE HOME.....2 |
| 03<br>_____<br>(NAME) | FEMALE ... 1<br>MALE..... 2 | DAYS.....1<br>MONTHS...2<br>YEARS.....3 | MONTH<br>YEAR | YES ..... 1<br>NO ..... 2<br>(GO TO NEXT DEATH) | CM .....1<br>FM.....2<br>NM .....3<br>(GO TO 37) | YES.....1<br>(GO TO 37)<br>NO .....2 | YES .....1<br>(GO TO 37)<br>NO .....2 | YES ..... 1<br>(GO TO 37)<br>NO..... 2 | YES.....1<br>NO .....2 | 03 | AT HOME.....1<br>OUTSIDE HOME.....2 |

| | |
|---|---|
| 39 | **TOTAL NUMBER OF PERSONS CIRCLED IN Q37** ☐☐ **(INTERVIEWERS: PLEASE INFORM YOUR SUPERVISOR ABOUT THE NUMBER OF ELIGIBLE VERBAL AUTOPSY CASES IN THE HOUSEHOLD)** |
| **SUPERVISOR: YOU MUST ATTEMPT TO COMPLETE THE EQUAL NUMBER OF VERBAL AUTOPSIES AS RECORDED IN Q39.** | |
| 40 | **INTERVIEWER: INTERVIEW ALL WOMEN RECORDED IN Q12 USING THE WOMAN'S QUESTIONNAIRE** |
| 41 | **HH interview Ending time: Hour** ☐☐ **Min** ☐☐ |

# Woman's Questionnaire
## Face Sheet

**IDENTIFICATION**

DIVISION.....

DISTRICT.....

UPAZILA/THANA.....

UNION/WARD.....

MOUZA/ MOHOLLA.....

VILLAGE/MOHOLLA/BLOCK _____

SEGMENT NUMBER.....

TYPE OF CLUSTER: RURAL 1 URBAN 2 OTHER URBAN 3

CLUSTER NUMBER.....

HOUSEHOLD NUMBER.....

TYPE OF QUESTIONNAIRE: SHORT 1 LONG 2

CSBA AREA YES 1 NO 2

NAME OF THE HOUSEHOLD HEAD _____

NAME AND LINE NUMBER OF ELIGIBLE RESPONDENT _____

**INTERVIEWER VISITS**

| | 1 | 2 | 3 | FINAL VISIT |
|---|---|---|---|---|
| DATE | | | | DAY<br>MONTH*<br>YEAR |
| INTERVIEWER'S NAME | | | | CODE |
| RESULT** | | | | RESULT** |
| NEXT VISIT: DATE | | | | TOTAL NO. OF VISITS |
| TIME | | | | |

**RESULT CODES:

1 COMPLETED
2 NOT AT HOME
3 POSTPONED
4 REFUSED
5 PARTLY COMPLETED
6 RESPONDENT INCAPACITATED
7 OTHER_____ (SPECIFY)

*MONTH CODES

01. JANUARY
02. FEBRUARY
03. MARCH
04. APRIL
05. MAY
06. JUNE
07. JULY
08. AUGUST
09. SEPTEMBER
10. OCTOBER
11. NOVEMBER
12. DECEMBER

| SUPERVISOR | FIELD EDITOR | OFFICE EDITOR | KEYED BY |
|---|---|---|---|
| NAME _____<br>DATE _____ | NAME _____<br>DATE _____ | | |

# Section 1: RESPONDENTS BACKGROUND

## Introduction and Consent

আসসালামু আলাইকুম/আদাব,

আমার নাম _____। বর্তমানে আমরা স্বাস্থ্য ও পরিবার কল্যাণ মন্ত্রণালয়ের আওতায় জাতীয় জনসংখ্যা গবেষণা ও প্রশিক্ষণ ইনস্টিটিউট (নিপোর্ট) এর তত্বাবধানে একটি জাতীয় নমুনা জরীপের কাজে নিয়োজিত। আপনি এই জরীপে অংশগ্রহণ করলে আমরা খুবই খুশী হব। আমি আপনার এবং আপনার বাচ্চার স্বাস্থ্য সম্পর্কে কিছু প্রশ্ন জিজ্ঞেস করতে চাই। এই তথ্যসমূহ সরকারকে মাতৃ ও শিশু স্বাস্থ্যসেবা সম্পর্কে পরিকল্পনা প্রণয়নে সাহায্য করবে। এই সাক্ষাৎকার গ্রহণে মোটামুটিভাবে ২০ থেকে ২৫ মিনিটের মত সময় লাগবে। আপনার দেয়া সমস্ত তথ্য সম্পূর্ণভাবে গোপন রাখা হবে এবং অন্য কাউকে দেখানো হবে না।

এই জরীপে অংশগ্রহণ সম্পূর্ণভাবে আপনার ইচ্ছার উপর নির্ভর করছে এবং আপনি ইচ্ছা করলে কোন একটি প্রশ্নের বা সম্পূর্ণ প্রশ্নমালার উত্তর নাও দিতে পারেন । তারপরও আমি আশা করব আপনি এই জরীপে অংশগ্রহণ করবেন কারণ আপনার মতামত এই জরীপের জন্য অত্যন্ত গুরুত্বপূর্ণ।

এখন আপনি জরীপ সম্পর্কে জানতে চাইলে আমাকে জিজ্ঞাসা করতে পারেন।

আমি কি এখন সাক্ষাৎকার নেওয়া শুরু করতে পারি?

**Signature of interviewer:**_____ **Date:**_____

উত্তরদাতা উত্তর দিতে রাজী হয়েছেন ..... [1] ↓ উত্তরদাতা উত্তর দিতে রাজী হন নি..... [2] → **END**

| NO. | QUESTIONS AND FILTERS | CODING CATEGORIES | SKIP |
|---|---|---|---|
| 101 | RECORD THE TIME STARTED. | HOUR [ ][ ] MIN [ ][ ] | |
| 102 | In what month and year were you born? | MONTH..... [ ][ ]<br>DON'T KNOW MONTH ..... 98<br>YEAR ..... [ ][ ][ ][ ]<br>DON'T KNOW YEAR..... 9998 | |
| 103 | How old were you at your last birthday?<br>COMPARE AND CORRECT 102 AND /OR 103 IF INCONSISTENT | AGE IN COMPLETED YEARS [ ][ ] | |
| 104 | Are you now married, separated, deserted, widowed, divorced or have you never been married? | CURRENTLY MARRIED..... 1<br>SEPARATED..... 2<br>DESERTED..... 3<br>DIVORCED..... 4<br>WIDOWED..... 5<br>NEVER MARRIED ..... 6 | → END |
| 105 | Have you ever attended school including madrasha? | YES..... 1<br>NO..... 2 | → 107 |
| 106 | What is the highest class you completed including madrasha?<br>WRITE '00' IF NOT COMPLETED ANY CLASS | CLASS ..... [ ][ ] | |
| 107 | What is your religion? | ISLAM..... 1<br>HINDUISM..... 2<br>BUDDHISM..... 3<br>CHRISTIANITY..... 4<br>OTHER (SPECIFY ----------)....6 | |

## SECTION 2: MATERNAL MORTALITY (SISTERHOOD)

| NO. | QUESTIONS AND FILTERS | CODING CATEGORIES | SKIP |
|---|---|---|---|
| | Now I would like to ask you some questions about your brothers and sisters, that is, all of the children born to your natural mother, including those who are living with you, those living elsewhere and those who have died. | | |
| 201 | How many live births did your mother give, including you? | NUMBER OF BIRTHS TO NATURAL MOTHER..... [ ][ ] | |
| 202 | INTREVIEWER: CHECK 201 AND CIRCLE APPROPRIATE CODE | TWO OR MORE BIRTHS……1<br>ONLY ONE BIRTH……2 | → 301 |
| 203 | How many of these births did your mother have before you were born?<br>(IF NONE, THEN ENTER "00" IN THE BOX) | NUMBER OF PRECEDING BIRTHS ..... [ ][ ] | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 204 | What was the name given to your oldest (next oldest) brother or sister? | [1] _____ | [2] _____ | [3] _____ | [4] _____ | [5] _____ | [6] _____ |
| 205 | Is (NAME) male or female? | MALE .....1<br>FEMALE.....2 | MALE.....1<br>FEMALE .....2 | MALE .....1<br>FEMALE.....2 | MALE.....1<br>FEMALE .....2 | MALE.....1<br>FEMALE.....2 | MALE .....1<br>FEMALE.....2 |
| 206 | Is (NAME) still alive? | YES.....1<br>NO.....2<br>└>GO TO 208<br>DK.....8<br>└>GO TO [2] | YES .....1<br>NO .....2<br>└>GO TO 208<br>DK.....8<br>└>GO TO [3] | YES.....1<br>NO.....2<br>└>GO TO 208<br>DK .....8<br>└>GO TO [4] | YES.....1<br>NO .....2<br>└>GO TO 208<br>DK.....8<br>└>GO TO [5] | YES .....1<br>NO.....2<br>└>GO TO 208<br>DK .....8<br>└>GO TO [6] | YES.....1<br>NO.....2<br>└>GO TO 208<br>DK.....8<br>└>GO TO [7] |
| 207 | How old is (NAME)? | [ ][ ]<br>IF NO MORE SIBLING GO TO Q301 OTHERIWSE GO TO [2] | [ ][ ]<br>IF NO MORE SIBLING GO TO Q301 OTHERIWSE GO TO [3] | [ ][ ]<br>IF NO MORE SIBLING GO TO Q301 OTHERIWSE GO TO [4] | [ ][ ]<br>IF NO MORE SIBLING GO TO Q301 OTHERIWSE GO TO [5] | [ ][ ]<br>IF NO MORE SIBLING GO TO Q301 OTHERIWSE GO TO [6] | [ ][ ]<br>IF NO MORE SIBLING GO TO Q301 OTHERIWSE GO TO [7] |
| 208 | How many years ago did (NAME) die?<br>(Write 00 if died less than 1 year) | [ ][ ] | [ ][ ] | [ ][ ] | [ ][ ] | [ ][ ] | [ ][ ] |
| 209 | How old was (NAME) when he/she died? | [ ][ ]<br>IF MALE OR IF FEMALE AND DIED BEFORE 13 YEARS OF AGE OR AFTER 49 YEARS OF AGE GO TO [2]. IF NO MORE SIBLING GO TO Q301 | [ ][ ]<br>IF MALE OR IF FEMALE AND DIED BEFORE 13 YEARS OF AGE OR AFTER 49 YEARS OF AGE GO TO [3]. IF NO MORE SIBLING GO TO Q301 | [ ][ ]<br>IF MALE OR IF FEMALE AND DIED BEFORE 13 YEARS OF AGE OR AFTER 49 YEARS OF AGE GO TO [4]. IF NO MORE SIBLING GO TO Q301 | [ ][ ]<br>IF MALE OR IF FEMALE AND DIED BEFORE 13 YEARS OF AGE OR AFTER 49 YEARS OF AGE GO TO [5]. IF NO MORE SIBLING GO TO Q301 | [ ][ ]<br>IF MALE OR IF FEMALE AND DIED BEFORE 13 YEARS OF AGE OR AFTER 49 YEARS OF AGE GO TO [6]. IF NO MORE SIBLING GO TO Q301 | [ ][ ]<br>IF MALE OR IF FEMALE AND DIED BEFORE 13 YEARS OF AGE OR AFTER 49 YEARS OF AGE GO TO [7]. IF NO MORE SIBLING GO TO Q301 |
| 210 | Was (NAME) pregnant when she died? | YES.....1<br>GO TO 213<┘<br>NO.....2 | YES .....1<br>GO TO 213<┘<br>NO .....2 | YES.....1<br>GO TO 213<┘<br>NO.....2 | YES.....1<br>GO TO 213<┘<br>NO .....2 | YES .....1<br>GO TO 213<┘<br>NO.....2 | YES.....1<br>GO TO 213<┘<br>NO.....2 |
| 211 | Did (NAME) die during childbirth? | YES.....1<br>GO TO 213<┘<br>NO.....2 | YES .....1<br>GO TO 213<┘<br>NO .....2 | YES.....1<br>GO TO 213<┘<br>NO.....2 | YES.....1<br>GO TO 213<┘<br>NO .....2 | YES .....1<br>GO TO 213<┘<br>NO.....2 | YES.....1<br>GO TO 213<┘<br>NO.....2 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 212 | Did (NAME) die within two months after the end of a pregnancy or childbirth? | YES.....1<br>NO.....2 | YES ..... 1<br>NO ..... 2 | YES ..... 1<br>NO..... 2 | YES.....1<br>NO .....2 | YES ..... 1<br>NO ..... 2 | YES.....1<br>NO.....2 |
| 213 | How many live born children did (NAME) give birth to during her lifetime (before this pregnancy)?<br>(If no, then write 00) | ☐☐ | ☐☐ | ☐☐ | ☐☐ | ☐☐ | ☐☐ |
| **IF NO MORE BROTHERS OR SISTERS, GO TO Q301** | | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 204 | What was name given to your oldest (next oldest) brother or sister? | [7]<br>_____ | [8]<br>_____ | [9]<br>_____ | [10]<br>_____ | [11]<br>_____ | [12]<br>_____ |
| 205 | Is (NAME) male or female? | MALE .....1<br>FEMALE.....2 | MALE.....1<br>FEMALE .....2 | MALE .....1<br>FEMALE.....2 | MALE.....1<br>FEMALE .....2 | MALE.....1<br>FEMALE.....2 | MALE .....1<br>FEMALE.....2 |
| 206 | Is (NAME) still alive? | YES.....1<br>NO.....2<br>└>GO TO 208<br>DK.....8<br>└>GO TO [8] | YES .....1<br>NO .....2<br>└>GO TO 208<br>DK.....8<br>└>GO TO [9] | YES .....1<br>NO.....2<br>└>GO TO 208<br>DK .....8<br>└>GO TO [10] | YES.....1<br>NO .....2<br>└>GO TO 208<br>DK.....8<br>└>GO TO [11] | YES .....1<br>NO.....2<br>└>GO TO 208<br>DK .....8<br>└>GO TO [12] | YES.....1<br>NO.....2<br>└>GO TO 208<br>DK.....8<br>└>GO TO [13] |
| 207 | How old is (NAME)? | ☐☐<br>IF NO MORE SIBLING GO TO Q301 OTHERIWSE GO TO [8] | ☐☐<br>IF NO MORE SIBLING GO TO Q301 OTHERIWSE GO TO [9] | ☐☐<br>IF NO MORE SIBLING GO TO Q301 OTHERIWSE GO TO [10] | ☐☐<br>IF NO MORE SIBLING GO TO Q301 OTHERIWSE GO TO [11] | ☐☐<br>IF NO MORE SIBLING GO TO Q301 OTHERIWSE GO TO [12] | ☐☐<br>IF NO MORE SIBLING GO TO Q301 OTHERIWSE GO TO [13] |
| 208 | How many years ago did (NAME) die?<br>(Write 00 if died less than 1 year) | ☐☐ | ☐☐ | ☐☐ | ☐☐ | ☐☐ | ☐☐ |
| 209 | How old was (NAME) when he/she died? | ☐☐<br>IF MALE OR IF FEMALE AND DIED BEFORE 13 YEARS OF AGE OR AFTER 49 YEARS OF AGE GO TO [8]. IF NO MORE SIBLING GO TO Q301 | ☐☐<br>IF MALE OR IF FEMALE AND DIED BEFORE 13 YEARS OF AGE OR AFTER 49 YEARS OF AGE GO TO [9]. IF NO MORE SIBLING GO TO Q301 | ☐☐<br>IF MALE OR IF FEMALE AND DIED BEFORE 13 YEARS OF AGE OR AFTER 49 YEARS OF AGE GO TO [10]. IF NO MORE SIBLING GO TO Q301 | ☐☐<br>IF MALE OR IF FEMALE AND DIED BEFORE 13 YEARS OF AGE OR AFTER 49 YEARS OF AGE GO TO [11]. IF NO MORE SIBLING GO TO Q301 | ☐☐<br>IF MALE OR IF FEMALE AND DIED BEFORE 13 YEARS OF AGE OR AFTER 49 YEARS OF AGE GO TO [12]. IF NO MORE SIBLING GO TO Q301 | ☐☐<br>IF MALE OR IF FEMALE AND DIED BEFORE 13 YEARS OF AGE OR AFTER 49 YEARS OF AGE GO TO [13]. IF NO MORE SIBLING GO TO Q301 |
| 210 | Was (NAME) pregnant when she died? | YES.....1<br>GO TO 213<┘<br>NO.....2 | YES .....1<br>GO TO 213<┘<br>NO .....2 | YES .....1<br>GO TO 213<┘<br>NO.....2 | YES.....1<br>GO TO 213<┘<br>NO .....2 | YES .....1<br>GO TO 213<┘<br>NO.....2 | YES.....1<br>GO TO 213<┘<br>NO.....2 |
| 211 | Did (NAME) die during childbirth? | YES.....1<br>GO TO 213<┘<br>NO.....2 | YES .....1<br>GO TO 213<┘<br>NO .....2 | YES .....1<br>GO TO 213<┘<br>NO.....2 | YES.....1<br>GO TO 213<┘<br>NO .....2 | YES .....1<br>GO TO 213<┘<br>NO.....2 | YES.....1<br>GO TO 213<┘<br>NO.....2 |
| 212 | Did (NAME) die within two months after the end of a pregnancy or childbirth? | YES.....1<br>NO.....2 | YES .....1<br>NO .....2 | YES .....1<br>NO.....2 | YES.....1<br>NO .....2 | YES .....1<br>NO.....2 | YES.....1<br>NO.....2 |
| 213 | How many live born children did (NAME) give birth to during her lifetime (before this pregnancy)?<br>(If no, then write 00) | ☐☐ | ☐☐ | ☐☐ | ☐☐ | ☐☐ | ☐☐ |

**ADD MORE PAGES IF MORE THAN 12 BROTEHRS AND/OR SISTERS. IF NO MORE BROTHERS OR SISTERS, GO TO Q301.**

## SECTION 3: REPRODUCTION

| NO. | QUESTIONS AND FILTERS | CODING CATEGORIES | SKIP |
|---|---|---|---|
| | Now I would like to ask about all the births you have had during your life. | | |
| 301 | Have you ever given birth? | YES.....1<br>NO.....2 | → 306 |
| 302 | Do you have any son(s) or daughter(s) to whom you have given birth who are now living with you? | YES.....1<br>NO.....2 | → 304 |
| 303 | How many sons live with you?<br><br>And how many daughters live with you?<br><br>IF NONE, RECORD "00" | SONS, LIVING WITH THE RESPONDENT |___|___|<br><br>DAUGHTERS, LIVING WITH THE RESPONDENT |___|___| | |
| 304 | Do you have any son(s) or daughter(s) to whom you have given birth who are alive but do not live with you? | YES.....1<br>NO.....2 | → 306 |
| 305 | How many sons are alive but do not live with you?<br><br>And how many daughters are alive but do not live with you?<br><br>IF NONE, RECORD "00" | SONS ELSEWHERE |___|___|<br><br>DAUGHTERS ELSEWHERE |___|___| | |
| 306 | Have you ever given birth to a boy or girl who was born alive but later died?<br><br>IF NO, PROBE: Any baby who cried or showed signs of life but survived for few minutes/hours/days only? | YES.....1<br>NO.....2 | → 308 |
| 307 | In all, how many boys have died?<br><br>And how many daughters have died?<br><br>IF NONE, RECORD "00" | BOYS, DEAD |___|___|<br><br>GIRLS, DEAD |___|___| | |
| 308 | SUM ANSWERS TO 303,305 AND 307, AND ENTER TOTAL.<br><br>IF NONE, RECORD "00" | TOTAL .....|___|___| | |
| 309 | CHECK 308:<br><br>Just to make sure that I have this right: you have had in TOTAL _____ births during your life. Is that correct?<br><br>YES ☐ ↓ NO ☐ → PROBE AND CORRECT 301-308 AS NECESSARY | | |
| 310 | CHECK 308:<br><br>ONE OR MORE BIRTHS ☐ ↓ NO BIRTHS ☐ → | | 325 |

311 Now I would like to record the names of all your births, whether still alive or not, starting with the first one you had.

RECORD NAMES OF ALL THE BIRTHS IN Q312 . IF NO NAME WAS GIVEN, RECORD 'NO NAME' IN 312. RECORD TWINS ON SEPARATE LINES.

| 312<br>What name was given to your (first /next) baby?<br>(NAME) | 313<br>Were any of these births twins? | 314<br>Is (NAME) a boy or a girl? | 315<br>In what month and year was (NAME) born?<br>PROBE: What is his/her birthday? | 316<br>Is (NAME) still alive? | 317<br>IF ALIVE:<br>How old was (NAME) at his/her last birthday?<br>RECORD AGE IN COMPLETED YEARS. | 318<br>IF ALIVE:<br>Is (NAME) living with you? | 319<br>IF ALIVE:<br>RECORD HOUSEHOLD LINE NUMBER OF CHILD (RECORD '00' IF CHILD NOT LISTED IN HOUSEHOLD) | 320<br>IF DEAD:<br>How old was (NAME) when he/she died?<br>IF '1' YR', PROBE: How many months old was (NAME)?<br>RECORD DAYS IF LESS THAN 1 MONTH; MONTHS IF LESS THAN TWO YEARS; YEARS IF TWO OR MORE YEARS. | 321<br>Were there any other live births between (NAME OF PREVIOUS BIRTH) and (NAME), including any children who died after birth? |
|---|---|---|---|---|---|---|---|---|---|
| 01 | SING.....1<br>MULT.... 2 | BOY. .. 1<br>GIRL.... 2 | MONTH<br>YEAR | YES. 1<br>NO..... 2<br>320 | AGE IN YEARS | YES. .. 1<br>NO..... 2 | LINE NUMBER<br>(NEXT BIRTH) | DAYS.....1<br>MONTHS...2<br>YEARS.....3 | |
| 02 | SING.....1<br>MULT.... 2 | BOY. .. 1<br>GIRL.... 2 | MONTH<br>YEAR | YES. 1<br>NO..... 2<br>320 | AGE IN YEARS | YES. .. 1<br>NO..... 2 | LINE NUMBER<br>(GO TO 321) | DAYS.....1<br>MONTHS...2<br>YEARS.....3 | YES. .. 1<br>NO..... 2 |
| 03 | SING.....1<br>MULT.... 2 | BOY. .. 1<br>GIRL.... 2 | MONTH<br>YEAR | YES. 1<br>NO..... 2<br>320 | AGE IN YEARS | YES. .. 1<br>NO..... 2 | LINE NUMBER<br>(GO TO 321) | DAYS.....1<br>MONTHS...2<br>YEARS.....3 | YES. .. 1<br>NO..... 2 |
| 04 | SING.....1<br>MULT.... 2 | BOY. .. 1<br>GIRL.... 2 | MONTH<br>YEAR | YES. 1<br>NO..... 2<br>320 | AGE IN YEARS | YES. .. 1<br>NO..... 2 | LINE NUMBER<br>(GO TO 321) | DAYS.....1<br>MONTHS...2<br>YEARS.....3 | YES. .. 1<br>NO..... 2 |
| 05 | SING.....1<br>MULT.... 2 | BOY. .. 1<br>GIRL.... 2 | MONTH<br>YEAR | YES. 1<br>NO..... 2<br>320 | AGE IN YEARS | YES. .. 1<br>NO..... 2 | LINE NUMBER<br>(GO TO 321) | DAYS.....1<br>MONTHS...2<br>YEARS.....3 | YES. .. 1<br>NO..... 2 |
| 06 | SING.....1<br>MULT.... 2 | BOY. .. 1<br>GIRL.... 2 | MONTH<br>YEAR | YES. 1<br>NO..... 2<br>320 | AGE IN YEARS | YES. .. 1<br>NO..... 2 | LINE NUMBER<br>(GO TO 321) | DAYS.....1<br>MONTHS...2<br>YEARS.....3 | YES. .. 1<br>NO..... 2 |
| 07 | SING.....1<br>MULT.... 2 | BOY. .. 1<br>GIRL.... 2 | MONTH<br>YEAR | YES. 1<br>NO..... 2<br>320 | AGE IN YEARS | YES. .. 1<br>NO..... 2 | LINE NUMBER<br>(GO TO 321) | DAYS.....1<br>MONTHS...2<br>YEARS.....3 | YES. .. 1<br>NO..... 2 |
| 08 | SING.....1<br>MULT.... 2 | BOY. .. 1<br>GIRL.... 2 | MONTH<br>YEAR | YES. 1<br>NO..... 2<br>320 | AGE IN YEARS | YES. .. 1<br>NO..... 2 | LINE NUMBER<br>(GO TO 321) | DAYS.....1<br>MONTHS...2<br>YEARS.....3 | YES. .. 1<br>NO..... 2 |

| 312<br><br>What name was given to your (first /next) baby?<br><br>(NAME) | 313<br><br>Were any of these births twins? | 314<br><br>Is (NAME) a boy or a girl? | 315<br><br>In what month and year was (NAME) born?<br><br>PROBE: What is his/her birthday? | 316<br><br>Is (NAME) still alive? | 317<br>IF ALIVE:<br><br>How old was (NAME) at his/her last birthday?<br><br>RECORD AGE IN COMPLETE D YEARS. | 318<br>IF ALIVE:<br><br>Is (NAME) living with you? | 319<br>IF ALIVE:<br><br>RECORD HOUSEHOLD LINE NUMBER OF CHILD (RECORD '00' IF CHILD NOT LISTED IN HOUSEHOLD) | 320<br>IF DEAD:<br><br>How old was (NAME) when he/she died? IF '1' YR', PROBE: How many months old was (NAME)?<br><br>RECORD DAYS IF LESS THAN 1 MONTH; MONTHS IF LESS THAN TWO YEARS; YEARS IF TWO OR MORE YEARS. | 321<br><br>Were there any other live births between (NAME OF PREVIOUS BIRTH) and (NAME), including any children who died after birth? |
|---|---|---|---|---|---|---|---|---|---|
| 09 | SING..... 1<br>MULT.... 2 | BOY. .. 1<br>GIRL.... 2 | MONTH [ ][ ]<br>YEAR [ ][ ][ ][ ] | YES. 1<br>NO..... 2<br>↓<br>320 | AGE IN YEARS [ ][ ] | YES. .. 1<br>NO..... 2 | LINE NUMBER [ ][ ]<br>↓<br>(GO TO 321) | DAYS.....1 [ ][ ]<br>MONTHS...2 [ ][ ]<br>YEARS.....3 [ ][ ] | YES. .. 1<br>NO..... 2 |
| 10 | SING..... 1<br>MULT.... 2 | BOY. .. 1<br>GIRL.... 2 | MONTH [ ][ ]<br>YEAR [ ][ ][ ][ ] | YES. 1<br>NO..... 2<br>↓<br>320 | AGE IN YEARS [ ][ ] | YES. .. 1<br>NO..... 2 | LINE NUMBER [ ][ ]<br>↓<br>(GO TO 321) | DAYS.....1 [ ][ ]<br>MONTHS...2 [ ][ ]<br>YEARS.....3 [ ][ ] | YES. .. 1<br>NO..... 2 |
| 11 | SING..... 1<br>MULT.... 2 | BOY. .. 1<br>GIRL.... 2 | MONTH [ ][ ]<br>YEAR [ ][ ][ ][ ] | YES. 1<br>NO..... 2<br>↓<br>320 | AGE IN YEARS [ ][ ] | YES. .. 1<br>NO..... 2 | LINE NUMBER [ ][ ]<br>↓<br>(GO TO 321) | DAYS.....1 [ ][ ]<br>MONTHS...2 [ ][ ]<br>YEARS.....3 [ ][ ] | YES. .. 1<br>NO..... 2 |
| 12 | SING..... 1<br>MULT.... 2 | BOY. .. 1<br>GIRL.... 2 | MONTH [ ][ ]<br>YEAR [ ][ ][ ][ ] | YES. 1<br>NO..... 2<br>↓<br>320 | AGE IN YEARS [ ][ ] | YES. .. 1<br>NO..... 2 | LINE NUMBER [ ][ ]<br>↓<br>(GO TO 321) | DAYS.....1 [ ][ ]<br>MONTHS...2 [ ][ ]<br>YEARS.....3 [ ][ ] | YES. .. 1<br>NO..... 2 |

| | | | |
|---|---|---|---|
| 322 | Have you had any other live birth since the birth of (NAME OF LAST BIRTH)? | YES.....1<br>NO .....2 | → RECORD IN BIRTH HISTORY TABLE |
| 323 | INTERVIEWER: COMPARE 308 WITH NUMBER OF BIRTHS IN BIRTH HISTORY TABLE AND MARK:<br><br>NUMBERS ARE SAME [ ] ↓<br>NUMBERS ARE DIFFERENT [ ] → (PROBE AND CORRECT 312-321)<br><br>CHECK:<br>FOR EACH BIRTH: YEAR OF BIRTH IS RECORDED (Q315). [ ]<br>FOR EACH LIVING CHILD: CURRENT AGE IS RECORDED (Q317). [ ]<br>FOR EACH DEAD CHILD: AGE AT DEATH IS RECORDED (Q320). [ ]<br>FOR AGE AT DEATH 12 MONTHS OR 1 YR.: PROBE TO DETERMINE EXACT NUMBER OF MONTHS (Q320) [ ] | | |
| 324 | INTERVIEWER: CHECK 315 AND ENTER THE NUMBER OF BIRTHS SINCE OCTOBER 2004 (KARTIK 1413). IF NONE, RECORD '0'. [ ] | | |
| 325 | Since October 2004 have you had any other pregnancies that did not result in a live birth? | YES……1<br>NO……2 → | 327 |
| 326 | How many?<br><br>(ASK ABOUT EACH TYPE)<br><br>IF NONE, ENTER '0' IN THE BOX. | | |
| | | a. Still birth [ ] | |
| | | b. Induced abortion [ ] | |
| | | c. Miscarriage [ ] | |
| | | d. MR [ ] | |

| NO. | QUESTIONS AND FILTERS | CODING CATEGORIES | SKIP |
|---|---|---|---|
| 327 | INTREVIEWER: CHECK Q104 AND CIRCLE APPROPRIATE CODE. | CURRENTLY MARRIED.....1<br>SEPARATED.....2<br>DESERTED.....3<br>DIVORCED.....4<br>WIDOWED.....5 → | 708 |
| 328 | Are you pregnant now? | YES ..... 1<br>NO ..... 2 →<br>UNSURE ..... 3 → | <br>330<br>330 |
| 329 | How many months pregnant are you?<br>(RECORD NUMBER OF COMPLETED MONTHS.) | MONTHS ☐☐ → | 708 |
| 330 | Are you or your husband doing something or using any family planning method to delay or avoid getting pregnant? | YES ..... .....1<br>NO..... 2 → | 708 |
| 331 | Which method are you using?<br><br>CIRCLE ALL METHODS MENTIONED. | FEMALE STERILIZATION.....A<br>MALE STERILIZATION.....B<br>ORAL PILL.....C<br>IUD/CT.....D<br>INJECTION.....E<br>IMPLANT/NORPLANT.....F<br>CONDOM.....G<br>SAFE PERIOD/CALENDAR METHOD.....H<br>WITHDRAWAL.....I<br>POSTPARTUM AMENORRHOEA.....J<br>OTHER MODERN METHOD.<br>(SPECIFY_____.....).....X<br>OTHER TRADITIONAL METHOD<br>(SPECIFY_____)....Z | |
| 332 | INTERVIEWER: CHECK Q331 AND CIRCLE APPROPRIATE CODE.<br><br>IF MORE THAN ONE CODE IS CIRCLED IN Q331, CIRCLE THE HIGHEST CODE IN THE LIST | FEMALE STERILIZATION.....01<br>MALE STERILIZATION.....02<br>ORAL PILL.....03<br>IUD/CT.....04<br>INJECTION.....05<br>IMPLANT/NORPLANT.....06<br>CONDOM.....07<br>SAFE PERIOD/CALENDAR METHOD.....08<br>WITHDRAWAL.....09<br>POSTPARTUM AMENORRHOEA.....10<br>OTHER MODERN METHOD.<br>(SPECIFY_____.....)...95<br>OTHER TRADITIONAL METHOD<br>(SPECIFY_____).96 → | <br><br><br><br><br><br><br>708<br><br><br><br><br>708 |

| NO. | QUESTIONS AND FILTERS | CODING CATEGORIES | SKIP |
|---|---|---|---|
| 333 | Where did you obtain (CURRENT METHOD) the last time?<br><br>PROBLE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE.<br><br>IN UNABLE TO DETERMINE IS HOSPITAL, HEALTH CENTER OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE<br><br>_____<br><br>(NAME OF THE PLACE) | **PUBLIC SECTOR**<br>MEDICAL COLLEGE HOSPITAL…….21<br>SPECIALISED GOVT.HOSPITAL (SPECIFY__)…..22<br>DISTRICT HOSPITAL…….....23<br>MCWC…….24<br>UPAZILLA HEALTH COMPLEX……..25<br>H& FWC…….....26<br>SAT. CLINIC/EPI OUTREACH…….27<br>COMMUNITY CLINIC…….28<br>GOVT. FIELD WORKER (FWA)…….....29<br>OTHER (SPECIFY _____)……..30<br>**NGO SECTOR**<br>NGO STATIC CLINIC……31<br>NGO SATELLITE CLINIC..…….....32<br>NGO DEPO HOLDER……..33<br>NGO FIELD WORKER……..34<br>OTHER (SPECIFY _____)……35<br>**PRIVATE MEDICAL SECTOR**<br>PRIVATE HOSPITAL/CLINIC……....41<br>QUALIFIED DOCTOR'……....42<br>NON-QUALIFIED DOCTOR'……43<br>PHARMACY…….....44<br>PRIVATE MEDICAL COLLEGE HOSPITAL<br>(SPECIFY _____)……45<br>**OTHER**<br>GROCERY SHOP……..51<br>FRIENDS/RELATIVES……..52<br>OTHER (SPECIFY _____)……96 | |

| | | | |
|---|---|---|---|
| 708 | INTERVIEWER: CHECK THE QUESTIONNAIRE CAREFULLY FOR COMPLETENESS BEFORE ENDING THE INTERVIEW. THEN SAY THANK YOU AND END THE INTERVIEW. | | |
| 709 | RECORD THE TIME | HOURS \|___\|____\| MINUTES \|____\|____\| | |

# BANGLADESH MATERNAL MORTALITY AND HEALTH CARE SURVEY (BMMS) 2010

## LONG QUESTIONNAIRE

## Household and Woman's Questionnaire

**National Institute of Population Research and Training (NIPORT)**
**Ministry of Health and Family Welfare**
**Associates for Community and Population Research (ACPR)**
**Mitra and Associates**
**icddr,b**
**MEASURE Evaluation**

## HOUSEHOLD QUESTIONNAIRE

### Face Sheet

**IDENTIFICATION**

DIVISION.....

DISTRICT.....

UPAZILA/THANA.....

UNION/WARD.....

MOUZA/ MOHOLLA.....

VILLAGE/MOHOLLA/BLOCK_____

SEGMENT NUMBER.....

TYPE OF CLUSTER: RURAL 1 URBAN 2 OTHER URBAN 3

CLUSTER NUMBER.....

HOUSEHOLD NUMBER.....

TYPE OF QUESTIONNAIRE: SHORT 1 LONG 2

CSBA AREA YES 1 NO 2

NAME OF THE HOUSEHOLD HEAD _____

NAME OF THE RESPONDENT _____

**INTERVIEWER VISITS**

| | 1 | 2 | 3 | FINAL VISIT |
|---|---|---|---|---|
| DATE | _____ | _____ | _____ | DAY<br>MONTH<br>YEAR |
| INTERVIEWER'S NAME | _____ | _____ | _____ | INTV. CODE |
| RESULT* | | | | RESULT |
| NEXT VISIT: DATE | _____ | _____ | | TOTAL NO. OF VISITS |
| TIME | _____ | _____ | | |

*RESULT CODES:
1 COMPLETED
2 NO HOUSEHOLD MEMBER AT HOME OR NO COMPETENT RESPONDENT AT HOME AT TIME OF VISIT
3 ENTIRE HOUSEHOLD ABSENT FOR EXTENDED PERIOD OF TIME
4 POSTPONED
5 REFUSED
6 DWELLING VACANT OR ADDRESS NOT A DWELLING
7 DWELLING DESTROYED
8 DWELLING NOT FOUND
9 OTHER_____
(SPECIFY)

TOTAL PERSONS IN HOUSEHOLD

TOTAL ELIGIBLE WOMEN

LINE NO. OF RESP. TO HOUSEHOLD SCHEDULE

| SUPERVISOR | FIELD EDITOR | OFFICE EDITOR | KEYED BY |
|---|---|---|---|
| NAME _____<br>DATE _____ | NAME _____<br>DATE _____ | | |

## Introduction and Consent

আসসালামু আলাইকুম/আদাব,

আমার নাম_____। বর্তমানে আমরা স্বাস্থ্য ও পরিবার কল্যাণ মন্ত্রণালয়ের আওতায় জাতীয় জনসংখ্যা গবেষণা ও প্রশিক্ষণ ইনস্টিটিউট (নিপোর্ট) এর তত্বাবধানে একটি জাতীয় নমুনা জরীপের কাজে নিয়োজিত। আপনি এই জরীপে অংশগ্রহণ করলে আমরা খুবই খুশী হব। আমি আপনার এবং আপনার বাচ্চার স্বাস্থ্য সম্পর্কে কিছু প্রশ্ন জিজ্ঞেস করতে চাই। এই তথ্যসমূহ সরকারকে মাতৃ ও শিশু স্বাস্থ্যসেবা সম্পর্কে পরিকল্পনা প্রণয়নে সাহায্য করবে। এই সাক্ষাৎকার গ্রহণে মোটামুটিভাবে ১০ থেকে ১৫ মিনিটের মত সময় লাগবে। আপনার দেয়া সমস্ত তথ্য সম্পূর্ণভাবে গোপন রাখা হবে এবং অন্য কাউকে দেখানো হবে না।

এই জরীপে অংশগ্রহণ সম্পূর্ণভাবে আপনার ইচ্ছার উপর নির্ভর করছে এবং আপনি ইচ্ছা করলে কোন একটি প্রশ্নের বা সম্পূর্ণ প্রশ্নমালার উত্তর নাও দিতে পারেন। তারপরও আমি আশা করব আপনি এই জরীপে অংশগ্রহণ করবেন কারণ আপনার মতামত এই জরীপের জন্য অত্যন্ত গুরুত্বপূর্ণ।

এখন আপনি জরীপ সম্পর্কে জানতে চাইলে আমাকে জিজ্ঞাসা করতে পারেন।

আমি কি এখন সাক্ষাৎকার নেওয়া শুরু করতে পারি?

**Signature of interviewer:**_____ **Date:**_____

উত্তরদাতা উত্তর দিতে রাজী হয়েছেন ..... [1] ↓ উত্তরদাতা উত্তর দিতে রাজী হন নি..... [2] → **END**

**HOUSEHOLD SCHEDULE**

**HH Interview start time: Hour** ☐☐ **Min** ☐☐

Now I would like to know some information about the people who usually live in your household or who stayed last night in your house.

| LINE NO. | USUAL RESIDENS AND VISITORS | RELATIONSHIP TO HEAD OF HOUSEHOLD | SEX | RESIDENCE | | AGE | IF AGE 10 YEARS OR OLDER MARITAL STATUS | WOMAN ELIGIBILITY | IF AGE 5 YEARS OR OLDER EDUCATION | |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Please give me the names of the persons who usually live in your household and guests of the household who stayed here last night, starting with the head of the household.** | **What is the relationship of (NAME) to the head of the household?***<br>**SEE CODES BELOW** | **Is (NAME) male or female?** | **Does (NAME) usually live here?** | **Did (NAME) stay here last night?** | **How old is (NAME)?**<br>**IF AGE LESS THAN 1 YEAR WRITE '00'**<br>**IF 95 OR MORE, RECORD 95.** | **What is (NAME's) current marital status?**** | **CIRCLE LINE NUMBER OF ALL EVER MARRIED WOMEN AGED 13-49 YEARS**<br>**(Q4=2, Q7=13-49 & Q8=1 OR 2)** | **Has (NAME) ever attended school?** | **What is the highest class (NAME) completed?***** |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) |
| | | | M F | YES NO | YES NO | IN YEARS | CM FM NM | | YES NO | CLASS |
| 01 | | ☐☐ | 1 2 | 1 2 | 1 2 | ☐☐ | 1 2 3 | 01 | 1 2 | ☐☐ |
| 02 | | ☐☐ | 1 2 | 1 2 | 1 2 | ☐☐ | CM FM NM<br>1 2 3 | 02 | 1 2 | ☐☐ |
| 03 | | ☐☐ | 1 2 | 1 2 | 1 2 | ☐☐ | CM FM NM<br>1 2 3 | 03 | 1 2 | ☐☐ |
| 04 | | ☐☐ | 1 2 | 1 2 | 1 2 | ☐☐ | CM FM NM<br>1 2 3 | 04 | 1 2 | ☐☐ |
| 05 | | ☐☐ | 1 2 | 1 2 | 1 2 | ☐☐ | CM FM NM<br>1 2 3 | 05 | 1 2 | ☐☐ |
| 06 | | ☐☐ | 1 2 | 1 2 | 1 2 | ☐☐ | CM FM NM<br>1 2 3 | 06 | 1 2 | ☐☐ |
| 07 | | ☐☐ | 1 2 | 1 2 | 1 2 | ☐☐ | CM FM NM<br>1 2 3 | 07 | 1 2 | ☐☐ |
| 08 | | ☐☐ | 1 2 | 1 2 | 1 2 | ☐☐ | CM FM NM<br>1 2 3 | 08 | 1 2 | ☐☐ |
| 09 | | ☐☐ | 1 2 | 1 2 | 1 2 | ☐☐ | CM FM NM<br>1 2 3 | 09 | 1 2 | ☐☐ |
| 10 | | ☐☐ | 1 2 | 1 2 | 1 2 | ☐☐ | CM FM NM<br>1 2 3 | 10 | 1 2 | ☐☐ |
| 11 | | ☐☐ | 1 2 | 1 2 | 1 2 | ☐☐ | CM FM NM<br>1 2 3 | 11 | 1 2 | ☐☐ |

| LINE NO. | USUAL RESIDENS AND VISITORS | RELATIONSHIP TO HEAD OF HOUSEHOLD | SEX | RESIDENCE | | AGE | IF AGE 10 YEARS OR OLDER<br>MARITAL STATUS | WOMAN ELIGIBILITY | IF AGE 5 YEARS OR OLDER<br>EDUCATION | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Please give me the names of the persons who usually live in your household and guests of the household who stayed here last night, starting with the head of the household. | What is the relationship of (NAME) to the head of the household?*<br><br>SEE CODES BELOW | Is (NAME) male or female? | Does (NAME) usually live here? | Did (NAME) stay here last night? | How old is (NAME)?<br><br>IF AGE LESS THAN 1 YEAR WRITE '00'<br>IF 95 OR MORE, RECORD 95. | What is (NAME's) current marital status?** | CIRCLE LINE NUMBER OF ALL EVER MARRIED WOMEN AGED 13-49 YEARS<br>(Q4=2, Q7=13-49 & Q8=1 OR 2) | Has (NAME) ever attended school? | What is the highest class (NAME) completed?*** |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) |
| 12 | | | 1 2 | 1 2 | 1 2 | | CM FM NM<br>1 2 3 | 12 | 1 2 | |
| 13 | | | 1 2 | 1 2 | 1 2 | | CM FM NM<br>1 2 3 | 13 | 1 2 | |
| 14 | | | 1 2 | 1 2 | 1 2 | | CM FM NM<br>1 2 3 | 14 | 1 2 | |
| 15 | | | 1 2 | 1 2 | 1 2 | | CM FM NM<br>1 2 3 | 15 | 1 2 | |
| 16 | | | 1 2 | 1 2 | 1 2 | | CM FM NM<br>1 2 3 | 16 | 1 2 | |
| 17 | | | 1 2 | 1 2 | 1 2 | | CM FM NM<br>1 2 3 | 17 | 1 2 | |
| 18 | | | 1 2 | 1 2 | 1 2 | | CM FM NM<br>1 2 3 | 18 | 1 2 | |
| 19 | | | 1 2 | 1 2 | 1 2 | | CM FM NM<br>1 2 3 | 19 | 1 2 | |
| 20 | | | 1 2 | 1 2 | 1 2 | | CM FM NM<br>1 2 3 | 20 | 1 2 | |

**TICK HERE IF ADDITIONAL SHEET USED** ☐

1) Are there any other persons such as small children or infants that we have not listed? YES ☐ < ENTEP EACH IN TABΛE ← ☐ NO

2) In addition, are there any other people who may not be members of your family, such as domestic servants, lodgers or friends who usually live here? YES ☐ < ENTEP EACH IN TABΛE ← ☐ NO

3) Are there any guests or temporary visitors staying here, or anyone else who slept here last night, who have not been listed? YES ☐ < ENTEP EACH IN TABΛE ☐ NO

**12. TOTAL NUMBER OF ELIGIBLE WOMEN (CIRCLED IN COLUMN 9)** ☐

| *** CODES FOR Q.3 RELATIONSHIP TO HEAD OF HOUSEHOLD** | | ****CODES FOR Q8 MARITAL STATUS** | *****CODES FOR Q11 HIGHEST CLASS COMPLETED** |
|---|---|---|---|
| 01 = HEAD<br>02 = WIFE OR HUSBAND<br>03 = SON OR DAUGHTER<br>04 = SON-IN-LAW OR DAUGHTER-IN-LAW<br>05 = GRANDCHILD<br>06 = PARENT | 07 = PARENT-IN-LAW<br>08 = BROTHER OR SISTER<br>09 = OTHER RELATIVE<br>10 = ADOPTED/FOSTER/ STEPCHILD<br>11 = NOT RELATED<br>98 = DON'T KNOW | 1 = CURRENTLY MARRIED (CM)<br>2 = DIVORCED/ SEPARATED/ DESERTED/WIDOWED (FM)<br>3 = NEVER- MARRIED (NM) | 00 = LESS THAN 1 YEAR COMPLETED<br>98 = DON'T KNOW |

| NO. | QUESTIONS AND FILTERS | CODING CATEGORIES | SKIP |
|---|---|---|---|
| 13 | What is the main source of drinking water for members of your household? | PIPED WATER<br>PIPED INTO DWELLING ..... 11<br>PIPED TO YARD/PLOT ..... 12<br>PUBLIC TAP/STANDPIPE ..... 13<br>TUBE WELL OR BOREHOLE ..... 21<br>DUG WELL<br>PROTECTED WELL ..... 31<br>UNPROTECTED WELL ..... 32<br>WATER FROM SPRING<br>PROTECTED SPRING ..... 41<br>UNPROTECTED SPRING ..... 42<br>RAINWATER ..... 51<br>TANKER TRUCK ..... 61<br>CART WITH SMALL TANK ..... 71<br>SURFACE WATER (RIVER/DAM/<br>LAKE/POND/STREAM/CANAL/<br>IRRIGATION CHANNEL) ..... 81<br>BOTTLED WATER ..... 91<br><br>OTHER _____ 96<br>(SPECIFY) | |
| 14 | What kind of toilet facility do members of your household usually use? | FLUSH OR POUR FLUSH TOILET<br>FLUSH TO PIPED SEWER<br>SYSTEM ..... 11<br>FLUSH TO SEPTIC TANK ..... 12<br>FLUSH TO PIT LATRINE ..... 13<br>FLUSH TO SOMEWHERE ELSE ..... 14<br>FLUSH, DONOT KNOW WHERE ..... 15<br>PIT LATRINE<br>VENTILATED IMPROVED<br>PIT LATRINE ..... 21<br>PIT LATRINE WITH SLAB ..... 22<br>PIT LATRINE WITHOUT SLAB/<br>OPEN PIT ..... 23<br>COMPOSTING TOILET ..... 24<br>BUCKET TOILET ..... 31<br>HANGING TOILET/LATRINE ..... 51<br>NO FACILITY/BUSH/FIELD ..... 61 → 16<br><br>OTHER _____ 96<br>(SPECIFY) | |
| 15 | Do you share this toilet facility with other households? | YES ..... 1<br>NO ..... 2 | |

| NO. | QUESTIONS AND FILTERS | CODING CATEGORIES | SKIP |
|---|---|---|---|
| 16 | Does your household (or any member of your household) have:<br>(ask for each item)<br>Electricity?<br>A radio?<br>A television?<br>A mobile telephone?<br>A non-mobile telephone?<br>A refrigerator/fridge?<br>An almirah/wardrobe?<br>A table?<br>A chair?<br>An electric fan?<br>A bicycle?<br>A motorcycle/motor scooter/ tempo/CNG?<br>An animal drawn cart?<br>A car/truck/bus/microbus?<br>A boat with a motor/ troller?<br>A ricksha/van?<br>A DVD/VCD player?<br>A water pump? | YES NO<br>ELECTRICITY..... 1 2<br>RADIO..... 1 2<br>TELEVISION..... 1 2<br>MOBILE PHONE..... 1 2<br>NON-MOBILE PHONE ..... 1 2<br>REFRIGERATOR ..... 1 2<br>ALMIRAH ..... 1 2<br>TABLE..... 1 2<br>CHAIR..... 1 2<br>ELCTRIC FAN ..... 1 2<br>BICYLE ..... 1 2<br>MOTORCYCLE/CNG..... 1 2<br>ANIMAL-DRAWN CART ..... 1 2<br>CAR/TRUCK/BUS/MICROBUS ... 1 2<br>BOAT WITH MOTOR..... 1 2<br>RICKSHA/VAN..... 1 2<br>DVD/VCD PLAYER..... 1 2<br>WATER PUMP..... 1 2 | |
| 17 | MAIN MATERIAL OF THE FLOOR.<br><br>RECORD OBSERVATION. | NATURAL FLOOR<br>EARTH/SAND..... 11<br>RUDIMENTARY FLOOR<br>WOODPLANKS ..... 21<br>PALM/BAMBOO ..... 22<br>FINISHED FLOOR<br>PARQUET OR POLISHED WOOD .... 31<br>CERAMIC TILES ..... 32<br>CEMENT..... 33<br>CARPET ..... 34<br><br>OTHER _____ 96<br>(SPECIFY) | |
| 18 | MAIN MATERIAL OF THE ROOF.<br><br>RECORD OBSERVATION. | NATURAL ROOFING<br>NO ROOF ..... 11<br>THATCH/PALM LEAF..... 12<br>RUDIMENTARY ROOFING<br>BAMBOO ..... 21<br>WOOD PLANKS ..... 22<br>CARDBOARD ..... 23<br>FINISHED ROOFING<br>TIN ..... 31<br>WOOD ..... 32<br>CERAMIC TILES ..... 33<br>CEMENT..... 34<br>WOOD……..35<br>ROOFING SHINGLES..... 36<br><br>OTHER _____ 96<br>(SPECIFY) | |

| NO. | QUESTIONS AND FILTERS | CODING CATEGORIES | SKIP |
|---|---|---|---|
| 19 | MAIN MATERIAL OF THE EXTERIOR WALLS<br><br>RECORD OBSERVATION. | NATURAL WALLS<br>NO WALLS ..... 11<br>CANE/PALM/TRUNKS ..... 12<br>DIRT/MUD ..... 13<br>RUDIMENTARY WALLS<br>BAMBOO WITH MUD/BAMBOO ..... 21<br>STONE WITH MUD ..... 22<br>PLYWOOD..... 23<br>CARDBOARD ..... 24<br>FINISHED WALLS<br>TIN ..... 31<br>CEMENT..... 32<br>STONE WITH LIME/CEMENT..... 33<br>BRICKS..... 34<br>WOOD PLANKS ..... 35<br><br>OTHER _____ 96<br>(SPECIFY) | |
| 20 | Does this household own any livestock, herds, other farm animals, or poultry? | YES ..... 1<br>NO..... 2 → | 22 |
| 21 | How many of the following animals does this household own?<br>( ask for each animal)<br>IF NONE, ENTER '00'<br>IF MORE THAN 95, ENETR '95'<br>IF UNKNOWN, ENTER '98'.<br><br>Cows or bulls or buffalos?<br><br>Goats or sheep?<br><br>Chickens or ducks? | COWS/BULLS/BUFFALOS …….. ☐☐<br>GOATS/SHEEP …….. ☐☐<br>CHICKENS/DUCKS …… . ☐☐ | |
| 22 | Does your household own any homestead?<br><br>IF 'NO', PROBE:<br>Does your household own homestead any other places? | YES ..... 1<br>NO..... 2 | |
| 23 | Does your household own any land (other than the homestead land)? | YES ..... 1<br>NO..... 2 → | 25 |
| 24 | How much land does your household own (other than the homestead land)?<br><br>AMOUNT _____<br>SPECIFY UNIT_____ | ☐☐ ACRES ☐☐ DECIMALS | |
| 25 | Did any usual resident of this household die since October 2006 (Kartik 1413)? | YES ..... 1<br>NO..... 2 → | 40 |
| 26 | How many persons died? | TOTAL PERSONS..... ☐☐ | |

**NOTE TO SUPERVISORS: PLEASE ASK NEIGHBORS ABOUT ANY DEATH THAT HAPPENED IN THIS HOUSEHOLD SINCE OCTOBER 2006 (KARTIK 1413). VERIFY INFROMATION RECORDED IN Q25 AND Q26 AND CORRECT ACCORDINGLY WITH NOTES. INFORM RESPECTIVE INTERVIEWER.**

I would like to know about the person died in your household since October 2006 (Kartik 1413)? Please provide me the information first on recent death.

| 27 | 28 | 29 | 30 | 31 | FOR 13-49 YEARS OLD WOMEN | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 32 | 33 | 34 | 35 | 36 | 37 | 38 |
| Tell me the name(s) of the person(s) who died since October 2006 (Kartik 1413).<br><br>Start with the last person died. | Was (NAME) a male or female? | How old was he/she when he/she died?<br><br>RECORD DAYS IF LESS THAN ONE MONTH; MONTHS IF LESS THAN TWO YEARS; YEARS IF TWO YEARS OR MORE. | In what month and year did (NAME) die? | **CHECK 28 AND 29:**<br><br>IF DECEASED WAS A FEMALE AGED 13-49 AT THE TIME OF DEATH, CIRCLE CODE '1'.<br><br>Q28=1 & Q29=13-49 | What was (NAME) marital status at the time when she died? | Was (NAME) pregnant when she died? | Did (NAME) die during childbirth/ miscarriage/ abortion/ MR? | Did (NAME) die within one and half month (6 weeks) after the end of a pregnancy or childbirth/ miscarriage/ abortion/ MR? | Did (NAME) die after one and half month (6 weeks) but within 12 months after the end of pregnancy or childbirth/ miscarriage/ abortion/ MR? | **ELIGIBILITY FOR VERBAL AUTOPSY:**<br><br>**IF CIRCLE "1" IN Q 31 THEN CIRCLE LINE NUMBER** | Did (NAME) die at home or outside home? |
| 01<br>_____<br>(NAME) | FEMALE ... 1<br>MALE..... 2 | DAYS.....1<br>MONTHS...2<br>YEARS.....3 | MONTH<br>YEAR | YES ..... 1<br>NO ..... 2<br>(GO TO NEXT DEATH) | CM .....1<br>FM.....2<br>NM .....3<br>(GO TO 37) | YES.....1<br>(GO TO 37)<br>NO .....2 | YES .....1<br>(GO TO 37)<br>NO .....2 | YES ..... 1<br>(GO TO 37)<br>NO..... 2 | YES.....1<br>NO .....2 | 01 | AT HOME.....1<br>OUTSIDE HOME.....2 |
| 02<br>_____<br>(NAME) | FEMALE ... 1<br>MALE..... 2 | DAYS.....1<br>MONTHS...2<br>YEARS.....3 | MONTH<br>YEAR | YES ..... 1<br>NO ..... 2<br>(GO TO NEXT DEATH) | CM .....1<br>FM.....2<br>NM .....3<br>(GO TO 37) | **YES.....1**<br>**(GO TO 37)**<br>**NO .....2** | YES .....1<br>(GO TO 37)<br>NO .....2 | YES ..... 1<br>(GO TO 37)<br>NO..... 2 | YES.....1<br>NO .....2 | 02 | AT HOME.....1<br>OUTSIDE HOME.....2 |
| 03<br>_____<br>(NAME) | FEMALE ... 1<br>MALE..... 2 | DAYS.....1<br>MONTHS...2<br>YEARS.....3 | MONTH<br>YEAR | YES ..... 1<br>NO ..... 2<br>(GO TO NEXT DEATH) | CM .....1<br>FM.....2<br>NM .....3<br>(GO TO 37) | YES.....1<br>(GO TO 37)<br>NO .....2 | YES .....1<br>(GO TO 37)<br>NO .....2 | YES ..... 1<br>(GO TO 37)<br>NO..... 2 | YES.....1<br>NO .....2 | 03 | AT HOME.....1<br>OUTSIDE HOME.....2 |

| | |
|---|---|
| 39 | **TOTAL NUMBER OF PERSONS CIRCLED IN Q37** ☐☐ **(INTERVIEWERS: PLEASE INFORM YOUR SUPERVISOR ABOUT THE NUMBER OF ELIGIBLE VERBAL AUTOPSY CASES IN THE HOUSEHOLD)** |
| **SUPERVISOR: YOU MUST ATTEMPT TO COMPLETE THE EQUAL NUMBER OF VERBAL AUTOPSIES AS RECORDED IN Q39.** | |
| 40 | **INTERVIEWER: INTERVIEW ALL WOMEN RECORDED IN Q12 USING THE WOMAN'S QUESTIONNAIRE** |
| 41 | **HH interview Ending time: Hour** ☐☐ **Min** ☐☐ |

# Woman's Questionnaire
## Face Sheet

**IDENTIFICATION**

DIVISION.....

DISTRICT.....

UPAZILA/THANA.....

UNION/WARD.....

MOUZA/ MOHOLLA.....

VILLAGE/MOHOLLA/BLOCK _____

SEGMENT NUMBER.....

TYPE OF CLUSTER: RURAL 1 URBAN 2 OTHER URBAN 3

CLUSTER NUMBER.....

HOUSEHOLD NUMBER.....

TYPE OF QUESTIONNAIRE: SHORT 1 LONG 2

CSBA AREA YES 1 NO 2

NAME OF THE HOUSEHOLD HEAD _____

NAME AND LINE NUMBER OF ELIGIBLE RESPONDENT _____

**INTERVIEWER VISITS**

| | 1 | 2 | 3 | FINAL VISIT |
|---|---|---|---|---|
| DATE | | | | DAY<br>MONTH*<br>YEAR |
| INTERVIEWER'S NAME | | | | CODE |
| RESULT** | | | | RESULT** |
| NEXT VISIT: DATE | | | | TOTAL NO. OF VISITS |
| TIME | | | | |

**RESULT CODES:

1 COMPLETED
2 NOT AT HOME
3 POSTPONED
4 REFUSED
5 PARTLY COMPLETED
6 RESPONDENT INCAPACITATED
7 OTHER_____ (SPECIFY)

*MONTH CODES

01. JANUARY
02. FEBRUARY
03. MARCH
04. APRIL
05. MAY
06. JUNE
07. JULY
08. AUGUST
09. SEPTEMBER
10. OCTOBER
11. NOVEMBER
12. DECEMBER

| SUPERVISOR | FIELD EDITOR | OFFICE EDITOR | KEYED BY |
|---|---|---|---|
| NAME _____<br>DATE _____ | NAME _____<br>DATE _____ | | |

# Section 1: RESPONDENTS BACKGROUND

## Introduction and Consent

আসসালামু আলাইকুম/আদাব,

আমার নাম_____। বর্তমানে আমরা স্বাস্থ্য ও পরিবার কল্যাণ মন্ত্রণালয়ের আওতায় জাতীয় জনসংখ্যা গবেষণা ও প্রশিক্ষণ ইনস্টিটিউট (নিপোর্ট) এর তত্ত্বাবধানে একটি জাতীয় নমুনা জরীপের কাজে নিয়োজিত। আপনি এই জরীপে অংশগ্রহণ করলে আমরা খুবই খুশী হব। আমি আপনার এবং আপনার বাচ্চার স্বাস্থ্য সম্পর্কে কিছু প্রশ্ন জিজ্ঞেস করতে চাই। এই তথ্যসমূহ সরকারকে মাতৃ ও শিশু স্বাস্থ্যসেবা সম্পর্কে পরিকল্পনা প্রণয়নে সাহায্য করবে। এই সাক্ষাৎকার গ্রহণে মোটামুটিভাবে ২০ থেকে ৪৫ মিনিটের মত সময় লাগবে। আপনার দেয়া সমস্ত তথ্য সম্পূর্ণভাবে গোপন রাখা হবে এবং অন্য কাউকে দেখানো হবে না।

এই জরীপে অংশগ্রহণ সম্পূর্ণভাবে আপনার ইচ্ছার উপর নির্ভর করছে এবং আপনি ইচ্ছা করলে কোন একটি প্রশ্নের বা সম্পূর্ণ প্রশ্নমালার উত্তর নাও দিতে পারেন । তারপরও আমি আশা করব আপনি এই জরীপে অংশগ্রহণ করবেন কারণ আপনার মতামত এই জরীপের জন্য অত্যন্ত গুরুত্বপূর্ণ।

এখন আপনি জরীপ সম্পর্কে জানতে চাইলে আমাকে জিজ্ঞাসা করতে পারেন।

আমি কি এখন সাক্ষাৎকার নেওয়া শুরু করতে পারি?

**Signature of interviewer:**_____ **Date:**_____

উত্তরদাতা উত্তর দিতে রাজী হয়েছেন ..... [1] ↓ উত্তরদাতা উত্তর দিতে রাজী হন নি..... [2] → **END**

| NO. | QUESTIONS AND FILTERS | CODING CATEGORIES | SKIP |
|---|---|---|---|
| 101 | RECORD THE TIME STARTED. | HOUR [ ][ ] MIN [ ][ ] | |
| 102 | In what month and year were you born? | MONTH..... [ ][ ]<br>DON'T KNOW MONTH ..... 98<br>YEAR ..... [ ][ ][ ][ ]<br>DON'T KNOW YEAR..... 9998 | |
| 103 | How old were you at your last birthday?<br>COMPARE AND CORRECT 102 AND /OR 103 IF INCONSISTENT | AGE IN COMPLETED YEARS [ ][ ] | |
| 104 | Are you now married, separated, deserted, widowed, divorced or have you never been married? | CURRENTLY MARRIED..... 1<br>SEPARATED..... 2<br>DESERTED..... 3<br>DIVORCED..... 4<br>WIDOWED..... 5<br>NEVER MARRIED..... 6 | → END |
| 105 | Have you ever attended school including madrasha? | YES..... 1<br>NO..... 2 | → 107 |
| 106 | What is the highest class you completed including madrasha?<br>WRITE '00' IF NOT COMPLETED ANY CLASS | CLASS ..... [ ][ ] | |
| 107 | What is your religion? | ISLAM..... 1<br>HINDUISM..... 2<br>BUDDHISM..... 3<br>CHRISTIANITY..... 4<br>OTHER (SPECIFY ----------)....6 | |

## SECTION 2: MATERNAL MORTALITY (SISTERHOOD)

| NO. | QUESTIONS AND FILTERS | CODING CATEGORIES | SKIP |
|---|---|---|---|
| | Now I would like to ask you some questions about your brothers and sisters, that is, all of the children born to your natural mother, including those who are living with you, those living elsewhere and those who have died. | | |
| 201 | How many live births did your mother give, including you? | NUMBER OF BIRTHS TO NATURAL MOTHER..... [ ][ ] | |
| 202 | INTREVIEWER: CHECK 201 AND CIRCLE APPROPRIATE CODE | TWO OR MORE BIRTHS……1<br>ONLY ONE BIRTH……2 | → 301 |
| 203 | How many of these births did your mother have before you were born?<br>(IF NONE, THEN ENTER "00" IN THE BOX) | NUMBER OF PRECEDING BIRTHS ..... [ ][ ] | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 204 | What was the name given to your oldest (next oldest) brother or sister? | [1] _____ | [2] _____ | [3] _____ | [4] _____ | [5] _____ | [6] _____ |
| 205 | Is (NAME) male or female? | MALE .....1<br>FEMALE.....2 | MALE.....1<br>FEMALE .....2 | MALE .....1<br>FEMALE.....2 | MALE.....1<br>FEMALE .....2 | MALE.....1<br>FEMALE.....2 | MALE .....1<br>FEMALE.....2 |
| 206 | Is (NAME) still alive? | YES.....1<br>NO.....2<br>└>GO TO 208<br>DK.....8<br>└>GO TO [2] | YES .....1<br>NO .....2<br>└>GO TO 208<br>DK.....8<br>└>GO TO [3] | YES.....1<br>NO.....2<br>└>GO TO 208<br>DK .....8<br>└>GO TO [4] | YES.....1<br>NO .....2<br>└>GO TO 208<br>DK.....8<br>└>GO TO [5] | YES .....1<br>NO.....2<br>└>GO TO 208<br>DK .....8<br>└>GO TO [6] | YES.....1<br>NO.....2<br>└>GO TO 208<br>DK.....8<br>└>GO TO [7] |
| 207 | How old is (NAME)? | [ ][ ]<br>IF NO MORE SIBLING GO TO Q301 OTHERIWSE GO TO [2] | [ ][ ]<br>IF NO MORE SIBLING GO TO Q301 OTHERIWSE GO TO [3] | [ ][ ]<br>IF NO MORE SIBLING GO TO Q301 OTHERIWSE GO TO [4] | [ ][ ]<br>IF NO MORE SIBLING GO TO Q301 OTHERIWSE GO TO [5] | [ ][ ]<br>IF NO MORE SIBLING GO TO Q301 OTHERIWSE GO TO [6] | [ ][ ]<br>IF NO MORE SIBLING GO TO Q301 OTHERIWSE GO TO [7] |
| 208 | How many years ago did (NAME) die?<br>(Write 00 if died less than 1 year) | [ ][ ] | [ ][ ] | [ ][ ] | [ ][ ] | [ ][ ] | [ ][ ] |
| 209 | How old was (NAME) when he/she died? | [ ][ ]<br>IF MALE OR IF FEMALE AND DIED BEFORE 13 YEARS OF AGE OR AFTER 49 YEARS OF AGE GO TO [2]. IF NO MORE SIBLING GO TO Q301 | [ ][ ]<br>IF MALE OR IF FEMALE AND DIED BEFORE 13 YEARS OF AGE OR AFTER 49 YEARS OF AGE GO TO [3]. IF NO MORE SIBLING GO TO Q301 | [ ][ ]<br>IF MALE OR IF FEMALE AND DIED BEFORE 13 YEARS OF AGE OR AFTER 49 YEARS OF AGE GO TO [4]. IF NO MORE SIBLING GO TO Q301 | [ ][ ]<br>IF MALE OR IF FEMALE AND DIED BEFORE 13 YEARS OF AGE OR AFTER 49 YEARS OF AGE GO TO [5]. IF NO MORE SIBLING GO TO Q301 | [ ][ ]<br>IF MALE OR IF FEMALE AND DIED BEFORE 13 YEARS OF AGE OR AFTER 49 YEARS OF AGE GO TO [6]. IF NO MORE SIBLING GO TO Q301 | [ ][ ]<br>IF MALE OR IF FEMALE AND DIED BEFORE 13 YEARS OF AGE OR AFTER 49 YEARS OF AGE GO TO [7]. IF NO MORE SIBLING GO TO Q301 |
| 210 | Was (NAME) pregnant when she died? | YES.....1<br>GO TO 213<┘<br>NO.....2 | YES .....1<br>GO TO 213<┘<br>NO .....2 | YES.....1<br>GO TO 213<┘<br>NO.....2 | YES.....1<br>GO TO 213<┘<br>NO .....2 | YES .....1<br>GO TO 213<┘<br>NO.....2 | YES.....1<br>GO TO 213<┘<br>NO.....2 |
| 211 | Did (NAME) die during childbirth? | YES.....1<br>GO TO 213<┘<br>NO.....2 | YES .....1<br>GO TO 213<┘<br>NO .....2 | YES.....1<br>GO TO 213<┘<br>NO.....2 | YES.....1<br>GO TO 213<┘<br>NO .....2 | YES .....1<br>GO TO 213<┘<br>NO.....2 | YES.....1<br>GO TO 213<┘<br>NO.....2 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 212 | Did (NAME) die within two months after the end of a pregnancy or childbirth? | YES.....1<br>NO.....2 | YES ..... 1<br>NO ..... 2 | YES ..... 1<br>NO..... 2 | YES.....1<br>NO .....2 | YES ..... 1<br>NO ..... 2 | YES.....1<br>NO.....2 |
| 213 | How many live born children did (NAME) give birth to during her lifetime (before this pregnancy)?<br>(If no, then write 00) | ☐☐ | ☐☐ | ☐☐ | ☐☐ | ☐☐ | ☐☐ |
| **IF NO MORE BROTHERS OR SISTERS, GO TO Q301** | | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 204 | What was name given to your oldest (next oldest) brother or sister? | [7]<br>_____ | [8]<br>_____ | [9]<br>_____ | [10]<br>_____ | [11]<br>_____ | [12]<br>_____ |
| 205 | Is (NAME) male or female? | MALE .....1<br>FEMALE.....2 | MALE.....1<br>FEMALE .....2 | MALE ..... 1<br>FEMALE..... 2 | MALE.....1<br>FEMALE .....2 | MALE..... 1<br>FEMALE..... 2 | MALE ..... 1<br>FEMALE..... 2 |
| 206 | Is (NAME) still alive? | YES.....1<br>NO.....2<br>└>GO TO 208<br>DK.....8<br>└>GO TO [8] | YES .....1<br>NO .....2<br>└>GO TO 208<br>DK.....8<br>└>GO TO [9] | YES ..... 1<br>NO..... 2<br>└>GO TO 208<br>DK ..... 8<br>└>GO TO [10] | YES.....1<br>NO .....2<br>└>GO TO 208<br>DK.....8<br>└>GO TO [11] | YES ..... 1<br>NO ..... 2<br>└>GO TO 208<br>DK ..... 8<br>└>GO TO [12] | YES..... 1<br>NO..... 2<br>└>GO TO 208<br>DK..... 8<br>└>GO TO [13] |
| 207 | How old is (NAME)? | ☐☐<br>IF NO MORE SIBLING GO TO Q301 OTHERIWSE GO TO [8] | ☐☐<br>IF NO MORE SIBLING GO TO Q301 OTHERIWSE GO TO [9] | ☐☐<br>IF NO MORE SIBLING GO TO Q301 OTHERIWSE GO TO [10] | ☐☐<br>IF NO MORE SIBLING GO TO Q301 OTHERIWSE GO TO [11] | ☐☐<br>IF NO MORE SIBLING GO TO Q301 OTHERIWSE GO TO [12] | ☐☐<br>IF NO MORE SIBLING GO TO Q301 OTHERIWSE GO TO [13] |
| 208 | How many years ago did (NAME) die?<br>(Write 00 if died less than 1 year) | ☐☐ | ☐☐ | ☐☐ | ☐☐ | ☐☐ | ☐☐ |
| 209 | How old was (NAME) when he/she died? | ☐☐<br>IF MALE OR IF FEMALE AND DIED BEFORE 13 YEARS OF AGE OR AFTER 49 YEARS OF AGE GO TO [8]. IF NO MORE SIBLING GO TO Q301 | ☐☐<br>IF MALE OR IF FEMALE AND DIED BEFORE 13 YEARS OF AGE OR AFTER 49 YEARS OF AGE GO TO [9]. IF NO MORE SIBLING GO TO Q301 | ☐☐<br>IF MALE OR IF FEMALE AND DIED BEFORE 13 YEARS OF AGE OR AFTER 49 YEARS OF AGE GO TO [10]. IF NO MORE SIBLING GO TO Q301 | ☐☐<br>IF MALE OR IF FEMALE AND DIED BEFORE 13 YEARS OF AGE OR AFTER 49 YEARS OF AGE GO TO [11]. IF NO MORE SIBLING GO TO Q301 | ☐☐<br>IF MALE OR IF FEMALE AND DIED BEFORE 13 YEARS OF AGE OR AFTER 49 YEARS OF AGE GO TO [12]. IF NO MORE SIBLING GO TO Q301 | ☐☐<br>IF MALE OR IF FEMALE AND DIED BEFORE 13 YEARS OF AGE OR AFTER 49 YEARS OF AGE GO TO [13]. IF NO MORE SIBLING GO TO Q301 |
| 210 | Was (NAME) pregnant when she died? | YES.....1<br>GO TO 213<┘<br>NO.....2 | YES .....1<br>GO TO 213<┘<br>NO .....2 | YES ..... 1<br>GO TO 213<┘<br>NO..... 2 | YES.....1<br>GO TO 213<┘<br>NO .....2 | YES ..... 1<br>GO TO 213<┘<br>NO ..... 2 | YES.....1<br>GO TO 213<┘<br>NO.....2 |
| 211 | Did (NAME) die during childbirth? | YES.....1<br>GO TO 213<┘<br>NO.....2 | YES .....1<br>GO TO 213<┘<br>NO .....2 | YES ..... 1<br>GO TO 213<┘<br>NO..... 2 | YES.....1<br>GO TO 213<┘<br>NO .....2 | YES ..... 1<br>GO TO 213<┘<br>NO ..... 2 | YES.....1<br>GO TO 213<┘<br>NO.....2 |
| 212 | Did (NAME) die within two months after the end of a pregnancy or childbirth? | YES.....1<br>NO.....2 | YES .....1<br>NO .....2 | YES ..... 1<br>NO..... 2 | YES.....1<br>NO .....2 | YES ..... 1<br>NO ..... 2 | YES.....1<br>NO.....2 |
| 213 | How many live born children did (NAME) give birth to during her lifetime (before this pregnancy)?<br>(If no, then write 00) | ☐☐ | ☐☐ | ☐☐ | ☐☐ | ☐☐ | ☐☐ |

**ADD MORE PAGES IF MORE THAN 12 BROTEHRS AND/OR SISTERS. IF NO MORE BROTHERS OR SISTERS, GO TO Q301.**

## SECTION 3: REPRODUCTION

| NO. | QUESTIONS AND FILTERS | CODING CATEGORIES | SKIP |
|---|---|---|---|
| | Now I would like to ask about all the births you have had during your life. | | |
| 301 | Have you ever given birth? | YES.....1<br>NO.....2 | → 306 |
| 302 | Do you have any son(s) or daughter(s) to whom you have given birth who are now living with you? | YES.....1<br>NO.....2 | → 304 |
| 303 | How many sons live with you?<br><br>And how many daughters live with you?<br><br>IF NONE, RECORD "00" | SONS, LIVING WITH THE RESPONDENT |___|___|<br><br>DAUGHTERS, LIVING WITH THE RESPONDENT |___|___| | |
| 304 | Do you have any son(s) or daughter(s) to whom you have given birth who are alive but do not live with you? | YES.....1<br>NO.....2 | → 306 |
| 305 | How many sons are alive but do not live with you?<br><br>And how many daughters are alive but do not live with you?<br><br>IF NONE, RECORD "00" | SONS ELSEWHERE |___|___|<br><br>DAUGHTERS ELSEWHERE |___|___| | |
| 306 | Have you ever given birth to a boy or girl who was born alive but later died?<br><br>IF NO, PROBE: Any baby who cried or showed signs of life but survived for few minutes/hours/days only? | YES.....1<br>NO.....2 | → 308 |
| 307 | In all, how many boys have died?<br><br>And how many daughters have died?<br><br>IF NONE, RECORD "00" | BOYS DEAD |___|___|<br><br>GIRLS DEAD |___|___| | |
| 308 | SUM ANSWERS TO 303,305 AND 307, AND ENTER TOTAL.<br><br>IF NONE, RECORD "00" | TOTAL .....|___|___| | |
| 309 | CHECK 308:<br><br>Just to make sure that I have this right: you have had in TOTAL _____ births during your life. Is that correct?<br><br>YES ☐ ↓ NO ☐ → PROBE AND CORRECT 301-308 AS NECESSARY | | |
| 310 | CHECK 308:<br><br>ONE OR MORE BIRTHS ☐ ↓ NO BIRTHS ☐ → | | 325 |

311 Now I would like to record the names of all your births, whether still alive or not, starting with the first one you had.

RECORD NAMES OF ALL THE BIRTHS IN Q312 . IF NO NAME WAS GIVEN, RECORD 'NO NAME' IN 312. RECORD TWINS AND TRIPLETS ON SEPARATE LINES.

| 312<br>What name was given to your (first /next) baby?<br>(NAME) | 313<br>Were any of these births twins? | 314<br>Is (NAME) a boy or a girl? | 315<br>In what month and year was (NAME) born?<br>PROBE: What is his/her birthday? | 316<br>Is (NAME) still alive? | 317<br>IF ALIVE:<br>How old was (NAME) at his/her last birthday?<br>RECORD AGE IN COMPLETED YEARS. | 318<br>IF ALIVE:<br>Is (NAME) living with you? | 319<br>IF ALIVE:<br>RECORD HOUSEHOLD LINE NUMBER OF CHILD (RECORD '00' IF CHILD NOT LISTED IN HOUSEHOLD) | 320<br>IF DEAD:<br>How old was (NAME) when he/she died?<br>IF '1' YR', PROBE: How many months old was (NAME)?<br>RECORD DAYS IF LESS THAN 1 MONTH; MONTHS IF LESS THAN TWO YEARS; YEARS IF TWO OR MORE YEARS. | 321<br>Were there any other live births between (NAME OF PREVIOUS BIRTH) and (NAME), including any children who died after birth? |
|---|---|---|---|---|---|---|---|---|---|
| 01 | SING.....1<br>MULT.... 2 | BOY. .. 1<br>GIRL.... 2 | MONTH<br>YEAR | YES. 1<br>NO..... 2<br>320 | AGE IN YEARS | YES. .. 1<br>NO..... 2 | LINE NUMBER<br>(NEXT BIRTH) | DAYS.....1<br>MONTHS...2<br>YEARS.....3 | |
| 02 | SING.....1<br>MULT.... 2 | BOY. .. 1<br>GIRL.... 2 | MONTH<br>YEAR | YES. 1<br>NO..... 2<br>320 | AGE IN YEARS | YES. .. 1<br>NO..... 2 | LINE NUMBER<br>(GO TO 321) | DAYS.....1<br>MONTHS...2<br>YEARS.....3 | YES. .. 1<br>NO..... 2 |
| 03 | SING.....1<br>MULT.... 2 | BOY. .. 1<br>GIRL.... 2 | MONTH<br>YEAR | YES. 1<br>NO..... 2<br>320 | AGE IN YEARS | YES. .. 1<br>NO..... 2 | LINE NUMBER<br>(GO TO 321) | DAYS.....1<br>MONTHS...2<br>YEARS.....3 | YES. .. 1<br>NO..... 2 |
| 04 | SING.....1<br>MULT.... 2 | BOY. .. 1<br>GIRL.... 2 | MONTH<br>YEAR | YES. 1<br>NO..... 2<br>320 | AGE IN YEARS | YES. .. 1<br>NO..... 2 | LINE NUMBER<br>(GO TO 321) | DAYS.....1<br>MONTHS...2<br>YEARS.....3 | YES. .. 1<br>NO..... 2 |
| 05 | SING.....1<br>MULT.... 2 | BOY. .. 1<br>GIRL.... 2 | MONTH<br>YEAR | YES. 1<br>NO..... 2<br>320 | AGE IN YEARS | YES. .. 1<br>NO..... 2 | LINE NUMBER<br>(GO TO 321) | DAYS.....1<br>MONTHS...2<br>YEARS.....3 | YES. .. 1<br>NO..... 2 |
| 06 | SING.....1<br>MULT.... 2 | BOY. .. 1<br>GIRL.... 2 | MONTH<br>YEAR | YES. 1<br>NO..... 2<br>320 | AGE IN YEARS | YES. .. 1<br>NO..... 2 | LINE NUMBER<br>(GO TO 321) | DAYS.....1<br>MONTHS...2<br>YEARS.....3 | YES. .. 1<br>NO..... 2 |
| 07 | SING.....1<br>MULT.... 2 | BOY. .. 1<br>GIRL.... 2 | MONTH<br>YEAR | YES. 1<br>NO..... 2<br>320 | AGE IN YEARS | YES. .. 1<br>NO..... 2 | LINE NUMBER<br>(GO TO 321) | DAYS.....1<br>MONTHS...2<br>YEARS.....3 | YES. .. 1<br>NO..... 2 |
| 08 | SING.....1<br>MULT.... 2 | BOY. .. 1<br>GIRL.... 2 | MONTH<br>YEAR | YES. 1<br>NO..... 2<br>320 | AGE IN YEARS | YES. .. 1<br>NO..... 2 | LINE NUMBER<br>(GO TO 321) | DAYS.....1<br>MONTHS...2<br>YEARS.....3 | YES. .. 1<br>NO..... 2 |

| 312<br><br>What name was given to your (first /next) baby?<br><br>(NAME) | 313<br><br>Were any of these births twins? | 314<br><br>Is (NAME) a boy or a girl? | 315<br><br>In what month and year was (NAME) born?<br><br>PROBE: What is his/her birthday? | 316<br><br>Is (NAME) still alive? | 317<br>IF ALIVE:<br><br>How old was (NAME) at his/her last birthday?<br><br>RECORD AGE IN COMPLETE D YEARS. | 318<br>IF ALIVE:<br><br>Is (NAME) living with you? | 319<br>IF ALIVE:<br><br>RECORD HOUSEHOLD LINE NUMBER OF CHILD (RECORD '00' IF CHILD NOT LISTED IN HOUSEHOLD) | 320<br>IF DEAD:<br><br>How old was (NAME) when he/she died? IF '1' YR', PROBE: How many months old was (NAME)?<br><br>RECORD DAYS IF LESS THAN 1 MONTH; MONTHS IF LESS THAN TWO YEARS; YEARS IF TWO OR MORE YEARS. | 321<br><br>Were there any other live births between (NAME OF PREVIOUS BIRTH) and (NAME), including any children who died after birth? |
|---|---|---|---|---|---|---|---|---|---|
| 09 | SING..... 1<br>MULT.... 2 | BOY. .. 1<br>GIRL.... 2 | MONTH [ ][ ]<br>YEAR [ ][ ][ ][ ] | YES. 1<br>NO..... 2<br>↓<br>320 | AGE IN YEARS [ ][ ] | YES. .. 1<br>NO..... 2 | LINE NUMBER [ ][ ]<br>↓<br>(GO TO 321) | DAYS.....1 [ ][ ]<br>MONTHS...2 [ ][ ]<br>YEARS.....3 [ ][ ] | YES. .. 1<br>NO..... 2 |
| 10 | SING..... 1<br>MULT.... 2 | BOY. .. 1<br>GIRL.... 2 | MONTH [ ][ ]<br>YEAR [ ][ ][ ][ ] | YES. 1<br>NO..... 2<br>↓<br>320 | AGE IN YEARS [ ][ ] | YES. .. 1<br>NO..... 2 | LINE NUMBER [ ][ ]<br>↓<br>(GO TO 321) | DAYS.....1 [ ][ ]<br>MONTHS...2 [ ][ ]<br>YEARS.....3 [ ][ ] | YES. .. 1<br>NO..... 2 |
| 11 | SING..... 1<br>MULT.... 2 | BOY. .. 1<br>GIRL.... 2 | MONTH [ ][ ]<br>YEAR [ ][ ][ ][ ] | YES. 1<br>NO..... 2<br>↓<br>320 | AGE IN YEARS [ ][ ] | YES. .. 1<br>NO..... 2 | LINE NUMBER [ ][ ]<br>↓<br>(GO TO 321) | DAYS.....1 [ ][ ]<br>MONTHS...2 [ ][ ]<br>YEARS.....3 [ ][ ] | YES. .. 1<br>NO..... 2 |
| 12 | SING..... 1<br>MULT.... 2 | BOY. .. 1<br>GIRL.... 2 | MONTH [ ][ ]<br>YEAR [ ][ ][ ][ ] | YES. 1<br>NO..... 2<br>↓<br>320 | AGE IN YEARS [ ][ ] | YES. .. 1<br>NO..... 2 | LINE NUMBER [ ][ ]<br>↓<br>(GO TO 321) | DAYS.....1 [ ][ ]<br>MONTHS...2 [ ][ ]<br>YEARS.....3 [ ][ ] | YES. .. 1<br>NO..... 2 |

| | | | |
|---|---|---|---|
| 322 | Have you had any other live birth since the birth of (NAME OF LAST BIRTH)? | YES.....1<br>NO .....2 | → RECORD IN BIRTH HISTORY TABLE |
| 323 | INTERVIEWER: COMPARE 308 WITH NUMBER OF BIRTHS IN BIRTH HISTORY TABLE AND MARK:<br><br>NUMBERS ARE SAME [ ] ↓<br>NUMBERS ARE DIFFERENT [ ] → (PROBE AND CORRECT 312-321)<br><br>CHECK:<br>FOR EACH BIRTH: YEAR OF BIRTH IS RECORDED (Q315). [ ]<br>FOR EACH LIVING CHILD: CURRENT AGE IS RECORDED (Q317). [ ]<br>FOR EACH DEAD CHILD: AGE AT DEATH IS RECORDED (Q320). [ ]<br>FOR AGE AT DEATH 12 MONTHS OR 1 YR.: PROBE TO DETERMINE EXACT NUMBER OF MONTHS (Q320) [ ] | | |
| 324 | INTERVIEWER: CHECK 315 AND ENTER THE NUMBER OF BIRTHS SINCE OCTOBER 2004 (KARTIK 1413). IF NONE, RECORD '0'. | | [ ] |
| 325 | Since October 2004 have you had any other pregnancies that did not result in a live birth? | YES……1<br>NO……2 → | 327 |
| 326 | How many?<br><br>(ASK ABOUT EACH TYPE)<br><br>IF NONE, ENTER '0' IN THE BOX. | | |
| | | a. Still birth [ ] | |
| | | b. Induced abortion [ ] | |
| | | c. Miscarriage [ ] | |
| | | d. MR [ ] | |

| NO. | QUESTIONS AND FILTERS | CODING CATEGORIES | SKIP |
|---|---|---|---|
| 327 | INTREVIEWER: CHECK Q104 AND CIRCLE APPROPRIATE CODE. | CURRENTLY MARRIED.....1<br>SEPARATED.....2<br>DESERTED.....3<br>DIVORCED.....4<br>WIDOWED.....5 | 501 |
| 328 | Are you pregnant now? | YES ..... 1<br>NO ..... 2<br>UNSURE ..... 3 | 330 |
| 329 | How many months pregnant are you?<br>(RECORD NUMBER OF COMPLETED MONTHS.) | MONTHS [ ][ ] | 401 |
| 330 | Are you or your husband doing something or using any family planning method to delay or avoid getting pregnant? | YES ..... .....1<br>NO..... 2 | 501 |
| 331 | Which method are you using?<br><br>CIRCLE ALL METHODS MENTIONED. | FEMALE STERILIZATION.....A<br>MALE STERILIZATION.....B<br>ORAL PILL.....C<br>IUD/CT.....D<br>INJECTION.....E<br>IMPLANT/NORPLANT.....F<br>CONDOM.....G<br>SAFE PERIOD/CALENDAR METHOD.....H<br>WITHDRAWAL.....I<br>POSTPARTUM AMENORRHOEA.....J<br>OTHER MODERN METHOD.<br>(SPECIFY_____.....).....X<br>OTHER TRADITIONAL METHOD<br>(SPECIFY_____)....Z | |
| 332 | INTERVIEWER: CHECK Q331 AND CIRCLE APPROPRIATE CODE.<br><br>IF MORE THAN ONE CODE IS CIRCLED IN Q331, CIRCLE THE HIGHEST CODE IN THE LIST | FEMALE STERILIZATION.....01<br>MALE STERILIZATION.....02<br>ORAL PILL.....03<br>IUD/CT.....04<br>INJECTION.....05<br>IMPLANT/NORPLANT.....06<br>CONDOM.....07<br>SAFE PERIOD/CALENDAR METHOD.....08<br>WITHDRAWAL.....09<br>POSTPARTUM AMENORRHOEA.....10<br>OTHER MODERN METHOD.<br>(SPECIFY_____.....)...95<br>OTHER TRADITIONAL METHOD<br>(SPECIFY_____).96 | 501<br><br>501 |

| NO. | QUESTIONS AND FILTERS | CODING CATEGORIES | SKIP |
|---|---|---|---|
| 333 | Where did you obtain (CURRENT METHOD) the last time?<br><br>PROBLE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE.<br><br>IN UNABLE TO DETERMINE IS HOSPITAL, HEALTH CENTER OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE<br><br>_____<br><br>(NAME OF THE PLACE) | **PUBLIC SECTOR**<br>MEDICAL COLLEGE HOSPITAL……....21<br>SPECIALISED GOVT.HOSPITAL (SPECIFY__)…..22<br>DISTRICT HOSPITAL…….....23<br>MCWC…….24<br>UPAZILLA HEALTH COMPLEX……..25<br>H& FWC…….....26<br>SAT. CLINIC/EPI OUTREACH……....27<br>COMMUNITY CLINIC……28<br>GOVT. FIELD WORKER (FWA)……....29<br>OTHER (SPECIFY _____)……..30<br><br>**NGO SECTOR**<br>NGO STATIC CLINIC……31<br>NGO SATELLITE CLINIC..……....32<br>NGO DEPO HOLDER……...33<br>NGO FIELD WORKER……..34<br>OTHER (SPECIFY _____)……..35<br><br>**PRIVATE MEDICAL SECTOR**<br>PRIVATE HOSPITAL/CLINIC…….....41<br>QUALIFIED DOCTOR…….....42<br>NON-QUALIFIED DOCTOR'……43<br>PHARMACY…….....44<br>PRIVATE MEDICAL COLLEGE HOSPITAL<br>(SPECIFY _____)……...45<br><br>**OTHER**<br>GROCERY SHOP……..51<br>FRIENDS/RELATIVES……..52<br>OTHER (SPECIFY _____)……96 | 501 |

## SECTION 4: BIRTH PLANNING

| NO. | QUESTIONS AND FILTERS | CODING CATEGORIES | SKIP |
|---|---|---|---|
| 401 | Has decisions been made regarding where will you have your delivery? | YES ..... 1 →<br>NO..... 2 | 403 |
| 402 | Has there been any discussion about it? | YES ..... 1<br>NO..... 2 → | 406 |
| 403 | Where will you have your delivery that was decided or discussed? | **HOME**<br>HOME.....11<br>**PUBLIC SECTOR**<br>MEDICAL COLLEGE HOSPITAL.....21<br>SPECIALISED GOVT.HOSPITAL (SPECIFY__).....22<br>DISTRICT HOSPITAL.....23<br>MCWC.....24<br>UPAZILLA HEALTH COMPLEX.....25<br>OTHER (SPECIFY _____).....30<br>**NGO SECTOR**<br>NGO STATIC CLINIC.....31<br>OTHER (SPECIFY _____).....35<br>**PRIVATE MEDICAL SECTOR**<br>PRIVATE HOSPITAL/CLINIC.....41<br>PRIVATE MEDICAL COLLEGE HOSPITAL<br>(SPEICFY _____).....45<br>OTHER (SPECIFY _____).....96 | |
| 404 | **INTERVIEWER: CHECK Q401 AND Q402 AND CIRCLE APPROPRIATE CODE** | **CODE '1' CIRCLED IN Q401.....1**<br>**CODE '1' CIRCLED IN Q402.....2** → | 405a |
| 405 | Who mainly made the decision? | RESPONDENT HERSELF.....01<br>HUSBAND.....02<br>MOTHER/FATHER.....03<br>MOTHER-IN-LAW/FATHER-IN-LAW.....04<br>SISTER.....05<br>SISTER-IN-LAW.....06<br>OTHER MEMBER OF RESP.'S FAMILY.....07<br>OTHER MEMBER OF HUSB.'S'S FAMILY .....08<br>RELATIVES..... 09<br>NEIGHBOR/FRIEND..... 10<br>TBA/FIELD WORKER/DAIL..... 11<br>OTHER (SPECIFY_____).....96 | |
| 405a | **NTERVIEWER: CHECK Q403 AND CIRCLE APPROPRIATE CODE** | **HOME**<br>HOME.....11<br>**PUBLIC SECTOR**<br>MEDICAL COLLEGE HOSPITAL.....21<br>SPECIALISED GOVT.HOSPITAL (SPECIFY__)...22<br>DISTRICT HOSPITAL.....23<br>MCWC.....24<br>UPAZILLA HEALTH COMPLEX.....25<br>OTHER (SPECIFY _____).....30<br>**NGO SECTOR**<br>NGO STATIC CLINIC.....31<br>OTHER (SPECIFY _____).....35<br>**PRIVATE MEDICAL SECTOR**<br>PRIVATE HOSPITAL/CLINIC.....41<br>PRIVATE MEDICAL COLLEGE HOSPITAL<br>(SPECIFY _____).....45<br>OTHER (SPECIFY _____).....96 | 411 |
| 406 | Has decisions been made regarding who will assist your delivery? | YES ..... 1 →<br>NO..... 2 | 408 |
| 407 | Has there been any discussion about it? | YES ..... 1<br>NO.....2 → | 411 |
| 408 | Who will assist in the delivery that was decided or discussed? | **HEALTH PROFESSIONAL**<br>QUALIFIED DOCTOR (MBBS).....A<br>NURSE/MIDWIFE/PARAMEDIC.....B<br>FAMILY WELFARE VISITOR.....C<br>COMMUNITY SKILLED BIRTH ATTENDANT.....D<br>MA/SACMO.....E | |

| NO. | QUESTIONS AND FILTERS | CODING CATEGORIES | SKIP |
|---|---|---|---|
| | | HEALTH ASSISTANT……..F<br>FAMILY WELFARE ASSISTANT…….....G<br>**OTHER PROVIDER**<br>TRAINED TBA ……H<br>UNTRAINED TBA ……I<br>UNQUALIFIED DOCTOR ……J<br>RELATIVES……K<br>NEIGHBORS/FRIENDS ……...L<br>**OTHER**<br>BRAC SHASTHA SEBIKA……M<br>OTHER SHASTHA SEBIKA……N<br>OTHER FIELD WORKER……O<br>OTHER_____ ……X<br>(SPECIFY) | |
| 409 | **INTERVIEWER: CHECK Q406 & Q407 AND CIRCLE APPROPRIATE CODE** | **CODE '1' CIRCLED IN Q406……1**<br>**CODE '1' CIRCLED IN Q407……2** → | 411 |
| 410 | Who mainly made the decision? | RESPONDENT HERSELF……01<br>HUSBAND……02<br>MOTHER/FATHER……03<br>MOTHER-IN-LAW/FATHER-IN-LAW……04<br>SISTER……05<br>SISTER-IN-LAW……06<br>OTHER MEMBER OF RESP.'S FAMILY……07<br>OTHER MEMBER OF HUSB.'S'S FAMILY ……08<br>RELATIVES…… 09<br>NEIGHBOR/FRIEND…… 10<br>TBA/FIELD WORKER/DAIL…… 11<br>OTHER (SPECIFY_____)……96 | |
| 411 | Has there been any discussion in your family about:<br>a) Where to seek assistance in case of emergency?<br>b) Who to call in case of emergency?<br>c) Make arrangement for transport in case of emergency?<br>d) Make arrangement for money in case of emergency? | YES NO<br>WHERE TO SEEK ASSISTANCE 1 2<br>WHO TO CALL 1 2<br>TRANSPORT 1 2<br>MONEY 1 2 | |
| 412 | During this pregnancy did you see anyone for a medical check-up? | YES ..... …….1<br>NO…… 2 → | 501 |
| 413 | Who did you see for a medical checkup?<br>Anyone else?<br>PROBE TO IDENTIFY EACH TYPE OF PERSON AND RECORD ALL MENTIONED.<br>IF CODE 'D' CIRCLED<br>_____<br>(WRITE NAME OF CSBA)<br>_____<br>(WRITE NAME OF CSBA) | **HEALTH PROFESSIONAL**<br>QUALIFIED DOCTOR (MBBS)……A<br>NURSE/MIDWIFE/PARAMEDIC……B<br>FAMILY WELFARE VISITOR……C<br>COMMUNITY SKILLED BIRTH ATTENDANT……D<br>MA/SACMO…….....E<br>HEALTH ASSISTANT……..F<br>FAMILY WELFARE ASSISTANT…….....G<br>**OTHER PROVIDER**<br>TRAINED TBA ……H<br>UNTRAINED TBA ……I<br>UNQUALIFIED DOCTOR ……J<br>**OTHER**<br>BRAC SHASTHA SEBIKA……M<br>OTHER SHASTHA SEBIKA……N<br>OTHER FIELD WORKER……O<br>OTHER_____ ….X<br>(SPECIFY) | |
| 414 | During the check-up has there been any discussion about the followings:<br>a. Place of delivery?<br>b. Delivery by a skilled person?<br>c. Where to go in case of emergency?<br>d. Arrangement for transport in case of emergency?<br>e. Arrangement for money in case of emergency?<br>f. Danger signs of pregnancy? | YES NO<br>PLACE OF DELIVERY 1 2<br>DELIVERY BY A SKILLED PERSON 1 2<br>WHERE TO GO IN EMERGENCY 1 2<br>TRANSPORT IN EMERGENCY 1 2<br>MONEY IN EMERGENCY 1 2<br>DANGERS SIGNS OF PREGNANCY 1 2 | |

## SECTION 5: PREGNANCY, DELIVERY AND POSTNATAL CARE

| NO. | QUESTIONS AND FILTERS | CODING CATEGORIES | | SKIP |
|---|---|---|---|---|
| 501 | INTERVIEWER: CHECK Q315<br><br>ONE OR MORE LIVE BIRTHS SINCE OCTOBER 2004 (KARTIC 1411) | | NO LIVE BIRTH SINCE OCTOBER 2004 (KARTIC 1411) | 700 |
| 502 | INTERVIEWER: ENTER THE LINE NUMBER AND NAME OF EACH LIVE BIRTH SINCE OCTOBER 2004 (KARTIC 1411) IN Q503. IF THERE ARE MORE THAN 2 BIRTHS, USE ADDITIONAL QUESTIONNAIRES.<br><br>FOR THE LAST LIVE BIRTH START WITH Q504 AND ASK ALL ELIGIBLE QUESTIONS THEREAFTER.<br><br>ASK Q520 TO 528 FOR ADDITIONAL LIVE BIRTHS OTHER THAN THE LAST LIVE BIRTH SINCE OCTOBER 2004 (KARTIC 1411) | | | |
| 502a | Now I would like to ask you some questions about your health during all live births since October 2004 (Kartic 1411). I will ask all questions about the last live birth and then ask about the previous live birth(s). | | | |
| 502b | INTERVIEWER: NOTE THAT YOU MUST COMPLETE Q504 TO Q582 FIRST FOR THE LAST LIVE BIRTH AND ONLY THEN PROCEED TO ASK Q520 ONWARDS FOR THE PRECEDING LIVE BIRTH(S). | | | |
| 503 | LINE NUMBER FROM 312 | LAST BIRTH<br><br>LINE NO. NAME _____ | NEXT TO LAST BIRTH<br><br>LINE NO. NAME ____ | |
| 504 | When you were pregnant with (NAME), did you see anyone for a medical checkup?<br><br>IF YES: Whom did you see? Anyone else?<br><br>PROBE TO IDENTIFY EACH TYPE OF PERSON AND RECORD ALL MENTIONED.<br><br>IF CODE 'D' CIRCLED<br><br>_____<br>(WRITE NAME OF CSBA)<br><br>_____<br>(WRITE NAME OF CSBA | HEALTH PROFESSIONAL/WORKER<br>QUALIFIED DOCTOR……A<br>NURSE/MIDWIFE/PARAMEDIC……B<br>FAMILY WELFARE VISITOR……C<br>CSBA……D<br>MA/SACMO……E<br>HEALTH ASSISTANT……F<br>FAMILY WELFARE ASSISTANT……G<br><br>OTHER PERSON<br>TRAINED TBA ……H<br>UNTRAINED TBA ……I<br>UNQUALIFIED DOCTOR ……J<br><br>OTHER<br>BRAC SHASTHA SEBIKA……M<br>OTHER SHASTHA SEBIKA……N<br>OTHER FIELD WORKER……O<br>OTHER _____…X<br>(SPECIFY)<br>NO ONE……Y. | | 511 |
| 505 | Where did you receive antenatal care for this pregnancy?<br><br>Anywhere else?<br><br>PROBE TO IDENTIFY TYPE(S) OF SOURCE(S) AND CIRCLE THE APPRPRIATE CODE(S).<br><br>IF UNABLE TO DETERMINE IF A HOSPITAL, HEALTH CENTER, OR CLINIC IS PUBLIC OR PRIAVTE MEDICAL, WRITE THE NAME OF THE PLACE.<br><br>_____<br>(NAME OF PLACE) | **HOME**<br>HOME……A<br><br>**PUBLIC SECTOR**<br>MEDICAL COLLEGE HOSPITAL……B<br>SPECIALISED GOVT.HOSPITAL (SPECIFY__)……C<br>DISTRICT HOSPITAL……D<br>MCWC……E<br>UPAZILLA HEALTH COMPLEX……F<br>H&FWC……G<br>SC/EPI OUTREACH SITE……H<br>COMMUNITY CLINIC……I<br>OTHER (SPECIFY _____)……J<br><br>**NGO SECTOR**<br>NGO STATIC CLINIC……K | | |

| | | | | |
|---|---|---|---|---|
| | | NGO SATELITE CLINIC……...L<br>OTHER (SPECIFY _____)…….M<br>**PRIVATE MEDICAL SECTOR**<br>PRIVATE HOSPITAL/CLINIC……..N<br>QUALIF. DOCTOR'S CHAMBER……O<br>UNQUAL.DOCTOR'S CHAMBER……..P<br>PHARMACY……Q<br>PRIV.MEDICAL COLLEGE<br>HOSPITAL (SPECIFY)……....R<br><br>OTHER (SPECIFY _____)……..X | | |
| 506 | When you were pregnant with (NAME), the first time you had antenatal care, did you had it for just checkup or you had a problem? | BECAUSE OF PROBLEM ONLY……1<br>FOR CHECK UP ONLY……2<br>BOTH……...3 | | |
| 507 | How many months pregnant were you when you first received antenatal care for this pregnancy? | MONTHS……\|___\|___\|<br><br>DO NOT KNOW……98 | | |
| 508 | How many times did you receive antenatal care during this pregnancy? | NUMBER OF TIMES ……\|___\|____\|….<br><br>DO NOT KNOW……..98 | | |
| 509 | As part of your antenatal care during this pregnancy, were any of the following done at least once:<br><br>a. Was your BP measured?<br>b. Did you give an urine sample<br>c. Did you give a blood sample?<br>d. Was your weight measured? | YES NO<br>BP 1 2<br>URINE 1 2<br>BLOOD 1 2<br>WEIGHT 1 2 | | |
| 510 | During (any of) your antenatal care visit(s), were you told about the danger signs of pregnancy? | YES……..1<br>NO……2 } → | | 512 |
| 511 | Why did you not see anyone?<br><br>Any other reason?<br><br>RECORD ALL MENTIONED. | TOO FAR……..A<br>INCONVENIENT SERVICE HOUR……..B<br>UNPLESANT STAFF……..C<br>LACK OF EXPERIENCED STAFF……D<br>LACK OF PRIVACY……E<br>INADEQUATE DRUG SUPPLY……F<br>LONG WAITING TIME……G<br>SERVICE TOO EXPENSIVE……H<br>RELIGIOUS REASON……I<br>NOT NEEDED……J<br>DID NOT KNOW OF NEED FOR CARE….K<br>UNABLE TO GO/NOT PERMITTD TO<br>LEAVE HOUSE……..L<br>DID NOT KNOW OF A PLACE/DID NOT<br>KNOW WHERE TO GO……..……M<br><br>OTHER_____….X<br>(SPECIFY) | | |
| 512 | During this pregnancy, were you given an injection in the arm to prevent the baby from getting tetanus, that is, convulsions after birth? | YES ..... 1<br>NO……2 →<br>DON'T KNOW……8 → | | 515<br>515 |
| 513 | During this pregnancy how many times did you get a tetanus injection? | Times……\|___\|<br>DON'T KNOW……8 | | |

| | | | | |
|---|---|---|---|---|
| 514 | INTERVIEWER: CHECK Q513 AND CIRCLE APPROPRIATE CODE. | 2 OR MORE TIMES……1 →<br>OTHER/DO NOT KNOW……..2 | | 518 |
| 515 | At any time before this pregnancy, did you receive any tetanus injections? | YES ..... 1<br>NO……2 →<br>DON'T KNOW……8 → | | <br>518<br>518 |
| 516 | Before this pregnancy, how many other times did you receive a tetanus injection?<br>IF 7 OR MORE TIMES, RECORD '7'. | Times……\|__\|<br><br>DON'T KNOW……8 | | |
| 517 | How many years ago did you receive the last tetanus injection before this pregnancy? | \|____\|_____\| YEARS AGO | | |
| 518 | During this pregnancy, did you take any iron tablet or iron syrup?<br><br>SHOW TABLET/SYRUP | YES ..... 1<br>NO……2 →<br>DON'T KNOW……8 → | | <br>520<br>520 |
| 519 | During the whole pregnancy, for how many days did you take the tablets or syrup?<br><br>(IF LESS THAN 30 DAYS WRITE IN DAYS. IF 30 DAYS OR MORE WRITE IN MONTHS) | DAYS…… …..1 [ ][ ]<br><br>MONTHS……2 [ ][ ]<br><br>DONOT KNOW……..998 | | |
| 520 | Who assisted the delivery of (NAME)?<br>Anyone else?<br><br>PROBE FOR THE TYPES OF PERSON(S) AND RECORDALL MENTIONED.<br><br>IF RESPONDENT SAYS NO ONE ASSISTED, PROBE TO DETERMINE WHETHER ANY ADULTS WERE PRESENT AT THE DELIVERY.<br><br>IF CODE 'D' CIRCLED:<br><br>_____<br>(WRITE NAME OF CSBA)<br><br>_____<br>(WRITE NAME OF CSBA) | HEALTH PROFESSIONAL/WORKER<br>QUALIFIED DOCTOR……A<br>NURSE/MIDWIFE/PARAMEDIC……B<br>FAMILY WELFARE VISITOR……C<br>CSBA……D<br>MA/SACMO……E<br>HEALTH ASSISTANT……F<br>FAMILY WELFARE ASSISTANT…..G<br><br>OTHER PERSON<br>TRAINED TBA ……H<br>UNTRAINED TBA ……I<br>UNQUALIFIED DOCTOR ……J<br>RELATIVES……K<br>NEIGHBORS/FRIENDS ……L<br><br>OTHER<br>BRAC SHASTHA SEBIKA……M<br>OTHER SHASTHA SEBIKA……N<br>OTHER FIELD WORKER……O<br>OTHER _____.X<br>(SPECIFY)<br><br>NO ONE……Y → 523 | HEALTH PROFESSIONAL/WORKER<br>QUALIFIED DOCTOR……A<br>NURSE/MIDWIFE/PARAMEDIC……B<br>FAMILY WELFARE VISITOR……C<br>CSBA……D<br>MA/SACMO……E<br>HEALTH ASSISTANT……F<br>FAMILY WELFARE ASSISTANT…..G<br><br>OTHER PERSON<br>TRAINED TBA ……H<br>UNTRAINED TBA ……I<br>UNQUALIFIED DOCTOR ……J<br>RELATIVES……K<br>NEIGHBORS/FRIENDS ……L<br><br>OTHER<br>BRAC SHASTHA SHEBIKA……M<br>OTHER SHASTHA SEBIKA……N<br>OTHER FIELD WORKER……O<br>OTHER _____.....X<br>(SPECIFY)<br><br>NO ONE……Y → 523 | |
| 521 | INTERVIEWER: CHECK Q520 AND CIRCLE APPROPRIATE CODE. | SINGLE RESPONSE ……1 → 523<br>MULTIPLE RESPONSE…….2 | SINGLE RESPONSE ……1 → 523<br>MULTIPLE RESPONSE…….2 | |
| 522 | Who delivered the baby? | HEALTH PROFESSIONAL/WORKER<br>QUALIFIED DOCTOR……01<br>NURSE/MIDWIFE/PARAMEDIC……02<br>FAMILY WELFARE VISITOR……03<br>CSBA……04<br>MA/SACMO……05<br>HEALTH ASSISTANT……06<br>FAMILY WELFARE ASSISTANT……07<br>OTHER PERSON<br>TRAINED TBA ……11 | HEALTH PROFESSIONAL/WORKER<br>QUALIFIED DOCTOR……01<br>NURSE/MIDWIFE/PARAMEDIC……02<br>FAMILY WELFARE VISITOR……03<br>CSBA……04<br>MA/SACMO……05<br>HEALTH ASSISTANT……06<br>FAMILY WELFARE ASSISTANT….07<br>OTHER PERSON<br>TRAINED TBA ……11 | |

| | | | | |
|---|---|---|---|---|
| | | UNTRAINED TBA .....12<br>UNQUALIFIED DOCTOR .....13<br>RELATIVES.....14<br>NEIGHBORS/FRIENDS .....15<br>OTHER<br>BRAC SHASTHA SEBIKA.....21<br>OTHER SHASTHA SEBIKA.....22<br>OTHER FIELD WORKER.....23<br>OTHER ._____.....96<br>(SPECIFY) | UNTRAINED TBA .....12<br>UNQUALIFIED DOCTOR .....13<br>RELATIVES.....14<br>NEIGHBORS/FRIENDS .....15<br>OTHER<br>SHASTHA SEBIKA.....21<br>OTHER SHASTHA SEBIKA.....22<br>OTHER FIELD WORKER.....23<br>OTHER ._____.....96<br>(SPECIFY) | |
| 523 | Where did you give birth to (NAME)? PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE.<br><br>IF UNABLE TO DETERMINE IF A HOSPITAL, HEALTH CENTER, OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE.<br><br>_____<br>(NAME OF THE PLACE) | **HOME**<br>HOME.....11<br><br>**PUBLIC SECTOR**<br>MEDICAL COLLEGE HOSPITAL.....21<br>SPECIALISED GOVT.HOSPITAL (SPECIFY__).....22<br>DISTRICT HOSPITAL.....23<br>MCWC.....24<br>UPAZILLA HEALTH COMPLEX.....25<br>OTHER (SPECIFY _____).....30<br><br>**NGO SECTOR**<br>NGO STATIC CLINIC.....31<br>OTHER (SPECIFY _____).....35<br><br>**PRIVATE MEDICAL SECTOR**<br>PRIVATE HOSPITAL/CLINIC.....41<br>PRIV.MEDICAL COLLEGE HOSPITAL (SPECIFY).....45<br><br>OTHER (SPECIFY _____).....96<br>Q526 | **HOME**<br>HOME.....11<br><br>**PUBLIC SECTOR**<br>MEDICAL COLLEGE HOSPITAL...21<br>SPECIALISED GOVT.HOSPITAL (SPECIFY__).....22<br>DISTRICT HOSPITAL.....23<br>MCWC.....24<br>UPAZILLA HEALTH COMPLEX....25<br>OTHER (SPECIFY _____)....30<br><br>**NGO SECTOR**<br>NGO STATIC CLINIC.....31<br>OTHER (SPECIFY _____)....35<br><br>**PRIVATE MEDICAL SECTOR**<br>PRIVATE HOSPITAL/CLINIC.....41<br>PRIV.MEDICAL COLLEGE HOSPITAL (SPECIFY).....45<br><br>OTHER (SPECIFY _____).....96<br>Q526 | |
| 524 | Why did you choose her/him (_____)?<br>(REFER TO Q520 OR Q522)<br><br>(MULTIPLE ANSWERS ACCEPTABLE) | TRAINED .....A<br>EXPERIENCED.....B<br>READILY AVAILABLE .....C<br>NEARBY.....D<br>LESS COST.....E<br>BETTER CARE.....F<br>GOOD BEHAVIOR.....G<br>GOOD REPUTATION.....H<br>PREVIOUSLY KNOWN.....I<br>SHE DOES ALL OUR DELIVERIES.....J<br><br>OTHER (specify _____).....X<br>NO ONE ASSISTED IN DELIVERY.....Z | TRAINED .....A<br>EXPERIENCED.....B<br>READILY AVAILABLE .....C<br>NEARBY.....D<br>LESS COST.....E<br>BETTER CARE.....F<br>GOOD BEHAVIOR.....G<br>GOOD REPUTATION.....H<br>PREVIOUSLY KNOWN.....I<br>SHE DOES ALL OUR DELIVERIES.....J<br><br>OTHER (specify _____).....X<br>NO ONE ASSISTED IN DELIVERY.....Z | |
| 525 | What are the reasons you did not go to a health facility for delivery? | NOT NECESSARY.....A<br>NOT UNDERSTAND THAT SERVICE IS NEEDED.....B<br>NOT CUSTOMERY.....C<br>COST TOO MUCH.....D<br>LACK OF MONEY.....E<br>TOO FAR.....F<br>TRANSPORT PROBLEM.....G<br>NO ONE TO ACCOMPANY.....H<br>POOR QUALITY SERVICE.....I<br>FAMILY DID NOT ALLOW.....J<br>BETTER CARE AT HOME.....K<br>NOT KNOWN HOW TO GO.....L<br>NO TIME TO GO FOR SERVICES.....M<br>NOT KNOW WHERE TO GO.....N<br>NOT WANT SERVICE FROM MALE DOCTOR.....O<br>FOR FEAR.....P<br>CLINIC/HOSPITAL INSIST FOR CAESARIAN.....Q<br>HAD SUDDEN DELIVERY.....R<br>OTHER (SPECIFY ____).....X<br>529 | NOT NECESSARY.....A<br>NOT UNDERSTAND THAT SERVICE IS NEEDED.....B<br>NOT CUSTOMERY.....C<br>COST TOO MUCH.....D<br>LACK OF MONEY.....E<br>TOO FAR.....F<br>TRANSPORT PROBLEM.....G<br>NO ONE TO ACCOMPANY.....H<br>POOR QUALITY SERVICE.....I<br>FAMILY DID NOT ALLOW.....J<br>BETTER CARE AT HOME.....K<br>NOT KNOWN HOW TO GO.....L<br>NO TIME TO GO FOR SERVICES.....M<br>NOT KNOW WHERE TO GO.....N<br>NOT WANT SERVICE FROM MALE DOCTOR.....O<br>FOR FEAR.....P<br>CLINIC/HOSPITAL INSIST FOR CAESARIAN.....Q<br>HAD SUDDEN DELIVERY.....R<br>OTHER (SPECIFY ____).....X | 529b |

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| 526 | Did anybody refer you to go there _____? (REFER TO Q523) | YES ..... 1<br>NO……2 → Q527 | YES….....1<br>NO……2 → Q527 | |
| 526a | Who referred you to go there for delivery?<br><br>(REFER TO Q523)<br><br>(multiple response) | HEALTH PROFESSIONAL/WORKER<br>QUALIFIED DOCTOR……A<br>NURSE/MIDWIFE/PARAMEDIC……B<br>FAMILY WELFARE VISITOR……C<br>CSBA……D<br>MA/SACMO……E<br>HEALTH ASSISTANT……F<br>FAMILY WELFARE ASSISTANT…..G<br><br>OTHER PERSON<br>TRAINED TBA ……H<br>UNTRAINED TBA ……I<br>UNQUALIFIED DOCTOR ……J<br>RELATIVES……K<br>NEIGHBORS/FRIENDS ……L<br><br>OTHER<br>BRAC SHASTHA SEBIKA……M<br>OTHER SHASTHA SEBIKA……N<br>OTHER FIELD WORKER……O<br>OTHER ._____.X<br>(SPECIFY) | HEALTH PROFESSIONAL/WORKER<br>QUALIFIED DOCTOR……A<br>NURSE/MIDWIFE/PARAMEDIC……B<br>FAMILY WELFARE VISITOR……C<br>CSBA……D<br>MA/SACMO……E<br>HEALTH ASSISTANT……F<br>FAMILY WELFARE ASSISTANT…..G<br><br>OTHER PERSON<br>TRAINED TBA ……H<br>UNTRAINED TBA ……I<br>UNQUALIFIED DOCTOR ……J<br>RELATIVES……K<br>NEIGHBORS/FRIENDS ……L<br><br>OTHER<br>BRAC SHASTHYA SEBIKA……M<br>OTHER SHASTHA SEBIKA……N<br>OTHER FIELD WORKER……O<br>OTHER ._____.....X<br>(SPECIFY) | |
| 527 | Did you receive blood transfusion? | YES ..... 1<br>NO……2<br>DON'T KNOW……8 | YES……1<br>NO……2<br>DON'T KNOW……8 | |
| 528 | Was (NAME) delivered by caesarean section? | YES ..... 1<br>NO……2 | YES……1<br>NO……2 | |
| 529 | Was (NAME) weighted at birth? | YES……..1<br>NO……2 → 530<br>DON'T KNOW……8 → 530 | | |
| 529a | How much did (NAME) weigh?<br><br>RECORD WEIGHT IN KILOGRAPMS FROM THE HEALTH CARD, IF AVILABLE | KG FROM CARD…1 [ ] . [ ][ ]<br>KG FROM RECALL…2 [ ] . [ ][ ]<br>CANNOT TELL/<br>CANNOT REMEMBER……9998<br>. | | |
| 529b | | | **IF THERE IS ANYMORE LIVE BIRTH SINCE OCTOBER 2004 (KARTIC 1411), RETURN TO Q503, OTHERWISE GO TO Q601.** | |

| | | LAST BIRTH<br>LINE NO. NAME _____ | | | | |
|---|---|---|---|---|---|---|
| 530 | Did you experience any of the following problems during <u>your last pregnancy</u> (pregnant with NAME), <u>during delivery or after delivery?</u><br>(READ OUT EVERY RESPONSE) | P=PREGNANCY; D= DELIVERY;<br>AD= AFTER DELIVERY | P | D | AD | |
| | a. Severe headache with blurred vision? | SEVERE HEADACHE WITH BLURRED VISION | A1 | A2 | A3 | |
| | b. Convulsion/fits? | CONVULSION/FITS | B1 | B2 | B3 | |
| | c. High blood pressure? | HIGH BLOOD PRESSURE | C1 | C2 | C3 | |
| | d. Severe/heavy bleeding? | SEVERE/HEAVY BLEEDING | D1 | D2 | D3 | |
| | e. Leaking membrane and no labor pain for >6 hours? | LEAKING MEMBRANE & NO LABOR PAIN FOR >6 HOURS | E1 | - | - | |
| | f. Mal-presentation? | MAL-PRESENTATION | - | F2 | - | |
| | g. Prolonged labor (>12 hours)? | PROLONGED LABOR | - | G2 | - | |
| | h. Retained placenta? | RETAINED PLACENTA | - | H2 | H3 | |
| | i. High fever with smelly discharge | HIGH FEVER WITH SMELLY DISCHARGE | - | - | I3 | |
| | j. Oedema face/feet/body | OEDEMA | J1 | J2 | J3 | |
| | y. None of the above-mentioned problem happened | NONE OF THE ABOVE MENTIONED PROBLEM HAPPENED | Y1 | Y2 | Y3 | |
| 531 | INTERVIEWER: CHECK Q530 AND CIRCLE APPROPRIATE CODE | ONLY ONE PROBLEM REPORTED……1 →<br>MORE THAN ONE PROBLEM REPORTED……2<br>NO LISTED PROBLEM REPORTED (CIRCLED Y1, Y2 & Y3)….3 → | | | | 534<br><br>563 |
| 532 | What was (were) the last problem(s) you suffered from? | SEVERE HEADACHE WITH BLURRED VISION……A<br>CONVULSION/FITS……B<br>HIGH BLOOD PRESSURE……C<br>SEVERE/HEAVY BLEEDING……D<br>LEAKING MEMBRANE & NO LABOR PAIN FOR >6 HOURS……E<br>MAL-PRESENTATION ……F<br>PROLONGED LABOR ……G<br>RETAINED PLACENTA……H<br>HIGH FEVER WITH SMELLY DISCHARGE……I<br>OEDEMA FACE/FEET/BODY……J | | | | |
| 532a | INTERVIEWER: CHECK Q532 AND CIRCLE APPROPRIATE CODE. | ONLY ONE PROBLEM REPORTED……1 →<br>MORE THAN ONE PROBLEM REPORTED……2 | | | | 534 |
| 533 | What was the last most serious problem you suffered from? | SEVERE HEADACHE WITH BLURRED VISION……01<br>CONVULSION/FITS……02<br>HIGH BLOOD PRESSURE……03<br>SEVERE/HEAVY BLEEDING……04<br>LEAKING MEMBRANE & NO LABOR PAIN FOR >6 HOURS……05<br>MAL-PRESENTATION ……06<br>PROLONGED LABOR ……07<br>RETAINED PLACENTA……08<br>HIGH FEVER WITH SMELLY DISCHARGE……09<br>OEDEMA FACE/FEET/BODY……10 | | | | |
| 534 | Did you get treatment for this problem? | YES……1 →<br>NO……2<br>SOMEONE ELSE BROUGHT MEDICINE/BROUGHT ADVICE…….3 → | | | | 536<br><br>563 |

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|---|---|---|---|
| 535 | Why did you not seek treatment?<br>Some other reason? | NOT NECESSARY…….....A<br>NOT UNDERSTAND THAT SERVICE IS NEEDED……..B<br>NOT CUSTOMERY…….……C<br>COST TOO MUCH…….....D<br>LACK OF MONEY……...E<br>TOO FAR……..F<br>TRANSPORT PROBLEM……..G<br>NO ONE TO ACCOMPANY……..H<br>POOR QUALITY SERVICE……I<br>FAMILY DID NOT ALLOW……....J →<br>BETTER CARE AT HOME……K<br>NOT KNOWN HOW TO GO……..L<br>NO TIME TO GO FOR SERVICES…….....M<br>NOT KNOW WHERE TO GO……N<br>NOT WANT SERVICE FROM MALE DOC……O<br>FOR FEAR……....P<br>CLINIC/HOSPITAL INSIST FOR CAESARIAN……..Q<br>DID NOT UNDERSTAND THE SERIOUSNESS<br>OF PROBLEM……..R<br>OTHER (SPECIFY _____)……..…X | 563 |
| 536 | Where did you seek treatment?<br><br>INTERVIEWER: IF TREATMENT WAS SOUGHT FROM A SINGLE PLACE MULTIPLE TIMES OR FROM MULTIPLE PLACES, FILL UP THE BOXES ACCORDING TO THE SEQUENCE OF THE CARE | SEQUENCE OF CARE<br>☐ ☐ ☐ ☐ ☐<br>1 2 3 4 5<br><br>**HOME**<br>HOME…….....A<br><br>**PUBLIC SECTOR**<br>MEDICAL COLLEGE HOSPITAL……B<br>SPECIALISED GOVT.HOSPITAL (SPECIFY__)……..C<br>DISTRICT HOSPITAL…….....D<br>MCWC……..E<br>UPAZILLA HEALTH COMPLEX……..F<br>H&FWC……G<br>SC/EPI OUTREACH SITE……H<br>COMMUNITY CLINIC……....I<br>OTHER (SPECIFY _____)……..J<br><br>**NGO SECTOR**<br>NGO STATIC CLINIC……K<br>NGO SATELITE CLINIC…….....L<br>OTHER (SPECIFY _____)……..M<br><br>**PRIVATE MEDICAL SECTOR**<br>PRIVATE HOSPITAL/CLINIC……..N<br>QUALIF. DOCTOR'S CHAMBER……O<br>UNQUAL.DOCTOR'S CHAMBER……P<br>PHARMACY…….....Q<br>PRIV.MEDICAL COLLEGE HOSPITAL (SPECIFY)……..R<br><br>OTHER (SPECIFY _____)……X | |
| **537.** | **INTERVIEWER: CHECK Q536 (SEQUENCE OF TREATMENT SEEKING) AND CIRCLE APPROPRIATE CODE.** | **CODE "A" IN BOX 1 (1ST TREATMENT IS AT HOME)……..1** →<br><br>**OTHER THAN CODE "A" IN BOX 1……..2** →<br>**(1ST TEARTMENT IS OTHER THAN HOME)** | **538**<br><br>**538a** |

| | 1ST TREATMENT RECEIVED |
|---|---|

| | HOME CARE | Skip | | OTHER THAN HOME CARE | Skip |
|---|---|---|---|---|---|
| 538 | Who took decision that you should seek treatment at home?<br><br>RESPONDENT ..... A<br>HUSBAND ..... B<br>MOTHER/FATHER ..... C<br>MOTHER-IN-LAW/FATHER-IN-LAW ..... D<br>SISTER ..... E<br>SISTER-IN-LAW ..... F<br>OTHER MEMBER OF.RESPONDENT'S FAMILY ..... G<br>OTHER MEMBER OF HUSBAND'S FAMILY ..... H<br>RELATIVES ..... I<br>NEIGHBOR/FRIEND ..... J<br>TBA/FIELD WORKER/ DAI ..... K<br>OTHER_____ ..... X<br>(SPECIFY) | | 538a. | Who took decision that you should seek treatment?<br><br>RESPONDENT ..... A<br>HUSBAND ..... B<br>MOTHER/FATHER ..... C<br>MOTHER-IN-LAW/FATHER-IN-LAW ..... D<br>SISTER ..... E<br>SISTER-IN-LAW ..... F<br>OTHER MEMBER OF.RESPONDENT'S FAMILY ..... G<br>OTHER MEMBER OF HUSBAND'S FAMILY ..... H<br>RELATIVES ..... I<br>NEIGHBOR/FRIEND ..... J<br>TBA/FIELD WORKER/ DAI ..... K<br>OTHER_____ ..... X<br>(SPECIFY) | |
| 539. | After how much time from the beginning of this problem it was decided that you seek treatment?<br><br>HOURS ..... 1 ☐☐<br>DAYS..... 2 ☐☐<br>MONTHS..... 3 ☐☐<br><br>IF IMMEDIATELY AFTER THEN WRITE 00 IN HOURS, IF LESS THAN 1 DAY THEN WRITE IN HOURS, IF 30 DAYS OR MORE THEN WRITE IN COMPLETE MONTHS. | | 539a. | After how much time from the beginning of this problem it was decided that you seek treatment?<br><br>HOURS ..... 1 ☐☐<br>DAYS..... 2 ☐☐<br>MONTHS..... 3 ☐☐<br><br>IF IMMEDIATELY AFTER THEN WRITE 00 IN HOURS, IF LESS THAN 1 DAY THEN WRITE IN HOURS, IF 30 DAYS OR MORE THEN WRITE IN COMPLETE MONTHS. | |
| 540. | Did you seek treatment soon after the decision was made?<br><br>YES ..... 1 → | 542 | 540a. | Did you seek treatment soon after the decision was made?<br><br>YES ..... 1 → | 542a |
| | NO..... 2 | | | NO..... 2 | |
| 541. | Why the treatment was not sought immediately?<br><br>HOSPITAL TOO FAR ..... A<br>DID NOT THINK SERIOUSLY ..... B<br>LACK OF MONEY ..... C<br>NOT WANT SERVICE FROM MALE DOCTOR ..... D<br>NO ONE AT HOME TO ACCOMPANY ..... E<br>OCCURRED AT NIGHT ..... F<br><br>OTHE_____.....X<br>(SPECIFY) | | 541a | Why the treatment was not sought immediately?<br><br>HOSPITAL TOO FAR ..... A<br>DID NOT THINK SERIOUSLY ..... B<br>LACK OF MONEY ..... C<br>NOT WANT SERVICE FROM MALE DOCTOR ..... D<br>NO ONE AT HOME TO ACCOMPANY ..... E<br>OCCURRED AT NIGHT ..... F<br><br>OTHE_____.....X<br>(SPECIFY) | |
| 542. | After how much time from the beginning of the problem did you first receive treatment at home?<br><br>HOURS ..... 1 ☐☐<br>DAYS..... 2 ☐☐<br>MONTHS..... 3 ☐☐<br><br>IF IMMEDIATELY AFTER THEN WRITE 00 IN HOURS, IF LESS THAN 1 DAY THEN WRITE IN HOURS, IF 30 DAYS OR MORE THEN WRITE IN COMPLETE MONTHS. | | 542a. | After how much time from the beginning of the problem did you first receive treatment at the clinic, hospital or qualified doctor?<br><br>HOURS ..... 1 ☐☐<br>DAYS..... 2 ☐☐<br>MONTHS..... 3 ☐☐<br><br>IF IMMEDIATELY AFTER THEN WRITE 00 IN HOURS, IF LESS THAN 1 DAY THEN WRITE IN HOURS, IF 30 DAYS OR MORE THEN WRITE IN COMPLETE MONTHS. | |

| | HOME CARE | Skip | | OTHER THAN HOME CARE | Skip |
|---|---|---|---|---|---|
| 543. | From whom did you receive treatment at home?<br><br>**HEALTH PROFESSIONAL/WORKER**<br>QUALIFIED DOCTOR.....A<br>NURSE/MIDWIFE/PARAMEDIC.....B<br>FAMILY WELFARE VISITOR.....C<br>CSBA.....D<br>MA/SACMO.....E<br>HEALTH ASSISTANT .....F<br>FAMILY WELFARE ASSISTANT ..... G<br>OTHER PROVIDER<br>TRAINED TBA.....H<br>UNTRAINED TBA ..... I<br>UNQUALIFIED DOCTOR..... J<br>RELATIVES.....K<br>NEIGHBORS/FRIENDS ..... L<br>OTHER<br>BRAC SHASTHA SEBIKA……M<br>OTHER SHASTHA SEBIKA……N<br>OTHER FIELD WORKER……O<br>OTHER_____……X<br>(SPECIFY) | | | | |
| | | | 544a | How far is this clinic, hospital or qualified doctor from your house/house where you were present?<br>WRITE '00' IF LESS THAN A MILE.<br><br>MILE.....\|___\|___\|<br>OUTSIDE UPAZILA/TOWN.....95<br>DON'T KNOW……98 | |
| 547. | Did your condition improve after treatment in this place, or did it stay the same or worsen?<br><br>NO CHANGE..... 1<br>IMPROVED ..... 2<br>WORSNED..... 3<br>DON'T KNOW ..... .8 | | 547a. | Did your condition improve after treatment in this place, or did it stay the same or worsen?<br><br>NO CHANGE .....1<br>IMPROVED.....2<br>WORSNED .....3<br>DON'T KNOW.....8 | |
| 548. | Did the person who provided you with treatment at home refer or ask you to go any other place for treatment/advice?<br>YES ..... 1<br>NO……..... 2 → | 552 | 548a | Were you referred or told to go any other place for treatment/advice?<br><br>YES.....1<br>NO…… .....2 → | 552 |
| 549. | Where were you told to go?<br><br>**PUBLIC SECTOR**<br>MEDICAL COLLEGE HOSPITAL……..21<br>SPECIALISED GOVT.HOSPITAL<br>(SPECIFY__)……22<br>DISTRICT HOSPITAL…….....23<br>MCWC……24<br>UPAZILLA HEALTH COMPLEX……25<br>H&FWC……26<br>SC/EPI OUTREACH SITE……..27<br>COMMUNITY CLINIC……..28<br>OTHER (SPECIFY _____)……30<br>**NGO SECTOR**<br>NGO STATIC CLINIC……..31<br>NGO SATELITE CLINIC…….....32<br>OTHER (SPECIFY _____)……35<br>**PRIVATE MEDICAL SECTOR**<br>PRIVATE HOSPITAL/CLINIC……41<br>QUALIF. DOCTOR'S CHAMBER……..42<br>UNQUAL.DOCTOR'S CHAMBER……43<br>PHARMACY……44<br>PRIV.MEDICAL OLLEGE HOSPITAL<br>(SPECIFY)……45<br>OTHER (SPECIFY _____)……96 | | 549a | Where were you told to go?<br><br>**PUBLIC SECTOR**<br>MEDICAL COLLEGE HOSPITAL……21<br>SPECIALISED GOVT.HOSPITAL<br>(SPECIFY__)……..22<br>DISTRICT HOSPITAL…….....23<br>MCWC……24<br>UPAZILLA HEALTH COMPLEX……..25<br>H&FWC……26<br>SC/EPI OUTREACH SITE……27<br>COMMUNITY CLINIC……28<br>OTHER (SPECIFY _____)……..30<br>**NGO SECTOR**<br>NGO STATIC CLINIC……31<br>NGO SATELITE CLINIC…….....32<br>OTHER (SPECIFY _____)……..35<br>**PRIVATE MEDICAL SECTOR**<br>PRIVATE HOSPITAL/CLINIC……41<br>QUALIF. DOCTOR'S CHAMBER……42<br>UNQUAL.DOCTOR'S CHAMBER……...43<br>PHARMACY……44<br>PRIV.MEDICAL COLLEGE HOSPITAL<br>(SPECIFY)……..45<br>OTHER (SPECIFY _____)……..96 | |

| | HOME CARE | Skip | | OTHER THAN HOME CARE | Skip |
|---|---|---|---|---|---|
| 550 | Did you go there?<br>YES ..... 1 →<br>NO…… ..... 2 | 552 | 550a | Did you go there?<br>YES..... 1 →<br>NO…… ..... 2 | 552 |
| 551 | Why did you not go to the referred place?<br><br>NOT NECESSARY.....A<br>NOT UNDERSTAND THAT SERVICE<br>IS NEEDED .....B<br>NOT CUSTOMERY.....C<br>COST TOO MUCH.....D<br>LACK OF MONEY.....E<br>TOO FAR .....F<br>TRANSPORT PROBLEM..... G<br>NO ONE TO ACCOMPANY .....H<br>POOR QUALITY SERVICE..... I<br>FAMILY DID NOT ALLOW ..... J<br>BETTER CARE AT HOME.....K<br>NOT KNOWN HOW TO GO..... L<br>NO TIME TO GO FOR SERVICES ..... M<br>NOT KNOW WHERE TO GO.....N<br>NOT WANT SERVICE FROM MALE<br>DOCTOR..... O<br>FOR FEAR .....P<br>CLINIC/HOSPITAL INSIST FOR CISAREAN Q<br>DID NOT THINK OF SERIOUSNESS OF COMPLICATION .....R<br>HOSPITAL WAS CLOSED.....S<br>DOCTOR WAS NOT THERE.....T<br>OTHER_____……X<br>(SPECIFY) | | 551a | Why did you not go to the referred place?<br><br>NOT NECESSARY ..... A<br>NOT UNDERSTAND THAT SERVICE<br>IS NEEDED ..... B<br>NOT CUSTOMERY ..... C<br>COST TOO MUCH ..... D<br>LACK OF MONEY ..... E<br>TOO FAR.....F<br>TRANSPORT PROBLEM ..... G<br>NO ONE TO ACCOMPANY ..... H<br>POOR QUALITY SERVICE .....I<br>FAMILY DID NOT ALLOW .....J<br>BETTER CARE AT HOME ..... K<br>NOT KNOWN HOW TO GO .....L<br>NO TIME TO GO FOR SERVICES .....M<br>NOT KNOW WHERE TO GO ..... N<br>NOT WANT SERVICE FROM MALE<br>DOCTOR .....O<br>FOR FEAR..... P<br>CLINIC/HOSPITAL INSIST FOR CISAREAN Q<br>DID NOT THINK OF SERIOUSNESS OF COMPLICATION ..... .R<br>HOSPITAL WAS CLOSED ..... S<br>DOCTOR WAS NOT THERE .....T<br>OTHER_____……X<br>(SPECIFY) | |

| | | | |
|---|---|---|---|
| **552.** | **INTERVIEWER: CHECK Q 536 (SEQUENCE OF TREATMENT) AND CIRCLE APPROPRIATE CODE.** | **LAST LEVEL OF TREATMENT IS CODE "A" (HOME)……1 →**<br>**LAST LEVEL OF TREATMENT IS OTHER THAN CODE "A" (OTHER THAN HOME)……2 →**<br>**ONLY ONE BOX IS MARKED……3 →** | **553**<br>**553a**<br>**563** |

**LAST TREATMENT RECEIVED**

| | HOME CARE | Skip | | OTHER THAN HOME CARE | Skip |
|---|---|---|---|---|---|
| 553. | After how much time from the beginning of the problem did you receive last treatment at home?<br><br>HOURS ..... 1 ☐☐<br>DAYS…… ..... 2 ☐☐<br>MONTHS……. ..... 3 ☐☐<br><br>IF IMMEDIATELY AFTER THEN WRITE 00 IN HOURS; IF LESS THAN 1 DAY THEN WRITE IN HOURS, IF 30 DAYS OR MORE THEN WRITE IN COMPLETE MONTHS. | | 553a. | After how much time from the beginning of the problem did you first receive treatment at the last place (clinic, hospital or qualified doctor)?<br><br>HOURS.....1 ☐☐<br>DAYS…… .....2 ☐☐<br>MONTHS…….....3 ☐☐<br><br>IF IMMEDIATELY AFTER THEN WRITE 00 IN HOURS, IF LESS THAN 1 DAY THEN WRITE IN HOURS, IF 30 DAYS OR MORE THEN WRITE IN COMPLETE MONTHS. | |

| | HOME CARE | Skip | | OTHER THAN HOME CARE | Skip |
|---|---|---|---|---|---|
| 554. | From whom did you receive treatment at home?<br><br>**HEALTH PROFESSIONAL/WORKER**<br>QUALIFIED DOCTOR.....A<br>NURSE/MIDWIFE/PARAMEDIC.....B<br>FAMILY WELFARE VISITOR.....C<br>CSBA.....D<br>MA/SACMO.....E<br>HEALTH ASSISTANT .....F<br>FAMILY WELFARE ASSISTANT ..... G<br>**OTHER PROVIDER**<br>TRAINED TBA.....H<br>UNTRAINED TBA ..... I<br>UNQUALIFIED DOCTOR..... J<br>RELATIVES.....K<br>NEIGHBORS/FRIENDS ..... L<br>**OTHER**<br>BRAC SHASTHA SEBIKA……M<br>OTHER SHASTHA SEBIKA……..N<br>OTHER FIELD WORKER……..O<br>OTHER (SPECIFY_____……X | | | | |
| | | | 555a | How far is this clinic, hospital or qualified doctor from your house/house where you were present?<br>**WRITE '00' IF LESS THAN A MILE.**<br><br>MILE……..\|___\|____\|<br>OUTSIDE UPAZILA/TOWN.....95<br>DON'T KNOW……98 | |
| 558. | Did your condition improve after treatment at home, or did it stay the same or worsen?<br><br>NO CHANGE..... 1<br>IMPROVED ..... 2<br>WORSNED..... 3 | | 558a. | Did your condition improve after treatment in this place, or did it stay the same or worsen?<br><br>NO CHANGE .....1<br>IMPROVED.....2<br>WORSNED .....3 | |
| 559. | Did the person who provided you with treatment at home refer or ask you to go any other place for treatment/advice?<br><br>YES ..... 1<br>NO……..... 2 → | 563 | 559a | Were you referred or told to go any other place for treatment/advice?<br><br>YES.....1<br>NO…… .....2 → | 563 |
| 560. | Where were you told to go?<br><br>**PUBLIC SECTOR**<br>MEDICAL COLLEGE HOSPITAL……..21<br>SPECIALISED GOVT.HOSPITAL (SPECIFY__)……22<br>DISTRICT HOSPITAL…….....23<br>MCWC……24<br>UPAZILLA HEALTH COMPLEX……25<br>H&FWC……26<br>SC/EPI OUTREACH SITE……..27<br>COMMUNITY CLINIC……28<br>OTHER (SPECIFY _____)……30<br><br>**NGO SECTOR**<br>NGO STATIC CLINIC……..31<br>NGO SATELITE CLINIC…….....32<br>OTHER (SPECIFY _____)……35<br><br>**PRIVATE MEDICAL SECTOR**<br>PRIVATE HOSPITAL/CLINIC……41<br>QUALIF. DOCTOR'S CHAMBER……..42<br>UNQUAL.DOCTOR'S CHAMBER……43<br>PHARMACY……44<br>PRIV.MEDICAL COLLEGE HOSPITAL (SPECIFY)……45<br>OTHER (SPECIFY _____)……96 | | 560a | Where were you told to go?<br><br>**PUBLIC SECTOR**<br>MEDICAL COLLEGE HOSPITAL……..21<br>SPECIALISED GOVT.HOSPITAL (SPECIFY__)……22<br>DISTRICT HOSPITAL…….....23<br>MCWC……24<br>UPAZILLA HEALTH COMPLEX……25<br>H&FWC……26<br>SC/EPI OUTREACH SITE……..27<br>COMMUNITY CLINIC……28<br>OTHER (SPECIFY _____)……30<br><br>**NGO SECTOR**<br>NGO STATIC CLINIC……..31<br>NGO SATELITE CLINIC…….....32<br>OTHER (SPECIFY _____)……35<br><br>**PRIVATE MEDICAL SECTOR**<br>PRIVATE HOSPITAL/CLINIC……41<br>QUALIF. DOCTOR'S CHAMBER……..42<br>UNQUAL.DOCTOR'S CHAMBER……43<br>PHARMACY……44<br>PRIV.MEDICAL COLLEGE HOSPITAL (SPECIFY)……45<br>OTHER (SPECIFY _____)……96 | |

| | HOME CARE | Skip | | OTHER THAN HOME CARE | Skip |
|---|---|---|---|---|---|
| 561 | Did you go there?<br><br>YES ..... 1 →<br>NO……..... 2 | 563 | 561a | Did you go there?<br><br>YES..... 1 →<br>NO…… .....2 | 563 |
| 562 | Why did you not go to the referred place?<br><br>NOT NECESSARY.....A<br>NOT UNDERSTAND THAT SERVICE IS NEEDED .....B<br>NOT CUSTOMERY.....C<br>COST TOO MUCH.....D<br>LACK OF MONEY.....E<br>TOO FAR .....F<br>TRANSPORT PROBLEM..... G<br>NO ONE TO ACCOMPANY.....H<br>POOR QUALITY SERVICE..... I<br>FAMILY DID NOT ALLOW ..... J<br>BETTER CARE AT HOME.....K<br>NOT KNOWN HOW TO GO..... L<br>NO TIME TO GO FOR SERVICES ..... M<br>NOT KNOW WHERE TO GO.....N<br>NOT WANT SERVICE FROM MALE DOCTOR..... O<br>FOR FEAR .....P<br>CLINIC/HOSPITAL INSIST FOR CISAREAN Q<br>DID NOT THINK OF SERIOUSNESS OF COMPLICATION .....R<br>HOSPITAL WAS CLOSED.....S<br>DOCTOR WAS NOT THERE..... T<br>OTHER_____……X<br>(SPECIFY) | | 562a | Why did you not go to the referred place?<br><br>NOT NECESSARY ..... A<br>NOT UNDERSTAND THAT SERVICE IS NEEDED ..... B<br>NOT CUSTOMERY ..... C<br>COST TOO MUCH ..... D<br>LACK OF MONEY ..... E<br>TOO FAR.....F<br>TRANSPORT PROBLEM ..... G<br>NO ONE TO ACCOMPANY ..... H<br>POOR QUALITY SERVICE .....I<br>FAMILY DID NOT ALLOW .....J<br>BETTER CARE AT HOME ..... K<br>NOT KNOWN HOW TO GO .....L<br>NO TIME TO GO FOR SERVICES .....M<br>NOT KNOW WHERE TO GO ..... N<br>NOT WANT SERVICE FROM MALE DOCTOR .....O<br>FOR FEAR..... P<br>CLINIC/HOSPITAL INSIST FOR CISAREAN Q<br>DID NOT THINK OF SERIOUSNESS OF COMPLICATION ..... .R<br>HOSPITAL WAS CLOSED ..... S<br>DOCTOR WAS NOT THERE .....T<br>OTHER_____……X<br>(SPECIFY) | |

| NO. | QUESTIONS AND FILTERS | CODING CATEGORIES | SKIP |
|---|---|---|---|
| | | LAST LIVE BIRTH<br>LINE NO…….. NAME: _____ | |
| 563. | What was the total cost incurred for your last delivery?<br><br>IF CANNOT MENTION, WRITE 999995. | TAKA..... \|___\|___\|___\|____\|____\|____\|<br><br>NO MONEY SPEND……..000000 → | 566a |
| 564. | How much money did you spend during pregnancy?<br><br>(Ask about each category)<br><br>IF NO MONEY SPENT WRITE 00000.<br>IF CANNOT MENTION, WRITE 99995. | **During pregnancy**<br><br>Transportation cost \|___\|___\|___\|___\|___\|<br>Medicine cost \|___\|___\|___\|___\|___\|<br>Hospital and/ provider cost \|___\|___\|___\|___\|___\|<br>Other cost.. ……. \|___\|___\|___\|___\|___\|<br>Subtotal during pregnancy \|___\|___\|___\|___\|___\| | |
| 565. | How much money did you spend during and after delivery?<br><br>(Ask about each category)<br><br>IF NO MONEY SPENT WRITE 00000.<br>IF CANNOT MENTION, WRITE 99995. | **During and after delivery**<br><br>Transportation cost ..... .\|___\|___\|___\|___\|___\|<br>Medicine cost ..... .\|___\|___\|___\|___\|___\|<br>Hospital and/ provider cost \|___\|___\|___\|___\|___\|<br>Other cost.. ……. \|___\|___\|___\|___\|___\|<br>Subtotal during pregnancy ..... .\|___\|___\|___\|___\|___\| | |

| | | | |
|---|---|---|---|
| 566. | How did you get this money for treatment? | FAMILY FUNDS ..... A<br>BORROWED..... B<br>SOLD ASSETS ..... C<br>FROM RELATIVES (GIFT) ..... D<br>MORTGAGE ..... E<br>FRIENDS (GIFT)……F<br>OTHER (SPECIFY_____)..... X<br>DON'T KNOW ..... Y | |
| 566a | Did you have pre-arranged money for managing emergency for this pregnancy or delivery? | YES ..... 1<br>NO ..... 2 | |
| 566b | Did you have pre-arranged transport to take you to a clinic, hospital or qualified doctor in case of emergency for this pregnancy or delivery? | YES ..... 1<br>NO ..... 2 | |
| 567. | Did you check your health within two months of delivery? | YES ..... 1<br>NO ..... 2 → | 571 |
| 568. | How many hours/days/weeks after delivery?<br><br>IF IMMEDIATELY AFTER THEN WRITE 00 IN HOURS; IF LESS THAN 1 DAY THEN WRITE IN HOURS, IF 30 DAYS OR MORE THEN WRITE IN COMPLETE MONTHS. | HOURS .....1 □□<br>DAYS .....2 □□<br>WEEKS .....3 □□ | |
| 569. | Whom did you see?<br><br>Anyone else?<br><br>PROBE FOR THE TYPE OF PERSON AND RECORD ALL PERSONS SEEN.<br><br>IF CODE 'D' IS CIRCLED, WRITE DOWN THE NAME OF CSBA.<br><br>_____<br>(CSBA's NAME) | **HEALTH PROFESSIONAL/WORKER**<br>QUALIFIED DOCTOR..... A<br>NURSE/MIDWIFE/PARAMEDIC..... .B<br>FAMILY WELFARE VISITOR ..... C<br>CSBA ..... D<br>MA/SACMO..... .E<br>HEALTH ASSISTANT ..... .F<br>FAMILY WELFARE ASSISTANT..... G<br><br>**OTHER PROVIDER**<br>TRAINED TBA ..... H<br>UNTRAINED TBA ..... I<br>UNQUALIFIED DOCTOR ..... J<br><br>**OTHER**<br>BRAC SHASTHA SEBIKA……M<br>OTHER SHASTHA SEBIKA……N<br>OTHER FIELD WORKER……0<br>OTHER (SPECIFY_____……X | |

| | | | |
|---|---|---|---|
| 570. | Where did you seek care after birth?<br><br>Any other places? | **HOME**<br>HOME……..A<br><br>**PUBLIC SECTOR**<br>MEDICAL COLLEGE HOSPITAL……B<br>SPECIALISED GOVT.HOSPITAL<br>(SPECIFY__)……..C<br>DISTRICT HOSPITAL…….....D<br>MCWC……E<br>UPAZILLA HEALTH COMPLEX……..F<br>H&FWC……..G<br>SC/EPI OUTREACH SITE……H<br>COMMUNITY CLINIC……I<br>OTHER (SPECIFY _____)……..J<br><br>**NGO SECTOR**<br>NGO STATIC CLINIC……K<br>NGO SATELITE CLINIC……...L<br>OTHER (SPECIFY _____)……..M<br>**PRIVATE MEDICAL SECTOR**<br>PRIVATE HOSPITAL/CLINIC……N<br>QUALIF. DOCTOR'S CHAMBER…….O<br>UNQUAL.DOCTOR'S CHAMBER……P<br>PHARMACY……Q<br>PRIV.MEDICAL COLLEGE HOSPITAL<br>(SPECIFY)……..……..R<br><br>OTHER (SPECIFY _____)……X | → 572 |
| 571. | Why did you not seek care after birth? | NOT NECESSARY .....A<br>DID NOT KNOW THAT<br>SERVICE IS NEEDED……B<br>NOT CUSTOMERY.....C<br>COST TOO MUCH……..D<br>LACK OF MONEY.....E<br>TOO FAR ..... F<br>TRANSPORT PROBLEM .....G<br>NO ONE TO ACCOMPANY.....H<br>POOR QUALITY SERVICE ..... I<br>FAMILY DID NOT ALLOW.....J<br>BETTER CARE AT HOME.....K<br>NOT KNOWN HOW TO GO ..... L<br>NO TIME TO GO FOR SERVICES..... M<br>DID NOT KNOW WHERE TO GO .....N<br>NOT WANT SERVICE FROM MALE<br>DOCTOR.....O<br>OTHER _____.....X<br>(Specify) | |
| 572. | Did you check your baby's health within two months of the delivery? | YES ..... 1<br>NO ..... .2 → | 576 |
| 573. | How many hours/days/weeks after delivery?<br><br>IF IMMEDIATELY AFTER THEN WRITE 00 IN HOURS; IF LESS THAN 1 DAY THEN WRITE IN HOURS, IF 30 DAYS OR MORE THEN WRITE IN COMPLETE MONTHS. | HOURS .....1 [ ][ ]<br>DAYS .....2 [ ][ ]<br>WEEKS .....3 [ ][ ] | |

| | | | |
|---|---|---|---|
| 574. | Whom did you see for _____ health check up?<br><br>(NAME)<br>Anyone else? | **HEALTH PROFESSIONAL/WORKER**<br>QUALIFIED DOCTOR.....A<br>NURSE/MIDWIFE/PARAMEDIC.....B<br>FAMILY WELFARE VISITOR .....C<br>CSBA .....D<br>MA/SACMO.....E<br>HEALTH ASSISTANT ..... .F<br>FAMILY WELFARE ASSISTANT.....G<br><br>**OTHER PROVIDER**<br>TRAINED TBA .....H<br>UNTRAINED TBA ..... I<br>UNQUALIFIED DOCTOR .....J<br><br>**OTHER**<br>BRAC SHASTHA SEBIKA……M<br>OTHER SHASTHA SEBIKA……N<br>OTHER FIELD WORKER……0<br><br>..OTHER (SPECIFY_____……X | |
| 575. | Where did you receive _____ health checkup?<br><br>(NAME)<br>Any other places? | **HOME**<br>HOME……A<br><br>**PUBLIC SECTOR**<br>MEDICAL COLLEGE HOSPITAL…….B<br>SPECIALISED GOVT.HOSPITAL<br>(SPECIFY__)……C<br>DISTRICT HOSPITAL…….....D<br>MCWC……E<br>UPAZILLA HEALTH COMPLEX……F<br>H&FWC……G<br>SC/EPI OUTREACH SITE……H<br>COMMUNITY CLINIC……I<br>OTHER (SPECIFY _____)……J<br><br>**NGO SECTOR**<br>NGO STATIC CLINIC……K<br>NGO SATELITE CLINIC……...L<br>OTHER (SPECIFY _____)……M<br><br>**PRIVATE MEDICAL SECTOR**<br>PRIVATE HOSPITAL/CLINIC……N<br>QUALIF. DOCTOR'S CHAMBER……..O<br>UNQUAL.DOCTOR'S CHAMBER…….P<br>PHARMACY……..Q<br>PRIV.MEDICAL COLLEGE HOSPITAL<br>(SPECIFY)……..……..R<br><br>OTHER (SPECIFY _____)……X | |
| 576. | **INTERVIEWER: CHECK YOUR LIST WHETHER THIS WOMAN'S CLUSTER IS WITHIN DSF VOUCHER SCHEME AREA AND WHETHER THE WOMAN HAD A LIVE BIRTH SINCE JANUARY 2009 (LAST DATE OF BIRTH IN Q315)** | DSF AREA & WOMAN HAD A LIVE BIRTH SINCE JANUARY 2009<br>……1<br><br>DSF AREA & WOMAN DID NOT HAVE A LIVE BIRTH SINCE<br>JANUARY 2009….……2 →<br><br>NOT A DSF AREA……3 → | <br><br><br>583<br><br>583 |
| 577. | Did you receive DSF voucher book during your last pregnancy? | YES……1<br>NO……..2 → | 583 |
| 578. | What was the duration of pregnancy when you receive d the DSF Voucher? | Pregnancy……\|____\|____\| MONTHS | |
| 579. | Did you use the voucher for medical checkup during pregnancy? | YES……1<br>NO……..2<br>DID NOT DO MEDICAL CHECK UP……3 | |
| 580. | Did you use the voucher for delivery? | YES……1<br>NO……..2 → | 582 |

| | | | |
|---|---|---|---|
| 581. | How much money did you get for delivery? | TAKA \|_____\|_____\|_____\|_____\| | |
| 582 | Did you use the voucher for post-natal check up (check up after delivery)? | YES……1<br>NO……..2<br>DID NOT DO POST NATAL CHECK UP……..3 | |
| 583 | | RETURN TO Q503 FOR THE NEXT LIVE BIRTH. IF NO MORE LIVE BIRTH, THEN GO TO Q601. | |

## SECTION 6: CSBA section

| NO. | QUESTIONS AND FILTERS | CODING CATEGORIES | SKIP |
|---|---|---|---|
| 601 | INTERVIEWER: CHECK WHETHER THIS IS AN URBAN OR RURAL CLUSTER AND CIRCLE APPROPRIATE CODE | URBAN CLUSTER……1<br>RURAL CLUSTER……2 | → 700 |
| 602 | INTERVIEWER: CHECK CSBA LIST. CHECK WHETHER ANY CSBA WORKS IN THE AREA AND CIRCLE APPROPRIATE CODE. | CSBA WORKS IN THIS AREA……1<br>CSBA DOES NOT WORK IN THIS AREA……2 | →700 |
| 603 | INTERVIEWER: RECORD NAME OF CSBA AND COMPLETION DATE OF CSBA TRAINING FROM THE CSBA LIST PROVIDED | NAME OF CSBA: _____<br><br>END DATE OF CSBA TRAINING:<br><br>\|___\|___\| \|____\|____\| \|____\|_____\|<br><br>DAY MONTH YEAR | |
| 604 | INTERVIEWER: CHECK Q315 AND WRITE DOWN THE DATE OF LAST BIRTH | DATE OF LAST BIRTH \|___\|___\| \|_____\|_____\|____\|___\|<br><br>MONTH YEAR | |
| 605 | INTERVIEWER: COMPARE Q603 AND Q604 (THE DATE OF CSBA TRAINING AND THE DATE OF LAST BIRTH ) AND CIRCLE APPROPRIATE CODE | DATE OF LAST BIRTH IS AFTER THE TRAINING END DATE……..1<br>DATE OF LAST BIRTH IS BEFORE THE TRAINING END DATE……..2 | → 700 |
| 606 | INTERVIEWER: CHECK Q504 AND CIRCLE APPROPRIATE CODE | CODE 'D' IS CIRCLED ……1<br>OTHER THAN CODE 'D' IS CIRCLED……2 | → 609 |
| 607 | Did she do the followings in your last pregnancy?<br><br>a)MEASURED WEIGHT<br>b) MEASURED BLOOD PRESSURE<br>d)TESTED URINE<br>e) EXAMINED ABDOMEN<br>f) HEARD FOETAL HEART SOUND BY STETHESCOPE<br>g) EXAMINED EDEMA HAND AND FEET | YES NO<br>MEASURED WEIGHT 1 2<br>MEASURED BLOOD PRESSURE 1 2<br>TESTED URINE 1 2<br>ABDOMINAL EXAMINATION 1 2<br>FHS BY STETHESCOPE 1 2<br>EDEMA 1 2 | |
| 608 | Why did you choose her to receive medical checkup during your last pregnancy?<br>( Multiple response) | TRAINED ……A<br>EXPERIENCED……B<br>READILY AVAILABLE ……C<br>NEARBY……D<br>LESS COST……E<br>BETTER CARE……F<br>GOOD BEHAVIOR……G<br>GOOD REPUTATION……H<br>PREVIOUSLY KNOWN……I<br><br>OTHER (specify _____) ……X | 611 |
| 609 | Do you know this woman _____ ?<br>(NAME OF CSBA) | YES……1<br>NO……. 2 | →700 |
| 610 | What kind of services does she provide?<br><br>(MULTIPLE ANSWERS) | GIVE ORAL PILLS……A<br>DISTRIBUTE CONDOMS……B<br>PROVIDE OTHER FP SERVICES……C<br>REFER/ACCOMPANY CLIENTS TO FP SERVICES……D<br>PROVIDE CHECK UP DURING PREGNANCY……E<br>DELIVER BABY……F<br>ASSIST IN DELIVERTY (WITH OTHERS) ……G<br>GIVE IMMUNIZATION……H<br>PROVIDE CHILD HEALTH SERVICES……I<br>PROVIDE NEONATAL CARE……J<br>GIVE NUTRITION EDUCATION……K<br>REFER PREGNANT WOMEN TO HOSPITALS……L<br>REFER WOMEN TO DELIVER IN HOSPITALS……M<br>ACCOMPANY PREGNANT WOMEN TO HOSPITALS……N<br>ACCOMPANY WOMEN TO DELIVER IN HOSPITALS……O<br>REFER PEOPLE TO HOSPITALS……P<br>ACCOMPANY PEOPLE TO HOSPITALS……Q<br>OTHER (Specify _____)……X | |

| NO. | QUESTIONS AND FILTERS | CODING CATEGORIES | SKIP |
|---|---|---|---|
| 611 | INTERVIEWER: CHECK Q520 AND CIRCLE APPROPRIATE CODE | CODE 'D' IS CIRCLED ……1<br>OTHER THAN CODE 'D' IS CIRCLED……2 | → 615 |
| 612 | INTERVIEWER: CHECK Q610 AND CIRCLE APPROPRIATE CODE. | CODE 'F' IS CIRCLED……1<br>OTHER THAN 'F' CODE IS CIRCLEDCLED……2<br>NO CODE IS CIRCLED……...3 | <br>→ 614<br>→ 615 |
| 613 | Why did you not choose her for conducting delivery?<br>( Multiple response) | NOT TRAINED……A<br>NOT EXPERIENCED……B<br>NOT AVAILABLE……. ……..C<br>NOT NEARBY……..D<br>COST IS TOO HIGH……..E<br>WANTED BETTER CARE……..F<br>NOT GOOD BEHAVIOR……..G<br>BAD REPUTATION……..H<br>FAMILY DOES NOT LIKE……..I<br>WE HAVE SOMEONE ELSE IN THE FAMILY……J<br>OTHER (specify _____) ……...X | |
| 614 | INTERVIEWER: CHECK 610 AND CIRCLE APPROPRIATE CODE. | CODE "L" IS CIRCLED……..1<br>OTHER THAN CODE "L" IS CIRCLED……..……2<br>NO CODE IS CIRCLED……3 | <br>→ 700 |
| 615 | Did she refer you to any health facility during pregnancy for medical checkup? | YES……..1<br>NO……..... 2 | <br>→ 619 |
| 616 | Where did she refer you? | PUBLIC SECTOR<br>MEDICAL COLLEGE HOSPITAL……..……..21<br>SPECIALIZED GOVT. HOSPITAL (SPECIFY)……..22<br>DISTRICT HOSPITAL……...23<br>MCWC……24<br>UHC……..……..25<br>H&FWC……..……..26<br>SATELITE CLINIC/EPI OUTREACH SITE……27<br>COMMUNITY CLINIC…….....28<br>OTHER (SPECIFY _____)……...30<br><br>NGO SECTOR<br>NGO STATIC CLINIC……31<br>NGO SATELLITE CLINIC……..32<br>OTHER (SPECIFY _____)……35<br><br>PRIVATE MEDICAL SECTOR<br>PRIVATE HOSPITAL/CLINIC……..41<br>QUALIFIED DOCTOR'S CHAMBER……..42<br>UNQUALIFIED DOCTOR'S CHAMBER……43<br>PHARMACY……..……..44<br>PRIVATE MEDICAL COLLEGE HOSPITAL<br>(SPECIFY _____)……..……...45<br><br>OTHER……96 | |
| 617 | Did you go? | YES……1<br>NO……...2 | <br>→ 619 |
| 618 | Did she accompany with you? | YES……1<br>NO……...2 | |
| 619 | Did she refer you to any health facility for delivery? | YES……..1<br>NO……..... 2 | <br>→ **623** |

| NO. | QUESTIONS AND FILTERS | CODING CATEGORIES | SKIP |
|---|---|---|---|
| 620 | Where did she refer you? | PUBLIC SECTOR<br>MEDICAL COLLEGE HOSPITAL……21<br>SPECIALIZED GOVT. HOSPITAL (SPECIFY)……22<br>DISTRICT HOSPITAL……23<br>MCWC……24<br>UHC……25<br>H&FWC……26<br>SATELITE CLINIC/EPI OUTREACH SITE……27<br>COMMUNITY CLINIC……28<br>OTHER (SPECIFY _____)……30<br><br>NGO SECTOR<br>NGO STATIC CLINIC……31<br>NGO SATELLITE CLINIC……32<br>OTHER (SPECIFY _____)……35<br><br>PRIVATE MEDICAL SECTOR<br>PRIVATE HOSPITAL/CLINIC……41<br>QUALIFIED DOCTOR'S CHAMBER……42<br>UNQUALIFIED DOCTOR'S CHAMBER……43<br>PHARMACY……44<br>PRIVATE MEDICAL COLLEGE HOSPITAL<br>(SPECIFY _____)……45<br><br>OTHER……96 | |
| 621 | Did you go? | YES……1<br>NO……2 | →623 |
| 622 | Did she accompany with you? | YES……1<br>NO……2 | |
| 623 | Did she refer you to any health facility for obstetric complications any time? | YES……1<br>NO……2<br>DID NOT HAVE ANY OBSTETRIC COMPLICATION……3 | →700<br>→700 |
| 624 | Where did she refer you? | PUBLIC SECTOR<br>MEDICAL COLLEGE HOSPITAL……21<br>SPECIALIZED GOVT. HOSPITAL (SPECIFY)……22<br>DISTRICT HOSPITAL……23<br>MCWC……24<br>UHC……25<br>H&FWC……26<br>SATELITE CLINIC/EPI OUTREACH SITE……27<br>COMMUNITY CLINIC……28<br>OTHER (SPECIFY _____)……30<br><br>NGO SECTOR<br>NGO STATIC CLINIC……31<br>NGO SATELLITE CLINIC……32<br>OTHER (SPECIFY _____)……35<br><br>PRIVATE MEDICAL SECTOR<br>PRIVATE HOSPITAL/CLINIC……41<br>QUALIFIED DOCTOR'S CHAMBER……42<br>UNQUALIFIED DOCTOR'S CHAMBER……43<br>PHARMACY……44<br>PRIVATE MEDICAL COLLEGE HOSPITAL<br>(SPECIFY _____)……45<br><br>OTHER……96 | |
| 625 | Did you go? | YES……1<br>NO……2 | →700 |
| 626 | Did she accompany with you? | YES……1<br>NO……2 | |

## SECTION 7: MEDIA EXPOSURE

| NO. | QUESTIONS AND FILTERS | CODING CATEGORIES | SKIP |
|---|---|---|---|
| 700 | INTERVIEWER: CHECK 105 AND CIRCLE APPROPRIATE CODE. | YES ……1<br>NO ……..2 → | 703 |
| 701 | Do you read a newspaper or magazine? | YES .....1<br>NO..... 2 → | 703 |
| 702 | How often do you read a newspaper or magazine almost every day, at least once a week, or less than once a week? | ALMOST EVERY DAY..... 1<br>AT LEAST ONCE A WEEK..... 2<br>LESS THAN ONCE A WEEK..... 3 | |
| 703 | Do you listen to radio? | YES ..... 1<br>NO……2 → | 705 |
| 704 | 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<br>AT LEAST ONCE A WEEK..... 2<br>LESS THAN ONCE A WEEK..... 3 | |
| 705 | Do you watch television? | YES ..... 1<br>NO……2 → | 707 |
| 706 | Do you watch television almost every day, at least once a week, less than once a week or not at all? | ALMOST EVERY DAY..... 1<br>AT LEAST ONCE A WEEK..... 2<br>LESS THAN ONCE A WEEK..... 3 | |
| 707 | Do you belong to any of the following organizations? | YES NO | |
| | Grameen Bank? | GRAMEEN BANK .....……1 2 | |
| | BRAC? | BRAC ..... ……1 2 | |
| | BRDB? | BRDB ..... ……1 2 | |
| | ASHA? | ASHA ..... ……1 2 | |
| | PROSHIKA? | PROSHIKA..... ……1 2 | |
| | Mother's Club? | MOTHER'S CLUB..... ……1 2 | |
| | Any other organization (such as micro credit)? | OTHER_____……1 2<br>(SPECIFY) | |
| 708 | INTERVIEWER: CHECK THE QUESTIONNAIRE CAREFULLY FOR COMPLETENESS BEFORE ENDING THE INTERVIEW. THEN SAY THANK YOU AND END THE INTERVIEW. | | |
| 709 | RECORD THE TIME | HOURS \|___\|____\| MINUTES \|____\|____\| | |

# BANGLADESH MATERNAL MORTALITY AND HEALTH CARE SURVEY (BMMS) 2010

## VERBAL AUTOPSY QUESTIONNAIRE

**National Institute of Population Research and Training (NIPORT)**
**Ministry of Health and Family Welfare**
**Associates for Community and Population Research (ACPR)**
**Mitra and Associates**
**icddr,b**
**MEASURE Evaluation**

**BANGLADESH MATERNAL MORTALITY AND HEALTH CARE SURVEY (BMMS)-2010**
**VERBAL AUTOPSY QUESTIONNAIRE**

## IDENTIFICATION

DIVISION: .....

DISTRICT: .....

THANA: .....

UNION/WARD: .....

MOUZA/MOHALLA: .....

VILLAGE/MOHALLA/BLOCK: _____

SEGMENT NUMBER: .....

CLUSTER NUMBER: .....

HOUSEHOLD NUMBER .....

TYPE OF AREA: Rural 1 Urban 2 Other Urban 3

NAME OF THE RESPONDENT: _____

NAME AND SERIAL NUMBER OF DECEASED: _____

## INTERVIEWER VISITS

| | 1 | 2 | 3 | FINAL VISIT |
|---|---|---|---|---|
| DATE | | | | DAY |
| | | | | MONTH |
| | | | | YEAR 2 0 1 0 |
| INTERVIEWER'S NAME | | | | |
| RESULT* | | | | |
| NEXT VISIT: DATE | _____ | _____ | | TOTAL NO. OF VISITS |
| TIME | _____ | _____ | | |

*RESULT CODES:
1 COMPLETED
2 NOT AT HOME
3 POSTPONED
4 REFUSED
5 PARTLY COMPLETED
6 RESPONDENT INCAPACITATED
7 OTHER _____
(SPECIFY)

*MONTH CODES

| | | | |
|---|---|---|---|
| 01. JANUARY | 04. APRIL | 07. JULY | 10. OCTOBER |
| 02. FEBRUARY | 05. MAY | 08. AUGUST | 11. NOVEMBER |
| 03. MARCH | 06. JUNE | 09. SEPTEMBER | 12. DECEMBER |

| SUPERVISOR | | FIELD EDITOR | | OFFICE EDITOR | KEYED BY |
|---|---|---|---|---|---|
| NAME _____ | | NAME _____ | | | |
| DATE _____ | | DATE _____ | | | |

**SECTION 1**
**SELECTION OF PEOPLE TO BE INTERVIEWED**

1010. Who were around during the woman's last illness and at the time of the woman's death? [List the respondent named on the cover page in the first row below]

| 1011 | 1012 | 1013 | 1014 | 1015 | 1016 | 1017 | 1018 |
|---|---|---|---|---|---|---|---|
| Relationship to woman and name | | **Was _____ (column 1) present during last illness of _____ (NAME)?** | **Was _____ (column 1) present at the time of death of _____ (NAME)?** | **Of those who know about the cause of her death and last illness record 1, 2, 3,... in this column to indicate the relative degree of their knowledge. The same number can be used for 2 persons to indicate same knowledge** | **Does _____ (column 1) live in this household?** | **Is this person's house in your union? *Those circled 2 if absent at the time of interview will not be eligible as a respondent*** | ***Circle 1 for those in column 1 who were present during the interview*** |
| Name | Relationship | | | | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| | | Yes 1<br>No 2<br>NA 7 | Yes 1<br>No 2 | | Yes 1 Q1018<br>No 2 | Yes 1<br>No 2 | Yes 1<br>No 2 |
| | | Yes 1<br>No 2<br>NA 7 | Yes 1<br>No 2 | | Yes 1 Q1018<br>No 2 | Yes 1<br>No 2 | Yes 1<br>No 2 |
| | | Yes 1<br>No 2<br>NA 7 | Yes 1<br>No 2 | | Yes 1 Q1018<br>No 2 | Yes 1<br>No 2 | Yes 1<br>No 2 |
| | | Yes 1<br>No 2<br>NA 7 | Yes 1<br>No 2 | | Yes 1 Q1018<br>No 2 | Yes 1<br>No 2 | Yes 1<br>No 2 |
| | | Yes 1<br>No 2<br>NA 7 | Yes 1<br>No 2 | | Yes 1 Q1018<br>No 2 | Yes 1<br>No 2 | Yes 1<br>No 2 |

Husband=01 Mother=03 Father-in-law=05 Sister=07 Sister in law=09 Son=11 Grand-mother=13 FWA=15 Non-relative=18
Co-wife=02 Father=04 Mother-in-law=06 Brother=08 Brother in law=10 Daughter=12 Grand-father=14 TBA/Dai =16 Other relative
Neighbour/Friend=17 _____=19
(specify)

**Interview must be conducted with those who know the most about the woman's last illness and her death (1015) and who are available for the interview. During the interview, others in the list above may be present and their help may be sought**

Record the full address of the selected best respondent if he/she lives in another house but in the same union, so that he/she can be located later according to the address for conducting the interview

Address:

**SECTION 2**
**BACKGROUND INFORMATION**

| NO. | QUESTIONS AND FILTERS | CODING CATEGORIES | SKIP |
|---|---|---|---|
| 2001 | Time of starting interview: | \|____\|____\| hrs \|____\|____\| mins | |
| 2002 | In what month and year did she die? | MONTH ..... \|____\|____\|<br>DON'T KNOW MONTH ..... 98<br>YEAR \|____\|____\|____\|____\|<br>DON'T KNOW YEAR..... 9998 | |
| 2003 | How old was _____(NAME) at the time of her death?<br>*(write in completed years)* | \|____\|____\| years | |
| 2004 | Did _____(NAME) ever study in a school or madrasah? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW ..... 8 | <br>2006<br>2006 |
| 2005 | How many years of schooling did she complete? | Class ..... \|____\|____\| years<br>DON'T KNOW ..... 98 | |
| 2006 | Did _____(NAME) do any work, other than her own household chores? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW ..... 8 | <br>2008<br>2008 |
| 2007 | Did _____ (NAME) receive any payment or things for the work, or did she receive nothing? | RECEIVED NOTHING ..... 0<br>RECEIVED CASH ..... 1<br>RECEIVED OTHER THINGS ..... 2<br>RECEIVED CASH AND OTHER THINGS ..... 3<br>DON'T KNOW/UNSURE ..... 8 | |
| 2008 | What was her marital status at the time of death? | MARRIED ..... 1<br>SEPARATED ..... 2<br>DESERTED ..... 3<br>DIVORCED ..... 4<br>WIDOWED ..... 5<br>NEVER MARRIED ..... 6 | <br>2012<br>2012<br>2012<br>2012<br>3001 |
| 2009 | How old was her husband when _____ (NAME) died?<br>[IF RESPONDENT IS WOMAN'S HUSBAND, ASK] How old were you when _____ (NAME) died? | Years ..... \|____\|____\|<br>DON'T KNOW ..... 98 | |
| 2010 | Did her husband ever study in a school or madrasah?<br>[IF RESPONDENT IS WOMAN'S HUSBAND, ASK] Did you ever study in a school or madrasah? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW ..... 8 | <br>2012<br>2012 |
| 2011 | How many years of schooling did her husband complete?<br>[IF RESPONDENT IS WOMAN'S HUSBAND, ASK] How many years of schooling did you complete? | Class ..... \|____\|____\| years<br>DON'T KNOW ..... 98 | |
| 2012 | Did _____(NAME) have any children ?<br>(Include live births and still births) | YES ..... 1<br>NO ..... 2<br>DON'T KNOW ..... 8 | <br>3001<br>3001 |
| 2013 | How many live births did she have?<br>*(If none, write =00)* | Number of live births ..... \|____\|____\|<br>DON'T KNOW ..... 98 | |

## SECTION 3
## GENERAL INFORMATION ABOUT EVENTS PRECEDING DEATH

| NO. | QUESTIONS AND FILTERS | CODING CATEGORIES | SKIP |
|---|---|---|---|
| 3001 | Was the deceased woman ill before death or did she have any health problem before death? | YES .....1<br>NO .....2<br>DON'T KNOW/UNSURE .....8 | <br>3003<br>3003 |
| 3002 | For how many days was she ill or did she have the health problem before she died?<br>*(If less than 1 day write 00)* | DAYS .....1 \|_____\|_____\|<br>MONTHS .....2 \|_____\|_____\|<br>DON'T KNOW/UNSURE .....998 | |
| 3003 | Where did she die? | HUSBAND'S HOME .....1<br>HER PARENT'S HOME .....2<br>HOSPITAL /CLINIC .....3<br>IN-TRANSIT .....4<br>OTHERS .....7 | 3009<br>3009<br><br>3009<br>3009 |
| 3004 | What is the name of hospital/clinic where she died? | NAME OF HOSPITAL /CLINIC<br>_____ | |
| 3005 | Did anyone from the hospital/clinic tell you why she died? | YES .....1<br>NO .....2<br>DON'T KNOW/UNSURE .....8 | <br>3009<br>3009 |
| 3006 | What was/were the main reason(s) given by the hospital/clinic as to why she died?<br>_____<br>_____<br>*(If do not know write 98, if no additional reason write 00)* | \|_____\|_____\|<br>\|_____\|_____\| | |
| 3007 | Do you have any death certificate/ paper from hospital? | YES .....1<br>NO .....2<br>DON'T KNOW/UNSURE 8 | <br>3009<br>3009 |
| 3008 | INTERVIEWER: Check the death certificate/paper. Record the cause(s) of death as mentioned in the certificate/paper.<br>_____<br>_____<br>(If do not know write 98, if no additional reason write 00) | \|_____\|_____\|<br>\|_____\|_____\| | |
| 3009 | What do you think is the cause(s) of her death? Tell us the two main reasons.<br>CAUSE (1)_____<br>CAUSE (2)_____<br>(If do not know write 98, if no additional reason write 00) | \|_____\|_____\|<br>\|_____\|_____\| | |

| NO. | QUESTIONS AND FILTERS | CODING CATEGORIES | SKIP |
|---|---|---|---|
| 3010 | Did any doctor/health care provider ever tell you or _____(NAME) that she had _____:<br><br>(READ OUT EACH DISEASE)<br>Hypertension?<br>Diabetes?<br>Epilepsy?<br>TB?<br>Heart disease?<br>Disease of the blood?<br>Asthma?<br>Cancer (Please specify_____)<br>HIV/AIDS?<br>Other chronic illness (Please specify_____) | YES NO DK<br><br>HYPERTENSION ..... 1 2 8<br>DIABETES ..... 1 2 8<br>EPILEPSY ..... 1 2 8<br>TB ..... 1 2 8<br>HEART DISEASE ..... 1 2 8<br>DISEASE OF BLOOD ..... 1 2 8<br>ASTHMA ..... 1 2 8<br>CANCER _____ 1 2 8<br>HIV/AIDS ..... 1 2 8<br>OTHER CHRONIC DISEASE_____ 1 2 8 | |
| 3011 | Was she hospitalized in the last 3 years before her death? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW ..... 8 | <br>4001<br>4001 |
| 3012 | How long (day/month) before her death was she last hospitalized? *If time is less than 1 day then write 00 days. If time is less than 1 month then write in completed days. If time is less than 1 year then write in completed months. If time is 12 months or more then write in completed years.* | DAYS ..... 1 \|_____\|_____\|<br>MONTHS ..... 2 \|_____\|_____\|<br>YEARS ..... 3 \|_____\|_____\|<br>DON'T KNOW/UNSURE ..... 998 | |
| 3013 | Why was she last hospitalized?<br>Verbatim: _____<br>_____ | \|_____\|_____\|<br>\|_____\|_____\|<br>DON'T KNOW/UNSURE ..... 98 | |
| 3014 | Did she have any operation/surgery in the last 3 years but before death? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW ..... 8 | <br>4001<br>4001 |
| 3015 | How long before her death did she have the last operation? *If time is less than 1 day then write 00 days. If time is less than 1 month then write in completed days. If time is less than 1 year then write in completed months. If time is 12 months or more then write in completed years.* | DAYS ..... 1 \|_____\|_____\|<br>MONTHS ..... 2 \|_____\|_____\|<br>YEARS ..... 3 \|_____\|_____\|<br>DON'T KNOW/UNSURE ..... 998 | |
| 3016 | Why did she have the operation/surgery?<br>Verbatim: _____<br>_____<br>_____ | \|_____\|_____\|<br>\|_____\|_____\|<br>DON'T KNOW/UNSURE ..... 98 | |

## SECTION 4. DESCRIPTIVE REPORT OF ILLNESS AND EVENTS THAT LED TO THE DEATH

*4001. Explain to the respondent that we would like to hear the details about everything that happened during the last illness before _____ death starting from the beginning of the illness and also about what happened during the final hours of the woman's death.*

Verbatim:

**SUMMARY OF SYMPTOMS AND SIGNS OBSERVED DURING THE LAST ILLNESS BEFORE DEATH AS REPORTED BY RESPONDENT. PLEASE LIST IN THE ORDER THEY APPEARED**

| **4002. Symptoms** | **4003. Duration**<br>*If time is less than 1 day then write 00 days. If time is less than 1 month then write in completed days. If time is less than 1 year then write in completed months. If time is 12 months or more then write in completed years* | **4004. Severity** |
|---|---|---|
| **1**<br>\|____\|____\| | DAYS……..1 \|___\|___\|<br>MONTHS……2 \|___\|___\|<br>YEARS……3 \|___\|___\|<br>DO NOT KNOW/UNSURE……998 | VERY SEVERE.....1<br>MODERATE.....2<br>MILD.....3 |
| **2**<br>\|____\|____\| | DAYS……..1 \|___\|___\|<br>MONTHS……2 \|___\|___\|<br>YEARS……3 \|___\|___\|<br>DO NOT KNOW/UNSURE……998 | VERY SEVERE.....1<br>MODERATE.....2<br>MILD.....3 |
| **3**<br>\|____\|____\| | DAYS……..1 \|___\|___\|<br>MONTHS……2 \|___\|___\|<br>YEARS……3 \|___\|___\|<br>DO NOT KNOW/UNSURE……998 | VERY SEVERE.....1<br>MODERATE.....2<br>MILD.....3 |
| **4**<br>\|____\|____\| | DAYS……..1 \|___\|___\|<br>MONTHS……2 \|___\|___\|<br>YEARS……3 \|___\|___\|<br>DO NOT KNOW/UNSURE……998 | VERY SEVERE.....1<br>MODERATE.....2<br>MILD.....3 |
| **5**<br>\|____\|____\| | DAYS……..1 \|___\|___\|<br>MONTHS……2 \|___\|___\|<br>YEARS……3 \|___\|___\|<br>DO NOT KNOW/UNSURE……998 | VERY SEVERE.....1<br>MODERATE.....2<br>MILD.....3 |
| **6**<br>\|____\|____\| | DAYS……..1 \|___\|___\|<br>MONTHS……2 \|___\|___\|<br>YEARS……3 \|___\|___\|<br>DO NOT KNOW/UNSURE……998 | VERY SEVERE.....1<br>MODERATE.....2<br>MILD.....3 |
| **7**<br>\|____\|____\| | DAYS……..1 \|___\|___\|<br>MONTHS……2 \|___\|___\|<br>YEARS……3 \|___\|___\|<br>DO NOT KNOW/UNSURE……998 | VERY SEVERE.....1<br>MODERATE.....2<br>MILD.....3 |
| **8**<br>\|____\|____\| | DAYS……..1 \|___\|___\|<br>MONTHS……2 \|___\|___\|<br>YEARS……3 \|___\|___\|<br>DO NOT KNOW/UNSURE……998 | VERY SEVERE.....1<br>MODERATE.....2<br>MILD.....3 |
| **9**<br>\|____\|____\| | DAYS……..1 \|___\|___\|<br>MONTHS……2 \|___\|___\|<br>YEARS……3 \|___\|___\|<br>DO NOT KNOW/UNSURE……998 | VERY SEVERE.....1<br>MODERATE.....2<br>MILD.....3 |

**SECTION 5**
**DETERMINING ELIGIBILITY FOR INTERVIEW MODULES 1-3**

| NO. | QUESTIONS AND FILTERS | CODING CATEGORIES | SKIP |
|---|---|---|---|
| 5001 | Was the woman pregnant at the time of death? | YES .....1<br>NO .....2<br>PROBABLY YES .....3<br>DON'T KNOW .....8 | <br>5004<br><br>5004 |
| 5002 | How many months was she pregnant at the time of death? | MONTH ..... \|_____\|_____\|<br>DON'T KNOW .....98 | |
| 5003 | Did the woman die before labour pain began or did she die after labour pain began? | MOTHER DIED BEFORE LABOUR BEGAN..1<br>MOTHER DIED AFTER LABOUR BEGAN BUT BEFORE BIRTH OF CHILD.....2 | 6101<br>7101 |
| 5004 | Was _____(NAME) ever pregnant while still alive? | YES .....1<br>NO .....2 | <br>8001 |
| 5005 | What was the outcome of her last pregnancy? | LIVE BIRTH .....1<br>STILL BIRTH .....2<br>ABORTION/MISCARRIAGE/MR .....3<br>DO NOT KNOW/UNSURE…….8 | |
| 5006 | How long after her delivery/last birth/still birth/abortion/miscarriage/MR did she die? *If time is less than 1 day then write 00 days. If time is less than 2 months then write in completed days, if between 2 and 23 months then write in completed months, and if the time between pregnancy outcome and death is 24 months or more then write in completed years.* | DAYS.....1 \|_____\|_____\|<br>MONTHS.....2 \|_____\|_____\|<br>YEARS .....3 \|_____\|_____\|<br>DON'T KNOW/UNSURE .....998 | |
| 5007 | ***Interviewer: Check answer to Q5006*** | Less than 12 months .....1<br>12 months (1 year) or more .....2 | <br>8001 |
| **5008** | ***Interviewer: Check answer to Q5005 and circle the appropriate code:*** | **Q5005 IS CODED EITHER 1 OR 2.....1**<br>**Q5005 IS CODED EITHER 3 OR 8.....2** | **7101**<br>**6102** |

**SECTION 6**

**MODULE 1: FOR DEATHS DURING PREGNANCY PRIOR TO ONSET OF LABOUR OR WITHIN 1 YEAR OF ABORTION/MISCARRIAGE/MR**

| NO. | QUESTIONS AND FILTERS | CODING CATEGORIES | SKIP |
|---|---|---|---|
| 6101 | Did _____(NAME) ever see anyone for a medical checkup during that pregnancy? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW ..... 8 | 6103<br>6201<br>6201 |
| 6102 | Did _____(NAME) ever see anyone for a medical checkup during the last pregnancy before she died? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW ..... 8 | <br>6201<br>6201 |
| 6103 | From whom did she receive the medical checkup when she was pregnant?<br><br>IF YES: Whom did she see?<br>Anyone else?<br><br>PROBE TO IDENTIFY EACH TYPE OF PERSON AND RECORD ALL MENTIONED.<br><br>IF CODE 'D' CIRCLED<br>_____<br>(WRITE NAME OF CSBA) | HEALTH PROFESSIONAL<br>QUALIFIED DOCTOR (MBBS) ----------A<br>NURSE/MIDWIFE/PARAMEDIC ----------B<br>FAMILY WELFARE VISITOR ----------C<br>COMMUNITY SKILLED BIRTH ATTENDANT ------D<br>MA/SACMO ----------E<br>HEALTH ASSISTANT ----------F<br>FAMILY WELFARE ASSISTANT ----------G<br>OTHER PROVIDER<br>TRAINED TBA ----------H<br>UNTRAINED TBA ---------- I<br>UNQUALIFIED DOCTOR ---------- J<br>OTHER<br>BRAC SHASTHAY SEBIKA ----------M<br>OTHER SHASTHA SEBIKA ----------N<br>OTHER FIELD WORKER ----------O<br>OTHER _____ ----------X<br>(SPECIFY) | |
| 6104 | Did she first seek medical check up during her last pregnancy because she had a problem or just for a checkup? | BECAUSE OF PROBLEM ONLY ..... 1<br>FOR CHECK UP ONLY ..... 2<br>FOR BOTH ..... 3<br>DON'T KNOW ..... 8 | <br>6106<br><br>6106 |
| 6105 | For what problem did she first seek medical check up during her last pregnancy?<br>Verbatim_____<br>_____ | \|_____\|_____\| \|_____\|_____\|<br>DON'T KNOW/UNSURE ----------98 | |
| 6106 | How many months pregnant was she at the time of her first medical check up during her last pregnancy? | MONTHS ..... \|_____\|_____\|<br>DON'T KNOW/UNSURE ----------98 | |
| 6107 | How many times did she get medical check up during her last pregnancy? | NUMBER OF TIMES ..... \|_____\|_____\|<br>DON'T KNOW/UNSURE ----------98 | |
| 6201 | Did she have swelling around ankles during her pregnancy? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW ..... 8 | |
| 6202 | Did she have puffiness of the face during her pregnancy? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW/UNSURE ..... 8 | |
| 6203 | Did she complain of blurred vision during her pregnancy? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW ..... 8 | |

| NO. | QUESTIONS AND FILTERS | CODING CATEGORIES | SKIP |
|---|---|---|---|
| 6204 | Did she have her blood pressure measured during her pregnancy? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW ..... 8 | <br>6206<br>6206 |
| 6205 | Do you know whether her blood pressure was normal or high or low? | NORMAL ..... 1<br>HIGH ..... 2<br>LOW ..... 3<br>DON'T KNOW ..... 8 | |
| 6206 | Did she have any loss of consciousness during that pregnancy? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW ..... 8 | |
| 6207 | Did she have fits (convulsions) during that pregnancy? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW ..... 8 | <br>6209<br>6209 |
| 6208 | How many days/months before her death did the fits start?<br>*(Write in months and days. If less than 1 month, then write 00 for months and only write in days)* | START \|_____\|_____\| \|_____\|_____\|<br>months days<br>DON'T KNOW/UNSURE ..... 9998 | |
| 6209 | Did she have headache during that pregnancy? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW/UNSURE ..... 8 | <br>6301<br>6301 |
| 6210 | Was the headache continuous or on and off? | CONTINUOUS ..... 1<br>ON AND OFF ..... 2<br>DON'T KNOW/UNSURE ..... 8 | |
| 6211 | How was the headache? | SEVERE ..... 1<br>MODERATE ..... 2<br>MILD ..... 3<br>SOMETIMES MILD AND SOMETIMES SEVERE ..... 4<br>DON'T KNOW/UNSURE ..... 8 | |
| 6301 | Did _____(NAME) have fever during that pregnancy or before her death? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW ..... 8 | <br>6306<br>6306 |
| 6302 | How many days/months before her death did the fever start and end?<br>*(Write in months and days. If less than 1 month, then write 00 for months and only write in days)* | START \|_____\|_____\| \|_____\|_____\|<br>months days<br>END \|_____\|_____\| \|_____\|_____\|<br>months days<br>DIED WITH FEVER ..... 9995<br>DON'T KNOW/UNSURE ..... 9998 | |
| 6303 | How was the fever like? | HIGH ..... 1<br>MILD ..... 2<br>DON'T KNOW/UNSURE ..... 8 | |

| NO. | QUESTIONS AND FILTERS | CODING CATEGORIES | SKIP |
|---|---|---|---|
| 6304 | Was the fever continuous or on and off? | CONTINUOUS .....1<br>AFTER EVERY 1 - 2 DAYS .....2<br>AT NIGHT ONLY.....3<br>OTHER(specify) _____ .....7<br>DON'T KNOW/UNSURE .....8 | |
| 6305 | Did the fever come with severe chills? | YES .....1<br>NO .....2<br>DON'T KNOW/UNSURE .....8 | |
| 6306 | Did the colour of her eye change to yellow (jaundice) during that pregnancy? | YES .....1<br>NO .....2<br>DON'T KNOW/UNSURE .....8 | |
| 6307 | Did she have itching of skin at anytime during that pregnancy? | YES .....1<br>NO .....2<br>DON'T KNOW/UNSURE .....8 | |
| 6308 | Did her eyes, face or palms look pale (anaemic) during that pregnancy? | **YES NO DK**<br>PALE EYES ----------1--------2--------8<br>PALE FACE ----------1--------2--------8<br>PALE PALM ----------1--------2--------8 | |
| 6309 | Did she have a cough during that pregnancy? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW ..... 8 | <br>6313<br>6313 |
| 6310 | How many days or months before her death did the cough start?<br>*(Write in months and days. If less than 1 month, then write 00 for months and only write in days* | START \|_____\|_____\| \|_____\|_____\|<br>months days<br>DON'T KNOW/UNSURE 9998 | |
| 6311 | Did the cough produce sputum? | YES .....1<br>NO .....2<br>DON'T KNOW/UNSURE .....8 | |
| 6312 | Did she cough blood? | YES .....1<br>NO .....2<br>DON'T KNOW/UNSURE .....8 | |
| 6313 | Did she have difficulty in breathing during that pregnancy? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW ..... 8 | <br>6319<br>6319 |
| 6314 | Was the difficulty in breathing continuous or on and off? | CONTINUOUS .....1<br>ON AND OFF .....2<br>DON'T KNOW/UNSURE .....8 | |
| 6315 | How many days/months before her death did the difficulty in breathing start and end?<br>*(Write in months and days. If less than 1 month, then write 00 for months and only write in days* | START \|_____\|_____\| \|_____\|_____\|<br>months days<br>END \|_____\|_____\| \|_____\|_____\|<br>months days<br>DID NOT IMPROVE ..... 9995<br>DON'T KNOW/UNSURE ..... 9998 | |

| NO. | QUESTIONS AND FILTERS | CODING CATEGORIES | SKIP |
|---|---|---|---|
| 6316 | Was she breathless even on light work?<br>*(Except what is normally seen in late pregnancy, if applicable)* | YES ..... 1<br>NO ..... 2<br>DON'T KNOW/UNSURE ..... 8 | |
| 6317 | Was she breathless on lying on her back?<br>*(Except what is normally seen in late pregnancy, if applicable)* | YES ..... 1<br>NO ..... 2<br>DON'T KNOW/UNSURE ..... 8 | |
| 6318 | Was there pain in the chest with breathing? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW ..... 8 | |
| 6319 | Did she have palpitations during that pregnancy? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW/UNSURE ..... 8 | |
| 6320 | Did she have chest pain during that pregnancy? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW ..... 8 | <br>6326<br>6326 |
| 6321 | Was the pain mild, moderate or severe? | SEVERE ..... 1<br>MODERATE ..... 2<br>MILD ..... 3<br>DON'T KNOW/UNSURE ..... 8 | |
| 6322 | Did the pain start suddenly or gradually? | SUDDENLY ..... 1<br>GRADUALLY ..... 2<br>DON'T KNOW/UNSURE ..... 8 | |
| 6323 | Was the pain continuous or on and off? | CONTINUOUS ..... 1<br>ON AND OFF ..... 2<br>DON'T KNOW/UNSURE ..... 8 | |
| 6324 | How many days/months before her death did the pain start and end?<br>*(Write in months and days. If less than 1 month, then write 00 for months and only write in days)* | START \|_____\|_____\| \|_____\|_____\|<br>months days<br>END \|_____\|_____\| \|_____\|_____\|<br>months days<br>DID NOT IMPROVE ..... 9995<br>DON'T KNOW/UNSURE ..... 9998 | |
| 6325 | When she had the chest pain, did she also have pain elsewhere in her body? If, yes, where else did she have pain at the same time? | SHOULDER ---------- A<br>NECK ---------- B<br>ARMS ---------- C<br>NO PAIN ANYWHERE ---------- D<br>OTHER_____ ---------- X | |
| 6326 | Did she have abdominal pain during that pregnancy before her death? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW ..... 8 | <br>6329<br>6329 |
| 6327 | How many days/months before her death did the abdominal pain start and end?<br>*(Write in months and days. If less than 1 month, then write 00 for months and only write in days)* | START \|_____\|_____\| \|_____\|_____\|<br>months days<br>END \|_____\|_____\| \|_____\|_____\|<br>months days<br>DID NOT IMPROVE ..... 9995<br>DON'T KNOW/UNSURE ..... 9998 | |

| NO. | QUESTIONS AND FILTERS | CODING CATEGORIES | SKIP |
|---|---|---|---|
| 6328 | Was the pain mild, moderate or severe? | SEVERE ..... 1<br>MODERATE ..... 2<br>MILD ..... 3<br>SOMETHIMES MILD/SOMETIMES MORE ... 4<br>DON'T KNOW/UNSURE ..... 8 | |
| 6329 | Was there any change in the color of her urine during that pregnancy before death? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW ..... 8 | <br>6331<br>6331 |
| 6330 | What color did the urine become? | LIGHT YELLOW ..... 1<br>DARK YELLOW ..... 2<br>CHUNER PANI (CLOUDY) ..... 3<br>BHATER MAAR (THICK-WHITE) ..... 4<br>BLOOD STAINED/RED ..... 5<br>OTHER (specify_____) . 7<br>DON'T KNOW/UNSURE ..... 8 | |
| 6331 | Was there any change in her daily frequency of urine during that pregnancy before her death? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW ..... 8 | <br>6401<br>6401 |
| 6332 | Compared to before, how many times was she passing urine in a day - more than before, less than before, or no urine at all? | MORE THAN BEFORE ..... 1<br>LESS THAN BEFORE ..... 2<br>NO URINE AT ALL ..... 3<br>DON'T KNOW/UNSURE ..... 8 | |
| 6333 | Since how many days/months before her death did she start to pass urine _____ (ANSWER TO Q6332)?<br>*(Write in months and days. If less than 1 month, then write 00 for months and only write in days)* | START \|_____\|_____\| \|_____\|_____\|<br>months days<br>DON'T KNOW/UNSURE ..... 9998 | |
| 6401 | During her last illness, did she have leaking membrane or did her water break? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW ..... 8 | <br>6404<br>6404 |
| 6402 | How many days/months before her death did she have leaking membrane or her water break?<br>*(If less than 1 day then write in hours, if less than 30 days write in days and if more, then in completed months)* | HOURS ..... 1 \|_____\|_____\|<br>DAYS ..... 2 \|_____\|_____\|<br>MONTHS ..... 3 \|_____\|_____\|<br>DON'T KNOW/UNSURE ..... 9998 | |
| 6403 | Was she in pain when she had leaking membrane or when her water break? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW ..... 8 | |
| 6404 | Did she have other episodes of leaking membrane during her last pregnancy? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW ..... 8 | <br>6501<br>6501 |
| 6405 | Were these episodes of leaking membrane during her last pregnancy painful? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW ..... 8 | |

| NO. | QUESTIONS AND FILTERS | CODING CATEGORIES | SKIP |
|---|---|---|---|
| 6501 | During her last illness, was she bleeding from the vagina? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW ..... 8 | <br>6506<br>6506 |
| 6502 | Did the bleeding stain her clothes, the bed or the floor? | YES NO DK<br>CLOTHES ---------- 1 --------- 2 --------- 8<br>BED ---------- 1 --------- 2 --------- 8<br>FLOOR ---------- 1 --------- 2 --------- 8 | |
| 6504 | Was she in pain while bleeding? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW ..... 8 | |
| 6506 | Did she have other episodes of bleeding during this pregnancy? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW ..... 8 | <br>6508<br>6508 |
| 6507 | Were those episodes of bleeding painful? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW ..... 8 | |
| 6508 | Did she have a vaginal examination during her illness? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW ..... 8 | <br>6701<br>6701 |
| 6509 | Did the vaginal examination increase the bleeding? | YES ..... 1<br>NO ..... 2<br>NOT APPLICABLE (no bleeding)..... 7<br>DON'T KNOW ..... 8 | |
| 6701 | Was any attempt made during her pregnancy to induce abortion or to terminate the pregnancy? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW ..... 8 | |
| 6702 | Did the woman do MR? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW ..... 8 | |
| 6703 | CHECK Q6701 AND Q6702. | Q6701 CODED YES OR Q6702 CODED YES .....1<br>Q6701 NOT CODED YES AND Q6702 NOT CODED YES .....2 | <br>6801 |

| NO. | QUESTIONS AND FILTERS | CODING CATEGORIES | SKIP |
|---|---|---|---|
| 6704 | Whose help did she seek to induce abortion or to terminate the pregnancy or to do MR? | HEALTH PROFESSIONAL<br>QUALIFIED DOCTOR (MBBS) ---------- A<br>NURSE/MIDWIFE/PARAMEDIC ---------- B<br>FAMILY WELFARE VISITOR ---------- C<br>COMMUNITY SKILLED BIRTH ATTENDANT ------ D<br>MA/SACMO ---------- E<br>HEALTH ASSISTANT ---------- F<br>FAMILY WELFARE ASSISTANT ---------- G<br>OTHER PROVIDER<br>TRAINED TBA ---------- H<br>UNTRAINED TBA ---------- I<br>UNQUALIFIED DOCTOR ---------- J<br>TRADITIONAL HEALER (HERBALIST, HOMEOPATH, SPIRITUAL HEALER) --------- K<br>RELATIVE/FRIENDS ---------- L<br>OTHER<br>BRAC SHASTHAY SEBIKA ---------- M<br>OTHER SHASTHA SEBIKA ---------- N<br>OTHER FIELD WORKER ---------- O<br>OTHER _____ ---------- X<br>(SPECIFY)<br>DON'T KNOW/UNSURE ---------- Y<br>NONE - SELF INDUCED ---------- Z | |
| 6705 | Was any foreign object inserted inside the woman to induce abortion or to terminate the pregnancy or to do MR? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW ..... 8 | <br>6707<br>6707 |
| 6706 | What object was inserted? | STICK ..... A<br>TUBES ..... B<br>SYRINGES ..... C<br>OTHERS_____ ..... X<br>DON'T KNOW ..... Y | |
| 6707 | Did the woman take any drugs or injections, or eat anything to induce abortion or to terminate the pregnancy or to do MR? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW ..... 8 | <br>6709<br>6709 |
| 6708 | What drugs or injections did she take?<br>Verbatim_____<br>_____ | \|_____\|_____\| \|_____\|_____\|<br>DON'T KNOW/UNSURE ---------- 98 | |
| 6709 | Did she have any of the following after inducing abortion or terminating her pregnancy or doing MR? [*please read the choices and probe*] | Yes / No / Don't Know<br>Foul-smelling discharge ..... 1 ..... 2 ..... 8<br>Fever ..... 1 ..... 2 ..... 8<br>Abdominal distention ..... 1 ..... 2 ..... 8<br>Severe bleeding ..... 1 ..... 2 ..... 8 | |
| 6801 | Did she have a pregnancy prior to the last one before death? | YES ..... 1<br>NO ..... 2 | <br>8901 |
| | THE FOLLOWING QUESTIONS (Q6802-Q6807) REFERS TO ALL PREVIOUS PREGNANCIES PRIOR TO THE LAST ONE BEFORE DEATH | | |

| NO. | QUESTIONS AND FILTERS | CODING CATEGORIES | SKIP |
|---|---|---|---|
| 6802 | Did she ever have any complication in a previous pregnancy? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW ..... 8 | |
| 6803 | Did she have a cesarean section in a previous pregnancy? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW ..... 8 | |
| 6804 | Did she have Forcep / Ventos in a previous pregnancy? (Interviewer: explain to respondents what Forcep/Ventos means) | YES, FORCEP ..... 1<br>YES, VENTOS ..... 2<br>YES, BOTH FORCEP & VENTOS ..... 3<br>NO ..... 4<br>DON'T KNOW/UNSURE ..... 8 | |
| 6805 | Did _____(NAME) ever have any still births in a previous pregnancy? If yes, how many?<br>(If none, write =0) | Times..... \|____\|<br>DON'T KNOW ..... 8 | |
| 6806 | Did _____(NAME) ever have any miscarriages/abortions in a previous pregnancy?<br>(If none, write =0) | Times..... \|____\|<br>DON'T KNOW ..... 8 | |
| 6807 | Did _____(NAME) ever have any MRs in a previous pregnancy?<br>(If none, write =0) | Times..... \|____\|<br>DON'T KNOW ..... 8 | 8901<br>8901 |

**SECTION 7**
**MODULE 2: FOR DEATHS DURING LABOUR, DELIVERY OR AFTER DELIVERY**

| NO. | QUESTIONS AND FILTERS | CODING CATEGORIES | SKIP |
|---|---|---|---|
| 7101 | Did _____(NAME) ever see anyone for a medical checkup during the last pregnancy before she died? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW ..... 8 | <br>7201<br>7201 |
| 7102 | From whom did she receive the medical checkup when she was pregnant?<br><br>IF YES: Whom did she see?<br>Anyone else?<br><br>PROBE TO IDENTIFY EACH TYPE OF PERSON AND RECORD ALL MENTIONED.<br><br>IF CODE 'D' CIRCLED<br>_____<br>(WRITE NAME OF CSBA) | HEALTH PROFESSIONAL<br>QUALIFIED DOCTOR (MBBS) ----------A<br>NURSE/MIDWIFE/PARAMEDIC ----------B<br>FAMILY WELFARE VISITOR ---------- C<br>COMMUNITY SKILLED BIRTH ATTENDANT ---- D<br>MA/SACMO ----------E<br>HEALTH ASSISTANT ----------F<br>FAMILY WELFARE ASSISTANT---------- G<br>OTHER PROVIDER<br>TRAINED TBA---------- H<br>UNTRAINED TBA ----------I<br>UNQUALIFIED DOCTOR ---------- J<br>OTHER<br>BRAC SHASTHAY SEBIKA ---------- M<br>OTHER SHASTHA SEBIKA ---------- N<br>OTHER FIELD WORKER ---------- O<br>OTHER _____----------X<br>(SPECIFY) | |
| 7103 | Did she first seek medical checkup during her last pregnancy because she had a problem or just for a checkup? | BECAUSE OF PROBLEM ONLY..... 1<br>FOR CHECK UP ONLY ..... 2<br>FOR BOTH..... 3<br>DON'T KNOW ..... 8 | <br>7105<br><br>7105 |
| 7104 | For what problem did she first seek medical checkup during her last pregnancy?<br>Verbatim_____<br>_____ | \|_____\|_____\| \|_____\|_____\|<br>DON'T KNOW/UNSURE ---------- 98 | |
| 7105 | How many months pregnant was she at the time of her first medical checkup during her last pregnancy? | MONTHS.....\|_____\|_____\|<br>DON'T KNOW/UNSURE ---------- 98 | |
| 7106 | How many times did she get medical checkup during her last pregnancy? | NUMBER OF TIMES.....\|_____\|_____\|<br>DON'T KNOW/UNSURE ---------- 98 | |
| 7201 | Did she have swelling around ankles during her pregnancy? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW ..... 8 | |
| 7202 | Did she have puffiness of the face during her pregnancy? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW/UNSURE ..... 8 | |
| 7203 | Did she complain of blurred vision during her pregnancy? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW ..... 8 | |
| 7204 | Did she have her blood pressure measured during her pregnancy? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW ..... 8 | <br>7206<br>7206 |

| NO. | QUESTIONS AND FILTERS | CODING CATEGORIES | SKIP |
|---|---|---|---|
| 7205 | Do you know whether her blood pressure was normal or high or low? | NORMAL ..... 1<br>HIGH ..... 2<br>LOW ..... 3<br>DON'T KNOW ..... 8 | |
| 7206 | Did she have any loss of consciousness during her last illness? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW ..... 8 | |
| 7207 | Did she have fits (convulsions) during her last illness? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW ..... 8 | <br>7209<br>7209 |
| 7208 | How many days/months before her death did the fits start?<br>*(Write in months and days. If less than 1 month, then write 00 for months and only write in days)* | START \|_____\|_____\| \|_____\|_____\|<br>months days<br>DON'T KNOW/UNSURE ..... 9998 | |
| 7209 | Did she have headache during her last illness? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW/UNSURE ..... 8 | <br>7301<br>7301 |
| 7210 | Was the headache continuous or on and off? | CONTINUOUS ..... 1<br>ON AND OFF ..... 2<br>DON'T KNOW/UNSURE ..... 8 | |
| 7211 | How was the headache? | SEVERE ..... 1<br>MODERATE ..... 2<br>MILD ..... 3<br>SOMETIMES MILD AND SOMETIMES SEVERE ..... 4<br>DON'T KNOW/UNSURE ..... 8 | |
| 7301 | Did _____(NAME) have fever during her last illness? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW ..... 8 | <br>7306<br>7306 |
| 7302 | How many days/months before her death did the fever start and end? | START \|_____\|_____\| \|_____\|_____\|<br>months days<br>END \|_____\|_____\| \|_____\|_____\|<br>months days<br>DIED WITH FEVER ..... 9995<br>DON'T KNOW/UNSURE ..... 9998 | |
| 7303 | How was the fever like? | HIGH ..... 1<br>MILD ..... 2<br>DON'T KNOW/UNSURE ..... 8 | |
| 7304 | Was the fever continuous or on and off? | CONTINUOUS ..... 1<br>AFTER EVERY 1 - 2 DAYS ..... 2<br>AT NIGHT ONLY ..... 3<br>OTHER(specify)_____ ..... 7<br>DON'T KNOW/UNSURE ..... 8 | |

| NO. | QUESTIONS AND FILTERS | CODING CATEGORIES | SKIP |
|---|---|---|---|
| 7305 | Did the fever come with severe chills? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW/UNSURE ..... 8 | |
| 7306 | Did the colour of her eye change to yellow (jaundice) during her last illness? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW/UNSURE ..... 8 | |
| 7307 | Did she have itching of skin at anytime during her last illness? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW/UNSURE ..... 8 | |
| 7308 | Did her eyes, face or palms look pale (anaemic) during her last illness? | **YES NO DK**<br>PALE EYES ---------- 1 ------- 2--------8<br>PALE FACE ---------- 1 ------- 2--------8<br>PALE PALM ---------- 1 ------- 2--------8 | |
| 7309 | Did she have a cough during her last illness? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW ..... 8 | <br>7313<br>7313 |
| 7310 | How many days or months before her death did the cough start?<br>*(Write in months and days. If less than 1 month, then write 00 for months and only write in days* | START \|_____\|_____\| \|_____\|_____\|<br>mons days<br>DON'T KNOW/UNSURE 9998 | |
| 7311 | Did the cough produce sputum? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW/UNSURE ..... 8 | |
| 7312 | Did she cough blood? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW/UNSURE ..... 8 | |
| 7313 | Did she have difficulty in breathing during her last illness? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW ..... 8 | <br>7319<br>7319 |
| 7314 | Was the difficulty in breathing continuous or on and off? | CONTINUOUS ..... 1<br>ON AND OFF ..... 2<br>DON'T KNOW/UNSURE ..... 8 | |
| 7315 | How many days/months before her death did the difficulty in breathing start and end?<br>*(Write in months and days. If less than 1 month, then write 00 for months and only write in days* | START \|_____\|_____\| \|_____\|_____\|<br>months days<br>END \|_____\|_____\| \|_____\|_____\|<br>months days<br>DID NOT IMPROVE ..... 9995<br>DON'T KNOW/UNSURE ..... 9998 | |
| 7316 | Was she breathless even on light work?<br>*(Except what is normally seen in late pregnancy, if applicable)* | YES ..... 1<br>NO ..... 2<br>DON'T KNOW/UNSURE ..... 8 | |
| 7317 | Was she breathless on lying on her back?<br>*(Except what is normally seen in late pregnancy, if applicable)* | YES ..... 1<br>NO ..... 2<br>DON'T KNOW/UNSURE ..... 8 | |

| NO. | QUESTIONS AND FILTERS | CODING CATEGORIES | SKIP |
|---|---|---|---|
| 7318 | Was there pain in the chest with breathing? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW ..... 8 | |
| 7319 | Did she have palpitations during her last illness? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW/UNSURE ..... 8 | |
| 7320 | Did she have chest pain during her last illness? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW ..... 8 | <br>7326<br>7326 |
| 7321 | Was the pain mild, moderate or severe? | SEVERE ..... 1<br>MODERATE ..... 2<br>MILD ..... 3<br>DON'T KNOW/UNSURE ..... 8 | |
| 7322 | Did the pain start suddenly or gradually? | SUDDENLY ..... 1<br>GRADUALLY ..... 2<br>DON'T KNOW/UNSURE ..... 8 | |
| 7323 | Was the pain continuous or on and off? | CONTINUOUS ..... 1<br>ON AND OFF ..... 2<br>DON'T KNOW/UNSURE ..... 8 | |
| 7324 | How many days/months before her death did the pain start and end?<br>*(Write in months and days. If less than 1 month, then write 00 for months and only write in days)* | START \|_____\|_____\| \|_____\|_____\|<br>months days<br>END \|_____\|_____\| \|_____\|_____\|<br>months days<br>DID NOT IMPROVE ..... 9995<br>DON'T KNOW/UNSURE ..... 9998 | |
| 7325 | When she had the chest pain, did she also have pain elsewhere in her body? If, yes, where else did she have pain at the same time? | SHOULDER ---------- A<br>NECK---------- B<br>ARMS ---------- C<br>NO PAIN ANYWHERE ---------- D<br>OTHER(specify)_____-- X | |
| 7326 | Did she have abdominal pain before her death? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW ..... 8 | <br>7329<br>7329 |
| 7327 | How many days/months before her death did the abdominal pain start and end?<br>*(Write in months and days. If less than 1 month, then write 00 for months and only write in days)* | START \|_____\|_____\| \|_____\|_____\|<br>months days<br>END \|_____\|_____\| \|_____\|_____\|<br>months days<br>DID NOT IMPROVE ..... 9995<br>DON'T KNOW/UNSURE ..... 9998 | |
| 7328 | Was the pain mild, moderate or severe? | SEVERE ..... 1<br>MODERATE ..... 2<br>MILD ..... 3<br>SOMETHIMES MILD/SOMETIMES MORE ... 4<br>DON'T KNOW/UNSURE ..... 8 | |

| NO. | QUESTIONS AND FILTERS | CODING CATEGORIES | SKIP |
|---|---|---|---|
| 7329 | Was there any change in the color of her urine before death? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW ..... 8 | <br>7331<br>7331 |
| 7330 | What color did the urine become? | LIGHT YELLOW ..... 1<br>DARK YELLOW ..... 2<br>CHUNER PANI (CLOUDY) ..... 3<br>BHATER MAAR (THICK-WHITE) ..... 4<br>BLOOD STAINED/RED ..... 5<br>OTHER(specify)_____ ..... 7<br>DON'T KNOW/UNSURE ..... 8 | |
| 7331 | Was there any change in her daily frequency of urine before her death? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW ..... 8 | <br>7401<br>7401 |
| 7332 | Compared to before, how many times was she passing urine in a day - more than before, less than before, or no urine at all? | MORE THAN BEFORE ..... 1<br>LESS THAN BEFORE ..... 2<br>NO URINE AT ALL ..... 3<br>DON'T KNOW/UNSURE ..... 8 | |
| 7333 | Since how many days/months before her death did she start to pass urine _____ (ANSWER TO Q7332 )?<br>*(Write in months and days. If less than 1 month, then write 00 for months and only write in days)* | START \|_____\|_____\| \|_____\|_____\|<br>months days<br>DON'T KNOW/UNSURE ..... 9998 | |
| 7401 | During her last illness, did she have leaking membrane? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW ..... 8 | <br>7404<br>7404 |
| 7402 | How many days/months before her death did she have leaking membrane?<br>*(Write in months and days. If less than 1 month, then write 00 for months and only write in days)* | START \|_____\|_____\| \|_____\|_____\|<br>months days<br>DON'T KNOW/UNSURE ..... 9998 | |
| 7403 | Was she in pain when she had leaking membrane? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW ..... 8 | |
| 7404 | Did she have other episodes of leaking membrane during her last pregnancy? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW ..... 8 | <br>7501<br>7501 |
| 7405 | Were these episodes of leaking membrane during her last pregnancy painful? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW ..... 8 | |
| 7501 | Did she have bleeding from the vagina during her last pregnancy? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW ..... 8 | <br>7506<br>7506 |
| 7502 | Did the bleeding stain her clothes, the bed or the floor? | YES NO DK<br>CLOTHES----------1 ---------2----------8<br>BED----------1 ---------2----------8<br>FLOOR----------1 ---------2----------8 | |

| NO. | QUESTIONS AND FILTERS | CODING CATEGORIES | SKIP |
|---|---|---|---|
| 7503 | Did the bleeding start before the birth of the child? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW ..... 8 | |
| 7504 | Was she in pain while bleeding (not menses)? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW ..... 8 | |
| 7505 | Did the pain start before the labour pains started? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW ..... 8 | |
| 7506 | Did she have other episodes of bleeding during this pregnancy? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW ..... 8 | <br>7508<br>7508 |
| 7507 | Were those episodes of bleeding painful? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW ..... 8 | |
| 7508 | Did she have a vaginal examination during her last pregnancy? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW ..... 8 | <br>7601<br>7601 |
| 7509 | Did the vaginal examination increase the bleeding? | YES ..... 1<br>NO ..... 2<br>NOT APPLICABLE (no bleeding)..... 7<br>DON'T KNOW ..... 8 | |
| 7601 | How many hours or days before her death did her labour pain start?<br>*(If less than 1 day, then write in hours, if 1 or more days then write in completed days)* | HOURS ..... 1 \|_____\|_____\|<br>DAYS..... 2 \|_____\|_____\|<br>DON'T KNOW/UNSURE ..... 998 | |
| 7603 | Where did she give birth?<br><br>PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE.<br><br>IF UNABLE TO DETERMINE IF A HOSPITAL, HEALTH CENTER, OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE.<br><br>(NAME OF THE PLACE) | HOME……..11<br>GOVT SECTOR<br>MEDICAL COLLEGE HOSPITAL ---------- 21<br>SPECIALISED GOVT. HOSPITAL<br>(SPECIFY _) ---------- 22<br>DISTRICT HOSPITAL ---------- 23<br>MCWC ---------- 24<br>UPAZILA HEALTH COMPLEX---------- 25<br>OTHER (SPECIFY___) ---------- 30<br>NGO SECTOR<br>NGO STATIC CLINIC ---------- 31<br>OTHER (SPECIFY ____)---------- 35<br><br>PRIVATE MEDICAL SECTOR<br>PRIV. HOSPITAL/CLINIC ---------- 41<br>OTHER PRIAVTE MEDICAL COLLEGE<br>HOSPITAL (SPECIFY _____)---------- 45<br>DIED AFTER LABOUR PAIN BUT BEFORE THE BIRTH OF THE BABY ---------- 46<br><br>OTHER_____---------- 96<br>(SPECIFY) | <br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br>7606 |

| NO. | QUESTIONS AND FILTERS | CODING CATEGORIES | SKIP |
|---|---|---|---|
| 7604 | Who conducted the delivery?<br><br>Anyone else?<br><br>PROBE FOR THE TYPES OF PERSON(S) AND RECORD ALL MENTIONED.<br><br>IF RESPONDENT SAYS NO ONE ASSISTED, PROBE TO DETERMINE WHETHER ANY ADULTS WERE PRESENT AT THE DELIVERY.<br><br>IF CODE 'D' CIRCLED:<br>_____<br>(WRITE NAME OF CSBA)<br><br>_____<br>(WRITE NAME OF CSBA) | HEALTH PROFESSIONAL<br>QUALIFIED DOCTOR (MBBS) ----------A<br>NURSE/MIDWIFE/PARAMEDIC ----------B<br>FAMILY WELFARE VISITOR ---------- C<br>COMMUNITY SKILLED BIRTH ATTENDANT ---- D<br>MA/SACMO ----------E<br>HEALTH ASSISTANT ----------F<br>FAMILY WELFARE ASSISTANT---------- G<br>OTHER PROVIDER<br>TRAINED TBA---------- H<br>UNTRAINED TBA ----------I<br>UNQUALIFIED DOCTOR ---------- J<br>RELATIVES ----------K<br>NEIGHBORS/FRIENDS ----------L<br>OTHER<br>BRAC SHASTHAY SEBIKA ---------- M<br>OTHER SHASTHA SEBIKA ---------- N<br>OTHER FIELD WORKER ---------- O<br>OTHER_____ ---------X<br>(SPECIFY)<br>NOBODY----------Y<br>DO NOT KNOW/CANNOT TELL ----------Z | 7606 |

| 7605 | During the delivery, were/was _____ *(topic)*: | YES | NO | DK |
|---|---|---|---|---|
| | a. Instruments used to help the baby out (forceps/ventose) | FORCEPS/VACUUM ---------- 1 | 2 | 8 |
| | b. An operation done to get the baby out (cesarean section) | CESAREAN SECTION ---------- 1 | 2 | 8 |
| | c. A blood transfusion given | BLOOD TRANSFUSION ---------- 1 | 2 | 8 |
| | d. A saline infusion given | SALINE INFUSION ---------- 1 | 2 | 8 |
| | e. Hysterectomy for rupture uterus | HYSTERECTOMY ---------- 1 | 2 | 8 |
| | f. Manual removal of placenta | MANUAL PLACENTA REMOVAL --- 1 | 2 | 8 |

| | | | |
|---|---|---|---|
| 7606 | How long was she in labour for?<br>*(if less than 1 hour write 00)* | \|_____\|_____\| HOURS<br>NEVER IN LABOUR (C-SECTION) -------- 95<br>DON'T KNOW ---------- 98 | <br>7610<br>7608 |
| 7607 | Do you think she had prolonged labour? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW/UNSURE ..... 8 | |
| 7608 | Did she have too much bleeding during labour? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW/UNSURE ..... 8 | <br>7610<br>7610 |
| 7609 | Did the bleeding stain her clothes, the bed or the floor? | YES NO DK<br>CLOTHES ---------- 1 ---------- 2 ---------- 8<br>BED ---------- 1 ---------- 2 ---------- 8<br>FLOOR ---------- 1 ---------- 2 ---------- 8 | |
| 7610 | Were any drugs used just before or during the labour? | YES ..... 1<br>NO ..... 2<br>NOT APPLICABLE (no labour pain) ..... 7<br>DON'T KNOW/UNSURE ..... 8 | <br>7613<br>7613<br>7613 |

| NO. | QUESTIONS AND FILTERS | CODING CATEGORIES | SKIP |
|---|---|---|---|
| 7611 | Can tell me the name of the drugs that was used?<br>_____<br>_____<br>_____<br>_____<br>_____ | DRUG..... \|___\|___\|___\|<br>DRUG..... \|___\|___\|___\|<br>DRUG..... \|___\|___\|___\|<br>DRUG..... \|___\|___\|___\|<br>DRUG..... \|___\|___\|___\|<br>DONOTT KNOW/UNSURE.....998 | |
| 7612 | What were the routes/modes used to give the drugs? | ORAL..... A<br>INTRAMUSCULAR ..... B<br>INTRAVENOUS ..... C<br>OTHER (specify_____) X<br>DON'T KNOW/UNSURE ..... Y | |
| 7613 | How many days or months before her death did she deliver?<br>*(If less than 1 day then write in hours, if less than 30 days write in days and if more, then in completed months)* | HOURS ..... 1 \|_____\|_____\|<br>DAYS..... 2 \|_____\|_____\|<br>MONTHS..... 3 \|_____\|_____\|<br>NEVER DELIVERED ..... 997<br>DON'T KNOW/UNSURE ..... 998 | 7626 |
| 7614 | Did she have difficulty in delivering the baby? | YES .....1<br>NO .....2<br>DON'T KNOW/UNSURE .....8 | |
| 7615 | What part of the baby came out first? | HEAD .....1<br>LEGS .....2<br>SHOULDER .....3<br>ARMS .....4<br>FACE.....5<br>CESAREAN SECTION .....6<br>DON'T KNOW/NOT SURE.....8 | 7621 |
| 7616 | Did she have difficulty in delivering the placenta? | YES .....1<br>NO .....2<br>DIED BEFORE PLACENTA WAS DELIVERED……3<br>DON'T KNOW/UNSURE .....8 | 7620 |
| 7617 | How long after the birth of the child was the placenta delivered?<br>*(If less than 1 hour write 00)* | \|_____\|_____\| HOURS<br>DON'T KNOW/UNSURE ..... 98 | |
| 7618 | Was manual removal of the placenta done? | YES .....1<br>NO .....2<br>DON'T KNOW/UNSURE .....8 | |
| 7619 | Was the placenta delivered completely or partially? | COMPLETELY ..... 1<br>PARTIALLY ..... 2<br>DON'T KNOW ..... 8 | |

| NO. | QUESTIONS AND FILTERS | CODING CATEGORIES | SKIP |
|---|---|---|---|
| 7620 | Did she need to be hospitalized to deliver the placenta? | YES ..... 1<br>NO ..... 2<br>HAD ALREADY BEEN ADMITTED IN HOSPITAL..... 3<br>DON'T KNOW/UNSURE ..... 8 | |
| 7621 | Did she have too much bleeding after the baby was born? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW/UNSURE ..... 8 | <br>7623<br>7623 |
| 7622 | Did the bleeding stain her clothes, the bed or the floor? | YES NO DK<br>CLOTHES---------- 1 ---------2----------8<br>BED---------- 1 ---------2----------8<br>FLOOR---------- 1 ---------2----------8 | |
| 7623 | Did she have foul-smelling discharge from the vagina after the baby was born? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW ..... 8 | |
| 7624 | Did she have pain in the legs after the baby was born? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW ..... 8 | |
| 7625 | Did she have fever after the baby was born? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW ..... 8 | |
| 7626 | Did she have fits (convulsions) during her pregnancy or before delivery of the baby during labor? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW ..... 8 | <br>7628<br>7628 |
| 7627 | Did the fits stop after the baby was born? | YES ..... 1<br>NO ..... 2<br>NEVER DELIVERED ..... 3<br>DON'T KNOW ..... 8 | <br>7629<br>7801<br>7629 |
| 7628 | Did she develop fits (convulsions) after the baby was born? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW ..... 8 | |
| 7629 | Did the colour of her eyes become yellow after delivery? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW/UNSURE ..... 8 | <br>7801<br>7801 |
| 7630 | How many days after delivery did her eyes become yellow? | \|_____\|_____\|_____\| DAYS<br>DON'T KNOW/UNSURE ..... 998 | |
| 7801 | Did she have a pregnancy prior to the last one before death? | YES ..... 1<br>NO ..... 2 | <br>8901 |
| | THE FOLLOWING QUESTIONS (Q7802-Q7807) REFERS TO ALL PREVIOUS PREGNANCIES PRIOR TO THE LAST ONE BEFORE DEATH | | |

| NO. | QUESTIONS AND FILTERS | CODING CATEGORIES | SKIP |
|---|---|---|---|
| 7802 | Did she ever have any complication in a previous pregnancy? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW ..... 8 | |
| 7803 | Did she have a cesarean section in a previous pregnancy? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW ..... 8 | |
| 7804 | Did she have Forcep/ Ventos in a previous pregnancy? (Interviewer: explain to respondents what Forcep/Ventos means) | YES, FORCEP ..... 1<br>YES, VENTOS ..... 2<br>YES, BOTH FORCEP & VENTOS ..... 3<br>NO ..... 4<br>DON'T KNOW/UNSURE ..... 8 | |
| 7805 | Did _____(NAME) ever have any still births in a previous pregnancy? If yes, how many?<br>(If none, write =0) | Times..... \|____\|<br>DON'T KNOW ..... 8 | |
| 7806 | Did _____(NAME) ever have any miscarriages/abortions in a previous pregnancy?<br>(If none, write =0) | Times..... \|____\|<br>DON'T KNOW ..... 8 | |
| 7807 | Did _____(NAME) ever have any MR in a previous pregnancy?<br>(If none, write =0) | Times..... \|____\|<br>DON'T KNOW ..... 8 | 8901<br>8901 |

**SECTION 8**
**MODULE 3: GENERAL ILLNESS AND INJURIES LEADING TO DEATH**

| NO. | QUESTIONS AND FILTERS | CODING CATEGORIES | SKIP |
|---|---|---|---|
| 8001 | Did _____(NAME) have fever during her last illness before death? | YES.....1<br>NO .....2<br>DON'T KNOW.....8 | <br>8006<br>8006 |
| 8002 | How many days/months before her death did the fever start and end?<br>*(Write in months and days. If less than 1 month, then write 00 for months and only write in days)* | START \|_____\|_____\| \|_____\|_____\|<br>months days<br>END \|_____\|_____\| \|_____\|_____\|<br>months days<br>DIED WITH FEVER.....9995<br>DON'T KNOW/UNSURE.....9998 | |
| 8003 | How was the fever like? | HIGH..... 1<br>MILD ..... 2<br>DON'T KNOW/UNSURE..... 8 | |
| 8004 | Was the fever continuous or on and off? | CONTINUOUS..... 1<br>AFTER EVERY 1 - 2 DAYS..... 2<br>AT NIGHT ONLY ..... 3<br>OTHER_____ ..... 7<br>DON'T KNOW/UNSURE..... 8 | |
| 8005 | Did the fever come with severe chills? | YES..... 1<br>NO ..... 2<br>DON'T KNOW/UNSURE..... 8 | |
| 8006 | Did she have a reddish rash at anytime during her last illness before death? | YES..... 1<br>NO ..... 2<br>DON'T KNOW/UNSURE..... 8 | |
| 8007 | Was she losing weight before death? | YES.....1<br>NO .....2<br>DON'T KNOW.....8 | <br>8009<br>8009 |
| 8008 | Was the loss of weight severe or moderate? | SEVERE ..... 1<br>MODERATE ..... 2<br>DON'T KNOW/UNSURE..... 8 | |
| 8009 | Did she have poor appetite at anytime during her last illness before death? | YES..... 1<br>NO ..... 2<br>DON'T KNOW/UNSURE..... 8 | |
| 8101 | Did she have swelling around ankles during her last illness before death? | YES.....1<br>NO .....2<br>DON'T KNOW.....8 | <br>8103<br>8103 |
| 8102 | How many days/months before her death did the swelling around her ankles start?<br>*(Write in months and days. If less than 1 month, then write 00 for months and only write in days* | START \|_____\|_____\| \|_____\|_____\|<br>months days<br>DON'T KNOW/UNSURE.....9998 | |
| 8103 | Did she have puffiness of the face during her last illness before death? | YES..... 1<br>NO ..... 2<br>DON'T KNOW/UNSURE..... 8 | |

| NO. | QUESTIONS AND FILTERS | CODING CATEGORIES | SKIP |
|---|---|---|---|
| 8104 | Did she have a swelling in the neck during her last illness before death? | YES..... 1<br>NO ..... 2<br>DON'T KNOW/UNSURE..... 8 | |
| 8105 | Did she have any other swelling on her body?<br>*(Probe)* | YES..... 1<br>NO ..... 2<br>DON'T KNOW/UNSURE..... 8 | <br>8107<br>8107 |
| 8106 | Where was the swelling on her body? | HEAD----------A<br>FACE ----------B<br>MOUTH ----------C<br>NECK----------D<br>UPPER ARM ----------E<br>LOWER ARM----------F<br>AXILLA ----------G<br>HANDS----------H<br>CHEST ---------- I<br>ABDOMEN ---------- J<br>UPPER BACK----------K<br>LOWER BACK ----------L<br>BUTTOCKS----------M<br>GROIN ----------N<br>GENITALS ----------O<br>THIGHS----------P<br>LEGS ----------Q<br>FEET----------R<br>OTHER_____ ----------X | |
| 8107 | Did the colour of her eye change to yellow (jaundice) during her last illness before death? | YES..... 1<br>NO ..... 2<br>DON'T KNOW/UNSURE..... 8 | |
| 8108 | Did she have itching of skin at anytime during her last illness before death? | YES..... 1<br>NO ..... 2<br>DON'T KNOW/UNSURE..... 8 | |
| 8109 | Did her eyes, face or palms look pale (anaemic) during her last illness before death? | **YES NO DK**<br>PALE EYES---------- 1 ------- 2 ------- 8<br>PALE FACE---------- 1 ------- 2 ------- 8<br>PALE PALM ---------- 1 ------- 2 ------- 8 | |
| 8110 | Did she have any ulcers on her body during her last illness before death? | YES..... 1<br>NO ..... 2<br>DON'T KNOW/UNSURE..... 8 | <br>8201<br>8201 |

| NO. | QUESTIONS AND FILTERS | CODING CATEGORIES | SKIP |
|---|---|---|---|
| 8111 | Where were the ulcers on her body?<br><br>Anywhere else? *(Do not probe)* | HEAD ---------- A<br>FACE ---------- B<br>MOUTH ---------- C<br>NECK ---------- D<br>UPPER ARM ---------- E<br>LOWER ARM ---------- F<br>AXILLA ---------- G<br>HANDS ---------- H<br>CHEST ---------- I<br>ABDOMEN ---------- J<br>UPPER BACK ---------- K<br>LOWER BACK ---------- L<br>BUTTOCKS ---------- M<br>GROIN ---------- N<br>GENITALS ---------- O<br>THIGHS ---------- P<br>LEGS ---------- Q<br>FEET ---------- R<br>OTHER_____ ---------- X | |
| 8201 | Did she have a cough during her last illness before death? | YES.....1<br>NO .....2<br>DON'T KNOW.....8 | <br>8205<br>8205 |
| 8202 | How many days or months before her death did the cough start?<br>*(Write in months and days. If less than 1 month, then write 00 for months and only write in days* | START \|_____\|_____\| \|_____\|_____\|<br>months days<br>DON'T KNOW/UNSURE 9998 | |
| 8203 | Did the cough produce sputum? | YES..... 1<br>NO ..... 2<br>DON'T KNOW/UNSURE..... 8 | |
| 8204 | Did she cough blood? | YES..... 1<br>NO ..... 2<br>DON'T KNOW/UNSURE..... 8 | |
| 8205 | Did she have difficulty in breathing during her last illness before death? | YES.....1<br>NO .....2<br>DON'T KNOW.....8 | <br>8211<br>8211 |
| 8206 | Was the difficulty in breathing continuous or on and off? | CONTINUOUS..... 1<br>ON AND OFF..... 2<br>DON'T KNOW/UNSURE..... 8 | |
| 8207 | How many days/months before her death did the difficulty in breathing start and end?<br><br>*(Write in months and days. If less than 1 month, then write 00 for months and only write in days* | START \|_____\|_____\| \|_____\|_____\|<br>months days<br>END \|_____\|_____\| \|_____\|_____\|<br>months days<br>DID NOT IMPROVE .....9995<br>DON'T KNOW/UNSURE.....9998 | |
| 8208 | Was she breathless even on light work?<br><br>*(Except what is normally seen in late pregnancy, if applicable)* | YES..... 1<br>NO ..... 2<br>DON'T KNOW/UNSURE..... 8 | |

| NO. | QUESTIONS AND FILTERS | CODING CATEGORIES | SKIP |
|---|---|---|---|
| 8209 | Was she breathless on lying on her back?<br>*(Except what is normally seen in late pregnancy, if applicable)* | YES..... 1<br>NO ..... 2<br>DON'T KNOW/UNSURE..... 8 | |
| 8210 | Was there pain in the chest with breathing? | YES.....1<br>NO .....2<br>DON'T KNOW.....8 | |
| 8211 | Did she have palpitations during her last illness before death? | YES..... 1<br>NO ..... 2<br>DON'T KNOW/UNSURE..... 8 | |
| 8212 | Did she have chest pain during her last illness before death? | YES.....1<br>NO .....2<br>DON'T KNOW.....8 | <br>8301<br>8301 |
| 8213 | Was the pain mild, moderate or severe? | SEVERE ..... 1<br>MODERATE ..... 2<br>MILD ..... 3<br>DON'T KNOW/UNSURE..... 8 | |
| 8214 | Did the pain start suddenly or gradually? | SUDDENLY ..... 1<br>GRADUALLY ..... 2<br>DON'T KNOW/UNSURE..... 8 | |
| 8215 | Was the pain continuous or on and off? | CONTINUOUS..... 1<br>ON AND OFF..... 2<br>DON'T KNOW/UNSURE..... 8 | |
| 8216 | How many days/months before her death did the pain start and end?<br>*(Write in months and days. If less than 1 month, then write 00 for months and only write in days)* | START \|_____\|_____\| \|_____\|_____\|<br>months days<br>END \|_____\|_____\| \|_____\|_____\|<br>months days<br>DID NOT IMPROVE .....9995<br>DON'T KNOW/UNSURE.....9998 | |
| 8217 | When she had the chest pain, did she also have pain elsewhere in her body? If, yes, where else did she have pain at the same time? | SHOULDER ----------A<br>NECK----------B<br>ARMS----------C<br>NO PAIN ANYWHERE----------D<br>OTHER_____ ----------X | |
| 8301 | Did she have loose motion or diarrhoea before her death? | YES.....1<br>NO .....2<br>DON'T KNOW.....8 | <br>8306<br>8306 |
| 8302 | How many days/months before her death did the loose motion or diarrhoea start and end?<br>*(Write in months and days. If less than 1 month, then write 00 for months and only write in days)* | START \|_____\|_____\| \|_____\|_____\|<br>months days<br>END \|_____\|_____\| \|_____\|_____\|<br>months days<br>DID NOT IMPROVE .....9995<br>DON'T KNOW/UNSURE.....9998 | |
| 8303 | When the diarrhoea was severe, how many times did she pass stool in a day? | NUMBER OF TIMES.....\|_____\|_____\|<br>DON'T KNOW/UNSURE..... 98 | |

| NO. | QUESTIONS AND FILTERS | CODING CATEGORIES | SKIP |
|---|---|---|---|
| 8304 | What did the stool look like? | WATERY ..... 1<br>LOOSE BUT NOT WATERY ..... 2<br>OTHER_____ ..... 7<br>DON'T KNOW/UNSURE..... 8 | |
| 8305 | Did she pass blood in the stool? | YES..... 1<br>NO ..... 2<br>DON'T KNOW/UNSURE..... 8 | |
| 8306 | Did she have vomiting during her last illness before death? | YES.....1<br>NO .....2<br>DON'T KNOW.....8 | <br>8310<br>8310 |
| 8307 | How many days/months before her death did the vomiting start and end?<br>*(Write in months and days. If less than 1 month, then write 00 for months and only write in days)* | START \|_____\|_____\| \|_____\|_____\|<br>months days<br>END \|_____\|_____\| \|_____\|_____\|<br>months days<br>DID NOT IMPROVE .....9995<br>DON'T KNOW/UNSURE.....9998 | |
| 8308 | When the vomiting was severe, how many times did she vomit in a day? | NUMBER OF TIMES .....\|_____\|_____\|<br>DON'T KNOW/UNSURE..... 98 | |
| 8309 | What did the vomits look like most of the time? | WATERY FLUID ..... 1<br>YELLOWISH FLUID ..... 2<br>DARK BROWN COLOURED FLUID ..... 3<br>LIKE BLOOD ..... 4<br>FAECAL LOOKING & SMELLING..... 5<br>OTHER( specify)_____<br>..... 7<br>DON'T KNOW/UNSURE..... 8 | |
| 8310 | Did she have abdominal pain before her death ? | YES.....1<br>NO .....2<br>DON'T KNOW.....8 | <br>8315<br>8315 |
| 8311 | What was the type of pain? | CRAMPS ..... 1<br>DULL ACHE..... 2<br>BURNING PAIN..... 3<br>OTHERS _____..... 7<br>DON'T KNOW/UNSURE..... 8 | |
| 8312 | How many days/months before her death did the abdominal pain start and end?<br>*(Write in months and days. If less than 1 month, then write 00 for months and only write in days)* | START \|_____\|_____\| \|_____\|_____\|<br>months days<br>END \|_____\|_____\| \|_____\|_____\|<br>months days<br>DID NOT IMPROVE .....9995<br>DON'T KNOW/UNSURE.....9998 | |

| NO. | QUESTIONS AND FILTERS | CODING CATEGORIES | SKIP |
|---|---|---|---|
| 8313 | Where exactly was the pain? | LOWER ABDOMEN .....1<br>UPPER ABDOMEN .....2<br>CENTRAL ABDOMEN (around umbilicus) .....3<br>ALL OVER THE ABDOMEN.....4<br>DON'T KNOW/UNSURE.....8 | |
| 8314 | Was the pain mild, moderate or severe? | SEVERE .....1<br>MODERATE .....2<br>MILD .....3<br>SOMETHIMES MILD/SOMETIMES MORE....4<br>DON'T KNOW/UNSURE.....8 | |
| 8315 | Was she unable to pass stool for some days before death? | YES.....1<br>NO .....2<br>DON'T KNOW/UNSURE.....8 | |
| 8316 | Did she have distension of abdomen before her death? | YES.....1<br>NO .....2<br>DON'T KNOW.....8 | <br>8319<br>8319 |
| 8317 | How many days/months before her death did the distension of abdomen start and end?<br>*(Write in months and days. If less than 1 month, then write 00 for months and only write in days)* | START \|_____\|_____\| \|_____\|_____\|<br>months days<br>END \|_____\|_____\| \|_____\|_____\|<br>months days<br>DID NOT IMPROVE .....9995<br>DON'T KNOW/UNSURE.....9998 | |
| 8318 | Did the distension develop rapidly within days or slowly over weeks? | RAPIDLY .....1<br>SLOWLY.....2<br>DON'T KNOW/UNSURE.....8 | |
| 8319 | Did she have any hard mass in the abdomen before her death? | YES.....1<br>NO .....2<br>DON'T KNOW.....8 | <br>8401<br>8401 |
| 8320 | Where exactly was the mass? | RIGHT UPPER ABDOMEN .....1<br>LEFT UPPER ABDOMEN .....2<br>LOWER ABDOMEN .....3<br>CENTRAL ABDOMEN (around umbilicus) .....4<br>DON'T KNOW/UNSURE.....8 | |
| 8321 | How long before her death did the mass in the abdomen start?<br>*(Write in months and days. If less than 1 month, then write 00 for months and only write in days)* | START \|_____\|_____\| \|_____\|_____\|<br>months days<br>DON'T KNOW/UNSURE.....9998 | |
| 8401 | Did she have headache during her last illness before death? | YES..... 1<br>NO ..... 2<br>DON'T KNOW/UNSURE..... 8 | <br>8404<br>8404 |
| 8402 | Was the headache continuous or on and off? | CONTINUOUS..... 1<br>ON AND OFF..... 2<br>DON'T KNOW/UNSURE..... 8 | |

| NO. | QUESTIONS AND FILTERS | CODING CATEGORIES | SKIP |
|---|---|---|---|
| 8403 | How was the headache? | SEVERE ..... 1<br>MODERATE ..... 2<br>MILD ..... 3<br>SOMETIMES MILD AND SOMETIMES SEVERE..... 4<br>DON'T KNOW/UNSURE..... 8 | |
| 8404 | Did she have stiff neck during her last illness before death? | YES.....1<br>NO .....2<br>DON'T KNOW.....8 | <br>8501<br>8501 |
| 8405 | How many days/months before her death did the stiff neck start?<br>*(Write in months and days. If less than 1 month, then write 00 for months and only write in days)* | START \|_____\|_____\| \|_____\|_____\|<br>months days<br>DON'T KNOW/UNSURE.....9998 | |
| 8501 | Did she have any loss of consciousness during her last illness before death? | YES.....1<br>NO .....2<br>DON'T KNOW/UNSURE .....8 | <br>8503<br>8503 |
| 8502 | Did she become unconscious suddenly or gradually? | SUDDENLY ..... 1<br>GRADUALLY ..... 2<br>DON'T KNOW/UNSURE..... 8 | |
| 8503 | Did she become mentally confused during her last illness before death? | YES..... 1<br>NO ..... 2<br>DON'T KNOW/UNSURE..... 8 | |
| 8504 | Did she have fits (convulsions) during her last illness before death? | YES.....1<br>NO .....2<br>DON'T KNOW/UNSURE .....8 | <br>8509<br>8509 |
| 8505 | How many days/months before her death did the fits start?<br>*(Write in months and days. If less than 1 month, then write 00 for months and only write in days)* | START \|_____\|_____\| \|_____\|_____\|<br>months days<br>DON'T KNOW/UNSURE.....9998 | |
| 8506 | Can you describe the nature of fits? | REPETITIVE JERKING OF WHOLE BODY..... 1<br>JERKING OF 1 OR 2 PARTS OF THE BODY . 2<br>OTHER(specify)_____ ..... 7<br>DON'T KNOW/UNSURE..... 8 | |
| 8507 | When fits were most frequent, how many times did she fit in a day? | NUMBER OF TIMES _____\|_____\|_____\|<br>DIED AFTER FITS STARTED..... 95<br>DON'T KNOW/UNSURE..... 98 | |
| 8508 | Was she awake between fits? | YES, ALWAYS..... 1<br>YES, SOMETIMES ..... 2<br>NO ..... 3<br>DON'T KNOW/UNSURE..... 8 | |
| 8509 | Did she have difficulty in opening the mouth during her last illness before death? | ABLE TO OPEN MOUTH .....1<br>UNABLE TO OPEN MOUTH .....2<br>DON'T KNOW/UNSURE .....8 | |

| NO. | QUESTIONS AND FILTERS | CODING CATEGORIES | SKIP |
|---|---|---|---|
| 8510 | Did she have stiffness of the whole body before death? | YES.....1<br>NO .....2<br>DON'T KNOW/UNSURE .....8 | <br>8512<br>8512 |
| 8511 | How many days/months before her death did the stiffness start?<br>*(Write in months and days. If less than 1 month, then write 00 for months and only write in days)* | START \|_____\|_____\| \|_____\|_____\|<br>months days<br>DON'T KNOW/UNSURE.....9998 | |
| 8512 | Did she become paralyzed on one or both sides of the body before her death? | YES.....1<br>NO .....2<br>DON'T KNOW/UNSURE .....8 | <br>8601<br>8601 |
| 8513 | Which part of the body was paralyzed? (Multiple answers) | LOWER LIMBS..... A<br>ARMS ..... B<br>FACE ..... C<br>ONE SIDE OF BODY ..... D<br>WHOLE BODY ..... E<br>OTHER_____ ... X<br>DON'T KNOW/UNSURE ..... Y | |
| 8514 | How many days/months before her death did the paralysis start?<br>*(Write in months and days. If less than 1 month, then write 00 for months and only write in days)* | START \|_____\|_____\| \|_____\|_____\|<br>months days<br>DON'T KNOW/UNSURE.....9998 | |
| 8601 | Was there any change in the color of her urine before death? | YES.....1<br>NO .....2<br>DON'T KNOW.....8 | <br>8604<br>8604 |
| 8602 | What color did the urine become? | LIGHT YELLOW ..... 1<br>DARK YELLOW..... 2<br>CHUNER PANI (CLOUDY)..... 3<br>BHATER MAAR (THICK-WHITE)..... 4<br>BLOOD STAINED/RED ..... 5<br>OTHER_____ ... 7<br>DON'T KNOW/UNSURE..... 8 | |
| 8603 | Since how many days/months before her death did her urine become _____ (ANSWER TO Q8602)?<br>*(Write in months and days. If less than 1 month, then write 00 for months and only write in days)* | START \|_____\|_____\| \|_____\|_____\|<br>months days<br>DON'T KNOW/UNSURE.....9998 | |
| 8604 | Was there any change in her daily frequency of urine before her death? | YES.....1<br>NO .....2<br>DON'T KNOW.....8 | <br>8607<br>8607 |
| 8605 | Compared to before, how many times was she passing urine in a day - more than before, less than before, or no urine at all? | MORE THAN BEFORE ..... 1<br>LESS THAN BEFORE ..... 2<br>NO URINE AT ALL ..... 3<br>DON'T KNOW/UNSURE..... 8 | |
| 8606 | Since how many days/months before her death did she start to pass urine _____ (ANSWER TO Q8605)?<br>*(Write in months and days. If less than 1 month, then write 00 for months and only write in days)* | START \|_____\|_____\| \|_____\|_____\|<br>months days<br>DON'T KNOW/UNSURE.....9998 | |
| 8607 | Did she have difficulty in passing urine during her last illness before death? | YES.....1<br>NO .....2<br>DON'T KNOW/UNSURE .....8 | <br>8701<br>8701 |

| NO. | QUESTIONS AND FILTERS | CODING CATEGORIES | SKIP |
|---|---|---|---|
| 8608 | What type of difficulty did she have:<br>Unable to pass urine?<br>Continuous dribbling of urine?<br>Burning sensation while passing urine?<br>Others? | YES NO<br>UNABLE TO PASS URINE ----------1-------- 2<br>DRIBBLING OF URINE----------1-------- 2<br>BURNING SENSATION ----------1-------- 2<br>OTHER(specify)_____-- 1<br>----------2 | |
| 8701 | Did she have a swelling in the breast before her death? | YES..... 1<br>NO ..... 2<br>DON'T KNOW/UNSURE..... 8 | <br>8703<br>8703 |
| 8702 | Was there pain in the breast along with the swelling before her death? | YES..... 1<br>NO ..... 2<br>DON'T KNOW/UNSURE..... 8 | |
| 8703 | Did she have an ulcer in the breast before her death? | YES..... 1<br>NO ..... 2<br>DON'T KNOW/UNSURE..... 8 | <br>8801<br>8801 |
| 8704 | Was there pain in the breast along with the ulcer? | YES..... 1<br>NO ..... 2<br>DON'T KNOW/UNSURE..... 8 | |
| 8801 | CHECK 5004: Was she ever pregnant before death? | YES.....1<br>NO .....2 | <br>8901 |
| 8802 | Did she ever have any complication during a pregnancy? | YES.....1<br>NO .....2<br>DON'T KNOW.....8 | |
| 8803 | Did she have a cesarean section in a pregnancy? | YES.....1<br>NO .....2<br>DON'T KNOW.....8 | |
| 8804 | Did she have Forceps / Ventose in a pregnancy? (Interviewer: explain to respondents what Forceps/Ventose means) | YES, FORCEP.....1<br>YES, VENTOS .....2<br>YES, BOTH FORCEP & VENTOS .....3<br>NO .....4<br>DON'T KNOW/UNSURE.....8 | |
| 8805 | Did _____(NAME) ever have any still births? If yes, how many?<br>(If none, write =0) | Times .....\|____\|<br>DON'T KNOW.....8 | |
| 8806 | Did _____(NAME) ever have any miscarriages/abortions?<br>(If none, write =0) | Times .....\|____\|<br>DON'T KNOW.....8 | |
| 8807 | Did _____(NAME) ever have any MRs?<br>(If none, write =0) | Times .....\|____\|<br>DON'T KNOW.....8 | |
| 8901 | Did _____(name) receive any injury or was there any untoward or violent event leading to death? | YES..... 1<br>NO ..... 2<br>DON'T KNOW/UNSURE..... 8 | <br>9001<br>9001 |
| 8902 | Can you describe what happened exactly? *(PROBE and ASK: anything else)* | | |

| NO. | QUESTIONS AND FILTERS | CODING CATEGORIES | SKIP |
|---|---|---|---|
| | Verbatim_____<br>_____<br>_____<br>_____<br>_____<br>_____<br>_____<br>_____ | | |
| 8903 | *Who else contributed to the information given in Q8901-8902?* | NEIGHBOURS ---------- A<br>FAMILY FRIENDS ---------- B<br>DECEASED'S FAMILY MEMBERS ---------- C<br>OTHER (specify)_____ -- X | |
| 8904 | *To the interviewer: Please review the response to Q8902 and Code accordingly* | **Yes** **No**<br>Dog/animal bite ..... 1 ..... 2<br>Snake bite ..... 1 ..... 2<br>Drowned as a consequence of epilepsy ..... 1 ..... 2<br>***Intentionally self-inflicted*** ***Intentionally caused by other*** ***Accidental*** ***No***<br>Train accident .....1 ..... 2 .....3 .....4<br>Road accident .....1 ..... 2 .....3 .....4<br>Drowning .....1 ..... 2 .....3 .....4<br>Burn .....1 ..... 2 .....3 .....4<br>Fall .....1 ..... 2 .....3 .....4<br>Cut (knife, sharp object)...1 ..... 2 .....3 .....4<br>Suffocation .....1 ..... 2 .....3 .....4<br>Punches, kicks, blows... xxxx..... 2 .....3 .....4<br>Gun shot .....1 ..... 2 .....3 .....4<br>Rape ..... xxxx..... 2 ..... xxxx.....4<br>Poisoning .....1 ..... 2 .....3 .....4<br>Acid burn .....1 ..... 2 .....3 .....4<br>Other .....1 ..... 2 .....3 .....4<br>_____ | |

***If the interviewer has any suspicion regarding the accuracy of the information given in Q8901-8904 then additional information may be collected from neighbours, family friends, members of the parent's family of the deceased.***

| | | | |
|---|---|---|---|
| 8905 | *To the interviewer: What is your judgement of the quality of the information gathered on the violent events surrounding the woman's death?* | Dependable ..... 1 (Yes) ..... 2 (Partly) .....3 (No)<br>Complete ..... 1 (Yes) ..... 2 (Partly) .....3 (No) | |

## SECTION 9
## GENERAL CARE SEEKING

| NO. | QUESTIONS AND FILTERS | CODING CATEGORIES | SKIP |
|---|---|---|---|
| 9001 | CHECK SECTIONS 6, 7 AND 8, DID THE WOMEN HAVE ANY ILLNESS OR COMPLICATION BEFORE DEATH? | YES ..... 1<br>NO ..... 2 | <br>9105 |
| 9002 | During _____*(name)* last illness/problem, did she or anyone seek treatment for her illness? | YES ..... 1<br>NO ..... 2<br>DON'T KNOW ..... 8 | <br>9105<br>9105 |
| 9003 | Where did she receive care/medical treatment?<br>*Repeatedly ask:* "Did she receive care/treatment from anywhere else?".<br>*If care/treatment was received from more than one place then ask* "Where did she first receive care/treatment from? From where did she next receive care/treatment from?", record sequence care/treatment received<br>IF UNABLE TO DETERMINE IF A HOSPITAL, HEALTH CENTER, OR CLINIC IS PUBLIC OR PRIVATE MEDICAL, WRITE THE NAME OF THE PLACE.<br>(NAME OF THE PLACE) | Sequence of care/treatment received:<br>☐ ☐ ☐ ☐ ☐ ☐<br>HOME<br>HOME ----------A<br>GOVT SECTOR<br>MEDICAL COLLEGE HOSPITAL ----------B<br>SPECIALISED HOSPITAL (SPECIFY). ----------C<br>DISTRICT HOSPITAL ----------D<br>MCWC ----------E<br>UPAZILA HEALTH COMPLEX----------F<br>UNION HEALTH & FAMILY WELFARE CENTRE--- G<br>SATELLITE/EPIOUTREACH SITE----------H<br>COMMUNITY CLINIC ---------- I<br>OTHER (SPECIFY_____) ----------J<br>NGO SECTOR<br>NGO STATIC HOSPITAL----------K<br>NGO SATELLITE CLINIC ----------L<br>OTHER (SPECIFY_____) ---------- M<br>PRIVATE MEDICAL SECTOR<br>PRIV. HOSPITAL/CLINIC ----------N<br>QUALIFIED DOCTORS CHAMBER--------- O<br>UNQUALIFIED DOCTOR'S CHAMBER-----P<br>PHARMACY---------- Q<br>PRIVATE MEDICAL COLLEGE HOSPITAL (SPECIFY _____)----------R<br>OTHER_____----------X<br>(Specify) | |
| 9003a | **INTERVIEWER: CHECK Q9003 (SEQUENCE OF TREATMENT) AND CIRCLE IN APPROPRIATE CODE.** | **1ST LEVEL OF TREATMENT IS CODE A(HOME)……1**<br>**1ST LEVEL OF TREATMENT IS OTHER THAN CODE A (OTHER THAN HOME)----------2** | **9004**<br>**9004a** |

| | HOME CARE | Skip | | OTHER THAN HOME CARE | Skip |
|---|---|---|---|---|---|
| | **1ST TREATMENT RECEIVED** | | | | |
| 9004 | Who took decision that she should seek treatment at home?<br>RESPONDENT .....A<br>HUSBAND.....B<br>MOTHER.....C<br>MOTHER-IN-LAW.....D<br>SISTER .....E<br>SISTER-IN-LAW.....F<br>OTHER MEMBER OF.RESPONDENT'S FAMILY ..... G<br>OTHER MEMBER OF HUSBAND.'S'S FAMILY .....H<br>RELATIVES..... I<br>NEIGHBOR/FRIEND..... J<br>TBA/FIELD WORKER/ DAI .....K<br>OTHER_____.....X<br>(SPECIFY) | | 9004a | Who took decision that she should seek treatment?<br>RESPONDENT..... A<br>HUSBAND ..... B<br>MOTHER ..... C<br>MOTHER-IN-LAW ..... D<br>SISTER..... E<br>SISTER-IN-LAW .....F<br>OTHER MEMBER OF.RESPONDENT'S FAMILY.....G<br>OTHER MEMBER OF HUSBAND.'S'S FAMILY..... H<br>RELATIVES.....I<br>NEIGHBOR/FRIEND .....J<br>TBA/FIELD WORKER/ DAI ..... K<br>OTHER_____ ..... X<br>(SPECIFY) | |

| | HOME CARE | Skip | | OTHER THAN HOME CARE | Skip |
|---|---|---|---|---|---|
| 9005 | After how much time from the beginning of this problem it was decided that she seek treatment? Write 00 if less than 1 hr, write in hrs if less than 1 day ,write in complete month if 30 days or more<br><br>HOURS ..... 1 ☐☐<br>DAYS…… ..... 2 ☐☐<br>MONTHS…….. ..... 3 ☐☐ | | 9005a | After how much time from the beginning of this problem it was decided that she seek treatment? Write 00 if less than 1 hr, write in hrs if less than 1 day ,write in complete month if 30 days or more<br><br>HOURS.....1 ☐☐<br>DAYS…… .....2 ☐☐<br>MONTHS…….....3 ☐☐ | |
| 9006 | Did she seek treatment soon after the decision was made?<br><br>YES ..... 1 →<br>NO……..... 2 | 9008 | 9006a | Did she seek treatment soon after the decision was made?<br><br>YES.....1 →<br>NO…… .....2 | 9008a |
| 9007 | Why the treatment was not sought immediately?<br><br>HOSPITAL TOO FAR.....A<br>DID NOT THINK SERIOUSLY .....B<br>LACK OF MONEY.....C<br>NOT WANT SERVICE FROM MALE DOCTOR.....D<br>OTHE_____……X<br>(SPECIFY) | | 9007a | Why the treatment was not sought immediately?<br><br>HOSPITAL TOO FAR ..... A<br>DID NOT THINK SERIOUSLY..... B<br>LACK OF MONEY ..... C<br>NOT WANT SERVICE FROM MALE DOCTOR ..... D<br>OTHE_____……X<br>(SPECIFY) | |
| 9008 | After how much time from the beginning of the problem did she first receive treatment at home? Write 00 if less than 1 hr, write in hrs if less than 1 day ,write in complete month if 30 days or more<br><br>HOURS ..... 1 ☐☐<br>DAYS…… ..... 2 ☐☐<br>MONTHS…….. ..... 3 ☐☐ | | 9008a | After how much time from the beginning of the problem did she first receive treatment at the clinic, hospital or qualified doctor?<br>Write 00 if less than 1 hr, write in hrs if less than 1 day ,write in complete month if 30 days or more<br><br>HOURS.....1 ☐☐<br>DAYS…… .....2 ☐☐<br>MONTHS…….....3 ☐☐ | |
| 9009 | From whom did she receive treatment at home?<br><br>**HEALTH PROFESSIONAL/WORKER**<br>QUALIFIED DOCTOR.....A<br>NURSE/MIDWIFE/PARAMEDIC.....B<br>FAMILY WELFARE VISITOR.....C<br>CSBA.....D<br>MA/SACMO.....E<br>HEALTH ASSISTANT .....F<br>FAMILY WELFARE ASSISTANT ..... G<br><br>OTHER PROVIDER<br>TRAINED TBA.....H<br>UNTRAINED TBA ..... I<br>UNQUALIFIED DOCTOR..... J<br>RELATIVES.....K<br>NEIGHBORS/FRIENDS ..... L<br><br>OTHER<br>BRAC SHASTHA SEBIKA ..... M<br>OTHER SHASTHA SEBIKA.....N<br>OTHER FIELD WORKER ..... O<br>OTHER_____……X<br>(SPECIFY) | | | | |
| | | | 9010a | How far is this clinic, hospital or qualified doctor from her house where she was present?<br>WRITE '00' IF LESS THAN A mile.<br><br>MILE .....\|_____\|_____\|<br>OUTSIDE UPAZILA/TOWN.....95<br>DON'T KNOW……98 | |
| 9013 | Did her condition improve after treatment in this place, or did it stay the same or worsen?<br>NO CHANGE..... 1<br>IMPROVED ..... 2<br>WORSNED..... 3<br>DON'T KNOW ..... .8 | | 9013a | Did her condition improve after treatment in this place, or did it stay the same or worsen?<br>NO CHANGE .....1<br>IMPROVED.....2<br>WORSNED .....3<br>DON'T KNOW.....8 | |
| 9014 | Did the person who provided her with treatment at home refer or ask you to go any other place for treatment/advice?<br>YES ..... 1<br>NO……..... 2 → | 9018 | 9014a | Was she referred or told to go any other place for treatment/advice?<br><br>YES.....1<br>NO…… .....2 → | 9018 |

| | HOME CARE | Skip | | OTHER THAN HOME CARE | Skip |
|---|---|---|---|---|---|
| 9015 | Where was she told to go?<br>**PUBLIC SECTOR**<br>MEDICAL COLLEGE HOSPITAL..... 21<br>SPECIALIZED HOSPITAL (SPECIFY)..... 22<br>DISTRICT HOSPITAL ..... 23<br>MCWC ..... 24<br>UPAZILA HEALTH COMPLEX..... 25<br>H&FWC ..... 26<br>SATELLITE CLINIC/EPI OUTREACH..... 27<br>COMMUNITY CLINIC ..... 28<br>OTHER_____.....30<br>(SPECIFY)<br>**NGO SECTOR**<br>NGO STATIC CLINIC..... 31<br>NGO SATELLITE CLINIC ..... 32<br>OTHER_____.....35<br>(SPECIFY)<br><br>**PRIVATE MEDICAL SECTOR**<br>PRIVATE HOSPITAL/CLINIC ..... .41<br>QUALIFIED DOCTOR'S CHAMBER..... 42<br>UNQUALIFIED DOCTOR'S CHAMBER .... 43<br>PHARMACY ..... 44<br>PRIVATE MEDICAL COLLEGE<br>HOSPITAL_____.....45<br>(SPECIFY)<br>OTHER_____.....96<br>(SPECIFY) | | 9015a | Where was she told to go?<br>**PUBLIC SECTOR**<br>MEDICAL COLLEGE HOSPITAL .....21<br>SPECIALIZED HOSPITAL (SPECIFY) .....22<br>DISTRICT HOSPITAL .....23<br>MCWC .....24<br>UPAZILA HEALTH COMPLEX .....25<br>H&FWC.....26<br>SATELLITE CLINIC/EPI OUTREACH .....27<br>COMMUNITY CLINIC.....28<br>OTHER_____.....30<br>(SPECIFY)<br>**NGO SECTOR**<br>NGO STATIC CLINIC .....31<br>NGO SATELLITE CLINIC.....32<br>OTHER_____.....35<br>(SPECIFY)<br><br>**PRIVATE MEDICAL SECTOR**<br>PRIVATE HOSPITAL/CLINIC.....41<br>QUALIFIED DOCTOR'S CHAMBER .....42<br>UNQUALIFIED DOCTOR'S CHAMBER.....43<br>PHARMACY .....44<br>PRIVATE MEDICAL COLLEGE<br>HOSPITAL_____.....45<br>(SPECIFY)<br>OTHER_____.....96<br>(SPECIFY) | |
| 9016 | Did she go there?<br><br>YES ..... 1 →<br>NO..... 2 | 9018 | 9016a | Did she go there?<br><br>YES.....1 →<br>NO..... .....2 | 9018 |
| 9017 | Why did she not go to the referred place?<br><br>NOT NECESSARY.....A<br>NOT UNDERSTAND THAT SERVICE<br>IS NEEDED .....B<br>NOT CUSTOMERY.....C<br>COST TOO MUCH.....D<br>LACK OF MONEY.....E<br>TOO FAR ..... .F<br>TRANSPORT PROBLEM..... G<br>NO ONE TO ACCOMPANY .....H<br>POOR QUALITY SERVICE..... I<br>FAMILY DID NOT ALLOW ..... J<br>BETTER CARE AT HOME.....K<br>NOT KNOWN HOW TO GO..... L<br>NO TIME TO GO FOR SERVICES ..... M<br>NOT KNOW WHERE TO GO.....N<br>NOT WANT SERVICE FROM MALE<br>DOCTOR..... O<br>FOR FEAR .....P<br>CLINIC/HOSPITAL INSIST FOR CISAREAN Q<br>DID NOT THINK OF SERIOUSNESS OF<br>COMPLICATION .....R<br>HOSPITAL WAS CLOSED.....S<br>DOCTOR WAS NOT THERE.....T<br>OTHER_____.....X<br>(SPECIFY) | | 9017a | Why did she not go to the referred place?<br><br>NOT NECESSARY ..... A<br>NOT UNDERSTAND THAT SERVICE<br>IS NEEDED ..... B<br>NOT CUSTOMERY ..... C<br>COST TOO MUCH ..... D<br>LACK OF MONEY ..... E<br>TOO FAR.....F<br>TRANSPORT PROBLEM ..... G<br>NO ONE TO ACCOMPANY ..... H<br>POOR QUALITY SERVICE .....I<br>FAMILY DID NOT ALLOW .....J<br>BETTER CARE AT HOME ..... K<br>NOT KNOWN HOW TO GO .....L<br>NO TIME TO GO FOR SERVICES .....M<br>NOT KNOW WHERE TO GO ..... N<br>NOT WANT SERVICE FROM MALE<br>DOCTOR ..... O<br>FOR FEAR..... P<br>CLINIC/HOSPITAL INSIST FOR CISAREAN Q<br>DID NOT THINK OF SERIOUSNESS OF<br>COMPLICATION ..... .R<br>HOSPITAL WAS CLOSED ..... S<br>DOCTOR WAS NOT THERE .....T<br>OTHER_____.....X<br>(SPECIFY) | |

| | | | |
|---|---|---|---|
| **9018** | **INTERVIEWER: CHECK Q9003 (SEQUENCE OF TREATMENT) AND CIRCLE IN APPROPRIATE CODE.** | **LAST LEVEL OF TREATMENT IS CODE A (HOME) .....1**<br><br>**LAST LEVEL OF TREATMENT IS OTHER THAN CODE A (OTHER THAN HOME) .....2**<br><br>**ONLY ONE SOURCE OF CARE/TREATMENT RECEIVED.....3** | **9019**<br><br>**9019a**<br><br>**9101** |

**LAST TREATMENT RECEIVED**

| | | | | | |
|---|---|---|---|---|---|
| 9019 | After how much time from the beginning of the problem did she receive last treatment at home? Write 00 if less than 1 hr, write in hrs if less than 1 day ,write in complete month if 30 days or more<br><br>HOURS ..... 1 ☐☐<br>DAYS..... ..... 2 ☐☐<br>MONTHS..... ..... 3 ☐☐ | | 9019a | After how much time from the beginning of the problem did she first receive treatment at the last place (clinic, hospital or qualified doctor)? Write 00 if less than 1 hr, write in hrs if less than 1 day ,write in complete month if 30 days or more<br><br>HOURS.....1 ☐☐<br>DAYS..... .....2 ☐☐<br>MONTHS..... .....3 ☐☐ | |
| 9020 | From whom did she receive treatment at home? | | | | |

| | HOME CARE | Skip | | OTHER THAN HOME CARE | Skip |
|---|---|---|---|---|---|
| | QUALIFIED DOCTOR.....A<br>NURSE/MIDWIFE/PARAMEDIC.....B<br>FAMILY WELFARE VISITOR.....C<br>CSBA.....D<br>MA/SACMO.....E<br>HEALTH ASSISTANT .....F<br>FAMILY WELFARE ASSISTANT ..... G<br><br>OTHER PROVIDER<br>TRAINED TBA.....H<br>UNTRAINED TBA ..... I<br>UNQUALIFIED DOCTOR..... J<br>RELATIVES.....K<br>NEIGHBORS/FRIENDS ..... L<br><br>OTHER<br>BRAC SHASTHA SEBIKA ..... M<br>OTHER SHASTHA SEBIKA.....N<br>OTHER FIELD WORKER ..... O<br>OTHER_____……X<br>(SPECIFY) | | | | |
| | | | 9021a | How far is this clinic, hospital or qualified doctor from her house where she was present?<br>**WRITE '00' IF LESS THAN A mile.**<br><br>MILE .....<br><br>OUTSIDE UPAZILA/TOWN.....95<br><br>DON'T KNOW…… 98 | |
| 9024 | Did her condition improve after treatment at home, or did it stay the same or worsen?<br><br>NO CHANGE..... 1<br>IMPROVED ..... 2<br>WORSNED..... 3<br>DON'T KNOW ..... .8 | | 9024a | Did her condition improve after treatment in this place, or did it stay the same or worsen?<br><br>NO CHANGE .....1<br>IMPROVED.....2<br>WORSNED .....3<br>DON'T KNOW.....8 | |
| 9025 | Did the person who provided her with treatment at home refer or ask her to go any other place for treatment/advice?<br>YES ..... 1<br>NO……..... 2 → | 9101 | 9025a | Was she referred or told to go any other place for treatment/advice?<br><br>YES.....1<br>NO…… .....2 → | 9101 |
| 9026 | Where was she told to go?<br><br>**PUBLIC SECTOR**<br>MEDICAL COLLEGE HOSPITAL..... 21<br>SPECIALIZED HOSPITAL (SPECIFY)..... 22<br>DISTRICT HOSPITAL ..... 23<br>MCWC..... 24<br>UPAZILA HEALTH COMPLEX..... 25<br>H&FWC ..... 26<br>SATELLITE CLINIC/EPI OUTREACH..... 27<br>COMMUNITY CLINIC ..... 28<br>OTHER_____……30<br>(SPECIFY)<br>**NGO SECTOR**<br>NGO STATIC CLINIC..... 31<br>NGO SATELLITE CLINIC ..... 32<br>OTHER_____……35<br>(SPECIFY)<br><br>**PRIVATE MEDICAL SECTOR**<br>PRIVATE HOSPITAL/CLINIC ..... .41<br>QUALIFIED DOCTOR'S CHAMBER..... 42<br>UNQUALIFIED DOCTOR'S CHAMBER .... 43<br>PHARMACY ..... 44<br>PRIVATE MEDICAL COLLEGE HOSPITAL_____……..45<br>(SPECIFY)<br>OTHER_____……96<br>(SPECIFY) | | 9026a | Where was she told to go?<br><br>**PUBLIC SECTOR**<br>MEDICAL COLLEGE HOSPITAL.....21<br>SPECIALIZED HOSPITAL (SPECIFY) .....22<br>DISTRICT HOSPITAL .....23<br>MCWC .....24<br>UPAZILA HEALTH COMPLEX.....25<br>H&FWC.....26<br>SATELLITE CLINIC/EPI OUTREACH.....27<br>COMMUNITY CLINIC.....28<br>OTHER_____……30<br>(SPECIFY)<br>**NGO SECTOR**<br>NGO STATIC CLINIC .....31<br>NGO SATELLITE CLINIC.....32<br>OTHER_____……35<br>(SPECIFY)<br><br>**PRIVATE MEDICAL SECTOR**<br>PRIVATE HOSPITAL/CLINIC.....41<br>QUALIFIED DOCTOR'S CHAMBER.....42<br>UNQUALIFIED DOCTOR'S CHAMBER.....43<br>PHARMACY .....44<br>PRIVATE MEDICAL COLLEGE HOSPITAL_____……..45<br>(SPECIFY)<br>OTHER_____……96<br>(SPECIFY) | |
| 9027 | Did she go there?<br><br>YES ..... 1 →<br>NO……..... 2 | 9101 | 9027a | Did she go there?<br><br>YES.....1 →<br>NO…… .....2 | 9101 |

| | HOME CARE | Skip | | OTHER THAN HOME CARE | Skip |
|---|---|---|---|---|---|
| | | | | | |
| 9028 | Why did you not go to the referred place?<br><br>NOT NECESSARY.....A<br>NOT UNDERSTAND THAT SERVICE IS NEEDED .....B<br>NOT CUSTOMERY.....C<br>COST TOO MUCH.....D<br>LACK OF MONEY.....E<br>TOO FAR .....F<br>TRANSPORT PROBLEM..... G<br>NO ONE TO ACCOMPANY .....H<br>POOR QUALITY SERVICE.....I<br>FAMILY DID NOT ALLOW ..... J<br>BETTER CARE AT HOME.....K<br>NOT KNOWN HOW TO GO..... L<br>NO TIME TO GO FOR SERVICES ..... M<br>NOT KNOW WHERE TO GO.....N<br>NOT WANT SERVICE FROM MALE DOCTOR..... O<br>FOR FEAR .....P<br>CLINIC/HOSPITAL INSIST FOR CISAREAN Q<br>DID NOT THINK OF SERIOUSNESS OF COMPLICATION .....R<br>HOSPITAL WAS CLOSED.....S<br>DOCTOR WAS NOT THERE.....T<br>OTHER_____.....X<br>(SPECIFY) | | 9028a | Why did you not go to the referred place?<br><br>NOT NECESSARY ..... A<br>NOT UNDERSTAND THAT SERVICE IS NEEDED ..... B<br>NOT CUSTOMERY ..... C<br>COST TOO MUCH ..... D<br>LACK OF MONEY ..... E<br>TOO FAR.....F<br>TRANSPORT PROBLEM ..... G<br>NO ONE TO ACCOMPANY ..... H<br>POOR QUALITY SERVICE .....I<br>FAMILY DID NOT ALLOW .....J<br>BETTER CARE AT HOME ..... K<br>NOT KNOWN HOW TO GO .....L<br>NO TIME TO GO FOR SERVICES .....M<br>NOT KNOW WHERE TO GO ..... N<br>NOT WANT SERVICE FROM MALE DOCTOR ..... O<br>FOR FEAR..... P<br>CLINIC/HOSPITAL INSIST FOR CISAREAN Q<br>DID NOT THINK OF SERIOUSNESS OF COMPLICATION ..... .R<br>HOSPITAL WAS CLOSED ..... S<br>DOCTOR WAS NOT THERE .....T<br>OTHER_____.....X<br>(SPECIFY) | |

| NO. | QUESTIONS AND FILTERS | CODING CATEGORIES | SKIP |
|---|---|---|---|
| 9101 | How much did it cost in total for the treatment of her last illness?<br><br>(If cannot mention write 999995) | TOTAL COST INCURRED OUTSIDE OF HOME ..... \|__\|__\|__\|__\|__\|__\|<br>NO COST INCURRED OUTSIDE OF HOME. .....000000 | 9105 |
| 9102 | How much did it cost in total for her treatment at home?<br><br>*(Ask about each expense)*<br><br>*Write 00000 if there was no expense.*<br><br>(If cannot mention write 99995) | <u>Cost incurred at home</u><br>Medicine cost ..... \|__\|__\|__\|__\|__\|__\|<br>Provider cost ..... \|__\|__\|__\|__\|__\|__\|<br>Other costs..... \|__\|__\|__\|__\|__\|__\|<br><br>TOTAL COST INCURRED AT HOME<br>..... \|__\|__\|__\|__\|__\| | |
| 9103 | How much did it cost in total for her treatment outside of home?<br><br>*(Ask about each expense)*<br><br>*Write 00000 if there was no expense.*<br><br>(If cannot mention write 99995) | <u>Cost incurred outside of home</u><br>Transportation cost ..... \|__\|__\|__\|__\|__\|__\|<br>Medicine cost ..... \|__\|__\|__\|__\|__\|__\|<br>Hospital and/ provider cost ... \|__\|__\|__\|__\|__\|__\|<br>Other costs..... \|__\|__\|__\|__\|__\|__\|<br><br>TOTAL COST INCURRED OUTSIDE OF HOME<br>..... \|__\|__\|__\|__\|__\| | |
| 9104 | From where did she get the funds for her to go for treatment? | FAMILY FUNDS ..... A<br>BORROWED ..... B<br>SOLD ASSETS..... C<br>GIVEN BY RELATIVES (GIFT) ..... D<br>MORTGAGED PROPERTY ..... E<br>GIVEN BY FRIENDS (GIFT) .....F<br>OTHER_____..... X<br>DON'T KNOW ..... Y | |

| | | | |
|---|---|---|---|
| 9105 | *Interviewer: check q5001.* | YES ..... 1<br>NO ..... 2<br>PROBABLY YES ..... 3<br>DON'T KNOW ..... 8 | 9107<br><br>9107 |
| 9106 | *Interviewer: check q5004.* | Yes ..... 1<br>No ..... 2 | 9801 |
| 9106a | *Interviewer: check q5007.* | <12 months ..... 1<br>12 months or more ..... 2 | 9801 |
| 9107 | Interviewer: Check whether pregnancy related (pregnancy, during and after delivery) costs are included in Q9101-9103)<br><br>The cost mentioned during _____ last treatment mentioned in Q9101-9103 include her last pregnancy (pregnancy, delivery, post delivery) related costs as well? | Yes ..... 1<br>No ..... 2 | |
| 9108 | What was the total cost incurred for her last delivery?<br><br>IF CANNOT MENTION, WRITE 999995. | TOTAL COST INCURRED OUTSIDE OF HOME ..... \|__\|__\|__\|__\|__\|__\|<br>NO COST INCURRED OUTSIDE OF HOME. ..... 000000 | 9801 |
| 9109 | How much money did she spend during last pregnancy?<br><br>(Ask about each category)<br>IF NO MONEY SPENT WRITE 00000.<br>IF CANNOT MENTION, WRITE 99995. | During pregnancy<br><br>Transportation cost ..... \|__\|__\|__\|__\|__\|<br>Medicine cost..... \|__\|__\|__\|__\|__\|<br>Hospital and/ provider cost..... \|__\|__\|__\|__\|__\|<br>Other costs ..... \|__\|__\|__\|__\|__\|<br><br>TOTAL COST INCURRED OUTSIDE OF HOME<br>\|__\|__\|__\|__\|__\| | |
| 9110 | How much money did she spend during her last delivery and after delivery?<br><br>(Ask about each category)<br>IF NO MONEY SPENT WRITE 00000.<br>IF CANNOT MENTION, WRITE 99995. | During delivery and after delivery<br><br>Transportation cost ..... \|__\|__\|__\|__\|__\|<br>Medicine cost ..... \|__\|__\|__\|__\|__\|<br>Hospital and/ provider cost..... \|__\|__\|__\|__\|__\|<br>Other costs..... \|__\|__\|__\|__\|__\|<br><br>TOTAL COST INCURRED OUTSIDE OF HOME<br>\|__\|__\|__\|__\|__\| | |
| 9111 | From where did she get the funds for her pregnancy and delivery? | FAMILY FUNDS ..... A<br>BORROWED ..... B<br>SOLD ASSETS..... C<br>GIVEN BY RELATIVES (GIFT) ..... D<br>MORTGAGED PROPERTY ..... E<br>GIVEN BY FRIENDS (GIFT) .....F<br>OTHER_____..... X<br>DON'T KNOW ..... Y | |

| | | | |
|---|---|---|---|
| 9801 | INTERVIEWER: CHECK THE QUESTIONNAIRE CAREFULLY FOR COMPLETENESS BEFORE ENDING THE INTERVIEW. THEN SAY THANK YOU AND END THE INTERVIEW. | | |
| 9802 | RECORD THE TIME | HOURS \|___\|____\| MINUTES \|____\|____\| | |

## INTERVIEWER'S COMMENTS AND OBSERVATION

## INTERVIEWER'S ASSESSMENT OF CAUSE OF DEATH

# BANGLADESH MATERNAL MORTALITY AND HEALTH CARE SURVEY (BMMS) 2010

## SERVICE AVAILABILITY ROSTER

National Institute of Population Research and Training (NIPORT)
Ministry of Health and Family Welfare
Associates for Community and Population Research (ACPR)
Mitra and Associates
icddr,b
MEASURE Evaluation

# BANGLADESH MATERNAL MORTALITY AND HEALTH CARE SURVEY 2010

## SERVICE AVAILABILITY ROSTER

**IDENTIFICATION**

DIVISION _____
(BARISAL=1; CHITTAGONG=2; DHAKA=3; KHULNA=4; RAJSHAHI=5; SYLHET=6)

DISTRICT _____

UPAZILA/THANA_____

UNION/WARD _____

MOUZA/MOHOLLA_____

SEGNMENT_____

VILLAGE/MOHALLA/BLOCK _____

CLUSTER NUMBER .....

TYPE OF AREA: 1 = RURAL; 2 = URBAN, 3 = OTHER URBAN

DATE OF VISIT _____

DAY .....

MONTH .....

YEAR .....

RESULTS OF THE INTERVIEW:
[COMPLETED =1, INCOMPLETE = 2,
OTHER (SPECIFY) = 6]

RESULT .....

NAME OF INTERVIEWER _____

INTERVIEWER CODE.....

NAME OF PERSONS INTERVIEWED

1 _____

2 _____

3 _____

4 _____

5 _____

6 _____

| | POSITION | SEX |
|---|---|---|
| ELECTED OFFICIAL | 01 | MALE 1 |
| RELIGIOUS LEADER | 02 | FEMALE 2 |
| TEACHER/EDUCATOR | 03 | |
| DOCTOR/HEALTH OFFICIAL | 04 | |
| SERVICE HOLDER | 05 | |
| BUSINESS PERSON | 06 | |
| OTHER_____ (SPECIFY) | 96 | |

BEGINNING TIME:

HOUR.....

MINUTES .....

## 1. Community information

INFORMED CONSENT
AFTER ASSEMBLING THE INFORMANTS, READ THE FOLLOWING GREETING:
Hello. I am representing the NIPORT of Ministry of Health and Family Welfare. We are carrying out a survey of communities to get a picture of services available to the communities and to understand when and why people use health services. I would like to ask you some questions about your community and about sources of health care in it and around it as a way of better understanding how to serve the population. Please be assured that this discussion is strictly confidential and you may choose to stop the interview at any time. May I continue?

PERMISSION RECEIVED TO CONTINUE? YES 1 NO 2 → STOP

## 2. Identification of Health Facilities

Now we would lke to ask you some questions about health facilities from which people in this village/mohalla can obtain services if they want. We would like for you to tell us about all of the facilities known by the general population of this village/mohalla that are of specific types. Please start with the ones that are closest to this village/mohalla.

| 201. HEALTH FACILITY/HEALTH CENTER | 202. Where is the HEALTH FACILITY located? | 203. What is the HEALTH FACILITY's operating authority? | 204. How far in miles/kilometers is the HEALTH FACILITY located from the center of the village? IF LOCATED IN THE VILLAGE/MOHALLA, RECORD '00'. | 205. How many minutes does it take to go to the FACILITY using the most common type of transportation? | 207. Is HEALTH FACILITY in this thana/union ? |
|---|---|---|---|---|---|
| 01A. HOSPITAL (Nearest)<br><br>NAME:_____<br>___<br><br>DON'T KNOW<br>NONE | DISTRICT:<br>_____<br>THANA:<br>_____<br>LOCATION:<br>_____ | GOVERNMENT ..... 01<br>NGO..... 02<br>PRIVATE ..... 03<br>RELIGIOUS ..... 04<br>OTHER ..... 96<br>DK..... 98 | MILES .....1 [ ][ ]<br>KILOMETERS....2<br>DON'T KNOW..... 98 | MINUTES [ ][ ][ ]<br>DON'T KNOW..... 998 | YES, THANA ... ... 1 → 02A<br>YES, UNION ..... 1 → 02A<br>NO.....2 → 01B |
| 01B. HOSPITAL (District)<br><br>NAME:_____<br>___<br><br>DON'T KNOW<br>NONE | DISTRICT:<br>_____<br>THANA:<br>_____<br>LOCATION:<br>_____ | GOVERNMENT ..... 01<br>NGO..... 02<br>PRIVATE ..... 03<br>RELIGIOUS ..... 04<br>OTHER ..... 96<br>DK..... 98 | MILES .....1 [ ][ ]<br>KILOMETERS....2<br>DON'T KNOW..... 98 | MINUTES [ ][ ][ ]<br>DON'T KNOW..... 998 | |
| 02A. THANA HEALTH CENTER (THC)<br>(nearest)<br><br>NAME:_____<br>___<br><br>DON'T KNOW<br>NONE | DISTRICT:<br>_____<br>THANA:<br>_____<br>LOCATION:<br>_____ | GOVERNMENT ..... 01 | MILES .....1 [ ][ ]<br>KILOMETERS....2<br>DON'T KNOW..... 98 | MINUTES [ ][ ][ ]<br>DON'T KNOW..... 998 | YES, THANA ... ... 1 → 03A<br>YES, UNION ..... 1 → 03A<br>NO.....2 → 02B |
| 02B. THANA HEALTH CENTER (THC)<br>(in this thana) | DISTRICT:<br>_____<br>THANA: | GOVERNMENT ..... 01 | MILES .....1 [ ][ ]<br>KILOMETERS....2<br>DON'T KNOW..... 98 | MINUTES [ ][ ][ ]<br>DON'T KNOW..... 998 | |

| 201. HEALTH FACILITY/HEALTH CENTER | 202. Where is the HEALTH FACILITY located? | 203. What is the HEALTH FACILITY's operating authority? | 204. How far in miles/kilometers is the HEALTH FACILITY located from the center of the village?<br>IF LOCATED IN THE VILLAGE/MOHALLA, RECORD '00'. | 205. How many minutes does it take to go to the FACILITY using the most common type of transportation? | 207. Is HEALTH FACILITY in this thana/union ? |
|---|---|---|---|---|---|
| NAME:_____<br>___<br><br>DON'T KNOW<br>NONE | _____<br>LOCATION:<br>_____ | | | | |
| 03A.HEALTH AND FAMILY WELFARE CENTER (nearest)<br><br>NAME:_____<br>___<br><br>DON'T KNOW<br>NONE | DISTRICT:<br>_____<br>THANA:<br>_____<br>LOCATION:<br>_____ | GOVERNMENT ..... 01 | MILES .....1 ☐☐<br>KILOMETERS....2<br>DON'T KNOW..... 98 | MINUTES ☐☐☐<br>DON'T KNOW..... 998 | YES, THANA ... ... 1 → 04A<br>YES, UNION ..... 1 → 04A<br>NO.....2 → 03B |
| 03B. HEALTH AND FAMILY WELFARE CENTER<br>(in this union)<br><br>NAME:_____<br>___<br><br>DON'T KNOW<br>NONE | DISTRICT:<br>_____<br>THANA:<br>_____<br>LOCATION:<br>_____ | GOVERNMENT ..... 01 | MILES .....1 ☐☐<br>KILOMETERS....2<br>DON'T KNOW..... 98 | MINUTES ☐☐☐<br>DON'T KNOW..... 998 | |
| 04A. MATERNAL AND CHILD WELFARE CENTER (MCWC)<br>(nearest)<br><br>NAME:_____<br>___<br><br>DON'T KNOW<br>NONE | DISTRICT:<br>_____<br>THANA:<br>_____<br>LOCATION:<br>_____ | GOVERNMENT ..... 01 | MILES .....1 ☐☐<br>KILOMETERS....2<br>DON'T KNOW..... 98 | MINUTES ☐☐☐<br>DON'T KNOW..... 998 | YES, THANA ... ... 1 → 06A<br>YES, UNION ..... 1 → 06A<br>NO.....2 → 04B |

| 201. HEALTH FACILITY/HEALTH CENTER | 202. Where is the HEALTH FACILITY located? | 203. What is the HEALTH FACILITY's operating authority? | 204. How far in miles/kilometers is the HEALTH FACILITY located from the center of the village?<br>IF LOCATED IN THE VILLAGE/MOHALLA, RECORD '00'. | 205. How many minutes does it take to go to the FACILITY using the most common type of transportation? | 207. Is HEALTH FACILITY in this thana/union ? |
|---|---|---|---|---|---|
| 04B. MATERNAL AND CHILD WELFARE CENTER (MCWC)<br>(District)<br><br>NAME:_____<br>___<br>DON'T KNOW<br>NONE | DISTRICT:<br>_____<br>THANA:<br>_____<br>LOCATION:<br>_____ | GOVERNMENT ..... 01 | MILES .....1 ☐☐<br>KILOMETERS....2<br>DON'T KNOW..... 98 | MINUTES ☐☐☐<br>DON'T KNOW..... 998 | |

List all of the PRIVATE CLINICS that are available for people in this village/mohalla to use.

| 201. HEALTH FACILITY | 202. Where is the HEALTH FACILITY located? | 203. What is the HEALTH FACILITY's operating authority? | 204. How far in miles/kilometers is the HEALTH FACILITY located from the center of the village? IF LOCATED IN THE VILLAGE/MOHALLA, RECORD '00'. | 205. How many minutes does it take to go to the FACILITY using the most common type of transportation? | 207. Is HEALTH FACILITY in this thana /union? |
|---|---|---|---|---|---|
| 06A. PRIVATE CLINIC (nearest)<br><br>NAME:_____<br><br>DON'T KNOW<br>NONE | DISTRICT:<br>_____<br>THANA:<br>_____<br>LOCATION:<br>_____ | PRIVATE ..... 03<br>RELIGIOUS ..... 04<br>OTHER ..... 96<br>DK..... 98 | MILES.....1 ☐☐<br>KILOMETERS....2<br>DON'T KNOW..... 98 | MINUTES ☐☐☐<br>DON'T KNOW ..... 998 | YES, THANA ... ... 1 → 06B<br>YES, UNION ..... 1 → 06B<br>NO.....2 → 07A |
| 06B. PRIVATE CLINIC<br><br>NAME:_____<br><br>DON'T KNOW<br>NONE | DISTRICT:<br>_____<br>THANA:<br>_____<br>LOCATION:<br>_____ | PRIVATE ..... 03<br>RELIGIOUS ..... 04<br>OTHER ..... 96<br>DK..... 98 | MILES.....1 ☐☐<br>KILOMETERS....2<br>DON'T KNOW..... 98 | MINUTES ☐☐☐<br>DON'T KNOW ..... 998 | YES, THANA ... ... 1 → 06C<br>YES, UNION ..... 1 → 06C<br>NO.....2 → 07A |
| 06C. PRIVATE CLINIC<br><br>NAME:_____<br><br>DON'T KNOW<br>NONE | DISTRICT:<br>_____<br>THANA:<br>_____<br>LOCATION:<br>_____ | PRIVATE ..... 03<br>RELIGIOUS ..... 04<br>OTHER ..... 96<br>DK..... 98 | MILES.....1 ☐☐<br>KILOMETERS....2<br>DON'T KNOW..... 98 | MINUTES ☐☐☐<br>DON'T KNOW ..... 998 | YES, THANA ... ... 1 → 06D<br>YES, UNION ..... 1 → 06D<br>NO.....2 → 07A |
| 06D. PRIVATE CLINIC<br><br>NAME:_____<br><br>DON'T KNOW<br>NONE | DISTRICT:<br>_____<br>THANA:<br>_____<br>LOCATION:<br>_____ | PRIVATE ..... 03<br>RELIGIOUS ..... 04<br>OTHER ..... 96<br>DK..... 98 | MILES.....1 ☐☐<br>KILOMETERS....2<br>DON'T KNOW..... 98 | MINUTES ☐☐☐<br>DON'T KNOW ..... 998 | YES, THANA ... ... 1<br>YES, UNION ..... 1<br>NO.....2 |

List all of the OTHER NGO CLINICS (NON-RSDHP OR NON-UFHP) that are available for people in this village/mohalla to use.

| 201. HEALTH FACILITY | 202. Where is the HEALTH FACILITY located? | 203. What is the HEALTH FACILITY's operating authority? | 204. How far in miles/kilometers is the HEALTH FACILITY located from the center of the village? IF LOCATED IN THE VILLAGE/MOHALLA, RECORD '00'. | 205. How many minutes does it take to go to the FACILITY using the most common type of transportation? | 207. Is HEALTH FACILITY in this thana/union ? |
|---|---|---|---|---|---|
| 07A. NGO CLINIC (nearest)<br><br>NAME:_____<br><br>DON'T KNOW<br>NONE | DISTRICT:<br>_____<br>THANA:<br>_____<br>LOCATION:<br>_____ | NGO ..... 02 | MILES.....1<br>KILOMETERS....2 ☐☐<br>DON'T KNOW..... 98 | MINUTES ... ☐☐☐<br>DON'T KNOW ..... 998 | YES, THANA ... ... 1 → 07B<br>YES, UNION ..... 1 → 07B<br>NO.....2 → 08A |
| 07B. NGO CLINIC<br><br>NAME:_____<br><br>DON'T KNOW<br>NONE | DISTRICT:<br>_____<br>THANA:<br>_____<br>LOCATION:<br>_____ | NGO ..... 02 | MILES.....1<br>KILOMETERS....2 ☐☐<br>DON'T KNOW..... 98 | MINUTES ... ☐☐☐<br>DON'T KNOW ..... 998 | YES, THANA ... ... 1 → 07C<br>YES, UNION ..... 1 → 07C<br>NO.....2 → 08A |
| 07C. NGO CLINIC<br><br>NAME:_____<br><br>DON'T KNOW<br>NONE | DISTRICT:<br>_____<br>THANA:<br>_____<br>LOCATION:<br>_____ | NGO ..... 02 | MILES.....1<br>KILOMETERS....2 ☐☐<br>DON'T KNOW..... 98 | MINUTES ... ☐☐☐<br>DON'T KNOW ..... 998 | YES, THANA ... ... 1 → 07D<br>YES, UNION ..... 1 → 07D<br>NO.....2 → 08A |
| 07D. NGO CLINIC<br><br>NAME:_____<br><br>DON'T KNOW<br>NONE | DISTRICT:<br>_____<br>THANA:<br>_____<br>LOCATION:<br>_____ | NGO ..... 02 | MILES.....1<br>KILOMETERS....2 ☐☐<br>DON'T KNOW..... 98 | MINUTES ... ☐☐☐<br>DON'T KNOW ..... 998 | YES, THANA ... ... 1<br>YES, UNION ..... 1<br>NO.....2 |

List all of the COMMUNITY CLINICS that are available for people in this village/mohalla to use.

| 201. HEALTH FACILITY | 202. Where is the HEALTH FACILITY located? | 203. What is the HEALTH FACILITY's operating authority? | 204. How far in miles/kilometers is the HEALTH FACILITY located from the center of the village?<br>IF LOCATED IN THE VILLAGE/MOHALLA, RECORD '00'. | 205. How many minutes does it take to go to the FACILITY using the most common type of transportation? | 207. Is HEALTH FACILITY in this thana/Union ? |
|---|---|---|---|---|---|
| 08A. COMMUNITY CLINIC (nearest)<br><br>NAME:_____<br><br>DON'T KNOW<br>NONE | DISTRICT:<br>_____<br>THANA:<br>_____<br>LOCATION:<br>_____ | GOVERNMENT ..... 01 | MILES .....1<br>KILOMETERS....2 ☐☐<br>DON'T KNOW..... 98 | MINUTES ... ☐☐☐<br>DON'T KNOW ..... 998 | YES, THANA ..... 1 → 08B<br>YES, UNION ..... 1 → 08B<br>NO.....2 → 09A |
| 08B. COMMUNITY CLINIC (Union)<br><br>NAME:_____<br><br>DON'T KNOW<br>NONE | DISTRICT:<br>_____<br>THANA:<br>_____<br>LOCATION:<br>_____ | GOVERNMENT ..... 01 | MILES .....1<br>KILOMETERS....2 ☐☐<br>DON'T KNOW..... 98 | MINUTES ... ☐☐☐<br>DON'T KNOW ..... 998 | |

List all of the RURAL DISPENSARIES that are available for people in this village/mohalla to use.

| 201. HEALTH FACILITY | 202. Where is the HEALTH FACILITY located? | 203. What is the HEALTH FACILITY's operating authority? | 204. How far in miles/kilometers is the HEALTH FACILITY located from the center of the village? IF LOCATED IN THE VILLAGE/MOHALLA, RECORD '00'. | 205. How many minutes does it take to go to the FACILITY using the most common type of transportation? | 207. Is HEALTH FACILITY in this thana/union? |
|---|---|---|---|---|---|
| 09. RURAL DISPENSARY (nearest)<br><br>NAME:_____<br><br>DON'T KNOW<br>NONE | DISTRICT:<br>_____<br>THANA:<br>_____<br>LOCATION:<br>_____ | GOVERNMENT ..... 01 | MILES .....1<br>KILOMETERS....2<br>DON'T KNOW..... 98 | MINUTES ... ☐☐☐<br>DON'T KNOW ..... 998 | YES, THANA ..... 1<br>YES, UNION ..... 1<br>NO.....2 |

List all of the SATELLITE CLINICS that provide services to individuals in this village/mohalla.

| 201. HEALTH FACILITY | 202. Where is the HEALTH FACILITY located? | 203. What is the HEALTH FACILITY's operating authority? | 204. How far in miles/kilometers is the HEALTH FACILITY located from the center of the village? IF LOCATED IN THE VILLAGE/MOHALLA, RECORD '00'. | 205. How many minutes does it take to go to the FACILITY using the most common type of transportation? | 207. Is HEALTH FACILITY in this village ? |
|---|---|---|---|---|---|
| 10A. SATELLITE CLINIC (Nearest)<br><br>NAME:_____<br><br>DON'T KNOW<br>NONE | DISTRICT:<br>_____<br>THANA:<br>_____<br>LOCATION:<br>_____ | GOVERNMENT ..... 01<br>NGO ..... 02<br>PRIVATE ..... 03<br>RELIGIOUS ..... 04<br>OTHER ..... 96<br>DK..... 98 | MILES .....1<br>KILOMETERS....2 [ ][ ]<br>DON'T KNOW..... 98 | MINUTES .. [ ][ ][ ]<br>DON'T KNOW .....998 | YES .....1<br>NO .....2 |
| 10B. SATELLITE CLINIC<br><br>NAME:_____<br><br>DON'T KNOW<br>NONE | DISTRICT:<br>_____<br>THANA:<br>_____<br>LOCATION:<br>_____ | GOVERNMENT ..... 01<br>NGO ..... 02<br>PRIVATE ..... 03<br>RELIGIOUS ..... 04<br>OTHER ..... 96<br>DK..... 98 | MILES .....1<br>KILOMETERS....2 [ ][ ]<br>DON'T KNOW..... 98 | MINUTES .. [ ][ ][ ]<br>DON'T KNOW .....998 | YES .....1<br>NO .....2 |
| 10C. SATELLITE CLINIC<br><br>NAME:_____<br><br>DON'T KNOW<br>NONE | DISTRICT:<br>_____<br>THANA:<br>_____<br>LOCATION:<br>_____ | GOVERNMENT ..... 01<br>NGO ..... 02<br>PRIVATE ..... 03<br>RELIGIOUS ..... 04<br>OTHER ..... 96<br>DK..... 98 | MILES .....1<br>KILOMETERS....2 [ ][ ]<br>DON'T KNOW..... 98 | MINUTES .. [ ][ ][ ]<br>DON'T KNOW .....998 | YES .....1<br>NO .....2 |
| 10D. SATELLITE CLINIC<br><br>NAME:_____<br><br>NONE | DISTRICT:<br>_____<br>THANA:<br>_____<br>LOCATION:<br>_____ | GOVERNMENT ..... 01<br>NGO ..... 02<br>PRIVATE ..... 03<br>RELIGIOUS ..... 04<br>OTHER ..... 96<br>DK..... 98 | MILES .....1<br>KILOMETERS....2 [ ][ ]<br>DON'T KNOW..... 98 | MINUTES .. [ ][ ][ ]<br>DON'T KNOW .....998 | YES .....1<br>NO .....2 |

**3: List of the Health and Family Planning Workers.** Please provide us the name of all health and family planning fieldworkers working in this cluster/village/mohalla

| Name of the fieldworker | 301. What is the title/position of this fieldworker? | 302. Under what authority does this fieldworker work ? | 303: Does he/she live in this locality? | 304. Where does he/she live? |
|---|---|---|---|---|
| 01.<br>NAME: _____ | FWV.....01<br>SACMO/MA.....02<br>FWA.....03<br>FWA with CSBA .....04<br>HEALTH ASSISTANT .....05<br>HA with CSBA .....06<br>COMMUNITY MOBILIZER....07<br>OTHER_____96<br>DON'T KNOW .....98 | GOVERNMENT .....01<br>NGO.....02<br>PRIVATE.....03<br>RELIGIOUS.....04<br>OTHER.....96<br>DON'T KNOW ..... 98 | YES.....1<br>NO .....2 | DISTRICT:<br>THANA:<br>UNION:<br>VILLAGE: |
| 02.<br>NAME: _____ | FWV.....01<br>SACMO/MA.....02<br>FWA.....03<br>FWA with CSBA .....04<br>HEALTH ASSISTANT .....05<br>HA with CSBA .....06<br>COMMUNITY MOBILIZER....07<br>OTHER_____96<br>DON'T KNOW .....98 | GOVERNMENT .....01<br>NGO.....02<br>PRIVATE.....03<br>RELIGIOUS.....04<br>OTHER.....96<br>DON'T KNOW ..... 98 | YES.....1<br>NO .....2 | DISTRICT:<br>THANA:<br>UNION:<br>VILLAGE: |
| 03.<br>NAME: _____ | FWV.....01<br>SACMO/MA.....02<br>FWA.....03<br>FWA with CSBA .....04<br>HEALTH ASSISTANT .....05<br>HA with CSBA .....06<br>COMMUNITY MOBILIZER....07<br>OTHER_____96<br>DON'T KNOW .....98 | GOVERNMENT .....01<br>NGO.....02<br>PRIVATE.....03<br>RELIGIOUS.....04<br>OTHER.....96<br>DON'T KNOW ..... 98 | YES.....1<br>NO .....2 | DISTRICT:<br>THANA:<br>UNION:<br>VILLAGE: |
| 04.<br>NAME: _____ | FWV.....01<br>SACMO/MA.....02<br>FWA.....03<br>FWA with CSBA .....04<br>HEALTH ASSISTANT .....05<br>HA with CSBA .....06<br>COMMUNITY MOBILIZER....07<br>OTHER_____96<br>DON'T KNOW .....98 | GOVERNMENT .....01<br>NGO.....02<br>PRIVATE.....03<br>RELIGIOUS.....04<br>OTHER.....96<br>DON'T KNOW ..... 98 | YES.....1<br>NO .....2 | DISTRICT:<br>THANA:<br>UNION:<br>VILLAGE: |

| Name of the fieldworker | 301. What is the title/position of this fieldworker? | 302. Under what authority does this fieldworker work ? | 303: Does he/she live in this locality? | 304. Where does he/she live? |
|---|---|---|---|---|
| 05.<br>NAME: _____ | FWV.....01<br>SACMO/MA.....02<br>FWA.....03<br>FWA with CSBA .....04<br>HEALTH ASSISTANT .....05<br>HA with CSBA .....06<br>COMMUNITY MOBILIZER....07<br>OTHER_____96<br>DON'T KNOW .....98 | GOVERNMENT .....01<br>NGO.....02<br>PRIVATE.....03<br>RELIGIOUS.....04<br>OTHER.....96<br>DON'T KNOW ..... 98 | YES.....1<br>NO .....2 ↓ | DISTRICT:<br>THANA:<br>UNION:<br>VILLAGE: |

## 5: Availability of Doctors (allopathic, homeopathic) and Pharmacies

Please tell us about the doctors and pharmacies working in this village/mohalla.

| No. | QUESTIONS AND FILTERS | CODING CATEGORIES | SKIP TO |
|---|---|---|---|
| 401 | Are there any allopathic/MBBS doctors in this village/mohalla? | YES ..... 1<br>NO ..... 2 → | 403 |
| 402 | How many allopathic/MBBS doctors are in this village/mohalla? | ONE..... 1<br>2-5 ..... 2<br>MORE THAN 5 ..... 3<br>DON'T KNOW ..... 8 | |
| 403 | How far away is the nearest allopathic/MBBS doctor? | MILE ..... 1 [ ][ ]<br>KILOMETER..... 2 [ ][ ]<br>DK……998<br>IN THIS VILLAGE/ MOHALLA….000 | |
| 404 | Are there any homeopathic doctors in this village/mohalla? | YES ..... 1<br>NO ..... 2 → | 406 |
| 405 | How many homeopathic doctors are in this village/mohalla? | ONE..... 1<br>2-5 ..... 2<br>MORE THAN 5 ..... 3<br>DON'T KNOW ..... 8 | |
| 406 | How far away is the nearest homeopathic doctor? | MILE ..... 1 [ ][ ]<br>KILOMETER..... 2 [ ][ ]<br>DK……998<br>IN THIS VILLAGE/ MOHALLA….000 | |
| 407 | Are there any ayurvedic/unani doctors in this village/mohalla? | YES ..... 1<br>NO ..... 2 → | 409 |
| 408 | How many ayurvedic/unani doctors are in this village/mohalla? | ONE..... 1<br>2-5 ..... 2<br>MORE THAN 5 ..... 3<br>DON'T KNOW ..... 8 | |
| 409 | How far away is the nearest ayurvedic/unani doctor? | MILE ..... 1 [ ][ ]<br>KILOMETER..... 2 [ ][ ]<br>DK……998<br>IN THIS VILLAGE/ MOHALLA….000 | |
| 410 | Are there any pharmacies in this village/mohalla? | YES ..... 1<br>NO ..... 2 → | 412 |
| 411 | How many pharmacies are in this village/mohalla? | ONE..... 1<br>2-5 ..... 2<br>MORE THAN 5 ..... 3<br>DON'T KNOW ..... 8 | |
| 412 | How far away is the nearest pharmacy? | MILE ..... 1 [ ][ ]<br>KILOMETER..... 2 [ ][ ]<br>DK……998<br>IN THIS VILLAGE/ MOHALLA….000 | |

## 6: List of CSBA:

| No. | QUESTIONS AND FILTERS | CODING CATEGORIES | SKIP TO |
|---|---|---|---|
| 501 | Is there any trained birth attendant/dai in your community who delivered baby at home? | YES ..... 1<br>NO ..... 2 | 501A<br>END |

### Please tell us the names of all birth attendants working in your community

| 501A. Name | 501B. What is the position of this birth attendants? | 501C. Under what authoruty does this birth attendant work? | 501D. Only for CSBA , where does she live |
|---|---|---|---|
| | QUALIFIED DOCTOR .... 01<br>NURSE/MID-WIFE /PARAMEDIC..... 02<br>FWV..... 03<br>MA/SACMO ..... 04<br>HEALTH ASSISTANT..... 05<br>FWA..... 06<br>FWA WITH CSBA..... 07<br>HA WITH CSBA..... 08<br>TRAINED TBA ..... 09<br>OTHER_____ 96 | GOVERNMENT ..... .01<br>NGO..... 02<br>PRIVATE ..... 03<br>RELIGIOUS ..... .04<br>OTHER ..... 96<br>DON'T KNOW..... 98 | Union:<br>_____<br>Village: _____<br>_____<br>Sample village..... 1<br>Diff. village..... 2 |
| | QUALIFIED DOCTOR .... 01<br>NURSE/MID-WIFE /PARAMEDIC..... 02<br>FWV..... 03<br>MA/SACMO ..... 04<br>HEALTH ASSISTANT..... 05<br>FWA..... 06<br>FWA WITH CSBA..... 07<br>HA WITH CSBA..... 08<br>TRAINED TBA ..... 09<br>OTHER_____ 96 | GOVERNMENT ..... .01<br>NGO..... 02<br>PRIVATE ..... 03<br>RELIGIOUS ..... .04<br>OTHER ..... 96<br>DON'T KNOW..... 98 | UNION:<br>_____<br>VILLAGE: _____<br>_____<br>Sample village..... 1<br>Diff. village..... 2 |
| | QUALIFIED DOCTOR .... 01<br>NURSE/MID-WIFE /PARAMEDIC..... 02<br>FWV..... 03<br>MA/SACMO ..... 04<br>HEALTH ASSISTANT..... 05<br>FWA..... 06<br>FWA WITH CSBA..... 07<br>HA WITH CSBA..... 08<br>TRAINED TBA ..... 09<br>OTHER_____ 96 | GOVERNMENT ..... .01<br>NGO..... 02<br>PRIVATE ..... 03<br>RELIGIOUS ..... .04<br>OTHER ..... 96<br>DON'T KNOW..... 98 | UNION:<br>_____<br>VILLAGE: _____<br>_____<br>Sample village..... 1<br>Diff. village..... 2 |
| ENDING TIME | | HOUR..... ☐☐<br>MINUTES ☐☐ | |

# BANGLADESH MATERNAL MORTALITY AND HEALTH CARE SURVEY (BMMS) 2010

## CSBA QUESTIONNAIRE

National Institute of Population Research and Training (NIPORT)
Ministry of Health and Family Welfare
Associates for Community and Population Research (ACPR)
Mitra and Associates
icddr,b
MEASURE Evaluation

# BANGLADESH MATERNAL MORTALITY AND HEALTH CARE SURVEY (BMMS) 2010

## CSBA QUESTIONNAIRE

### IDENTIFICATION

DIVISION _____

(BARISAL=1; CHITTAGONG=2; DHAKA=3; KHULNA=4; RAJSHAHI=5; SYLHET=6)

DISTRICT _____

UPAZILA/THANA _____

UNION/WARD_____

MOUZA/MOHOLLA_____

SEGNMENT _____

VILLAGE/MOHALLA/BLOCK _____

CLUSTER NUMBER .....

TYPE OF AREA: 1 = RURAL; 2 = URBAN, 3 = OTHER URBAN.....

NAME OF CSBA _____

DATE OF VISIT _____

DAY .....

MONTH.....

YEAR .....

RESULT.....

RESULTS OF THE INTERVIEW:
[COMPLETED =1, INCOMPLETE = 2,
OTHER (SPECIFY) = 6]
NAME OF INTERVIEWER_____

INTERVIEWER CODE.....

**Interview start time: hour ☐☐ min: ☐☐**

| NO. | QUESTIONS AND FILTERS | CODING CATEGORIES | SKIP |
|---|---|---|---|
| **SECTION 1: Background Information** | | | |
| 101 | Are you a FWA (Family Welfare Assistant) or FeHA (Female Health Assistant)? | FeHA.....1<br>FWA.....2 | |
| 102 | When did you start working as a FWA/HA? Which year? What month? | Start date:<br>Month..... ☐☐<br>Year ..... ☐☐☐☐ | |
| 103 | What is the highest education that you have completed? | SSC……..1<br>HSC……..2<br>BACHELOR……3<br>OTHERS (Specify_____)……..6 | |
| 104 | When did you receive CSBA training? | ☐☐ ☐☐ ☐☐☐☐<br>day month year | |
| 105 | Have you received any refresher (CSBA) training since then? | YES ……..1<br>NO……2 | |
| 106 | Did you deliver baby before you received CSBA training? | YES ……..1<br>NO……2 | → 201 |
| 107 | How many? | Less than 10……1<br>10 to 20……..2<br>More than 20……3 | |
| **SECTION 2: Home based ANC, DELIVERY AND PNC CARE** | | | |
| 201 | [ ] month during how many deliveries were you present (but you may or may not conduct the delivery)?<br>a. Last month?<br>b. Last 3 months?<br>(WRITE '00' IF NOT PRESENT DURING ANY DELIVERY) | A. LAST MONTH……..... ☐☐<br>B. LAST 3 MONTHS …….. ☐☐ | |
| **202** | **INTERVIEWER: CHECK 201.** | **WAS NOT PRESENT IN ANY DELIVERY ……1**<br>**PRESENT DURING .ONE OR MORE DELIVERY……..2** | |
| 203 | [ ] month how many deliveries did you conduct by yourself?<br>a. Last month?<br>b. Last 3 months?<br>(WRITE '00' IF NO DELIVERY CONDUCTED) | A. LAST MONTH……..... ☐☐<br>B. LAST 3 MONTHS …….. ☐☐ | |

| NO. | QUESTIONS AND FILTERS | CODING CATEGORIES | SKIP |
|---|---|---|---|
| 204 | [ ] month how many PNC did you provide (for mother or baby)?<br><br>a. Last month?<br>b. Last 3 months?<br><br>(WRITE '00' IF NO PNC PROVIDED) | A. LAST MONTH……..... ☐☐<br>B. LAST 3 MONTHS …….. ☐☐ | |
| 205 | [ ] month how many referrals did you make during delivery or due to delivery complications?<br><br>a. Last month?<br>b. Last 3 months?<br><br>(WRITE '00' IF NO REFERRAL MADE) | A. LAST MONTH……..... ☐☐<br>B. LAST 3 MONTHS …….. ☐☐ | |
| **206** | **INTERVIEWER: CHECK 205.** | **NO REFERRAL MADE……1 →**<br>**1 OR MORE REFERRALS MADE…..2** | **301** |
| 207 | What were the reasons for the LAST referral you made in the last three months?<br><br>( MULTIPLE RESPONSE) | Prolong labour>12 hrs……..A<br>Mal-presentation of the baby ……..B<br>Breech presentation……C<br>Bleeding/Hemorrhage…….....D<br>Pre-eclampsia……..……E<br>Convulsion/ Fit/<br>Eclampsia……...F<br>Retained placenta……G<br>Ruptured uterus……H<br>C/S in last delivery……I<br>Less fluid……J<br>Cervix was not open……K<br>No labour pain after due date……L<br>Others (specify _____)….....X | |
| 208 | Where did you refer the LAST referral you made? | **PUBLIC SECTOR**<br>MEDICAL COLLEGE HOSPITAL……21<br>SPECIALISED HOSPITAL……22<br>DISTRICT HOSPITAL…….....23<br>MCWC……24<br>UPAZILLA HEALTH COMPLEX……..25<br>H& FWC…….....26<br>SAT. CLINIC/EPI OUTREACH……27<br>COMMUNITY CLINIC……28<br>OTHER (SPECIFY _____)…….30<br><br>**NGO SECTOR**<br>NGO STATIC CLINIC……31<br>NGO SAT CLINIC……..32<br>OTHER (SPECIFY _____)……..35<br><br>**PRIVATE MEDICAL SECTOR**<br>PRIVATE HOSPITAL/CLINIC…….41<br>QUALIFIED DOCTOR'S<br>CHAMBER……..42<br>NON-QUALIFIED DOCTOR'S<br>CHAMBER……..43<br>PHARMACY…….....44<br>PRIVATE MEDICAL COLLEGE<br>HOSPITAL (SPECIFY ___)……45<br><br>OTHER (SPECIFY _____)…….96 | |
| 209 | Did you accompany the LAST referral you made in the last three months? | Yes……1<br>No……2 | |

| SECTION C: CONSTRAINTS FACED | | | |
|---|---|---|---|
| 301 | Do you face any constraint in conducting deliveries at home? | Yes……1<br>No……..2 → 303<br>Did not conduct delivery……3 → 303 | |
| 302 | What are the constraints that you face in conducting deliveries at home?<br>( MULTIPLE RESPONSE) | Security……..A<br>Transport……B<br>Conveyance……..C<br>Community acceptance……..D<br>Resistant from own family……E<br>Problem in assisting/<br>Lack of assistant……F<br>Dirty environment……G<br>Fear of complication……H<br>Fear of tear in birth canal……I<br>Other (specify _____)……....X | |
| 303 | GIVE THANKS BEFORE ENDING THE INTERVIEW. | Hour…… ☐☐<br>Min…… ☐☐ | |

**MEASURE** Evaluation
Carolina Population Center
University of North Carolina at Chapel Hill
206 W. Franklin Street
Chapel Hill, NC 27516
**www.measureevaluation.org**

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