Bangladesh Maternal Mortality and Health Care Survey 2016: Summary

Background

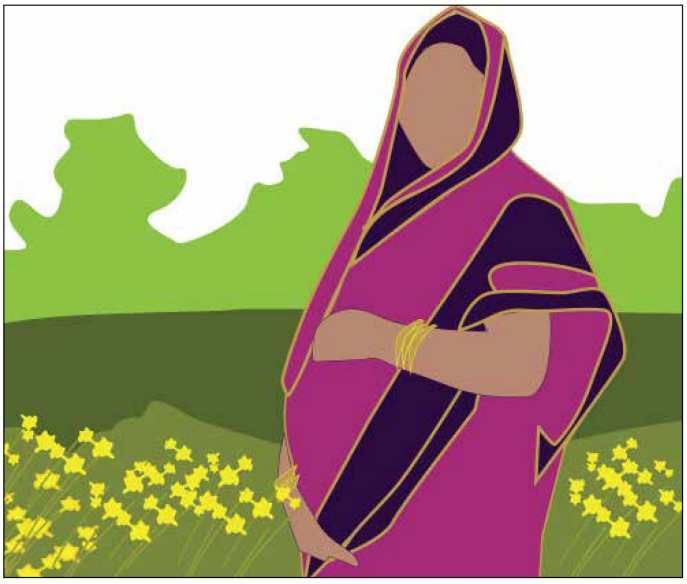
In Bangladesh, the fourth Health, Population, and Nutrition Sector Programme (4th HPNSP) for 2017–2022 aims at a maternal mortality ratio (MMR) target of 121 per 100,000 live births by 2022. The 2016 Bangladesh Maternal Mortality and Health Care Survey (BMMS 2016) assesses the recent progress in maternal health and establishes the baseline for HPNSP and Sustainable Development Goals (SDGs).

Between BMMS 2001 and BMMS 2010, MMR declined significantly: from 322 to 194 maternal deaths per 100,000 live births. This was remarkable progress, linked to fertility reduction; increased access to maternal health care; increased use of maternal health services in the antenatal, delivery, and postpartum periods; and socioeconomic improvements.

Key Findings of BMMS 2016

MMR has stalled between 2010 and 2016, although Bangladeshi women are increasingly seeking maternal care from health facilities.

- The MMR in Bangladesh declined between 2001 and 2010 but has now stalled. The MMR estimate from the BMMS 2016 is 196 maternal deaths per 100,000 live births, almost identical to the estimate of BMMS 2010.
- In 2016, 50 percent of births were attended by medically trained personnel, compared to 27 percent in 2010. This increase is driven by rapid rise in facility births. The percentage of births in health facilities increased from 23 percent in BMMS 2010 to 47 percent in BMMS 2016. Medically-trained attendance for home deliveries has consistently been around three to four percent during 2001–2016.
- The private sector accounted for most of the increase in facility deliveries. Between BMMS 2010 and 2016, the percentage of deliveries in private facilities jumped from 11 percent to 29 percent, while deliveries in public facilities increased from 10 percent to 14 percent. In the public sector, 13 percent (out of 14 percent) of the births take place in upazila and higher-level facilities. NGO facilities now account for 4 percent of births, up from 2 percent in BMMS 2010.
- Delivery by C-section increased dramatically, from 12 percent in 2010 to 31 percent in 2016. In private facilities, C-sections accounted for 83 percent of deliveries, compared to 35 percent in public facilities and 39 percent in facilities run by NGOs.



- The percentage of women receiving the complete continuum of maternity care (antenatal care, delivery care, and postnatal care from medically trained providers) has increased significantly from five percent in 2001, to 19 percent in 2010, and to 43 percent in 2016.
- Seeking facility-based care for reported maternal complications has increased from 29 percent to 46 percent between 2010 and 2016.
- It had been assumed that increased utilization of health facilities for maternal health care would further lower the MMR. But MMR appears to have stalled between BMMS 2010 and BMMS 2016.

Stalling of MMR: Possible Explanations

Bangladesh is not the only country that has experienced increased utilization of maternal services with no impact on MMR.

- There is international precedence for a stall in MMR decline in low- and middle-income countries, even with increased care in facilities.
- An analysis of 37 countries in sub-Saharan Africa (SSA) and South and Southeast Asia (SSEA) found a weak association between the MMR and the percentage of deliveries occurring in a health facility.
- These data suggest that increasing facility delivery is important but not sufficient to lower MMR.

Quality of care is fundamental to improve maternal health outcomes.

- Several studies in other countries have highlighted the importance of the quality of care in translating use of maternal health services into improved health outcomes.
- The quality of health care is generally poor in Bangladesh.
- Increased coverage of maternal health services is expected to reduce MMR by increasing the likelihood that complications are recognized and addressed early; recognizing and treating complications requires good quality services.

Most facilities in Bangladesh are not fully ready to provide quality maternity care.

- Findings from other studies—including the Bangladesh Health Facilities Survey, 2014—show substantial deficiencies in the readiness of both public and private health facilities to provide high-quality maternity care.
- Only 39 percent of facilities that provide normal delivery care had a delivery care provider on call or on site around the clock. Only 3 percent of facilities had service readiness to provide quality normal delivery services.
- Maternal deaths will only be prevented if women go to facilities and those facilities are fully staffed and equipped with competent health workers and prepared to handle obstetric emergencies when they occur.
- Only 46 percent of Upazila and higher level public facilities and 20 percent of private hospitals had at least one staff member who ever received training on emergency obstetric care (EmOC).
- Thirty percent of public facilities at the Upazila level and above perform Caesarian deliveries, but only 10 percent have comprehensive EmOC services. Almost all private facilities (96%) are performing C-sections, while only 16 percent have comprehensive EmOC.
- The increase in facility delivery between BMMS 2010 and BMMS 2016 is mostly driven by an increase in births in private facilities. Service readiness for maternal care is poorer at private facilities compared to Upazila level and higher level public facilities.

Hemorrhage and eclampsia account for 55 percent of maternal deaths. The risk of dying from these causes remained unchanged between BMMS 2010 and BMMS 2016. There has been little progress in interventions to address these causes.

- Over 50 percent of deliveries are occurring at home; community distribution of misoprostol for prevention of hemorrhage only covered about 17 percent of births.
- Just 40 percent of all facilities (excluding community clinics) have supplies of injectable oxytocin to stop hemorrhage.
- Only 28 percent have injectable magnesium sulphate to treat eclampsia.

C-section delivery rates in Bangladesh now greatly exceed the levels expected to be medically necessary.

- WHO suggests that a reasonable rate of medically necessary C-section is between 10 percent and 15 percent of all births. In Bangladesh, the C-section rate is twice as high (31 percent) as the WHO-recommended rate.
- Almost 1 million C-sections are performed each year in Bangladesh, out of which 79 percent are occurring in private health facilities.
- Increased C-Section related morbidity and mortality have been confirmed by a multicenter study of 100,000 births in Latin America.
- An international multi-centre study showing that women who were submitted to a C-Section without a clear medical need presented increased risk of immediate complications, including admission to an intensive care unit, blood transfusion, hysterectomy, and death.
- A recent study in Brazil also found that the risk of postpartum maternal death is almost three-fold higher with C-section than vaginal delivery, mainly due to deaths from postpartum hemorrhage and complications of anesthesia.

No measurement issues were identified that can explain the apparent stall in MMR between BMMS 2010 and BMMS 2016.

- Typically, underreporting of maternal deaths is more of a concern than overreporting of deaths. There is no evidence of significant levels of either kind of misreporting.
- Survey estimates of MMR, like most other estimates, have a margin of error—for this survey the 95 percent confidence interval is 159 to 234 maternal deaths per 100,000 live births. Other recent MMR estimates, such as those from the Bangladesh Bureau of Statistic's Sample Vital Registration System and the UN Maternal Mortality Estimation Inter-Agency Group, are within this margin of error.
- Patterns of deaths are consistent with trends observed in 2001 and 2010 rounds of the BMMS, and are also consistent with other data sources.

This publication was produced with the support of the United States Agency for International Development (USAID) under the terms of MEASURE Evaluation cooperative agreement AID-OAA-L-14-00004. MEASURE Evaluation is implemented by the Carolina Population Center, University of North Carolina at Chapel Hill in partnership with ICF International; John Snow, Inc.; Management Sciences for Health; Palladium; and Tulane University. Views expressed are not necessarily those of USAID or the United States government. FS-17-245