

Baseline Survey on Maternal & Neonatal Health Initiatives in Bangladesh



Implemented by

Ministry of Health and Family Welfare (MOHFW)

Supported by



Conducted by



Human Development Research Centre

www.hdrc-bd.com

Dhaka: November 2013

Baseline Survey on Maternal and Neonatal Health Initiatives in Bangladesh

Implemented by

Ministry of Health and Family Welfare (MOHFW)

Supported by

UNFPA, UNICEF and WHO

Conducted by

Abul Barkat, *Ph.D*¹

Murtaza Majid, *MBBS, MPH*²

Golam Mahiyuddin, *MBBS, MPH*²

Avijid Poddar, *Ph.D*²

Matiur Rahman, *Ph.D*³



Human Development Research Centre

November 2013

¹ Professor, Department of Economics, University of Dhaka & Team Leader of the Study

² Senior Consultant, Human Development Research Centre (HDRC)

³ Former Professor, Department of Statistics, University of Dhaka and Senior Consultant, HDRC

ACKNOWLEDGMENT

The Government of Bangladesh (GoB), United Nations Population Fund (UNFPA), United Nations Children's Fund (UNICEF), and World Health Organization (WHO) have been working together to implement the project entitled 'Maternal and Neonatal Health Initiative (MNHI)' since 2007. The MNH Initiative targeted 11 districts in two phases, 4 districts (Jamalpur, Moulvibazar, Narail and Thakurgaon) in Phase I and 7 districts (Bagerhat, Panchagarh, Sunamganj, Sirajganj, Barguna, Patuakhali and Rangamati) in Phase II. A baseline survey for the 4 first phasedistricts was carried out in 2008. Recently, UNFPA assigned the Human Development Research Centre (HDRC) to conduct a "Baseline & End-line survey on Maternal & Neonatal Health Initiative in Bangladesh" which is a Baseline in Phase-II districts (7 districts) and an End-line survey in Phase-I districts (4 districts). The accompanying one is report on "Baseline survey of Maternal and Neonatal Health Initiative" in Phase II project districts.

We are grateful to the relevant officials of MOHFW, DGHS, DGFP, UNFPA Bangladesh, UNICEF and WHO for entrusting us, The Human Development Research Centre (HDRC), to carry out this important survey of the MNHI project.

We are grateful to M.M. Neaz Uddin, Secretary, Ministry of Health and Family Welfare (MOHFW), Government of Bangladesh, and Niru Shamsun Nahar, Joint Chief (Planning), and Shaila Sharmin Zaman, Senior Assistant Chief, also from MOHFW for their valuable support provided for the study.

We are specially indebted to Dr. Syed AJM Musa, Director, PHC and Line Director, MNC&AH, and Dr. Abdul Hoque, Program Manager, MNH from DGHS and their team, Dr. Mohammed Sharif, Director, MCH Services and Line Director, MCRAH Services, and Dr. Taposh Ranjan Das, Deputy Director, MCH & Program Manager, MHS, from DGFP and their team, and Mr. Rafiqul Islam Sarker, Director, Research, and Mr. Ahsanul Alam, Monitoring Specialist, NIPORT for their all out support towards the study.

We highly appreciate the enthusiasm of Pornchai Suchitta, Officer-in-Charge, UNFPA, and Mr. Arther Erken, Former Country Representative, UNFPA for facilitating the survey. We are particularly grateful to Dr. Prasanna Gunasekera, Chief, Reproductive Health, Dr. Pierre Claquin, Former Interim Project Coordinator, MNHI, Robert Thomas, Monitoring and Evaluation Specialist, MNH, Dr. Sanchoy Kumar Chanda, Technical Officer, RH/MH, and Loshan N. Moonesinghe, Family Planning Specialist, and Aminul Arifeen, Former Technical Officer, M&E/Research, all from UNFPA, and Ms. Luzma Montano, Monitoring and Evaluation Specialist, and Dr. Riad Mahmud, Health Specialist, Maternal and Newborn Health, both from UNICEF, and Dr. Rabeya Khaton, National Professional Officer, MNCAH, WHO for their valuable inputs at all stages of this research.

We are truly indebted to Dr. Abbas Bhuiya, Deputy Executive Director and Principal Investigator of MNHI activities, Dr. Mahub Elahi Chowdhury, Scientist, and Dr. Shamima Akhter, Senior Research Investigator, all with ICDDR'B for their invaluable research inputs and monitoring support towards the study at different stages.

We are grateful to the Civil Surgeons and Deputy Directors of Family Planning of all project districts, and upazila authorities of the sample upazilas, without whose support, successful completion of the study could not have been possible. We are thankful to the Chittagong Hill Tracts authority for their support provided in data collection. We are grateful to the key informants who provided us with lot of valuable information on the subject.

We are thankful to the field team for their commendable work done with utmost sincerity. The Research Associates and in-house staff members of HDRC worked untiringly at all stages. We thank all those lovely souls at HDRC.

Above all, we will remain ever grateful to the respondent women of the survey without whose profound cooperation, the implementation of the study would have been impossible.

Abul Barkat,
Murtaza Majid, Golam Mahiyuddin,
Avijit Poddar, and Matiur Rahman

Dhaka, November, 2013

Abbreviations

AIDS	Acquired Immune Deficiency Syndrome
ANC	Antenatal Care
BDHS	Bangladesh Demographic and Health Survey
CSBA	Community Skilled Birth Attendants
CSG	Community Support Group
DGFP	Directorate General of Family Planning
DHS	Demographic and Health Survey
DIC	Disseminated Intravascular Coagulation
ELCO	Eligible Couples
EmOC	Emergency Obstetric Care
ENC	Essential Newborn Care
FGD	Focus Group Discussion
FWC	Family Welfare Center
GoB	Government of Bangladesh
HDRC	Human Development Research Centre
HH	Household
KII	Key Informant Interview
LBW	Low Birth Weight
MCWC	Maternal and Child Welfare Center
MDG	Millennium Development Goal
MIS	Management Information System
MMR	Maternal Mortality Rate
MNH	Maternal and Neonatal Health
MNHIB	Maternal and Neonatal Health Initiative in Bangladesh
MR	Menstrual Regulation
NGO	Non Government Organization
NIPORT	National Institute of Population Research and Training
PCA	Principal Component Analysis
PNC	Postnatal Care
PPS	Probability Proportionate to Size
RTI	Reproductive Tract Infection
STI	Sexually Transmitted Infection
TBA	Traditional Birth Attendant
TWG	Technical Working Group
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
VGD	Vulnerable Group Development
VGF	Vulnerable Group Feeding
VLBW	Very Low Birth Weight
WHO	World Health Organization

Executive Summary

As part of the extensive efforts, motivated towards reducing maternal and neonatal mortality and morbidity across the country, the Government of Bangladesh and United Nations have launched the Second Phase of ‘Maternal and Neonatal Health Initiatives in Bangladesh (MNHIB)’. The United Nations Population Fund (UNFPA), United Nations Children’s Fund (UNICEF), and World Health Organization (WHO) –working in collaboration with each other—keep providing technical support in order to implement the neonatal mortality reduction program. The baseline survey has been undertaken to assist MNHIB in the planning, monitoring and evaluation of the performance and achievement of the health initiative at certain districts, namely, Bagerhat, Barguna, Panchagarh, Patuakhali, Sirajganj, Sumanganj, and Rangamati. The prime objective of the survey involved collecting data on the current health-situation, especially maternal and neonatal health indicators that relate to healthcare access, utilization, quality of care, knowledge, source and demand of service in the 7 Phase -II districts. The conduct of the survey has got finished through collection of data from a representative sample of 13,718 target women, identical with any pregnancy outcome during last one year, drawn from the project-related districts.

Demographic and Socio-economic characteristics of respondents

The survey-population comprised women of seven project-related districts, who had a pregnancy outcome within one year prior to the conduct of the survey. Average age of the respondents is 24.8 years, and almost four-fifths of them (79.4%) lie below 30 years, the prime reproductive age. Their mean age at their first marriage is 16.9 years, with high prevalence of marriage before 18 years (61%). The estimated average household size for this survey is 5.5 ranging from 5.2 members in Panchagarh to 6.5 members in Sunamganj. Almost half of the respondents (47.2%) reported that they had food deficit at least at certain points of the year. A very few (1.5%) of the respondents were engaged in a gainful employment as part of their primary occupation. Almost one-fourth of the respondents (26.3%) have reported no involvement with any micro-credit organization or NGOs. People living in Panchagarh are in a better economic status compared to those of other 6 districts. And Barguna is the most vulnerable district according to the vulnerability index, constructed for this survey.

Reproduction

The majority of the respondents got pregnant once or twice during their lifetime. Mean age of nearly 70.1 percent of the respondents, during the first pregnancy, was 19 years and below. The pregnancy of expectant girls, especially those who had the experience of getting pregnant before 19, falls into the category of teenage pregnancy. Pregnancy outcome, in most cases, was live birth (96.1%), and mostly (69.9%) once or twice in number. Women, ever undergoing the experience of stillbirth, stood for nearly 8.9 percent.

During the last one year, pregnancy outcome was, by and large, (87.1%) live birth. The other outcomes include abortion, MR and stillbirth, amounting to almost 7.6, 3.0 and 2.3 percent respectively. Some 3.7 percent of the babies died after they were born alive within the last one year. A considerable fraction (34.7%) of these deaths occurred within 2 days of birth, and nearly more than half (57.8%) within 7 days of birth.

Antenatal care

The survey findings reveal that almost 39 percent respondent received 4 or more ANC in the survey districts, where the number of visits is higher in Panchagarh (median 4 visits) and less in Sirajganj (median 2 visits). However, the proportion of respondents, who received at least

4 ANC from medically trained providers, was as low as 28 percent, reportedly highest in Panchagarh (50.0%) and lowest in Sirajganj (15.4%).

Birth preparedness: Almost all the respondents had some preparations for the birth of their newborn. The most pronounced preparations were selection of place (89.9%) and attendance at delivery (79.9%). Home, in most instances, is the prime choice for place of delivery (78.8%) and traditional birth attendant (63.7%) for attendance at delivery.

Delivery care

The most common place of delivery is home, and the statistical figure in connection with it is nearly 70.2 percent. Of the facility-delivery, utilization of public and private facilities is almost similar, amounting to nearly 13.9 percent and 14.6 percent respectively. District-wise facility-delivery is higher in Panchagarh (40.8%) and Bagerhat (38.0%) and lowest in Sunamganj (18.1%). The delivery by a Caesarean section is 16.2% as a whole, while it is highest in Bagerhat (22.3%) and lowest in Sunamganj (7.7%). The delivery by medically trained provider is 37.2 percent, in general, while the same is highest (45.0%) in Bagerhat, and (44.9%) in Panchagarh. Delivery by medically trained provider is at the lowest level in Sunamganj (31.7%) and in Sirajganj (30.7%).

Postnatal care

The overall practice of PNC in the surveyed districts is 35.5 percent. The higher PNC seeking districts are Panchagarh (46.7%), Bagerhat (39.3%) and Barguna (38.6%), in which the less grows evident in Sirajganj (27.9%) and Rangamati (29.4%). The majority of PNC providers are medically-trained (30.0%) professionals. Nearly 11.7 percent of the respondents obtain PNC from a public facilities and 14.1 percent from private facilities. An average 28.8 percent newborn received postnatal check-up from medically-trained professionals, following birth, a particular reality which is highest in Barguna (33.7%) and least in Sunamganj (24.1%). The first postnatal newborn check-up within 2 days after birth is more pronounced in Barguna (32.0%) and lowest in Sunamganj (22.5%).

Neonatal care: Regarding thermal care, the most widely used practice is wrapping the baby with clothes/blanket (81.3%), followed by wiping the baby’s body (60.0%) immediately after birth. Besides, 48.6 percent respondents have given bath to their babies after 3 days of delivery and 57 percent shaved the babies scalp hair after 7 days of delivery. Some 54 percent respondents use sterile instruments to cut the umbilical cord. Likewise, sterile materials, commonly used to tie the umbilical cord, are cord clump (13.9%), sterile thread (17.6%), and boiled thread (25.9%). Reportedly 7 percent neonate experienced birth asphyxia. Major resuscitators to this critical event at birth were medically-trained professionals (52.7%) including doctor. Utilization of qualified MBBS doctor is highest in Bagerhat (29.3%) and least in Barguna (5.3%).

Newborn Illness: In addition to birth asphyxia, notable neonatal illnesses are fever with cold and cough (20.4%), pneumonia (9.8%), and jaundice (6.7%). In most of illnesses, utilization of public facilities is more common. Utilization of qualified MBBS doctors goes also high.

Post Abortion Care

Incidence of induced abortion and MR is 4.3 percent in last one year. Half (50.8%) of the reported abortion and MR was conducted in public facilities, one-fifth (20.1%) in private facilities and one-fourth (23.7%) at home. Some 6.3 percent of the respondents experienced miscarriage/spontaneous abortion. A large segment (46.8%) of them did not receive post abortion care. Some 38.9 percent respondents suffered from post miscarriage, abortions and

MR complications and 77.3 percent of them sought treatment. The primary place for the treatment of post abortion/MR complications included public health-facilities (33.9%), private health facilities (33.5%) and informal health service providers (31.7%). Along with treatment, 57.1 percent of the respondents received counseling or advice from the knowledgeable-providers during consultation. Lack of money hinders the access of 42.6 percent respondents to treatment for post abortion/MR complications. Almost half (49.1%) of the respondents used family planning method after last miscarriage/abortion/MR/stillbirth, largely oral pills (62.6%), followed by injectables (23.3%), condoms (4.5%), implants (3.8%) and IUD (1.7%).

Quality of Care

During antenatal period, 30 percent respondent sought treatment for most of the complications. During delivery, 10 percent experienced ‘prolonged labor’ and ‘obstructed labor’. Almost all of them sought treatment. However, during postnatal period 7 percent experienced ‘excessive vaginal bleeding’, a major cause of maternal death, and only half of them sought treatment of it. Mostly, they went to public hospitals/clinics. In Sirajganj, a higher proportion of the respondents were suffering from life-threatening complications. The percentage of respondents, seeking treatment, was lower.

Although, in the majority of instances, decision is made within 30 minutes of the initial stage of complication, an average situation reveals that it took about 526 minutes, 106 minutes and 303 minutes respectively during ante-partum, delivery, and post-partum complications to take decision to seek medical care. For treatment of postnatal complications, it took 56 minutes on average to reach a facility from home since the decision-making moment. Only 4 percent women suffering from obstetric complications were able to attend health facility for treatment within 45 minutes of the onset of complications. Most of them report the start of treatment immediately after they attended facilities. And they obtained, as the report claims, required treatment there, expressing satisfaction over the type of medical-services they received, while they got exposed to antenatal, delivery and postnatal complications.

Around 85 percent respondent reports receipt of counseling on pregnancy care. However, only 26 percent were counseled on TT vaccination and 42 percent on the intake of iron tablet during ANC. Although about 46 percent respondent reports receipt of counseling on delivery preparations during ANC, only a few were informed of all its components. Only one-fourth were counseled on taking PNC and its sub-components. Nearly two-thirds of the respondents received advice in connection with breastfeeding during ANC counseling. However, sub-component-wise proportion of women went much lower. More than 80 percent of the respondents reported receipt of counseling on delivery preparations. Only one-third received advice on danger signs. Around half received advice on the ways and means of keeping the neonate warm, and three-fourths on danger signs of newborn during their ANC counseling. Only 13 percent reported consuming 120 or more iron tablets during last pregnancy. Almost 90 percent of them are not aware of the exact number of iron tablets to be consumed throughout the pregnancy. Only 28 percent took Vitamin A capsule during post partum period of last pregnancy. Only one-third of them reported receipt of items related to pregnancy and delivery from health/FP workers.

Knowledge of Obstetric complications and Danger signs

The knowledge of the respondents in relation to the danger signs of pregnancy is low. The major danger signs known to the respondents at pregnancy are excessive vaginal bleeding (38.5%), convulsion/eclampsia (38.5%), and swelling of the feet or oedema (26.6%). At delivery are excessive vaginal bleeding (37.6%), convulsion/eclampsia (31.5%), retained

placenta (30.7%) and prolonged labour (24.7%) and prolapsed of hands or feet (23.0%). Corresponding signs known to the respondents after delivery are tetanus (38.3%), excessive vaginal bleeding (35.5%), and convulsion/eclampsia (31.5%). The primary sources of knowledge on danger signs of pregnancy, delivery and at post delivery is identified as relatives, followed by government health service providers, NGO health service providers, television and friends.

The most frequently reported dangers known to the respondents are diarrhoea, common cold, difficulty in breathing with fever (pneumonia), and jaundice. A reported primary source is relatives, followed by government health service providers, NGO health service providers, television and friends. Awareness of the respondents regarding place of availability of EmOC services during pregnancy, delivery at post delivery period, are asserted as district hospital (64.8%), Upazila health complex (37.8%), medical college hospital (19.4%) and MCWC (19.0%).

Breastfeeding

The survey reveals that 82 percent of the respondents are aware of the fact that a mother should breastfeed a newborn within an hour of birth. Among the women, delivering a live baby and breastfeeding them, were nearly 99 percent. Among the mothers, breastfeeding newborns within an hour of birth were 84 percent. Among those, breastfeeding babies and giving colostrums to them were 98 percent of the women. Among those, giving food and liquid to newborns during the pre-lactation stage are 20 percent of mothers. The proportion of the babies exclusively breastfed up to the first six months or more of life was 46 percent.

Family planning and desired family size

Reportedly, 57 percent of respondents used FP method before their last pregnancy, where, oral pill was the most popular method (40%). An average a respondent used it continuously for 22.4 months. Some 57 percent of the users stopped using FP method as they wanted to become pregnant. On the other hand, around 31 percent became pregnant while using a method. On an average, it took 3.4 months to conceive after the halt of their method. Post delivery use of contraceptive is 51 percent. On average, it took 4.1 months to start using FP method after the end of last pregnancy/delivery. Again, oral pill was the most popular method (25.0%). Currently, 53.4 percent of them reported using a FP method, and use of oral pill is most predominant among them. Respondents, who were not using FP method at the time of interview, 91 percent had intension to use a method in future. Mean number of children agreed by both husband and wife 2.2. Around 95 percent of the couples agreeably came to have a mutual understanding about the number of children they seek to have. Almost 79 percent of them wanted to have 2 children. Mean number of children agreed by husband and wife was 2.3.

Inequity in MNH care

There is wide variation in antenatal, delivery, and post-natal maternal as well as neonatal care practices across the respondents in urban and rural areas, educational level of the respondents and the quintiles of the wealth index.

Awareness about HIV/AIDS

What is true about the overall situation, as the survey-data reveals, is that nearly 69 percent respondent heard of HIV/AIDS. The major source of knowledge is television (54.6%), followed by relatives (41.2%). Reportedly, the most common mode of transmission of

HIV/AIDS is sexual intercourse (63.3%), followed by the sharing of needle/razor (48.6%) and unsafe blood transfusion (44.8%). Nonetheless, 29 percent does not know about the mode of transmission. According to 78 percent respondents, abstaining from unsafe sex is the best way to prevent HIV/AIDS. The other well-known key preventive measures are safe blood transfusion (41.2%) and use of condoms during unsafe sex (40.4%). On average, around 44 percent respondent discussed the matter with their husband about the preventive measures against HIV/AIDS.

Community involvement in health activities

Except in Sunamganj (21.9%) and Rangamati (22.9%), overall more than one-third of the respondents (69.4%) report that they heard about community activities in connection with maternal or neonatal health care in their locality. Existence of functional community MNH activities at the union level is found a little bit lower than those of their locality. According to half of them the existing community support system of MNH is managed by the Government. Over 85 to 88.4 percent of the respondents mention availability of immunization services for women through this. However, availability of some essential services or activities, e.g., awareness program for the pregnant women, weighing facility of pregnant women and newborns, etc. appears relatively low. Although many of them know about the existence of community MNH activities, their participation seems quite low (overall 28%). According to 64 percent respondents, there are some systems in their locality to identify pregnant women and provide healthcare services to them. Only 2 percent of the respondents report having transport facilities under community activities to carry pregnant women or newborn to UHC or hospital for emergency treatment. Only 6 percent report that there are funds/financial system available in the community support system for women seeking treatment for obstetric complications. Among those, 43 percent of the respondents report receiving assistance from such funds particularly for ante-partum, delivery, post-partum and neonatal emergencies. Existence of blood donor clubs is very rare. Over 61 percent report hearing or seeing messages on MNH in the preceding three months, and majority of them (62.1%) obtained MNH-related information through interpersonal communication with friends, neighbours and relatives rather than from mass media. More than 83 percent report taking positive actions in line with the MNH-related messages they received. Respondents' participation in activities, oriented towards birth preparedness plan or emergency, plan is very low. Only about 2 percent of them reports to have advice on birth preparedness.

Women's rights in decision making

Around two-thirds of women could prepare birth plan with their husband during their last pregnancy. The overall situation is that more than 71 percent of the respondents have discussed the matter with their husbands regarding the number of children they want to have, and more than 95 percent of the husbands have agreed with them about this issue indicating an inspirational scenario regarding women's decision making rights in their family size.

Constraint indicators

The commonly pronounced constraints regarding receipt of MNH care are inadequacy of awareness and clear perception about health/physical condition of women during pregnancy, delivery and post-partum period, financial/poverty reasons, transport/distance related issues and preservation of privacy.