

Shahjadpur Integrated MNH Project

INTRODUCTION

This is the second issue of the newsletter of the Shahjadpur Integrated MNH Project. The project aims to operationalize an evidence-based and integrated package of interventions in Shahjadpur subdistrict, in collaboration with the government, NGO and private sectors, to improve maternal and neonatal health through (a) increased use of of skilled care at delivery, (b) decreased rich-poor gap in the use of skilled care, (c) increased level of met need for obstetric care, (d) decreased neonatal mortality, and (e) better quality of care. The details of the project along with outlines of the intervention package has been described in the first issue of the newsletter.

This issue describes the major findings from the baseline assessment of the project area, along with recommendations for strengthening the interventions. It also describes the progress in the implementation of field activities, such as training NGO workers as Community Skilled Birth Attendants (CSBAs) to provide skilled care at home delivery, and organizing Community Support Groups (CSGs) to sensitize the community about the need of skilled care for pregnant mothers and neonates.

BASELINE ASSESSMENT FINDINGS

This baseline assessment used both quantitative and qualitative methods. Quantitative research methods included: (a) facility assessment in government, NGO and private hospitals/clinics to document the existing maternal health facilities; (b) community survey conducted among women who delivered in the past 6 months to estimate baseline indicators of their care and outcomes, and; (c) observations of home-based deliveries conducted by the CSBAs to assess the quality of home-based skilled care. The qualitative study aimed to gain an understanding of the communities existing maternal and newborn-care knowledge, attitudes, and practices and to identify gaps in care-seeking to develop recommendations for refinement and implementation of the intervention package.

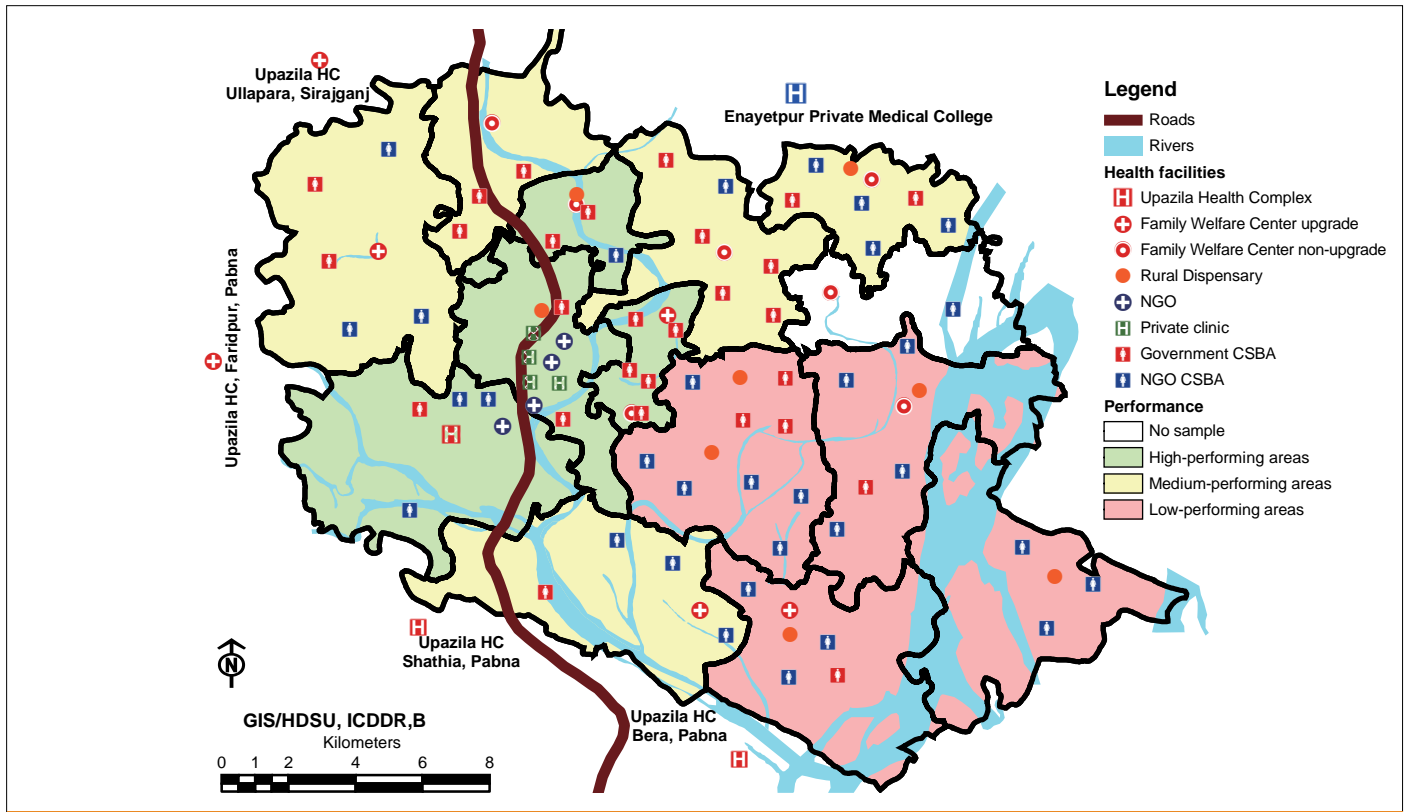


Figure 1: Distribution of maternal healthcare service provisions in Shahjadpur subdistrict by performance of selected maternal health indicators (NGO CSBAs to be placed from December-2009)

Facility assessment

The facility assessment allows the Integrated MNH Project to accurately describe what resources are available to the Shahjadpur community. The facility assessment found that, in Shahjadpur subdistrict, for ~600,000 people, there are 28 health facilities, of which 20 are in the public sector and 4 each in the NGO and private sectors.

The Upazilla Health Complex (UHC), which is a functional comprehensive emergency obstetric care (CEmOC) facility, is situated in 'Potajia' union, adjacent to the subdistrict headquarter ('Shahjadpur pourashava/municipality'). All the 8 components of the CEmOC are available in the UHC. Of the 11 Health and Family Welfare Centers (H&FWCs), 4 are upgraded and the remaining 7 are non-upgraded. However, antenatal, postnatal and family-planning services are available from all the FWCs. Delivery services are available only from 1 upgraded and 3 non-upgraded FWCs. There are 8 rural dispensaries (RDs) in the subdistrict to provide general healthcare services to the community. The 4 NGO facilities provide mainly ANC services and only 2 provide delivery services whereas all the 4 private facilities provide caesarean sections as well. Among 6 different components of basic EmOC, injectable antibiotics, oxytocin, and magnesium sulphate were not available in any FWC and most NGO facilities.

Community survey

The community survey helps the Integrated MNH Project to document the sociodemographic characteristics of mothers delivered recently to understand their care-seeking patterns during pregnancy, and to describe the outcomes, such as delivery and postpartum complications, and rates of neonatal mortality. Re-assessment of these indicators after the implementation and completion of the intervention package will facilitate a good assessment of the intervention's impact. This baseline community survey was conducted among 3,158 mothers who delivered in the last 6 months before the date of interview.

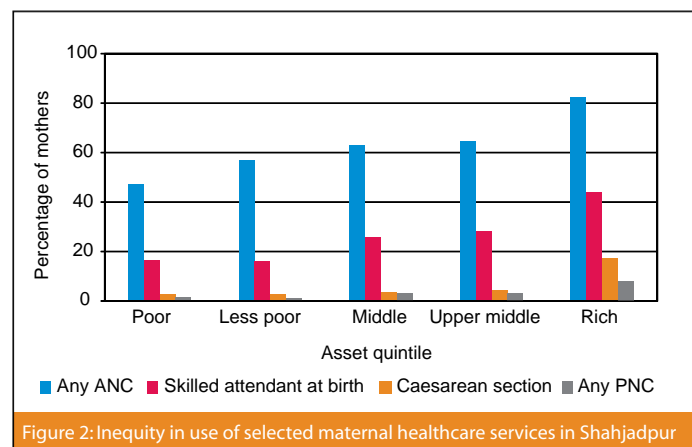
Level of use of skilled care

Based on the use of skilled attendance at delivery (facility delivery and skilled attendance at home delivery), the whole Shahjadpur subdistrict which consists of 13 unions and a pourashava (municipality) has been divided into three different performing areas—high, medium and low (Figure 1). Other indicators for the use of skilled providers are also the highest in the high-performing areas and the lowest in the low-performing areas (Table 1).

Table 1: Percentages of mothers reported using skilled care during pregnancy, delivery, and postpartum by different performing areas in Shahjadpur subdistrict

Type of skilled care	% of mothers used skilled care by performing area			Total (n=3,158)
	High (n=894)	Medium (n=1,269)	Low (n=995)	
Any ANC by skilled provider	80.0	62.9	46.2	62.5
Facility delivery	29.3	15.6	8.5	17.3
Skilled home delivery	11.6	10.4	4.0	8.7
Caesarean section	10.9	5.1	2.9	6.0
Any PNC by skilled provider	5.4	3.8	0.9	3.3

The high-performing area consists of 4 unions, including the 'pourashava' and 3 adjacent unions where most health services are concentrated (Figure 1). The low-performing area comprises 4 unions in the south-eastern part of the subdistrict which are heavily affected by erosion of the mighty river 'Jamuna' and are hard to reach. The rest of the unions in the north and south western part of the subdistrict are categorized as a medium-performing area for maternal health indicators. The poorer indicators in the medium- and low-performing areas are correlated with a fewer number of CSBAs, less availability, and poor accessibility to the health facilities. Moreover, the inhabitants of the low-performing area are relatively poor and uneducated, which are known barriers to use of skilled care.



Inequity in the use of maternal healthcare services exists not only by area but also by socioeconomic quintiles. Although the overall use of antenatal care has increased up to 63%, women in the poorest socioeconomic quintile use ANC two times less than those in the richest quintile (Figure 2). The rich-poor disparity is more pronounced in the use of skilled care at delivery (44% vs 16%) and caesarean section (17% vs 2%). The caesarean section rate has become alarmingly high (17%) in the richest quintile, exceeding the WHO-recommended threshold level (15%).

To address the problem of inequity in the use of maternal healthcare services, the maternal health voucher programme of the Government was initiated in Shahjadpur in April 2007. Although the voucher programme is universal (all pregnant women with ≤1 living children are entitled to receive health vouchers irrespective of socioeconomic status) in Shahjadpur, there is a need to monitor any problems in access to or use of the health vouchers by poor, uneducated or remotely dwelling members of the community. The baseline survey findings also indicate a need to monitor the indications of caesarean section to identify barriers to maintaining an acceptable rate. The presence of the Integrated MNH Project will, therefore, facilitate an evaluation of how equitable access to the voucher is and identify drivers of caesarean rates.

Types of care provided during ANC

The baseline survey found that nearly two-thirds (62.5%) of the women sought at least one ANC from a trained provider. As part of qualitative research, the in-depth interviews with women and their families revealed that women did receive ANC despite low knowledge of its benefits. Those who did not avail ANC mostly stated that they did not feel the necessity of attending ANC unless complications arose. Cost—especially transportation costs—was reported as an additional barrier to seeking ANC.

To assess the quality of ANC, women were asked about types of examinations and tests performed by the providers during ANC visit. Findings are presented in Figure 3. Eighty-eight percent of the women said that their blood pressure (BP) was measured at least once.

Measurement of weight (86.2%) was more common than that of height (67.3%). Abdominal examination was performed for the majority (67.4%) of care-seekers. Clinical examination for anaemia and jaundice was done in only about half of the ANC seekers. Tests of blood for anaemia (40.9%) and urine for sugar and albumin (48.6%) were performed in less than half.

While nearly two-thirds of respondents sought ANC at least once from a skilled provider, the findings suggest that many essential components of ANC are not being practised routinely. There is a need to monitor the quality of ANC at different service-delivery points (both fixed and satellite clinics) and at home of the CSBAs.

Types of advice given during ANC

In addition to interviewing women on different technical components of ANC, the respondents were also asked about types of advice that they received. As shown in Figure 4, besides advice on sufficient/nutritious food intake, drinking sufficient water and avoiding heavy work, most women did not receive important birth-preparedness messages. About 14% said that they did not get any advice during ANC check-ups. Only one-fifth were told about the importance of seeking routine antenatal care. Rates of advice on taking iron/folic supplementation and TT vaccination were also poor. Surprisingly, only 3% of the women were told about danger-signs of pregnancy, and only 8% were reminded to visit a health facility for complications.

As categorized in others, only 2% of the women were told about any of the important areas of birth-preparedness, such as arranging transport beforehand, depositing money for emergency, identification of appropriate blood donors, use of safe delivery-kits, danger-signs of neonates, availability/use of voucher, and the importance of breastfeeding. The qualitative study found that the concept of birth-preparedness was relatively new to the respondents and most families did not make preparations during pregnancy for reaching a facility in the case of complications, or for blood donation.

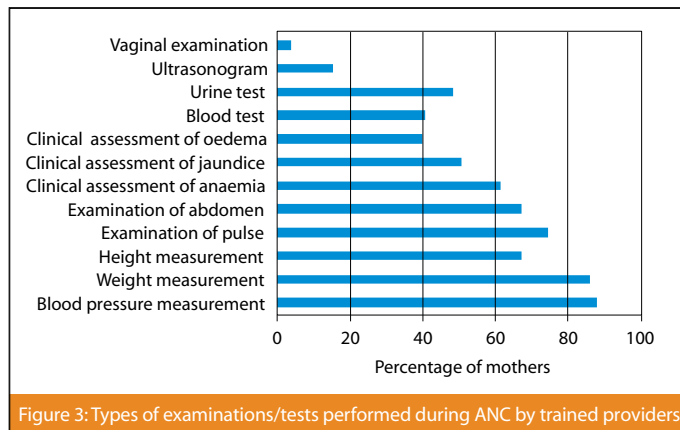


Figure 3: Types of examinations/tests performed during ANC by trained providers

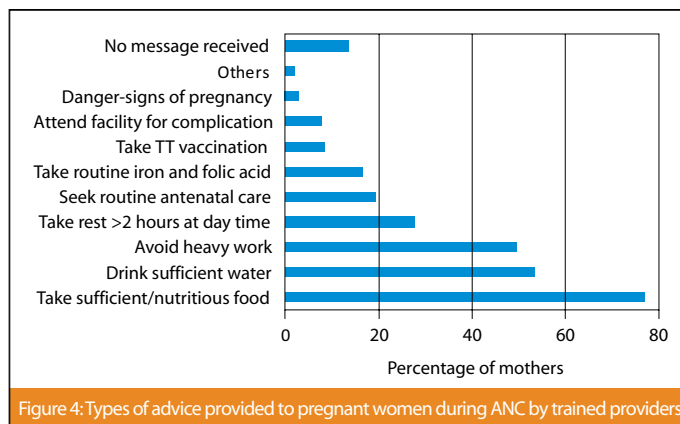


Figure 4: Types of advice provided to pregnant women during ANC by trained providers

One strategy of disseminating the birth-preparedness messages is to deliver the information at the time of ANC visits. To effectively deliver the messages, the relevant healthcare providers (doctors, nurses, FWVs, CSBAs, FWAs, and HAs) need to be oriented on standard birth-preparedness messaging. In addition, the CSG members and volunteers need to be involved in dissemination of birth-preparedness messages to women and other members of the community.

Use of skilled care for severe complications

During the baseline survey, women were asked about their experience of having symptoms of severe obstetric complications during any previous pregnancies. Nearly one-third (31.4%) reported symptoms at any time during the ante, intra, and postpartum periods, and only about half of these women sought care for such complications (Table 2). Antepartum bleeding was reported by over 2% of the women, of which only two-thirds sought care. Among symptoms of eclampsia/pre-eclampsia, less than 1% of the women reported of having high blood pressure and convulsions but nearly 9% had severe headache or blurring vision. Care-seeking for blood pressure was high but that for other associated symptoms of eclampsia/pre-eclampsia was low. In the intrapartum period, obstructed/prolonged labour was identified as a major problem (15.1%), of which only 56% sought care. Surprisingly, for bleeding, care-seeking was very low both intra- (38.6%) and post- (4.7%) partum. Overall, only about 6% of the women sought skilled care during postpartum period.

Ideally, for symptoms of severe pregnancy-related complications (listed in Table 2), 100% of the women should immediately visit the emergency obstetric care facility. This is not the case at present in Shahjadpur. To improve the situation, the community providers—CSBAs, FWVs, FWAs, HAs—must be oriented on identification of pregnancy and neonatal danger-signs and trained to refer the mothers to the nearest emergency obstetric care facility. As a large proportion of the women still continue to deliver by traditional providers (TBAs and village doctors), these providers also need to be oriented on pregnancy and neonatal danger-signs. These traditional providers also need to be linked with the skilled providers in the community and the facility for effective referral. In addition, through CSGs, initiatives should be taken to educate the mothers and family members about the pregnancy danger-signs to motivate immediate transfer when needed and to extend necessary community support, such as transportation and funding, if necessary, for such referrals.

Under the present study, initiatives have been taken by training the CSBAs on management of haemorrhage (misoprostol for home-delivery) and eclampsia (administration of magnesium sulphate) and on appropriate referral to health facilities. In addition, to address the problem of obstructed and prolonged labour, providers also need to be trained on the partograph, a useful tool to monitor progress in labour and to decide on the need for referral.

Neonatal mortality

The baseline survey of the present study identified neonatal mortality of 32.0/1,000 livebirths (where early and late neonatal mortalities are 26.3 and 5.8 per 1,000 livebirths respectively). As most neonatal mortality take place within the first 7 days of the life of the newborn, priority should be given on proper care of the neonates during delivery, including immediate essential newborn care, to avert preventable deaths.

Observation of home-deliveries

With an aim to observe the quality of care offered by the CSBAs during home-delivery, 23 deliveries attended by the CSBAs were observed. The observation was conducted by two trained female interviewers using a checklist of standard practice to document care through different stages of labour, including essential newborn care.

Table 2: Mothers' reporting on symptoms of severe complications at the ante, intra and postpartum period and care-seeking from trained providers

<i>Symptoms of severe complications*</i>	<i>% had complications[±]</i>	<i>% sought care</i>
<i>Antepartum complications</i>		
Bleeding	2.4	65.3
High blood pressure	0.6	80.0
Convulsion	0.4	57.1
Headache/blurring vision	8.8	29.6
Foul vaginal discharge	2.5	34.6
Reduced foetal movement	2.6	66.3
Any antepartum complication	12.2	43.8
<i>Intrapartum complications</i>		
Prolonged/obstructed labour	15.1	55.7
Excessive bleeding	4.0	38.6
Retained placenta	1.8	12.3
Ruptured uterus	0.4	66.7
Unconsciousness	3.2	41.2
Any intrapartum complication	20.9	47.8
<i>Postpartum complications</i>		
Excessive bleeding	3.4	4.7
Convulsion	0.8	4.2
Postpartum infection/sepsis	2.2	5.7
Any postpartum complication	6.1	5.7
Any complication	31.4	44.5
±All 3158 women were asked about complication-related questions; *Multiple responses		

Quality of delivery care by CSBAs

As shown in Figure 5, at the first stage of labour, the CSBAs performed most standard practices. Several specific concerns remain, however, on infection-prevention measures (boiling instruments and hand-washing) and assessment of maternal and foetal condition through thorough clinical examination. At the second and third stages of labour, the level of use of standard practices was poor. In the second stage, about 75% of the CSBAs performed selected important practices but only 21.7% of the CSBAs cleaned the perineum with antiseptic lotion, 34.8% placed the baby on the mothers' abdomen, and 56.5% felt for the cord around the babies' neck. In the third stage, only 56.5% of the CSBAs performed all the three stages of active management of third stage of labour. Examination of the placenta for complete expulsion and inspection of vagina/perineum for tear was done by 56% and 78% of CSBAs respectively.

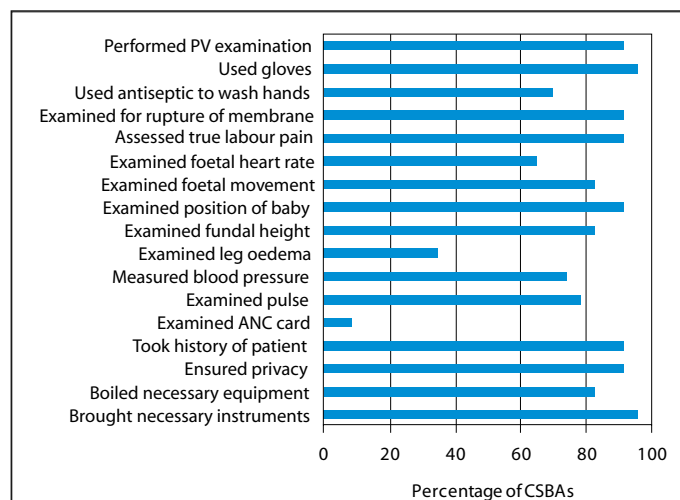


Figure 5: CSBAs' practice of standard norms at first stage of labour during home delivery

Quality of newborn care by CSBAs

As shown in Figure 6, the CSBAs' performance was poor in cord-cutting practice and in selected essential newborn care. Surprisingly, despite repeated previous programmatic interventions, only about 40% of the CSBAs encouraged breastfeeding of the baby immediately after delivery. Although the CSBAs training includes a module on "Immediate Newborn Care, first 24 Hours Care of the Neonate, breastfeeding, etc.," the findings of the present study raises major concern on real practice of these learning by the CSBAs at home-delivery. These findings should comprise an urgent call for refresher training of all the existing CSBAs for the improvement of their practice on maternal and newborn care.

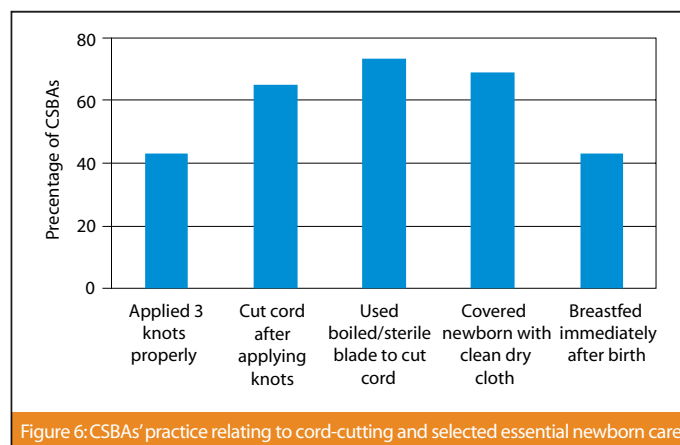


Figure 6: CSBAs' practice relating to cord-cutting and selected essential newborn care

Qualitative findings

During the baseline assessment, qualitative research was also conducted to provide in-depth information on ANC, delivery, PNC and neonatal care, preferred sources for this care, and reasons for these preferences. In-depth interviews with the stakeholders in maternal health in Shahjadpur allowed the Integrated MNH Project to better understand the motivations behind practices and find opportunities for targeted intervention within the maternal and neonatal health intervention package. In total 27 mothers, 6 family members of mothers, 6 husbands, and 16 facility-based providers were interviewed. Thirteen key informants and 6 focus-group discussions (FGDs) with TBAs, Village doctors, and CSBAs were conducted (2 FGDs in each group).

In-depth interviews with women and their families revealed that most women received ANC from a government health facility at least once during pregnancy, although lack of awareness of ANC benefits and lack of access to transportation persisted as potential barriers to this care.

Birth-preparedness is a new concept for the respondents. Consistent with the quantitative findings of this study, the mothers and family members interviewed in depth had not made any preparations for transport, costs, or blood donation. All respondents cited cost as a major barrier to the use of skilled birth attendants and health facilities. The qualitative study identified a likely role of several traditional rituals in predisposing women to home-delivery, particularly among Hindu community. Hindu women usually give birth in an isolated unventilated room (mostly the kitchen), as delivery is believed to be an impure state of condition and it should be hidden from the males.

Most respondents preferred delivery at home assisted by a traditional birth attendant (TBA) compared to a facility, although the respondents did mention the need to attend a facility if a complication arose. Preference for home-delivery was also observed strongly among some educated key informants. For example, "Since our grandfather's time, I am observing that delivery occurs at home. I was born at home, my father was born at home, and there were no problems. Why should they be taken to hospital now?"—Teacher.

The low cost of TBAs in conducting/managing delivery and their flexibility with payments were appreciated by the women and their families. However, the FGDs found that the TBAs were often reluctant to refer women to facilities for the treatment of complications. In one obstructed

delivery, the TBA described, "I kept my finger into the baby's mouth and pressurized with one of my foot and then pulled the baby, then it came out. There was no other way. The placenta came out spontaneously, and the mother became sick at that moment but recovered." Their harmful practices were also prevailing in newborn care; some TBAs described soaking the baby in cold water to make the baby cry.

Many traditional cultural perceptions relating to management of maternal and neonatal complications exist. In one case of the retained placenta, '*Rocto jaba*' (a red flower) was wetted in water, and that water was prescribed thrice daily by the '*kabiraj*' until the bleeding was stopped. In one of the neonatal death cases, on the 5th day after delivery, the baby had convulsions and because the '*kabiraj*' said that it would be a confirmed death, the family didn't feel the need to call a skilled provider.

Significant delays in complication management occur due to the physical distance of facilities from the village. Lack of motorized transport due to poor road condition forced families in some areas to opt for alternative means of transport, such as using a '*macha*' (a bamboo frame). In extreme instances, just reaching a van or rickshaw stand takes 2-3 hours, and reaching the health facility takes yet another hour.

At present, the CSGs are disseminating messages to promote the importance of skilled birth attendance at delivery and to eliminate misconceptions about maternal and neonatal complications. To prevent the harmful birthing practices, the TBAs also need orientation on the consequences of the harmful practices. Community-wide birth preparedness should be strengthened by establishing community savings schemes, effective transportation systems which will identify rickshaw/van drivers willing to be "on call" 24 hours a day and contact via mobile phone, by offering subsidized rates to referral facilities, and by arranging for blood donation.

CSBA'S TRAINING OF NGO WORKERS

CSBA's training of NGO health workers commenced at the Family Welfare Visitors Training Institutes (FWVTIs) in the districts of Tangail and Comilla with two six-month long sessions, training 16 CSBAs in each session. Both training sessions were inaugurated by the Director, Primary Health Care (PHC) of the Directorate General-Health Services (DGHS). The Civil Surgeon, The Deputy Director (Family Planning), and Program Managers from the Health Services and Family Planning Directorates attended the inaugurations alongside the study investigators and many others. After training, by December 2009, these 32 NGO CSBAs will be deployed in their locality at Shahjadpur sub-district to work with the 28 existing government CSBAs to deliver home-based basic obstetric and essential newborn care.



Inaugural ceremony of CSBA Training in FWVTI, Tangail. The Director PHC, DGHS is seen seated in the centre



Courtyard session by a CSG volunteer on orientation of pregnancy danger-signs

Each month, in a formal meeting, the volunteer committee reports progress of their activities to the executive committee members. In these meetings, problems in the implementation of CSG activities are discussed, and measures are taken to identify solutions to these problems by incorporating initiatives from the local level. In the present study, there is a plan to form 80 CSGs in Shahjadpur subdistrict for the full coverage by 2010. In addition to the ICDDR,B initiative, CARE Bangladesh is also working for formation of CSGs in Shahjadpur.

Next Issue

The next issue of the Shahjadpur Integrated MNH Project Newsletter will include progress in the implementation of recommendations from the baseline assessment, such as training of the healthcare providers on different evidence-based interventions, refresher training of the CSBAs, and others. It will also cover the complete intervention package to be implemented through this project.

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