RESEARCH BRIEF

Manoshi

February 2009 Issue 1

Bangladesh is a country of 55,000 square kilometres with 150 million people, 25% of whom currently live in urban slums. Despite success in population control, the size of the population is expected to stabilize at 250 million by 2085. One of the very striking features of the future population of the country is that nearly 60% of the population will live in urban slums by 2030. In the absence of appropriate health services, the health of the newborn, infants and their mothers is likely to suffer. This makes urban health issues, especially of the slum dwellers, of high priority. Keeping this in mind BRAC has started a Maternal, Newborn and Child Health (MNCH) programme, known as Manoshi (*Ma O Nobajatak Shishu*), in 2007 in Dhaka slums which may gradually be extended to all the slums of Bangladesh by 2011. The major goals of Manoshi are to ensure safe motherhood by way of safe delivery and newborn and child care. Various researches are being carried out in support of Manoshi since its inception. Manoshi Research Briefs are a fast track mechanism devoted to sharing the findings to various stakeholders interested in the health of the urban population especially of the poor.

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Healthcare and Cultural Practices during Pregnancy and Childbirth in Korail, a Slum in Dhaka

Proper medical attention and hygiene conditions during delivery reduce the risk of complications and infections that may cause death or serious illness to the mother, the newborn, or both. In Bangladesh, infant mortality rate is estimated at 71 to 82 per 1000 live births and the maternal mortality ratio was 320 in 1998 - 2000. It is reported that the health indicators are worse for the urban poor than the rural poor.

Culturally based beliefs and values influence the practices a society believes appropriate for providing care for pregnant and post-partum women. A qualitative study was undertaken in Korail slum for an in depth understanding of the social and cultural norms and religious practices that may influence the outcome of pregnancy and child birth. Korail is a typical slum located in Dhaka city. Like many other slums, it has not benefited from any of the large development programmes in the surrounding locality. Most of the slum dwellers have not received any formal education and are extremely poor. Manoshi, a community

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based intervention of BRAC, works with women of Korail slum and encourages them to give birth in birthing huts established by BRAC in a hygienic environment free of any costs. If complications arise, women are ensured comprehensive emergency obstetric care in pre-selected referral facilities. This report highlights maternal and newborn care practices in Korail slum based on findings from 16 in-depth interviews carried out during the early phase of Manoshi. The respondents of the study were eight randomly selected pregnant women and 8 purposively selected lactating mothers with a child less than one year of age.

Healthcare during pregnancy

It was evident that all respondents had sought care from a healthcare provider with the first signs of pregnancy. Care was sought primarily to confirm pregnancy, and for reassurance about the condition of the fetus. As stated by many, pregnancy is a natural condition that does not require medical care. Most women believed, especially if they had experienced childbirth previously, that seeking care on a regular basis was unnecessary, except to confirm pregnancy. The respondents supported the concept of home visits by traditional birth attendants.

Cultural beliefs and practices

It is common for women to follow traditional beliefs, and religious practices to protect the pregnancy and also to seek advice from a health care provider. This is not unusual practice as traditional cultures, beliefs and religious practices permeate all aspects of a mother's preparation in bringing new life into the world. A respondent had been wearing an amulet (*tabeej*) since the miscarriage of a previous pregnancy to avoid mishaps, and had also sought care from a healthcare provider. Amulets are provided by traditional healers/*kabirajs* and are worn to ward off evil spirits which may harm the pregnancy.

Roles of healthcare providers and family members during pregnancy

Healthcare providers emphasize the need for iron supplements, extra nutrition and regular check-ups. However, iron tablets were not taken regularly as it was believed that the foetus would become larger and delivery would be more difficult. Some said that the tablet is known to dry the flow of breast milk and others had concerns over the change in the color of stool.

Family members and relatives advise women on what to do and what not to do during pregnancy to ensure an easy and safe delivery, emphasizing restrictions on diet, free mobility, and physical intimacy (indicating sexual intercourse) with husband.

Although the respondents were aware that proper food intake during pregnancy is very important, many of them followed restrictions on their diet to protect themselves from harm and evil spirits. Fish such as *Mrigael, Pangaash, Baieng, Hilsha* and *Taki* were the most commonly mentioned fish to be avoided. A common belief was that eating fish with big mouths could make the mouth of the child big.

Superstitions, the spiritual world and the supernatural

Society perceives a pregnant woman to be in a weakened state and therefore more susceptible to evil spirits. Evil spirits are perceived to be the cause of pregnancy mishaps, miscarriages etc. Most women believed that they should remain home during pregnancy and avoid certain locations

Pregnancy and ANC care of mothers

Tests or services received during ANC visit (home and facility both)	Number of Respondents
Urine test	13
Iron supplementation	10
Blood pressure	9
Fundal height	8
Body weight	7
TT injection	5
Vitamin supplementation	5

Advised on the following during pregnancy	Source of information (n)	
	Relatives neighbours	Service providers
Iron or vitamin supplements	-	13
Take a handful more of food	4	10
To do checkup	7	9
TT immunization	-	9
Taking rest/refrain from heavy work	2	8
Food and nutrition	4	8
Advice for urine test	5	8
Cleanliness	2	4
Not to stay with husband	11	3
Not to drink cold water or any cold thing	3	3
Ultrasonogram	-	1
Not to take any medicine without prescription	-	1
Restrictions during eclipses	12	-

Multiple responses

at particular times of the day to avoid evil spirits. However, if they had to go out they took precautions, such as tied and covered their hair or carried a piece of iron, matches or even dry bones of a cow. Women believe that miscarriages and stillbirths are the act of evil spirits brought about as a result of violating confinement or other restrictions. A common superstition was the belief that eating and touching certain restricted fish (e.g. *hilsha*) could attract evil spirits. The onus is on the woman to be responsible and to maintain a safe pregnancy by following the rituals as she is usually blamed for any pregnancy failure. Older women blame the younger women for miscarriages and infertility. In Korail slum, it was not uncommon to hear older women frown and remark "Today women walk with their bellies sticking out. Of course the women will have more complications…they have no shame. In our times, it was only when the baby cried (after delivery) that people in the community realized that we were pregnant."

Another common belief was that women should stay inside their homes and avoid lying down during an eclipse. Other restrictions during eclipses were – the women should not eat or cook, cut or twist anything to protect the baby from being born with a cleft lip or palate or with deformed features.

Workload during pregnancy

Even though it was common knowledge that hard physical work during pregnancy is not encouraged, it was difficult for many to rest. The women do all their household chores, carry heavy water containers, and continue as usual till labour begins. Due to serious water shortage in Korail slum, women suffer a lot in the process of collecting water from the neighbouring locality. However, women try and take help from their immediate family. A respondent claimed that it was the custom to give birth to the first child in one's own natal home where they receive more support.

Delivery

It was evident that there was no preparedness or arrangements taken for delivery or birthing of the child as neighbours could get a *dai* with the onset of labor. The majority did not arrange money to meet emergency expenses, as, if necessary, a loan could be taken from their landlady. Most of the respondents placed their utmost faith in Allah, stating that the Almighty will not give them any burden that they cannot cope with. It is a common belief amongst many, that preparations such as buying new clothes or planning too much for the unborn brings misfortune. This is a superstition not only confined to the poorer socioeconomic group, but also amongst the wealthy and the middle class.

Delivery preparedness is defined as selecting a skilled birth attendant, arranging articles needed for a safe birth, identifying where to go in case of emergency and arranging money and transport for this purpose.

Labour pain and interventions to expedite delivery

Women shared the onset of labour only with their close female family members and sometimes their husbands. A widespread belief exists that the more people know about labour pain, the greater the delay in delivery.

It is common practice to drink spiritual water brought from a *Kabiraj* or *Huzur* to hasten delivery. One of the respondents had water with *mariam* flower brought from Mecca by a *dai*, which according to hadith, is supposed to make delivery easier. To hasten the process of delivery, two mothers had taken saline and some injections from a neighbouring pharmacist. In both cases, the *dai* had referred a pharmacist. It is very common for *dais* to massage oil on the lower abdomen of the woman to expedite delivery and to bring the foetus to the right position.

Delivery environment

Almost all the respondents, except for two, reported that their previous deliveries took place at home. The preference was explained by custom, convenience and the belief that women receive more care at home. The delivery generally takes place in one room with the male family members leaving the space. As most of the urban poor live in one small room it is impractical for them to follow the customs of separating the woman for her perceived state of impurity for 40 days (post delivery). Almost all deliveries take place on the floor, sometimes on the bare floor, but most often on a cloth or jute sack. Fewer materials are placed on the floor as it makes cleaning easier.

Attendance at delivery

Women are encouraged by the government to deliver under the care of medically trained birth attendants. In Korail slum, of the 16 women, 15 were not attended by a skilled attendant, and only one delivered in a hospital. Most were assisted by a *dai* who was either a relative or neighbour. Many use *dais* because of their skills and lower costs unless there is any complication.

Delivery position and expulsion of placenta

Seven out of the 16 women stated that their preferred position during the birthing process was squatting. This may, and often does, change as labour progresses. Usually the position was decided through discussion with *dai* and other female relatives. To speed up expulsion of placenta, it was common for the *dais* to put hair or their fingers into the women's mouth to induce vomiting. As in labour, *dais* often massage the lower abdomen with oil. The *dais* do not cut the cord immediately and usually hold it up for some time, so that blood can enter the body of the newborn through its navel.

Postpartum care of the mother

Immediately after delivery the women were washed by the *dai* or close relatives. Only one woman reported receiving postpartum care from a provider. Women reported that care was sought only if there was a problem and not on a routine basis.

Postpartum nutrition

After delivery a woman's diet is controlled more rigidly than during pregnancy and the choice of food is curtailed quite severely, especially for the first 7 days. All respondents believed that after delivery, the flesh inside becomes flaccid and soft and therefore, the mother should avoid "complex" food to allow for the healing of the birth passage.

Life after delivery

All mothers were aware that any arduous work should be avoided for 40 days after delivery. However, many resumed normal activities within 10 - 12 days of delivery. Women said that sexual intimacy is prohibited in religion for the first 40 days after delivery. However, whether in reality women had the power to stop husbands from forcing physical intimacy is debatable.

Neonatal care practices

Twelve out of 16 mothers reported that the cord was cut after the expulsion of placenta. The newborn babies were kept on a thin bed on the floor till the cord was cut. The waiting time ranged from 2 - 20 minutes. The families were concerned about the time spent as they are aware that the cord should be cut as soon as possible.

There was widespread awareness of the need to use sterile instruments to cut the cord. Except for three, all respondents reported that the cutting instrument, usually a new blade, was either boiled or burnt. However, there was a lack of awareness of the importance of boiling the thread. Four of the mothers mentioned that after boiling the blade or thread, the *dais* had wiped the blade or thread with a cloth.

In most cases the TBAs cut and tied the umbilical cord with thread. However, two of the mothers cut the cord themselves as they believed that the person severing the cord would not be able to pray for 40 days. A respondent (previously a BRAC *Shasthya Shebika*) knew about an indigenous method of sterilization. She advised the *dai* to "put some rice in the water with the blade and thread and boil it. When the rice is cooked, the blade and thread is ready to use."

The cord was tied twice with a gap between the abdomen and the first tie and between ties. The reason for tying the cord properly as perceived by the mothers was to prevent bleeding. However, there was some concern that in some cases enough gap was not kept.

Application of specific substances on the umbilical stump is an important part of cord care practice. The substances used are e.g. mustard or coconut oil with or without chopped garlic, boric powder, talcum powder, savlon and burnt earth from a clay stove. The objective was to facilitate timely drying of the stump and prevention of infection.

Applying heat (*shek*) to the umbilical stump is an integral part of the routine care. Application of heat involves holding a soft piece of cloth or one's thumb close to a fire and then placing it on the stump. The main reasons for applying heat were to dry the cord, reduce pain and prevent infections.

Bathing the baby and shaving the hair

The custom of bathing the baby just after birth is accepted as a common and essential part of neonatal care. The strong cultural notion of purity and impurity explains the custom of bathing the newborn immediately after birth. Delivery fluid, blood and the hair are regarded as impure. The baby is considered to be in an impure state until it is bathed, the hair is shaved and all impurities are removed. Evidence of rituals of putting other materials such as raw turmeric, grass or dipping a piece of silver/gold to purify the water was also observed. Evidence of rigorous efforts to remove the vernix which is perceived as impure was observed.

Exclusive breastfeeding

The evidence of exclusive breastfeeding is extremely low. Only two of sixteen women exclusively breast fed for the first six months. Even though the benefits of colostrum were known, the biggest barrier to exclusive breast-feeding is the perceived sense of insufficient breast milk. Most of the families supplemented breast feedings from the day of birth, giving mostly liquids such as sugar water, cow's milk, and also powder milk available in the market.

In addition, there is a strong cultural tradition that water or sweets such as honey or sugar water should be given to welcome a child to ensure that the baby grows up into a pleasant person. Some have said that honey protects against infections and it also acts as a moisturizer helping the baby to suck easily.

Traditional cultures, beliefs and religious practices permeate all aspects of a mother's preparation in bringing new life into the world.

Prepared by Tania Wahed. Source: Choudhury N, Neloy AA, Rashid SF, Moran AC, Sharmin T. Existing maternal and newborn care related practices in Korail slum, Dhaka city, Bangladesh. Unpublished.

A Profile of Traditional Birth Attendants Serving the Slums of Dhaka

Complications cause death in 15% of all worldwide pregnancies. Although the risk of developing complications during pregnancy and delivery is similar around the world, for women in developing countries, the risk of death due to complications is nearly 99%. Globally, almost 80% of maternal deaths could be prevented by the intervention of skilled birth attendants who have access to necessary equipment and support. In Bangladesh, only 9% of births occur at health facilities. The remaining 91% of deliveries are attended by traditional birth attendants (TBA), locally known as *dai* who are usually family members, relatives or neighbors with very little or no knowledge of modern delivery practices. It has been observed that two thirds of the rural deliveries in Bangladesh are assisted by untrained traditional birth attendants, while a study in the slums of Dhaka found that 96% of children were delivered by untrained traditional birth attendants at home. The Manoshi birthing huts of BRAC provide privacy, hygienic delivery and assistance for normal delivery to mothers in urban slums. The intervention is free of cost and in case of complications women are ensured comprehensive emergency obstetric care in pre-selected referral facilities. Most slum dwellers still prefer the services of TBAs to the birthing huts. As the population of Dhaka rises in the coming years, most of whom are expected to be living in slums, it has become increasingly important to understand TBAs, who they are, and what they have to offer to the poor.

Who they are and why they became TBAs

TBAs are slum dwellers themselves with a history of migration similar to others living there. The TBAs surveyed had been practicing for 4 to 38 years. Most got involved in assisting childbirths at a relatively young age, starting at 21 to 30 years old. The typical educational level of a TBA is low, ranging from illiteracy to incomplete primary education.

The TBAs are called to their task by members of their social groups, relatives, neighbors, and those holding the same religious beliefs. Muslim families usually prefer a Muslim TBA while a Hindu family usually calls for a Hindu TBA.

A self-taught TBA described, "In the villages the hospitals are far away and giving birth is totally a woman's affair. When there is a birthing woman in a neighborhood every one looks for another woman who has the courage to attend her. I volunteered to attend her (childbirth) as I was always very brave from my childhood. I was a bit afraid in the beginning though."

TBAs believe they have been endowed with some special knowledge and skill which they should use to help others. They are compelled by their own conscience or the call of those in need to respond to those whom they feel they can help. TBAs do not provide their services in return for payment, but as acts of humanitarian aid.

One of the TBA respondents mentioned, "We had a neighbour who used to deliver babies. One day she told me that she needed an assistant. I thought since I am a mother, I can handle this and I joined her. After assisting her with several deliveries I started to do this on my own."

Sources of knowledge

Most TBAs do not receive any formal training. Neighbours and relatives are their major sources of knowledge in midwifery and their skills are acquired through apprenticeship with other TBAs. Some begin work as a TBA without any apprenticeship experience.

The main sources of knowledge for TBAs are:

- Other women (neighbours, relatives)
- Another midwife with whom she served as apprentice
- Hospital nurses and staff when accompanying a woman about to give birth

A common statement made by all the TBAs

"I am a poor person. I cannot help anyone by giving money for charity. I do not pray five times a day, I do not even fast, I cannot do anything to follow the path of Allah and thus I cannot perform any good deed. Though I cannot give anyone 10 takas, I can help others by using my skills as a *dai*. When I help others through my work, it gives me great pleasure. I never take money when someone offers me because I do not give this service in exchange of something. Sometimes people give me clothes, saree, oil or soap. I do take those things. But those who cannot give anything I do not ask anything from them. I behave more pleasantly with them so that they do not feel bad for not being able to give me anything."

From the TBAs' accounts it is also clear that in their perception their knowledge and skills regarding their work are continually being shaped and reshaped by their experiences and encounters with biomedical health facilities. For instance, one of the TBAs said that, "In the past we used to cut the hair of the baby just after the birth but now it is said that hair should be cut after 21 days of birth. Therefore, I tell not to cut the hair of the newborn before 21 days." TBAs accompany their patients to the hospital when there are delivery complications. At the hospitals TBAs keenly observe the doctors and nurses to learn about patient care and delivery. They talk to the medical personnel, mostly the nurses, regarding delivery practices and these conversations are important sources of knowledge for them. The doctors and the nurses ask the TBAs how they perform the deliveries and also advice them regarding delivery practices.

Delivery

In most cases, the TBAs are contacted at the onset of labour. They are most frequently contacted by either the mother or the mother-in-law of the pregnant woman, and sometimes by neighbors or the brothers/sisters of the pregnant woman. The husbands are least likely to contact the TBAs unless the delivery is perceived as serious.

Practices and perceptions during delivery

TBAs usually do not say that they assist with the delivery process or they "do" the delivery, rather they say they "hold" or "catch" babies.

Their main interventions during the delivery process include:

- Massaging oil on abdomen to detect foetal movement and position

- Positioning the baby correctly
- Prescribing injection for labour augmentation
- Vaginal examination to predict the time of actual delivery/duration of labour
- Inserting lubricated hands into the birth canal to pull out or to make space for the baby to come out
- Catching the baby
- Cutting and tying the umbilical cord

The TBAs see their main task to be providing comfort, ease and reassurance to the delivering mother during labour and helping her cope with labour pain. Towards this end, they also try to shorten the labour time and reduce labour pains. Some common practices are:

- Giving holy water to the birthing mother to shorten the period of labor
- Massaging with oil to reduce pain
- Assuring the mother that the process will not take long (even if indications are to the contrary)
- Uttering religious verses to relieve the mother from the pain
- Asking family members to call a doctor or pharmacy owner to push the saline and a labour augmenting injection

TBAs also spoke about the importance of cleanliness during the delivery. The birthing mother is kept on a clean bed sheet in a clean place.

TBAs exhibit a range of recognition of danger signs, from some to many. The signs of delivery complications and obstructed labour recognized by TBAs are:

- Prolonged labour or strong pains without progress
- Birth canal not opening up to a certain degree within a given time period
- Excessive bleeding
- Convulsions
- Absence of pain
- Delay in breaking water or blood
- Malposition and stillness of the foetus in the womb
- Swollen hands and feet
- Baby is big
- Water breaks early but the baby is not delivered
- Foetus takes a long time to turn and come to the birth passage
- "Evil spell" or "evil wind"

Following birth, the TBA waits to cut the umbilical cord until after the ejection of the placenta. TBAs hold on to the uncut cord and pull the placenta to prevent it from "going up to the liver" and endangering the mother's life. They put heated mustard oil on the navel/stump of the newborn with their finger. Most TBAs also clean the mother and the baby.

Referral practices

Overall, the number of women referred by TBAs was found to be very small. After identifying a high-risk pregnancy, TBAs often try to manage the problem for quite some time and refer to a health facility only when it appears impossible for them. It was also found that some TBAs often refer the woman who has a prior history of having a stillbirth to the health facilities even before trying. TBAs usually accompany their patient to the hospital because they feel a sense of duty until the delivery is completed, or because her presence is requested by family members or the birthing mother.

After referral by the TBA, the woman's husband, and sometimes her parents or parents-in-law decide whether to call another TBA or take her to a hospital. TBAs are often asked to continue their efforts by the family members even after they declare delivery complications. According to them, time needed to arrange money is a major reason why taking the patient to the hospital is delayed. TBAs play an important role in deciding which hospital their patient will go to. They recommend a hospital based on their evaluation of the financial capacity of the family. According to their estimates, the expenditure at the health facilities varies from 500 to 5,000 takas.

TBA perspective of perceived qualities required

From the TBAs' description the most important requirements for becoming a TBA seems to be courage. A TBA explained that she had her first experience of helping with a delivery in the village before coming to Dhaka. A neighbour was about to give birth and she was the only one in the vicinity who was courageous enough to assist the birthing woman. After managing a few deliveries she felt experienced and confident.

Qualities believed by TBAs to be the most important to succeed are:

- Courage
- Confidence
- Experience
- Help of divine power

Some TBAs believe that they are endowed with this ability to deliver babies by divine power. One TBA said, "I prayed

to Allah to give me the power to do this work and He granted my wish". This is also evident from their words like, "I do not know why but people say that my presence accelerates the delivery and that is why they are so eager to have me there". Besides, encountering fewer cases with complications is also something they boast about. As they are frequently saying, "I do not encounter cases like these (complicated or obstructed labor). Why would I lie? It is true that I rarely get cases like these." It is not because she can conduct delivery of complicated cases at home but because she rarely encounters such cases, that is considered a qualification in itself.

Antenatal care

For most pregnant women living in slums, antenatal care from TBAs is absent as the decision about who will deliver the baby is taken after labour pains start. Birth preparedness is widely avoided and considered embarrassing. Thus TBAs are normally contacted only when the labour pains begin. One of the reasons for this is that a pregnancy is kept a secret as long as possible. It is believed that it is good to talk less about pregnancy and to keep it a secret, otherwise the labour pain will increase. The other reason for this late involvement of a midwife is the increasing use of the ultrasonograph in predicting the exact time of birth.

At times women do consult the TBAs when they are 7 to 8 months pregnant. Sometimes the mother or mother-in-law comes to the TBA to inform her about the pregnancy to make sure that she would attend the birth. TBAs then advise the following antenatal care for their patients: drink more water, wear lose clothes, sleep on one side, do not wear high-heeled shoes, throw away the used water after cooking as soon as possible, and avoid doing hard work when there is pain. If the baby comes down early, the TBAs massage oil on the belly to reposition the baby.

Neonatal care

Neonatal care provided by TBAs consists of a few rudimentary actions. TBAs bathe newborns after 1 to 3 days, usually by sponging them with warm water. They massage babies with oil, and cut their hair 21 to 30 days after birth. TBAs also inquire whether the baby has urinated and defecated. If it has done either, then they conclude that it is well, and if not then there is a problem and the baby must be taken to the doctor.

Knowledge of the importance of colostrum feeding varies among the TBAs. Some advice that sugar water or powder milk be given to the newborn for the first three days instead of breast milk since they believe the colostrum is polluted. On the other, some TBAs advice to give the baby breast milk just after the birth. In such cases, if the breast milk does not come after the birth, they suggest giving honey or sugar water as prelacteal food. One TBA in the study suggested not feeding the baby at all till the breast milk came since a newborn can survive without any food for up to two days. All TBAs suggested breast feeding the baby after the initial period following childbirth. Some TBAs are aware of the importance of hygiene in food and instructed that a feeder should be boiled for half an hour before being used.

Postpartum care

TBAs usually visit the mother and the baby 2 to 3 times in the 7 to10 days after the delivery, depending on the closeness of their relationship. Some even visit the birthing mother and the child twice a day for the first 6 to 7 days.

TBAs suggest a diet of black cumin seed paste, potatoes, and fresh fish to non-lactating mothers to induce lactation within two and a half days. They recommend that the new mother should eat as much as she can to regain her strength. In case of prolonged weakness, the mothers are advised to push saline. TBAs are found to put restrictions on the mother's movement, such as advising against sudden or quick movements and exertions. Applying a hot compress and taking pain killers are advised for any abdominal pain.

Implications

TBAs working in slums have positive and negative aspects. On the positive side, the intention and dedication shown by TBAs as well as their eagerness to learn from medical personnel are assets. In the absence of access to care, the poor are getting a form of experienced care from the traditional knowledge base of TBAs. On the negative side, the quality of specialized care, and during complications, emergency care in particular is very low. As most TBAs have had very little schooling, their knowledge of infection, infection control, modern medicine, birthing practices and causes of complications is at a minimum. Their near illiteracy prevents them from increasing their knowledge and hence their practices in a meaningful way. It is thus important to find ways of making solutions such as the Manoshi birthing huts work.

Prepared by Rumesa Rowen Aziz. Source: Sharmin T, Neeloy AA. Exploring existing TBA network among the slum dwellers in Bangladesh: Implications for designing MNCH programme. Unpublished.

Perceptions of Slum Dwellers Regarding Childbirth: How do Poor Urban Men and Women Make Delivery Decisions?

Despite substantial decline in infant and child mortality in Bangladesh and a number of activities to reduce maternal mortality, the maternal mortality rate is still a high 320 per 100,000. Antenatal Care (ANC) has increased in recent years, but is still too low with just over half of all women receiving any ANC during their most recent pregnancy. In 2004, 18 out of 20 deliveries took place at home. This is in spite of a very substantial effort to construct and renovate a large number of Ministry of Health and Family Welfare (MOHFW) facilities. It is essential to identify the factors that affect family decisions regarding safe delivery practices and the health of the new mother. This study was conducted on a population of urban slum dwellers in Dhaka to understand their perceptions of the birthing process and the factors that affect their decisions on how and where to conduct deliveries.

Knowledge of community regarding pregnancy

Information on the whole process of delivery is not shared and the topic is rarely discussed among unmarried persons. As a result, community people know little about how to prepare for a delivery, a complicated delivery in particular.

Knowledge and involvement of men during pregnancy and delivery

Husbands are not encouraged to accompany their wives during ANC check ups, delivery, or PNC visits. Usually, only female relatives or neighbors accompany the delivering woman to the health centers. Due to this common exclusion of men, any medical problems that arise remain unknown to the husbands. Health workers also, usually only target women to explain the nature of uncertainty involved in deliveries. Thus, media (such as TV or radio) is the only way to inform men about the different aspects of delivery.

Perceptions of responsibility for a normal pregnancy

The norm is that the pregnant woman is responsible for the delivery to be normal by obeying her seniors, praying to Allah and behaving according to advise. This belief may prevent other family members from being more active in preventing complications and appropriately managing a complicated delivery. This may also cause a pregnant woman suffering from complications to hide her medical problem to some extent.

Decision makers during delivery

As women relatives and neighbours are the only ones present during delivery, they are the decision-makers regarding when a delivery becomes complicated or when a situation becomes critical requiring medical attention. In contrast, male family members wait for instructions provided by the female family members, such as to call the doctor or accompany the patient to the hospital.

A Normal Delivery is considered, by both men and women, to be a delivery that takes place at home, no matter how long the duration of the labour or whether a birth attendant (*dai*) was present at delivery or not. A Complicated Delivery is a delivery that takes place in a hospital, as perceived by both men and women.

Why wrong decisions are made

The fear of a complicated delivery is mostly related to the cost of a possible Caesarian operation and services at the health facility, and problems of transportation. The fear discourages the family to send the pregnant woman to a facility. Moreover, men, who know little about the process and management of delivery due to their exclusion from the sharing of information on this topic within the family, are called to arrange the hospitalization of the women when complications arises. Appearing in the process only at the emergency, male family members may fail to manage the situation properly. Hence, increased knowledge and involvement of the male members of the family and the community is required.

Key findings

Perceptions of normal and complicated deliveries

- Most people hope for a normal delivery: (delivery at home)
- Complicated deliveries (hospital deliveries) are caused by:
  i) Pregnant woman taking excessive rest causing the baby to become too big
  ii) Domestic violence by the husband
  iii) Frequent sexual intercourse during pregnancy
  iv) Insufficient work done by pregnant woman causing the baby to become too big
  v) Lack of hygienic environment at home
  vi) Fate

Fears associated with delivery:

- Different fears are associated with the delivery process for women and men.

  For women, the principal fears were:
  i) Fear of losing life
  ii) Fear of hospital/doctor, specifically that of a Caesarian section and that the baby would be stolen
  iii) Fear of cost
  iv) Fear of delivery complications

  For men, the principal fears were:
  i) Fear of cost
  ii) Fear of additional responsibility
  iii) Fear of lack of cooperation

Knowledge and decision making regarding delivery:

- Accurate knowledge of the delivery process is unknown to a woman pregnant for the first time, and remains unknown until her delivery
- Men's knowledge on the delivery process and complications is vague
- Male members of the household are usually not involved in the delivery process or in its decision-making until after complications arise that require major logistic and financial support

A common misconception
Less work, more rest – a cause of complicated delivery

When a pregnant woman rests more and works less than usual, the baby inside the womb becomes big. If she works then there is a pressure on the baby and it cannot grow big and as such the delivery is normal. The delivery becomes complicated if the baby is big and then it is necessary to take the patient to the hospital.

Prepared by Rumesa Rowen Aziz. Source: Sharmin T, Neeloy AA. Exploring existing TBA network among the slum dwellers in Bangladesh: Implications for designing MNCH programme. Unpublished.

Baseline Survey of the Slums in Dhaka

In order to evaluate the impact of Manoshi, a baseline survey was conducted in selected slums of Dhaka City Corporation in 2007. In 2007, the Manoshi programme was implemented in the slums of Gulshan, Shyampur, Kamrangir Char, Shabujbag, Mohammadpur and Uttara. In the baseline survey, the abovementioned six slums constituted the programme area and the slums in Badda, Hazaribagh, Jatrabari, Khilkhet, Meradia and Mirpur were selected as the comparison area. The survey was designed to conduct a two-cell pre-post comparison in the Manoshi programme area vs. non-programme area. The baseline survey provides information on the level of knowledge, perceptions and practices related to maternity, neonatal and child care of the urban poor living in the slums of Dhaka city. The cross sectional survey interviewed 2,483 women with under five children, of whom 50% (1,256) were mothers who delivered a child in the last one year and the rest (1,227) were with a child aged 1 to 4 years old.

The 2005 Slum Census of Urban Bangladesh carried out by the Centre for Urban Studies identified 4,966 slum clusters in Dhaka Metropolitan Area (DMA) with a population of 3.4 million representing 37.4 percent of the total population in Dhaka city. The slums are largely concentrated in the periphery especially the eastern and western fringe of Dhaka city with sporadic concentrations in the central areas.

Demography and household characteristics: The population structure of the households included in the baseline survey was predominantly young; 75% of the household population was under 30 years and 25% under five years of age. For the age group of 15-24 years, the female population was markedly larger than the male population.

More than 90% of the respondents were married before the age of 20, the median age at marriage was only 15 years. The mean number of children ever born to respondents is much lower than the national estimate; 2.7 in programme slums and 2.5 in comparison slums. Only 25% of respondents were employed. The majority were employed with jobs, followed by domestic work and daily labour. Employment types in the slums differed; skilled labourers were significantly more likely to live in the comparison area, whereas domestic workers were more in the programme areas.

Approximately half of the respondents were inhabitants of the slum for two or less years. The leading reasons for migration to the slums were mainly for familial purposes, followed by employment, and better security. Educational attainment was lower in programme slums than comparison slums – 44% of the population aged five years or more in programme slums and 35% in comparison slums had no schooling; 30% of population in programme slums and 41% in comparison slums completed primary level of education or higher. Moreover, the proportion of respondents with secondary or higher education in comparison slums (8%) was close to double than that of the programme slums.

Water and sanitation situation in comparison slums was much better than in the programme slums – 56% of the households had access to piped water inside dwellings and 20% had modern toilet facility in programme slums compared to 65% and 41%, respectively, in comparison slums. Approximately 90 percent of households had electricity. As the survey included older slums a very low proportion of *jhupri* or makeshift dwellings made with flimsy, temporary materials like polythene, board, etc. were observed. In addition, a better socio-economic situation prevailed in the comparison slums than in the programme slums, a higher proportion of household durables and assets were observed in the comparison area.

Knowledge of safe motherhood

Antenatal care: The basic knowledge about the need for antenatal care services, TT vaccination and iron supplementation during pregnancy was high. However, only half of the respondents knew that the recommended number of ANC visits was four or more.

Post natal care: The level of knowledge of the requirements for post natal care (PNC) and the need for other services in the post delivery period was similar in both areas.

Knowledge of services required during pregnancy

Knowledge on...	Programme area	Comparison area
Requirement of ANC visit during pregnancy		
Required	97.2	97.9
Number of ANC visit required		
4 or more	44.7	49.9
Don't know	6.4	5.9
Requirement of TT vaccination		
Required	99.3	99.6
Requirement of iron supplementation		
Required	90.7	93.5

Knowledge of services required after delivery

Knowledge on...	Programme area	Comparison area
Requirement of PNC visit		
Required	93.7	91.9
Number of PNC visit required		
None	6.3	8.1
4 or more	20.4	23.8
Requirement of iron supplementation		
Required	72.1	76.1
Requirement of vitamin A supplementation		
Required	66.6	75.8
Number	1,256	1,277

Home was the most common choice for delivery, followed by government hospitals and NGO health centres. Due to the better economic conditions in the comparison slums a higher proportion (5%) chose private facilities in these slums than in the programme slums (2%). In both areas, untrained traditional birth attendants (55% in programme slums and 42% in comparison slums) were the

most sought after choice for delivery, followed by trained TBAs.

Awareness of life threatening conditions

During and post delivery: Knowledge of the respondents of major maternal complications during delivery and within 42 days of delivery requiring medical treatment was poor.

Knowledge on pregnancy complications

Knowledge on...	Programme area	Comparison area
Complications that require medical treatment		
Severe headache	41.2	35.5
High fever	16.0	17.9
Blurry vision	20.9	11.2
Reduced foetal movement	27.1	30.6
High blood pressure	0.9	2.0
Oedema of hands/feet	23.1	21.5
Oedema of face	1.4	1.3
Convulsions	21.2	21.8
Vaginal bleeding	17.5	24.0
Lower abdominal pain	49.7	50.4
Place of treatment of pregnancy complications		
Home	0.5	0.2
BRAC delivery hut	2.3	0.1
Pharmacy	2.5	2.0
Govt. hospital	58.8	51.4
Private clinic	19.2	26.6
Chamber	11.5	10.1
NGO health centre	44.3	40.7
Number	1,256	1,277

Multiple responses

Prolonged labour followed by excessive vaginal bleeding and severe abdominal pain were acknowledged as complications by the respondents. Less than 1%, were aware of all five danger signs (viz. severe headache, high fever, blurry vision, convulsion, and vaginal bleeding) requiring immediate medical attention during pregnancy. Despite the lack of knowledge, less than 1% stated that pregnancy and post delivery related complications can be handled at home. The majority mentioned that women suffering from complications should be taken to medical facilities; government hospitals were the most frequently mentioned facility followed by NGO health centres and private clinics.

Knowledge on illness/complications after delivery

Knowledge on...	Programme area	Comparison area
Complications that require medical treatment		
Excessive vaginal bleeding	36.7	45.9
Prolonged labour	58.7	47.8
High fever	5.7	9.1
Retained placenta	17	12.7
Severe abdominal pain	33.8	36.2
Convulsion	28.8	28.8
Tetanus	6.8	5.2
Place of treatment for after delivery complications		
Home	0.7	0.6
Health & family welfare center	4.8	6.3
Government hospital	67.4	55.7
Private clinic	20.5	28
NGO health centre	34.2	32.1
Chamber	9.3	12
Maternity centre	2.3	2.5
Number	1,256	1,227

Multiple responses

Awareness of life threatening conditions in the neonate: Knowledge on serious health problems within the first week of birth e.g. difficult or rapid breathing in the new born, asphyxia, jaundice and convulsions was high.

In both areas among the essential newborn care practices, knowledge of the need to dry and wrap the newborn was common, followed by the benefits of feeding colostrum. Knowledge of childhood vaccination after birth as well as requirement of vitamin A for under-five children was widespread whereas only 1% knew about eye care.

Knowledge on newborn and child healthcare

Knowledge on...	Programme area	Comparison area
Essential newborn care immediately after birth		
Drying thoroughly	64.4	67.6
Wrapping with warm clothes	59.4	59.6
Feeding colostrums	25.4	32
Cord care	46.5	38.5
Eye care	0.9	1.2
Requirment of vaccination right after birth		
Yes	99.6	99.7
Requirement of vitamin A for under 5 children		
Yes	95.9	96.4

Multiple responses

Half of the respondents knew that breastfeeding should be initiated just after birth, and the majority knew that the duration of exclusive breastfeeding should be 6 months.

Knowledge on newborn and child feeding

Knowledge on...	Programme area	Comparison area
First feeding after birth		
Colostrum	38.9	48.0
Plain water	1.1	1.1
Sugar-water	7.7	8.6
Honey	48.6	39.5
Mustard oil	2.5	1.6
Any milk except breast milk	1.0	1.0
Initiation of breastfeeding		
Just after birth	53.7	52.2
<24 hours of birth	38.0	38.3
Duration of exclusive breastfeeding		
6 months	72.8	68.1
More than 6 months	3.7	3.2

Multiple responses

Less than half in both areas were aware of the symptoms of acute respiratory infection referring to coughs with rapid or difficult breathing or chest in-drawing. Almost all were aware of the need for rehydration with oral saline during episodes of diarrhoea. More than half responded that an MBBS doctor would treat diarrhoea and pneumonia for under-five children, nearly one in three respondents in the slums preferred government nurse/midwife/family welfare visitors.

Knowledge on child morbidity and management

Knowledge on...	Programme area	Comparison area
Signs of pneumonia among under-five children		
Fever	42.7	48
Cough	49.5	48.3
Fast breathing	39.9	47.2
Difficulty breathing	68.2	63.3
Chest in-drawing	33.8	31.1
Food should be given to children with diarrhoea		
Packet saline	95.3	97.2
Home made saline	15	16.1
Usual diet	13.4	8.1
Person to seek advice from for pneumonia and diarrhoea		
SACMO/MA	22.4	23.4
Nurse/midwife/FWV (Govt.)	29.9	27.8
Nurse/midwife/FWV (NGO)	8.4	10
MBBS	60.7	57.8
Pharmacist	0.7	2.5
Spiritual healers	0.1	0.3
Homeopath	1.1	0.4
Kabiraj	0.1	0.5
BRAC SS	0.3	0.2

Actual practices

Maternity care and services received: Around three of every four women received antenatal care (ANC) for the most recent birth, and four or more ANC visits were availed by 27% in programme slums and 36% in comparison slums. Respondents tended to start ANC visits somewhat later in pregnancy than recommended, a median of 5 months of pregnancy for the first ANC visit in both areas. For ANC services, 40% in programme slums and 42% in comparison slums visited NGO health centres, and 15% in programme slums and 16% in comparison slums availed the services from government hospitals.

The majority of deliveries took place at home (85% in programme slums, 75% in comparison slums), followed by government hospitals (6% in programme slums, 7% in comparison slums) and NGO health centres (5% in programme slums, 8% in comparison slums). Most of the deliveries were assisted by untrained TBAs followed by trained TBAs and MBBS doctors.

Only one in three/four respondents with a child had received any PNC (24% in programme slums, 33% in comparison slums) for their most recent birth and only a minority had received four or more PNCs (5% in programme slums, 8% in comparison slums). NGO health centres were the most sought after place for PNC visits.

Pregnancy complication and management: Pregnancy and childbirth-related complications are among the leading causes of maternal mortality in Bangladesh. Of the

Actual practices to manage complications during pregnancy

	Programme area	Comparison area
Complications that require medical treatment		
All complications	26	38
Lower abdominal pain	14	24
Severe headache/blurry vision	5	10
High fever	3	3
Oedema	4	6
Place of treatment for pregnancy complications		
NGO health centre	5	11
Government hospital	5	6
Medicine from pharmacy	8	14
Medicine from doctor or nurse	7	13
Reasons treatment		
Better treatment	73	60
Lack of appropriate skills	0	40
Unavailability of equipment	9	30

1,283 respondents who had delivered a child within the last year, 26% in programme slums and 38% in comparison slums suffered from pregnancy complications. Lower abdominal pain was reported to be the most prevalent, followed by severe headache or blurry vision and oedema. For pregnancy related complications, NGO health centres were visited most frequently, followed by government hospitals. To manage pregnancy complications the predominant method of treatment was obtaining medicine from a pharmacy, followed by a doctor or a nurse.

Of the 284 respondents who sought treatment for pregnancy complications, 7% were referred to higher facilities for treatment. The respondents were mostly referred to government hospitals in programme slums and private clinics in comparison slums, followed by NGO health facilities in programme slums and government hospitals for comparison slums. The major reasons stated for referrals were for better treatment, followed by lack of required skill to treat and unavailability of equipment in the facility.

Immediate newborn care

Half of the respondents in both areas started breastfeeding within an hour of birth; the majority reported feeding colostrum to their newborn. The practice of bathing just after birth was considerably high, and the majority of the respondents reported that their child's head was shaved within one week of birth. Almost all took 'special' care of the cord, despite the only recommendation to keep it dry. The proportion of respondents taking 'Kangaroo-mother care' (skin-to-skin contact) was low.

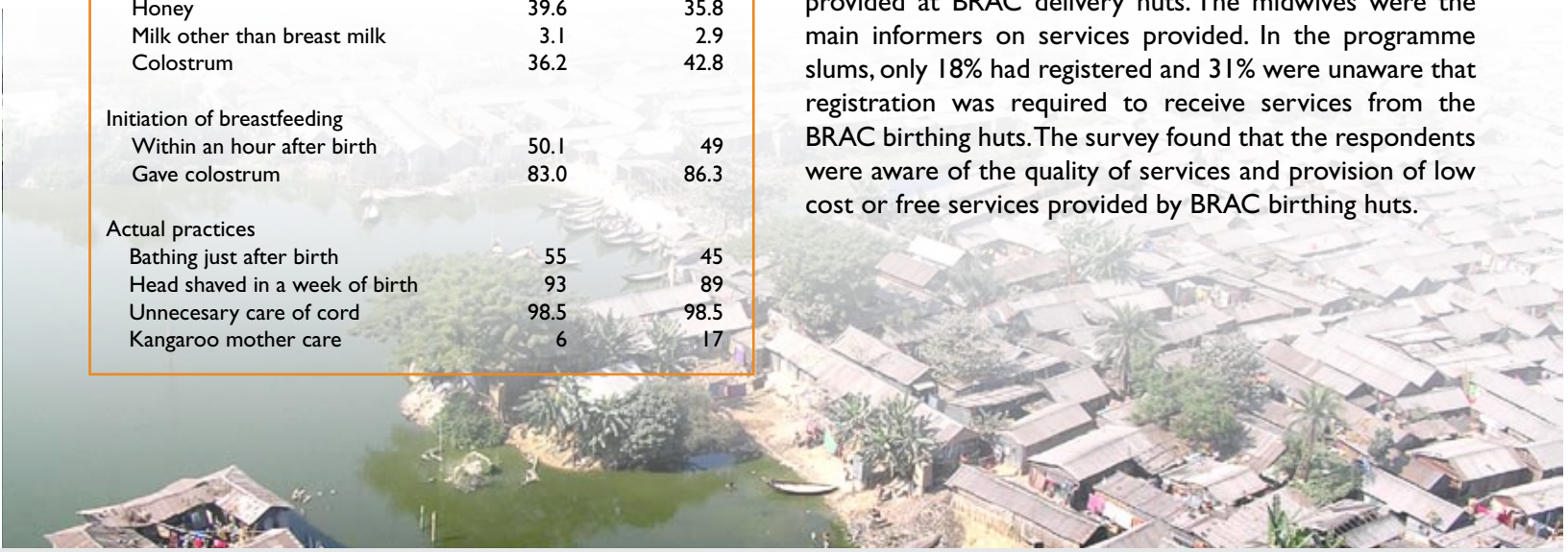
Actual practices on newborn and child feeding

Knowledge on...	Programme area	Comparison area
Pre-lacteal feed after birth		
Plain water	0.9	2.6
Misri/sugar water	15.6	13.6
Honey	39.6	35.8
Milk other than breast milk	3.1	2.9
Colostrum	36.2	42.8
Initiation of breastfeeding		
Within an hour after birth	50.1	49
Gave colostrum	83.0	86.3
Actual practices		
Bathing just after birth	55	45
Head shaved in a week of birth	93	89
Unnecesary care of cord	98.5	98.5
Kangaroo mother care	6	17

Child morbidity and management: In terms of illnesses among the under five children, fever was predominant (45% in programme slums, 43% in comparison slums), followed by cough (33% in programme slums, 35% in comparison slums), diarrhoea (19% in programme slums, 12% in comparison slums) and difficulty in breathing (10% in programme slums and 9% in comparison slums). For management of acute respiratory infection (ARI) among under-five children, treatment was sought mostly from pharmacies (38% in programme slums 33% in comparison slums), and then from private chambers (20% in programme slums and 17% in comparison slums) followed by government hospitals (13% in programme slums, 9% in comparison slums).

Opinion on local healthcare facilities: 47% in programme slums and 55% in comparison slums reported that healthcare and delivery facilities were not available in their locality. The respondents mentioned effective treatment, good behavior and availability of drugs/supplies to be the most important factors that influence patient satisfaction.

Awareness of BRAC birthing huts: Of the 1,256 respondents from the programme area, 25% were aware of the existence of BRAC birthing huts. Respondents were aware that antenatal care (15 percent), followed by delivery care and skilled delivery assistance (7% each) were provided at BRAC delivery huts. The midwives were the main informers on services provided. In the programme slums, only 18% had registered and 31% were unaware that registration was required to receive services from the BRAC birthing huts. The survey found that the respondents were aware of the quality of services and provision of low cost or free services provided by BRAC birthing huts.



Prepared by Tania Wahed and Samira Chowdhury. Source: Ahsan KZ, Streatfield PK, Ahmed SM (2008). Manoshi: community health solutions in Bangladesh, Baseline survey in Dhaka urban slums 2007. ICDDR,B Scientific Report No. 104, Dhaka: ICDDR,B.

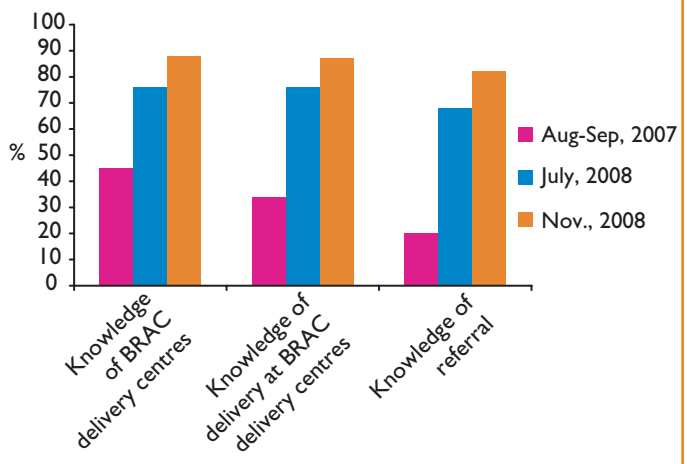
Trends in Knowledge about Manoshi and Utilization of Safe Motherhood Services, 2007-2008

To aid the Manoshi programme managers to identify the lowest level inadequately performing work areas, a continuous monitoring system has been initiated since the beginning of the programme. The system comprises of carrying out LQAS surveys on a quarterly basis by a ICDDR,B team and providing a list of inadequately performing work areas to the managers. The survey uses 19 randomly chosen samples from each of the work areas. The indicators included in this exercise are knowledge of women about Manoshi services, acceptance of tetanus toxoid injection and vitamin A, delivery at birthing hut, and PNC within 24 hours after delivery. In addition to identifying inadequately performing work areas, the survey also permits estimation of coverage rates of the above indicators. Results derived from the LQAS for Gulshan and Mohammadpur, two of the early programme areas, are presented below.

Knowledge of BRAC delivery centres and the services

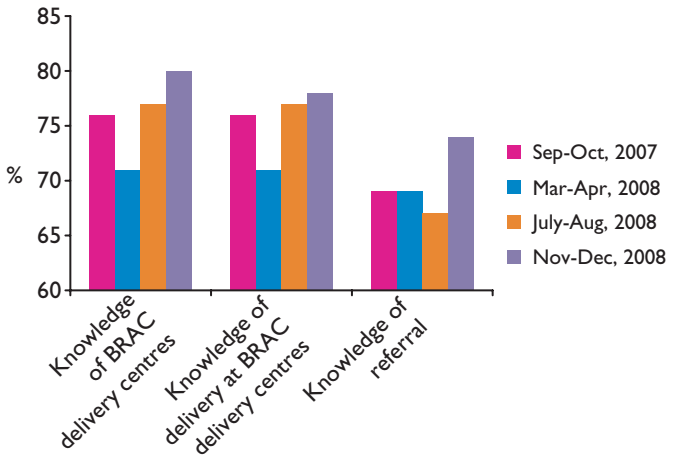
The knowledge of delivery centres went up to 88% in the Gulshan area in November 2008 from 45% in August-September in 2007. The increase in the level of knowledge that delivery is performed in the delivery centres and that complicated cases are sent to higher level facilities has also shown a similar increasing trend over time. The scenario in Mohammadpur with some stagnation and drops during the intermediate stage is also showing an upward trend during the end of 2008.

Percentage of women* with knowledge about Manoshi services in Gulshan area



*Who gave birth during last three months

Percentage of women* with knowledge about Manoshi services in Mohammadpur area

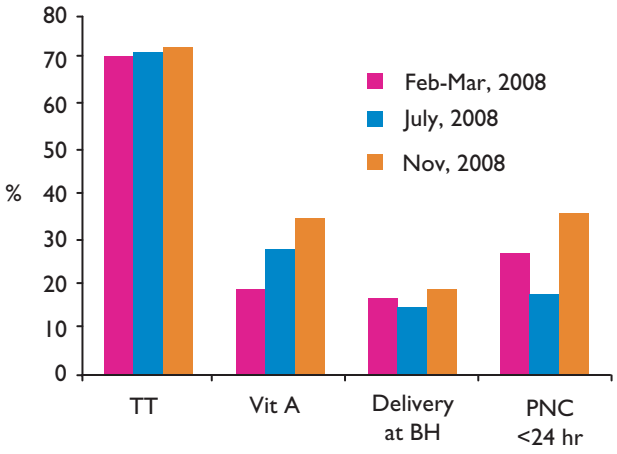


*Who gave birth during last three months

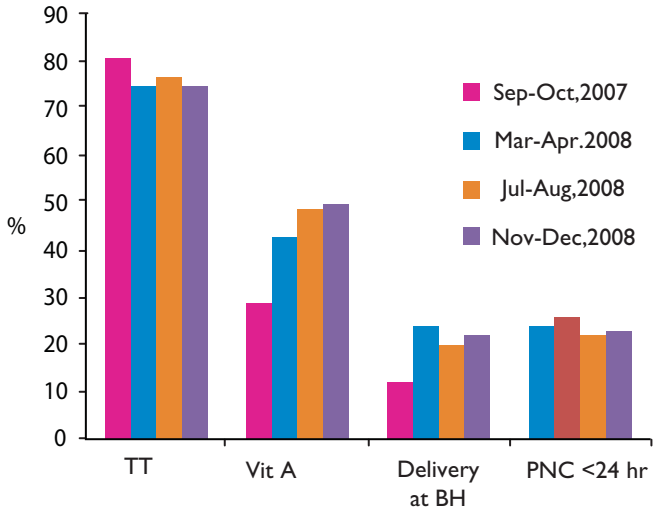
Utilization of safe motherhood services

The uptake of TT has been very high at 71% in the Gulshan and 81% in the Mohammadpur areas since the beginning of Manoshi. The uptake of vitamin A showed a steady increasing trend in both the areas. However, the level is much higher in the Mohammadpur area than the Gulshan area. Deliveries at the Manoshi birthing centres are still somewhat around 20% in both the areas and showing an increasing trend.

Utilization of healthcare services in Gulshan area



Utilization of healthcare services in Mohammadpur area



Prepared by Abbas Bhuiya. Source: Bhuiya A, Hanifi SMA, Mahmood SS, Chowdhury M, Ahmed A, Wahed T. Quarterly Manoshi performance monitoring reports. Unpublished.

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BRAC

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KNOWLEDGE FOR GLOBAL LIFESAVING SOLUTIONS

Manoshi is supported by the Bill and Melinda Gates Foundation

Published jointly by BRAC and ICDDR,B for Manoshi

Designed by Md. Abdur Razzaque
Printed by PrintLink Printers