



## **MMS Bulletin # 112**

*Health System Strengthening: Role of conditional incentives?*

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### ***Reaching the poor with performance based payment for safe delivery services in rural Bangladesh***

## **Potential of Performance Based Payment**

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*In Bangladesh the rates of maternal mortality have not reduced appreciably over the past decade. Although many of these deaths could be prevented by providing safe motherhood services through skilled birth attendants, equitable access to these services for the poor remains a problem. This article illustrates how a performance based payment scheme can decrease this inequity and provide lessons for future programs.*

Bangladesh has made impressive progress in reducing child mortality but rates of maternal mortality have not reduced appreciably over the past decade. The current estimate of maternal mortality ratio for Bangladesh is in the range of 300-400 per 100,000 live births (NIPORT, 2002). The major causes of maternal deaths include postpartum haemorrhage, eclampsia, complications due to unsafe abortion, obstructed labour, postpartum sepsis etc. with hemorrhage and eclampsia accounting for 55% of the maternal deaths. Many of these deaths are preventable with timely detection and intervention by medically trained birth attendants.

Utilization of safe delivery services from medically trained providers is abysmally low in the country. According to BDHS 2004 (NIPORT, 2002), 46.8% of the pregnant women had at least one antenatal check-up (ANC) for the most recent birth; 18% of women had a post-natal check-up (PNC) within 42 days of delivery. With 90% of the deliveries taking place at home only 13% of home deliveries were assisted by skilled birth attendants. Although 25% of pregnancies during the past 5 years had complication during delivery only 29% of them sought care from a medically trained provider. The utilization of safe delivery services has been most inequitable among all the healthcare services – for example, use of skill birth attendant for delivery among the women from the lowest asset quintiles is a third of those from the highest quintile (NIPORT, 2002). The scenario is similar for PNC, facility based delivery and use of cesarean sections. Specially designed programs on safe delivery services in the country had limited success in reducing the inequities in their utilization (Anwar et. al. 2008). Thus, increasing overall utilization of the safe delivery services in the country is a challenge in general and among the poor in particular.

Chakaria Community Health Project of ICDDR,B facilitated a process where village-based indigenous self-help organizations took initiative to improve health of the villagers through health promotional activities and establishment of village health posts. As a part of the activities 13 women from the villages were trained as community paramedics who were later trained as skilled birth attendants. They carried out their activities through home visits and from the village health posts under the supervision of two project physicians. A brief description of the service package is provided later in this paper. Details of the approaches along with lessons learned have been presented elsewhere (Bhuiya / Ribaux / Eppler 2001). The women selected from the community through a competitive process were trained as community paramedics and midwives (Skilled birth Attendants or SBAs) from Ganasystha Kendra, a national health NGO. The course was residential and lasted three months. The SBAs were trained on the job by project physicians continuously from 1999. They were trained to provide ANC, PNC, carry out basic lab tests, and to provide assistance during delivery (home delivery for normal cases and referral services in case of emergency). The services were provided for a nominal fee as decided by the village health post committees. The poor households, certified by the village health post committee, received free services. The SBAs received salary from the project. An evaluation of the 10 year project activities during 2005 showed that the utilization of the SBAs had increased since 1999 but the level of utilization by the poor remained low compared to the better off. An enquiry of the reasons for low utilization rate by the poor revealed that the direct and indirect cost of services is a major barrier to the utilization of safe motherhood services from poor households. The situation required a search for a new strategy to enhance utilization of the services among the poor.

## **An innovative approach to reaching the poor**

In January 2006, a new relationship was established with the 11 SBAs still working with the project to address the persistent inequity in the use of safe motherhood services. Under the new relationship the SBAs were no longer salaried staff but were paid for providing safe motherhood service to the women from the lowest two asset quintiles (indicating their status of poverty). There were several steps to the process as described below.

At first voucher eligible women were identified. Each SBA had an assigned catchment area of approximately 2000 households. During their quarterly visits in the catchment area they identified pregnancy as reported by the women. Some pregnant women were also listed when they came for checkups at the village health posts (static community managed health facility). For all the pregnant women, the SBAs collected necessary information to identify and locate them. The SBAs submit the list to the project officers every month. The project statistician carries out principal component analysis to obtain weights for each of the assets which in turn were used to calculate asset scores for all the households. The households are then distributed in five equal categories based on their asset scores and a list of households belonging to the

lowest two asset quintiles is prepared. These asset based procedures are quite commonly used now-a-days in studying socioeconomic inequities in health and health care utilization (Filmer / Prichett 2001).

Second, the list of eligible women was verified and voucher distributed. Project officers visit the listed households to verify the list supplied by the SBAs and to deliver the vouchers to the pregnant women within a week of receiving the list. The women are advised to avail safe motherhood services from the SBA responsible for the area in exchange of the vouchers.

Third, Safe delivery service was provided. ANC service is provided by the SBAs six days a week at the village health posts. PNC is a domiciliary service. An ICDDR,B physician also attends the village health posts one day in a week. Some times SBAs also provide ANC and PNC services from their own home-based chambers. SBAs assist delivery at the women's home and in case of complications during ANC, PNC or delivery, refer the client to Government secondary or tertiary healthcare facility, NGO hospitals and private clinic. For each of the services provided to the poor women, SBAs collect vouchers. At the end of each month they submit the vouchers to the project office for reimbursement.

Fourth, the claims were verified for reimbursement. The project officers visit all the women for whom the SBAs claim reimbursement for the services they provided. This verification is made before the payment is made to check whether the services were really provided. Once verified, payment is made during the first week of the month for the claims made during the preceding month. The payment is made through bank transfer to SBAs bank account.

## **Did the vouchers enhance service utilization by the poor?**

Data on the utilization of the services of the SBAs came from the Chakaria Health and Demographic Surveillance System (HDSS) maintained by ICDDR,B. HDSS is a sample based quarterly data collection system covering nearly 7,000 households. During the visit information on source of ANC, PNC, and delivery assistance are collected for women who are pregnant and who delivered during the three months preceding the visit. The catchment area of the SBAs was the intervention area. The utilization of services provided by the SBAs was calculated for pre and post of voucher time periods. Information about voucher utilization was collected from the project office.

When we segregated the utilization of safe motherhood services by providers it was easy to see that the project SBAs have made important contribution to the rise of the use of ANC, PNC and delivery services among the mothers from poor households.

Although there is a rise in the use of safe motherhood services we were interested to see whether women who were given vouchers actually use them. From the program data we found that the vouchers for assistance during delivery and PNC within 24 hours of delivery

were the least used and the vouchers for ANC's were the most used. However, it is important to note that for each of the services there were still many women who did not use the vouchers.

Qualitative interviews with mothers who received vouchers but did not use them showed that there is a lack of knowledge about the benefits of using the SBAs. Mothers and other decision makers often did not feel any need to consult the SBAs, felt confident about using the existing TBAs and sometimes even expressed fear that availing the services of the SBAs can lead to cesarean section. In addition, mothers also mentioned accessibility of the SBAs, distance and cost as important factors for non-participation.

In any program involving cash incentives for the service providers it is important to find out how many of the claims made by the providers are genuine. We compared the number of claims made by the SBA with the actual disbursement of the claims and found that almost 20% of the claims were invalidated after verification. The highest proportion of invalid claims was for delivery assistance (more expensive service) while the lowest proportion of invalid claims was made for tear-repair.

## **What did we learn from this experience?**

The experience of performance based payment scheme described in this article has implications for future DSF schemes. Before discussing the implications however, some unique features of the present scheme need to be elaborated. In this scheme former ICDDR,B staff were the designated service providers. This decision simplified the program process in several ways.

First, as ICDDR,B trained these SBAs – we knew their skill levels. In reality if a program wishes to serve maximum number of mothers they need to engage service providers from both public and private sector. Some kind of accreditation mechanisms will have to be defined and put in place for choosing providers who have the skills to provide adequate services.

Second, in the present scheme, the salary of the SBAs were converted to vouchers and left in the hands of the women from poor households. If the SBAs have to earn money from the project they had to serve the poor. Thus, it was not a voluntary incentive mechanism to top up salary rather it was the only way to guarantee a fixed income in this remote rural area. In real life a program will need to decide whether the private sector providers and public sectors will be paid equally. In many public sector setups the providers are salaried staff and providing safe delivery services is part of their job description. In such a situation one will need to decide whether the public sector providers will receive additional payment in exchange of the vouchers for services they are supposed to provide as a salaried staff. If they are to be paid what is the amount of payment? The mechanism of such payment can be a major challenge for bureaucracies that involve various ministries.

Third, monitoring of the claims made by the providers for their genuineness is an important challenge. Under the present scheme, the monitoring was done by project staff that had no incentive to collect information that supported the SBAs. In reality, if the verification of the claims were done through a member of the scheme, appropriate checks and balances need to be institutionalized to reduce/avoid misuse. Another option would be to involve local government in monitoring of the activities.

Fourth, identifying the program beneficiaries is another challenge. The scheme described had the opportunity to access data from HDSS which will not be available in other places. However, it may be possible to involve the local government authorities in identifying poor.

In conclusion we can say that performance based payment has the potential to increase service utilization among the poor. However, there are many practical issues that need to be sorted out and mechanisms for tackling them need to be thought through to maximize the benefit for the poor.

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