

**USING VOUCHERS TO INCREASE ACCESS
TO MATERNAL HEALTHCARE IN BANGLADESH**

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ABSTRACT

The maternal mortality ratio (322) is comparatively high in Bangladesh. The utilization of maternity care provided by trained professionals during and after delivery is alarmingly low, primarily due to lack of knowledge and money. The overall objective of this operations research project was to test the feasibility and effectiveness of introducing financial support (voucher scheme) for poor rural women to improve utilization of antenatal care (ANC), delivery and postnatal check-up (PNC) from trained service providers. A pretest-posttest design was utilized. A total of 436 women were interviewed before and 414 after the intervention to evaluate the impact of interventions. In-depth interviews were conducted with users and non-users of vouchers. Findings show that institutional deliveries have increased from 2% to 18%. Utilization of ANC from trained providers has increased from 42% to 89%. Similarly, utilization of PNC from trained providers has increased from 10% to 60%.

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INTRODUCTION

The maternal mortality ratio (MMR) is not only an indicator of maternal health but also considered an important indicator of the overall health status and well-being of a nation. Bangladesh has made significant improvements in several related health indicators including reduction in the MMR. The MMR has almost halved from more than 600 in 1980 to 322 in 2009 [1]. It is still one of the highest in the world. Pregnancy and delivery-related deaths account for 20% of all deaths among women of reproductive age in Bangladesh. Two-thirds of maternal deaths occur after delivery; one in ten occurs during delivery, and the remaining one in five occurs before delivery. The leading causes of maternal deaths are hemorrhage (29%) and eclampsia (24%). Other direct major causes of maternal deaths are prolonged/obstructed labor and puerperal sepsis [1].

The utilization of maternity care provided by trained professionals during and after delivery is alarmingly low in Bangladesh. While there has been some improvement in recent years, about half of all pregnant women do not seek any antenatal care (ANC) [2]. Among those who do access ANC, 31% receive services during the first trimester and 24% delay seeking care until the third trimester. Reasons for not seeking ANC include perceptions that the service is not necessary (62%) and monetary constraints (21%) [1].

To reduce the health risks for mothers and their babies, it is important to increase deliveries by skilled providers with adequate medical supervision [3]. Births in health care facilities have increased from 9% in 2004 to 15% of women in 2007. Yet, delivery at home remains almost universal; about 85% of babies are born at home in Bangladesh [2]. Seven percent of deliveries occur in public health facilities and 8% in private hospitals and clinics. Trained providers (doctors, trained nurses or midwives, or paramedics) attend only 15% of deliveries [2]. Approximately 29% of women with complications during delivery receive treatment from trained providers; 33% visit unqualified providers. The remaining one-third does not seek any care for maternal complications [1, 4]. The proportion of institutional deliveries is higher among women of higher socio-economic status, women in urban areas, and women with secondary school or higher education [1, 4].

Several social, religious and economic barriers prevent women from seeking services during delivery at health facilities. A frequently cited reason for not delivering in a facility is perceived absence of need (68%) followed by the cost of treatment (18%) [1]. Other cited reasons include poor quality of services and lack of access or transportation problems. Less educated and poorer women are more likely to report cost as a reason for choosing not to deliver at health facilities. Rob et al. found that cost was one of the most important barriers for not seeking ANC and postnatal care (PNC) services in Bangladesh [5].

It is now acknowledged that maternal health programs have failed to serve a large proportion of the poor and vulnerable groups in rural areas. Supply-side

barriers include: non-availability of doctors and drugs; discriminatory behavior of providers; and lack of an effective cost-exemption mechanism. There are also demand-side barriers that inhibit women from seeking ANC, delivery, and PNC services, including lack of information about when or from where to obtain treatment and women's awareness of potentially life-threatening conditions during pregnancy, delivery, and after delivery [4]. Other obstacles to seeking treatment include high indirect costs, transportation costs, intra-household preferences, and socio-cultural norms [5, 6]. Due to these reasons, most deliveries are conducted by untrained persons that results in high maternal mortality.

Vouchers (or coupons) for reproductive health are not new; Taiwan and Korea successfully used them in the 1960s to increase access to family planning [7]. Financial assistance through a subsidized voucher model could enable the poor to receive maternal health care services [8]. This system has already been tested in Kenya and Uganda. In Nicaragua, two voucher projects were implemented for increasing utilization of sexually transmitted infection (STI) services in 1995. Syphilis prevalence decreased and service utilization increased among the target groups [9]. Bhatia et al. [10] showed that this scheme could also be an option for increasing the utilization of reproductive and child health services in India. In the Yunnan Province of China, a voucher scheme was introduced for low-income, pregnant women to enhance the utilization of maternal and child health services. This scheme covered the cost of ANC, delivery, and PNC as well as care of sick children.

Findings show that the distribution of vouchers has increased the utilization of treatment for childhood diarrhea among the poor [11, 12]. In Mexico, families are encouraged to obtain preventive health care, participate in growth monitoring and nutrition supplements programs and attend health education programs to be eligible for cash transfer. The study findings suggest that the cash transfer component is associated with better outcomes in child health, growth and development [13, 14]. Experience with a discount voucher for insecticide treated bed-nets in Tanzania showed higher utilization of bed-net by poor, pregnant women and young children [15-17].

In Bangladesh, Health and Family Welfare Centers (HFWCs) are located in rural areas to provide primary and preventive outpatient health care services to the local population. There are about 3,600 functional HFWCs in the country. These centers are staffed by one Family Welfare Visitor (FWV) and one Sub-Assistant Community Medical Officer (SACMO). In most cases, the SACMO is male and provides general health care services to clients, while the female FWV provides services to women and children. Both male and female field-workers are deployed at the community level to distribute health and family planning commodities and to conduct behavior change communication activities. At the upazila (sub-district) level, one 30-50 bed hospital provides services to 250,000 to 300,000 populations [18]. Some of these upazila level health facilities are equipped with comprehensive emergency obstetric care services and

some are not. Government health facilities provide free ANC, delivery, and PNC services, but the related costs of medicines, transportation, and treatment for complications discourages many poor women from seeking these services.

To achieve the Millennium Development Goal (MDG) of reducing maternal mortality ratio to 143 deaths per 100,000 live births by the year 2015, greater efficiencies will be needed to better utilize current financial allocations. A pilot program examined whether maternal health care service delivery by trained providers could be improved by providing financial support directly to poor pregnant women and service providers through vouchers. This article presents findings of the pilot program on utilization of ANC, delivery, and PNC service.

STUDY OBJECTIVE

The study, therefore, has as its overall objective:

- To test the feasibility and effectiveness of introducing a voucher scheme for poor, rural pregnant women in order to improve utilization of ANC, delivery, and PNC from trained service providers.

SCHEMATIC OF VOUCHER SCHEME

In 2006, the Population Council and RTM International created a voucher management agency (VMA) in consultation with district and upazila level government officials, constituted district and upazila voucher committees and transferred sufficient funds to these committees (Step 1) to cover the estimated costs of reimbursing providers for the services delivered. The VMA organized training programs to improve the skills of service providers and fieldworkers and strengthened health facilities for providing ANC, delivery, and PNC services (Step 2). Simultaneously, the VMA communicated with local stakeholders to form community support groups (Step 3). Fieldworkers identified which pregnant women were qualified to receive vouchers using pre-defined criteria of extreme poverty and then submitted the list of women to the community support groups (CSGs) for validation (Step 4). The community support group then returned the list to the fieldworkers for review and final agreement.

Fieldworkers received voucher books from the VMA and distributed to the eligible pregnant women (Step 5). In addition, fieldworkers and CSG members used flipcharts and pamphlets to increase awareness of the availability and importance of using maternal health services. Voucher recipients then accessed the services from the accredited providers by exchanging a voucher for the approved service (Step 6). The service providers submitted the vouchers received, together with supporting documentation, to the upazila voucher committee for reimbursement; the committee paid the service providers the agreed amount for each voucher presented (Step 7). Because emergency obstetric

Care services are not provided at upazila level health facilities, complications during pregnancy and delivery are treated at district level health facilities. A district voucher committee managed reimbursement of vouchers for these services (see Figure 1).

Fieldworkers identified a total of 739 eligible pregnant women during the study period. Among these, a total of 702 pregnant women were validated as “poor” by the CSG members. Fieldworkers distributed voucher books in 55 villages to 580 pregnant women who were expected to give birth between November 2007 and June 2008.

COST OF SERVICES

Transportation costs are one of the major concerns for poor women during utilization of maternal health care from trained service providers. Therefore, vouchers for reimbursement of transportation costs were included for three ANC visits, delivery care including referral for complications, and one PNC visit (see Table 1). The costs of purchasing the required medicines from the commercial sector were also covered by a voucher. Despite having the costs of each service covered, there remained the risk of pregnant women experiencing critical life-threatening complications which would incur additional costs for the

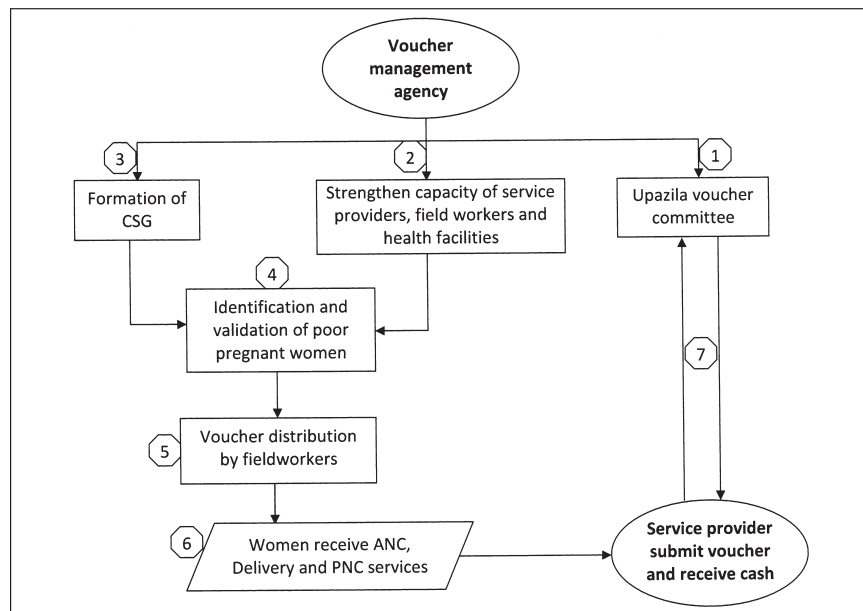


Figure 1. Functioning of the voucher management scheme.

Table 1. Price Structure for Maternal Health Care Transportation Services

Transportation costs for services	Number	Total cost (US\$)
ANC	3	4.4
PNC	1	1.5
Delivery/complication management		
Residence to union	1	1.5
Union to upazila	1	4.4
Residence to upazila	1	5.9
Residence/union/upazila to district	1	7-15 ^a

^aBased on mode of transportation (US\$ 7 for three wheeler vehicles and US\$ 15 for car/van).

treatment. For this reason, women were also encouraged to save their own money and a money savings box (coin box) was provided to each pregnant woman.

METHODOLOGY

A pre- and post-intervention (no controls) design was used to examine the effect of subsidizing the cost of maternal health services through the provision of vouchers on the utilization of ANC, delivery, and PNC services by poor pregnant women.

In July and August 2007 a baseline cross sectional survey was conducted to measure utilization of ANC, delivery, and PNC services among poor women who had delivered a child within the previous year in the voucher areas. Using simple random sampling, 436 poor mothers were interviewed about their healthcare practices during their last pregnancy. In July 2008, an endline cross sectional survey of voucher recipients collected information from 414 randomly selected poor women from the 580 women who had received a voucher book and gave birth during the intervention period.

To collect detailed information about the mechanism of voucher distribution and utilization, in-depth interviews were conducted with 15 women who used maximum number of the vouchers while receiving ANC, delivery, or PNC services. In addition, in-depth interviews were conducted with 15 women who did not use any vouchers to find out the reasons for their non-use. Women were interviewed at their home using a detailed guideline and interviews were tape recorded to avoid loss of information. All in-depth interviews were transcribed immediately afterwards to ensure the quality of information.

Qualitative data were analyzed using content analysis and descriptive statistical analyses, and significance tests were used for the before and after comparisons of outcomes among women surveyed. The baseline and endline data were analyzed to examine the effectiveness of vouchers, and specifically their impact on knowledge and utilization of ANC, delivery, and PNC services. Mean and proportionate tests were used to measure differences in the key outcome variables.

FINDINGS

Characteristics of the Women Interviewed

A comparison of the characteristics of the women interviewed at baseline and at endline showed no significant differences in terms of their age and the occupations of the women and their husbands (see Table 2). The difference in mean age between women and their husbands was about 10 years. The educational level of women and their husbands was slightly higher during endline compared to the baseline. The majority of women were housewives (95% in 2007 and 98% in 2008) and their husbands were primarily farmers (34% in 2007 and 28% in 2008), daily laborers (20% in 2007 and 35% in 2008), and small business vendors (14% in 2007 and 11% in 2008).

There was no significant difference in the demographic characteristics of the women surveyed in 2007 and 2008 (see Table 3). The average number of living children was three and one-quarter of respondents had ever experienced a miscarriage, stillbirth, abortion or menstrual regulation (MR). The proportion of women reporting a stillbirth was relatively low during the baseline compared to endline (1% vs. 3%) because the selection criteria were for women who had a living child of less than 1 year at the time of the survey.

Utilization of ANC Services

A significantly greater proportion of pregnant women had at least one ANC visit after the introduction of the voucher program, although 85% of women received the voucher books at 6-9 months of pregnancy and so this may underestimate the number accessing ANC at endline (see Tables 4 and 5). Among those whose visit was due during the intervention period, the proportions having at least three visits increased dramatically. In the baseline survey, 79% of women sought at least one ANC visit. In the endline, 89% of women sought ANC services at least once ($p < 0.01$). Of the women who did not seek ANC, significantly no one cited lack of money in the endline (65% in 2007 and none in 2008). Lack of money was the most frequent reason followed by perceived lack of need (31%) and familial constraints (3%). There was a significant increase among women interviewed at endline who reported consulting at least one trained provider whereas only one-half of the women interviewed at baseline had done so.

Table 2. Socio-economic Characteristics of Women and Husbands (in percent)

Characteristics	Baseline	Endline	t/Chi-test	Significance level
Age of women (years)				
<25	44.2	39.6		
25-29	28.0	28.3		
30-34	17.9	19.1		
>35	9.9	13.0		
Total	100.0	100.0		
Mean	26.1	27.2	2.368	$p > 0.10$
SD	6.1	6.2		
Husband's age (years)				
Mean	36.9	36.2		
SD	8.3	8.2	1.767	$p > 0.05$
Years of schooling (women)				
Illiterate	68.1	49.0		
Incomplete primary	18.8	21.3		
Completed primary	9.9	17.6		
Higher than primary	3.2	12.1	22.365	$p > 0.05$
Total	100.0	100.0		
Years of schooling (husband)				
Illiterate	74.1	57.7		
Incomplete primary	12.9	18.5		
Completed primary	9.6	13.9		
Higher than primary	3.4	9.9	10.792	$p > 0.10$
Total	100.0	100.0		
Occupation of women				
Housewife	95.2	97.7		
Others	4.8	2.3	4.362	$p > 0.10$
Total	100.0	100.0		
Husband's occupation				
Small business	13.6	11.1		
Skilled labor/service	6.8	3.6		
Farmer/agriculture labor	33.6	28.1		
Day labor	20.1	35.0		
Transport workers	8.2	9.0		
Fisherman	11.9	9.9		
Total	94.2	96.7		
<i>N</i>	436	414		

Table 3. Demographic Characteristics of Women (in percent)

Characteristics	Baseline	Endline	t/Z-score	Significance level
Number of living children				
0-1	17.4	27.3		
2	22.2	20.0		
3	20.6	20.0		
4+	39.8	32.7		
Total	100.0	100.0		
Mean	3.24	3.00	1.938	$p > 0.05$
SD	1.772	1.792		
Ever experienced miscarriage/ abortion/stillbirth/MR				
Yes	25.9	25.1		
No	74.1	74.9	0.142	$p > 0.10$
Total	100.0	100.0		
Outcome of last pregnancy				
Live birth	98.9	97.1		
Still birth	1.1	2.9	1.06	$p > 0.10$
Total	100.0	100.0		
<i>N</i>	436	414		

Delivery

At baseline, only 6% of deliveries were assisted by a trained provider including a doctor (MBBS), nurse, paramedic, or skilled birth attendants. In the endline survey this proportion increased substantially and significantly to 22% of poor pregnant women (see Table 6).

Table 7 describes the place of delivery reported for all live births and stillbirths during the last pregnancy. At baseline, home deliveries were almost universal but this proportion decreased significantly over the intervention period, with an accompanying increase in institutional deliveries. Deliveries mostly took place at the upazila health complex (12%) and district hospital (5%); only 1% of women received delivery care from other designated health facilities within the voucher scheme, including the HFWC, MCWC, NGO facility, and private facilities.

Reasons for Not Delivering at a Health Facility

Despite having the financial support of the voucher book, the majority of women in the endline survey did not deliver at a designated health facility

Table 4. Utilization of ANC Services by Women

Utilization of ANC	Baseline	Endline	Z-score	Significance level
At least one ANC	79.3	89.1	3.960	$p < 0.01$
At least two ANC	58.7	76.2	5.279	$p < 0.01$
At least three ANC	30.2	63.4	9.647	$p < 0.01$
Say money is barrier to ANC	64.8	0.0	20.045	$p < 0.01$
<i>N</i>	436	414		

Among pregnant women who sought at least one ANC visit, there was a significant increase in the number and type of services in the endline group.

Table 5. Services/Examinations Provided during ANC Check-Up (in percent)

Services/examinations	Baseline	Endline	Z-score	Significance level
Weight measure	25.2	98.4	20.159	$p < 0.01$
Height measure	8.1	82.4	19.818	$p < 0.01$
BP measure	49.3	93.0	13.048	$p < 0.01$
Blood test	9.3	76.4	18.039	$p < 0.01$
Urine test	13.3	91.6	21.159	$p < 0.01$
Abdomen examination	51.6	95.7	13.521	$p < 0.01$
Eye examination	47.5	74.0	7.1325	$p < 0.01$
<i>N</i>	345	369		

($n = 339$) (see Table 8). It was mostly the respondents themselves who decided not to deliver at health facility, although in 12% of cases it was the parents or in-laws and in 8% the husband. Baseline findings revealed that, among the women who delivered at home ($n = 427$), the most frequently cited reason was the monetary constraint (72%), followed by a perceived absence of need to deliver at an institution (28%), and better care at home (21%) as a preference for delivering at home. The reasons given at endline for not delivering at a health facility among women having a voucher book were as follows: i) did not have any problems and so didn't see the need (60%); ii) labor pain started suddenly (25%); iii) had no one to accompany the pregnant woman to the health facility

Table 6. Utilization of Delivery Care Services (in percent)

Utilization of delivery care	Baseline	Endline	Z-score	Significance level
Had skilled birth attendant	5.5	21.6	6.900	$p < 0.01$
Went to any health facility	2.3	18.3	7.740	$p < 0.01$
Had a home delivery	97.8	81.7	7.806	$p < 0.01$
<i>N</i>	436	414		

Table 7. Place of Last Delivery (in percent)

Places	Baseline	Endline	Z-score	Significance level
Home	97.7	81.7	7.845	$p < 0.01$
At own home	86.2	75.8	3.724	$p < 0.01$
Parent's home	11.5	5.9	3.043	$p < 0.01$
Health facility	2.3	18.3	7.845	$p < 0.01$
District hospital	0.7	5.3	3.446	$p < 0.01$
Upazila health complex (UHC)	0.9	11.9	6.569	$p < 0.01$
Others ^a	0.7	1.1	0.000	$p > 0.10$
<i>N</i>	436	414		

^a“Other” includes private, NGO facilities, and government primary care dispensaries/facilities.

(14%); iv) a fear of the facility (12%). Seventeen percent of the women also raised issues about the perceived poor quality of service, unpleasant behavior of providers, long waiting times, and unsuitable service hours.

Among women who did not experience any life-threatening complications, only 15% received delivery care from a trained provider (8% from doctors and 7% from paramedics). Among women who experienced a life-threatening complication, 60% delivered their baby with assistance from a trained provider (34% from doctors and 24% from paramedics), but this means that 40% of complicated deliveries were assisted by untrained providers. Although this is still a major challenge, it is a positive indication of the immediate effect of introducing the voucher scheme on access to critical services.

Table 8. Reasons for No Facility Delivery (in percent)

Reasons	Baseline	Endline	Z-score	Significance level
Lack of funds	72.2	0.0	21.740	$p < 0.01$
Not a problem	28.0	60.4	9.404	$p < 0.01$
Labor started suddenly	0.0	25.0	11.140	$p < 0.01$
No one to accompany woman to facility	0.0	14.3	8.093	$p < 0.01$
Fear of facility	3.3	11.8	7.297	$p < 0.01$
Lack of quality, poor customer service, etc.	20.6	16.7	1.484	$p > 0.10$
<i>N</i>	427	339		

Utilization of PNC Services

Respondents were asked whether they went for a check-up, either for themselves or for their baby, during the 42 days following delivery and, if so, what types of providers were seen and facility visited. Those who did not go for a check-up were asked their reasons for not doing so.

Only 45% of women reported having a postnatal check-up for themselves during baseline and this increased significantly to 60% after introduction of the interventions (see Table 9). Before the interventions, 22% of respondents received PNC check-up from a trained provider, which increased to 100% afterwards. Most mothers received their postnatal check-up within 2 weeks following delivery. Baseline findings showed that 44% of respondents received PNC at home by fieldworkers, 41% visited an untrained provider/pharmacy, and 15% visited a health facility. After the intervention, all respondents accessing PNC services did so at a health facility.

Among those who did not seek postnatal care, at baseline the primary reasons were lack of money (71%) and the perceived absence of need (31%). At endline, the reasons included women not knowing that the voucher could be used for PNC (24%), perceive that providers not provide services (23%), not experiencing any problem (17%), fear about services (15%), and service-related problems (17%), that is, poor quality of service, transportation problem, reluctance to see male providers, etc.

Utilization of Transport and Medicine Vouchers

Among those who used vouchers for maternal health care services, 99% indicated that they did not face any problems in utilizing transport and medicine

Table 9. Utilization of PNC Check-Up (in percent)

Issues	Baseline	Endline	Z-score	Significance level
Proportion of women received PNC	45.2	60.1	4.348	$p < 0.01$
<i>N</i>	436	414		
Person consulted for PNC				
Doctors	18.8	0.0	5.568	$p < 0.01$
FW/V/nurse/paramedics	1.5	98.4	20.453	$p < 0.01$
SACMO	2.0	1.6	0.318	$p > 0.10$
Untrained providers	77.7	0.0	17.163	$p < 0.01$
Total	100.0	100.0		
<i>N</i>	197	249		
Visiting place for PNC				
Home/fieldworkers	44.2	0.0	11.694	$p < 0.01$
Hospital/UHC	13.2	19.2	1.693	$p < 0.10$
HFWC	2.0	80.8	16.581	$p < 0.01$
Traditional providers/pharmacy	40.6	0.0	11.099	$p < 0.01$
Total	100.0	100.0		
<i>N</i>	197	249		

vouchers. All women received a stipulated amount for the transport services and all women indicated that they received medicines in exchange for the vouchers and did not experience any problems. However, most of the women also stated that they had to spend additional money to purchase medicines for a normal delivery.

FINDINGS OF IN-DEPTH INTERVIEWS

Women's Perceptions of the Services and Vouchers

In-depth interviews revealed that women did not experience any problems in obtaining the voucher book from the fieldworkers. Overall, they expressed positive perceptions of the service quality and behavior of the providers. Women did not report facing any problems in utilizing the services in exchange for the vouchers and they received the fixed transport and medicine cost allowances.

Approximately, two-thirds of the women showed interest to receive more services from the health facility and all the respondents wanted to receive delivery care from the facility. Six respondents cited financial difficulties related to transport and medicines during ANC, PNC, and delivery. One voucher user said, "As I have received services using the voucher book, I will seek services in

future even if I don't have the voucher book. I will still seek services even if I don't get the transportation allowance." The voucher users were asked whether they felt stigmatized because the vouchers were intended for the poorest of the poor; the respondents reported that they did not face discrimination. The following suggestions for improving the scheme were given by the respondents:

- Increase the amount of the medicine voucher to cover the full cost of medicines and/or provide the required medicines at each health facility.
- Increase transport costs for those who have to travel a long distance.
- Perform ultra sonogram free of cost.
- Ensure availability of caesarean delivery at the upazila level health facility.
- Ensure pleasant and friendly behavior from service providers.

One voucher user said, "I have had a good experience with this and have benefited. This scheme provided me free maternity services and allowances for transportation and medicines. I did not spend any money during the delivery. I received services by using the voucher book."

Non Use of Vouchers

About 10% of voucher recipients did not utilize any type of vouchers for maternal health care services. In-depth interviews with 15 non-users indicated the following reasons for not using the vouchers for ANC:

- Received voucher book at later stage of pregnancy.
- Health facility was closed.
- Service providers were not available at the facility.
- Women visited the health facility but did not access the service because of long queues.
- Fieldworkers did not inform them properly about how to use it.

One voucher recipient said, "The fieldworker of our locality did not inform me how to use the voucher book. I did not know that she (fieldworker) had listed my name as one of the poor. She just called me to her home and gave me the book and did not provide any information regarding it. So, I did not use it."

The more frequent cited reasons for not accessing delivery care from a health facility included:

- Women did not feel there was a need for this service.
- Labor pains started suddenly, often in the night, and there was no opportunity to visit the facility.
- Family members were not available to accompany the women to the health facility.
- Women were not informed that delivery care could be accessed in exchange for a voucher.

In addition, other cited reasons were as follows:

- Previous experience (e.g., unavailability of service provider/health facility closed) discouraged pregnant woman from visiting the facility.
- Traditional birth attendant (*dai*) was more convenient and performed the delivery at home.
- Stayed at parent's house during delivery.
- Felt that the service provider might delay treatment and not provide medicine.

Similar comments were made concerning PNC services. Half of the women had not been informed that they could access PNC services using the voucher book. Others reported not seeing a need for the service, anticipating a delay in treatment by the service provider, and having to wait a long time at the facility.

CONCLUSION

There are a number of limitations to this study. There were no controls and it is not possible to say with certainty whether the observed improvements in utilization were due to the program or to broader secular trends. Between 2004 and 2007 facility-based births increased from 9% to 15% of all births nationally. Among the lowest two quintiles in 2007, only 6% of women delivered in a health facility. The vast majority of women continue to deliver at home. In the voucher pilot program, 98% of the women at baseline delivered at home. Yet within a year, the pilot program was associated with a dramatic 800% increase in facility-based births from 2% to 18% of the surveyed population.

Findings from the evaluation revealed the proportion of women who did not access any antenatal care services decreased from 21% to 11% and the proportion of women who received this service from a trained service provider increased from about 50% to 100%. Similarly, the proportions of women attending for first, second, and third antenatal visits increased over time. A significant number of women received physical and medical examination facilities during antenatal care visits.

Increasing the proportion of deliveries assisted by trained providers is essential to achieve the MDG of reducing the maternal mortality ratio. Trained providers may deliver babies outside of health facilities, which has its advantages and disadvantages. At baseline, trained providers attended only 6% of births, whereas at endline this proportion increased to 22%. The proportion of women who received treatment for complications also increased significantly over the intervention period.

The proportion of women who received postnatal care increased significantly to 60% at the endline; moreover, at the baseline, only one-fourth of women accessing postnatal care received it from trained providers, which increased to 100% at endline.

Although the proportions of women using antenatal care, postnatal care, institutional deliveries, and deliveries assisted by trained providers increased significantly, it is important to note that these proportions remained relatively low after the intervention. The majority of women received vouchers during the later stages of their pregnancy (85% received them during the third trimester), which was due to the short duration of the intervention period and so had less opportunity to avail ANC services. The voucher pilot program appeared to increase utilization of ANC, delivery, and PNC among poor women in project areas.

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