Process Evaluation of Community Based-Maternal and Neonatal Care Program in Rural Nepal

Final Report

Submitted by

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Abbreviations and Acronyms

AHW	Auxiliary Health Worker
ANC	Ante Natal Care
BPP	Birth Preparedness Package
CB-IMCI	Community-Based Integrated Management of Childhood Illness
CB-MNC	Community-Based Maternal and Neonatal Care
CHW	Community Health Worker
DIL	Daughter-in-law
DPHA	District Public Health Administrator
DPHO	District Public Health Office
EDD	Expected Date of Delivery
EPI	Expanded Program on Immunization
FCHV	Female Community Health Volunteers
FIL	Father-in-law
FP	Family Planning
HA	Health Assistant
HH	Household
HP/SHP	Health Post/Sub Health Post
KC	Key Chain
M&E	Monitoring and Evaluation
MCHW	Maternal and Child Health Worker
MG	Mother's Group
MIL	Mother-in-law
MINI	Morang Innovative Neonatal Intervention
MNH	Maternal and Neonatal Health
MOH	Ministry of Health
MSC	Matri Surakchya Chakki
NFHP	Nepal Family Health Program
ORC	Outreach clinic
PHC	Primary Health Center
PNC	Post Natal Care
PPH	Post Partum Hemorrhage
PW	Pregnant Woman
RDW	Recently Delivered Woman
RH	Reproductive Health
SBA	Skilled birth Attendant
SC	Save the Children
SDK	Safe Delivery Kit
SIL	Sister-in-law
TBA	Traditional Birth Attendant
TFH	Traditional Faith Healer

TV	Television
VDC	Village Development Committee
VHW	Village Health Worker

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Chapter 1 - Introduction

1.1 Background

Most community-based maternal health and newborn (MNH) programs rely upon community health workers (CHWs) as a bedrock strategy to educate and counsel pregnant women and their family members. Both types of educational approaches that are used in these types of programs as well as the content of the educational packages have been refined and experimented with in research and programmatic contexts in Nepal over the past several years. With regards to package content, traditional antenatal health education content has expanded to include topics that are now often classified as birth preparedness.

Community-level MNH programming has reached an important juncture as the Nepal MOH and its partners are in the process of investing heavily in an educational strategy—the Birth Preparedness Package, or BPP— that seeks to improve the health status of mothers and newborns. The BPP has been pilot-tested in a modest number of districts and has shown some initial promise to improve intermediate health outcomes such as client knowledge and utilization of health services as well as preparation for obstetric emergencies. However, antenatal health education and the BPP in Nepal would benefit from further study and experimentation—including possible revisions to the BPP strategy and tool package—before decisions regarding the standardization and roll-out of the BPP are contemplated.

The Community-Based Maternal and Neonatal Care (CB-MNC) project, implemented by the government of Nepal with the support of the Nepal Family Health Program (NFHP), has incorporated the BPP as a central program strategy in three districts (Banke, Jhapa and Kanchanpur) where the CB-MNC is being implemented. The NFHP is currently considering how an alternative antenatal educational approach might be used in order to scale up the pilot program to the entire country.

The main activities such as providing antenatal counseling/health education, strengthening of existing facility-based services and post-partum home visits were implemented in all the three districts. Other specific activities such as distribution of Misoprostol to prevent post-partum hemorrhage (Known in Nepali as *matri suraksha chakki* or MSC, low-birth-weight package, emphasis on post-partum health assessment and birth registrations were implemented in one or more districts. The birth registration package was implemented in both Banke and Kanchanpur in order to register births through early post-partum home visit and low-birth-weight package was implemented in Kanchanpur and the post-partum health assessment was implemented only in Jhapa in order to detect and promptly treat neonatal danger signs. The MSC (3 tablets of Misoprostol to prevent post-partum hemorrhage) component was implemented in Banke district only.

The CB-MNC therefore provides an outstanding opportunity to use process evaluation to (1) gain a fuller understanding of how antenatal health education takes place at the community-level through the BPP as well as to (2) design and implement alternative, sustainable models of community-based antenatal health education and document how they are implemented and how members of the community perceive and use them.

1.2 Study objectives

The overall objective of the study was to document the quality of implementation and level of coverage achieved for the Community-Based Antenatal Health Education/Birth Preparedness Package being implemented by the CB-MNC program and to assess and document the reactions of both CHWs and community members to the BPP.

The specific objectives are to:

- Document the program inputs at the central and district levels, and analyze their effectiveness;
- Evaluate the quality of services provided/performance of female community health volunteers (FCHVs) in implementation of the BPP package
- Examine factors affecting FCHVs' performance at the project, community, family and individual levels
- Assess potential pathways through which the CB-MNC program changes maternal and newborn care practices at the household level
- Examine factors affecting acceptance and feasibility of BPP and essential newborn care messages
- Examine household decision-making dynamics regarding care seeking including use of skilled birth attendants (SBA), utilization of antenatal check up (ANC), postnatal check up (PNC), emergency care and essential newborn care practices including factors affecting the process of decision-making.

1.3 Research questions

1. What is the quality of services provided by the FCHVs in implementing the BPP package in the two districts?

2. What are the factors affecting the performance of the FCHVs in the two districts?

3. What changes have occurred in the household in terms of maternal and neonatal care practices as a result of the BPP messages?

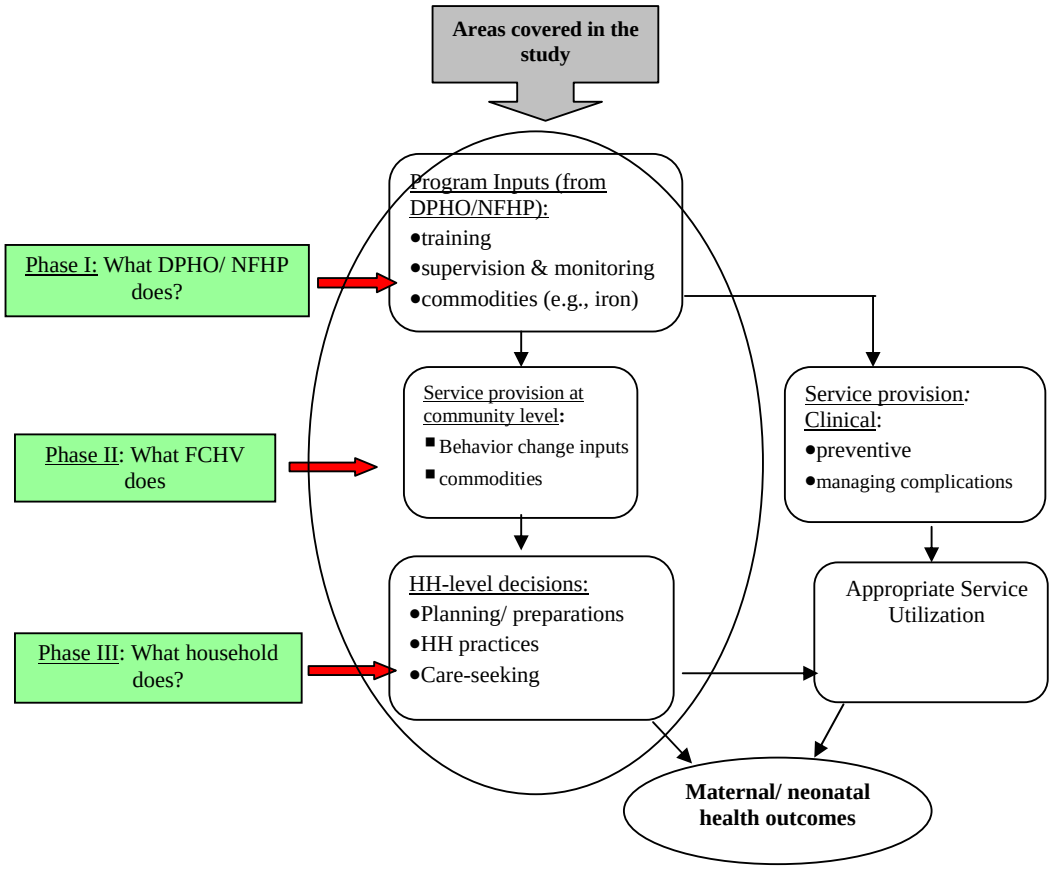
4. What difference exists in decision making dynamics between households that do and do not practice the recommended behaviors?

1.4 Conceptual framework

Figure 1 presents the broad conceptual framework of the intervention impact model at different levels of the program. The top most level are the program inputs made by the DPHO and NFHP which mainly consists of training, meetings, monitoring and supervision. At the service provision level, the intervention is concerned with delivering vaccines, drugs and micronutrient supplements to pregnant women such as Misoprostol (to be taken immediately after delivery to prevent postpartum hemorrhage), tetanus toxoid vaccination, iron supplements and albendazole. At the service provision level, the intervention also focuses on providing antenatal health education counseling through the FCHVs to the household members especially the pregnant women and recently delivered women. Then at the third level is the household level where decision-making regarding delivery preparations,

household practices and the decisions taken during emergencies which all eventually influence maternal and neonatal health outcomes.

Figure 1. Conceptual framework



1.5 Study design and methodology

The data for the process evaluation was collected at the three different levels of program implementation in three different phases. In the first phase we collected information at the program level from the project staff, village health worker (VHW)/maternal and child health worker (MCHW). In the second phase, data were collected at the service provision level but limited to investigate only the behavior change input. While at the third phase, data was collected at the household level. The study was carried out in three phases in order to utilize and incorporate the findings of the earlier phase and formulate questions from these findings for the next phase.

1.5.1 Study area

The study was conducted in two project districts of NFHP - Banke (Mid-western Development Region) and Jhapa (Eastern Development Region).

Jhapa is about 1606 square kilometers and lies in the Eastern terai belt of Nepal. The total population is 688,109 and the main ethnic communities residing in this district are Brahmin/Chhetri, Rai, Limbu, Rajbanshi and Satar/Santhal. The literacy rate is 66.9 per cent (Male-75.4, female-58.7) which is above the national average (ISRSC, 2002). The public maternity facilities include the Mechi Zonal Hospital, 6 Primary Health Care Centers, 6 Health posts and 38 Sub-health posts. Although a study conducted by NFHP/VaRG shows that high proportions of women utilize ANC services during their last pregnancy in Jhapa, ANC utilization at least 4 times was relatively low (NFHP/VaRG, 2006). Delivery at health institutions is relatively high in Jhapa where one third of the women deliver at a health facility (35%). This proportion is much higher than the national average of 19 per cent (MoHP, 2007; NFHP/VaRG, 2006).

Banke occupies about 2,337 square kilometers and lies to the Western part of Nepal. It has a population of about 385,840. Muslims, Tharu, Chettri and Yadav are the main ethnic communities residing in this district. The public maternity facilities include the Bheri zonal hospital in Nepalgunj, and at community level there are 2 primary health care centers, 10 health posts and 35 sub-health posts. The literacy rate is 57.36 (Male-65.3, female-48.9) which is above the national average too. Similar to Jhapa the utilization of ANC among pregnant women during the last pregnancy was high. The large majority of the women in Banke deliver at home (90%) (NFHP/VaRG, 2006).

1.5.2 Study instruments and types of respondents

The study employed qualitative research tools such as semi-structured interviews, rating/ranking of the BPP cards and observations of the AN/PN counseling and observations of the refresher training. The instruments were developed by the core team members and revised according to the summary findings of the previous phase.

Semi-structured interviews (SSIs)

Semi-structured interviews were conducted to solicit information from different categories of respondents in all the three phases.

In the first phase, semi-structured interviews were conducted with village health worker (VHW)/maternal and child health worker (MCHW), NFHP district staff, DPHO (District Public Health office) staff (supervisors involved in CB-MNC and DPHA) and NFHP central level staff. These interviews were conducted in order to document the program inputs at the central and district levels, and analyze their effectiveness.

In the second phase, SSIs were conducted with FCHVs in order to evaluate the quality of services provided by FCHVs in implementation of the BPP package and to examine factors affecting FCHVs' performance at the project, community, family and individual levels.

In the third phase, SSIs were conducted with recently delivered women (RDWs) who had delivered within three months preceding the study, their husbands and mothers-in-laws of the RDWs to solicit information on household decision-making dynamics regarding care seeking (use of SBA, ANC, PNC, emergency care) and essential newborn care practices including factors affecting the process of decision-making related to maternal and newborn health (Table 1.1).

Rating of the cards

Rating of the BPP messages were conducted (in all the three phases) in order to solicit information on the perceived importance, usefulness and types of actions taken according to the cards. These exercises were conducted with all the 8 categories of respondents namely, the VHW/MCHW, NFHP district staff, DPHO staff (supervisors involved in CB-MNC and DPHA) and NFHP central level staff, FCHVs, RDWs, mothers-in-law (MIL) and husbands of RDWs (Table 1.1).

Direct observation

In the first phase, observation of the FCHV refresher training was conducted by Jyotsna Tamang and Robert McPherson in three sites where the FCHV refresher trainings were being conducted.

In the second phase, direct observations of the counseling service provided by FCHVs to seven pregnant and four recently delivered women were conducted in order to observe the quality of counseling provided by FCHVs to clients during antenatal and postpartum periods (Table 1.1).

Table 1.1 Research tools used and target audience according to each phase

Phase	Instruments used	Data source
Phase I	Semi-structured Interview and rating of the cards	VHW/MCHW
		DPHO staff
		NFHP staff
	Observation	FCHV refresher training
Phase II	Semi-structured Interview and rating of the cards	FCHVs
	Observation	AN/PN counseling encounter
Phase III	Semi-structured Interview and rating of the cards	RDWs
		Husbands
		MILs

1.5.3 Sampling procedures

As this was a process evaluation study, during the planning phase it was decided that only those VDCs in which the program implementation was either “good” or “OK” in terms of coverage of pregnant women would be chosen for the study in order to assess program processes in areas where the program was being implemented “as planned”.

Interviews with VHWs/MCHWs/ DPHO & NFHP staff

Semi-structured interviews were conducted with 8 VHWs/MCHWs (4 in each district), 9 DPHO/NFHP district staff in both districts and 4 central level staff. The interview of the DPHO/NFHP staff was conducted by the core team members (Table 1.2). The VHWs/MCHWs were chosen from 4 different VDCs in both the districts. (Name of VDCs in Annex 1)

Observation of the training and the AN/PN counseling

A total of 7 AN counseling and 4 PN counseling were carried out in both the districts. The observation of the FCHV refresher training was carried out in 3 sites where the training was being conducted (Table 1.2). Review meetings of the FCHVs in three locations were observed by the core team members of the study.

Interviews with FCHVs

A total of 29 FCHVs were interviewed (12 from Jhapa and 17 from Banke). 11 observations of the AN/PN counseling were carried out, of which 4 were PN counseling observation (3 in Jhapa and 1 in Banke) and 7 were AN counseling observations (2 Jhapa and 5 Banke) (Table 1.2).

Similarly to the phase I study, the VDCs were first selected with the help of NFHP district staff where the quality of program implementation was either "good" or "OK" according to the coverage of pregnant women. After the selection of the VDCs the FCHVs were selected purposively based on several criteria. All FCHVs were categorized on the basis of their performances, geographical location of their residence (remote/non-remote), ethnicity, and literacy levels. The FCHVs were interviewed from a total of 28 VDCs (lists of VDCs presented in Annex 1).

Interviews with household members

A total of 23 RDWs, 14 MILs and 12 husbands of RDWs were interviewed. The RDWs were selected based on the lists provided by the FCHVs. The following steps were adopted for selection of RDWs in each district (Table 1.2).

Step 1: The VDCs were chosen based on their distance from the district headquarters and on the type of ethnic communities residing in the VDC. These VDCs were selected after consulting NFHP district staff in Banke and Jhapa. The RDWs were from a total of 11 VDCs (5 VDCs from Jhapa and 6 VDCs from Banke) (List of VDCs presented in Annex 1).

Step 2: For each selected VDC, the field members reviewed the closed forms of those FCHVs in the VDC. The closed forms of FCHVs residing in adjoining wards or near-by wards were not reviewed. The names of those FCHVs who had closed the forms of 2 or more RDWs (who had delivered between 1-3 months prior to the current date) were listed. The researchers visited these FCHVs and took down further information of the RDWs.

Step 3: In order to interview different categories of RDWs, the field members selected them purposively on the basis of the following criteria:

- Age
- Parity
- Economic status
- Presence versus absence of MIL/husband
- Ethnicity (Hill / Madeshi / Others)
- Literacy (Literate / illiterate)
- Place of delivery (Home with no help of SBA / hospital / home with the help of SBA)
- MSC taken (Banke only)

- Complications faced during pregnancy or delivery

Step 4: MILs and the husbands of the RDWs were also interviewed if they were present at the time of interviewing the RDWs (Annex 1).

Table 1.2 Description of respondents

Research tools	Respondent categories	Districts		Total
		Jhapa	Banke	
Semi-structured interviews	NFHP central staff	-	-	4
	DPHO/NFHP district staff	4	5	9
	VHW/MCHW	4	4	8
	FCHVs	12	17	29
	RDWs	11	12	23
	MIL	8	6	14
	Husband	6	6	12
Direct Observation	FCHV Refresher training	3 sites	-	3 sites
	AN counseling	2	5	7
	PN counseling	3	1	4
Rating	VHW/MCHW	4	4	8
	FCHVs	12	14	26
	RDWs	10	11	21
	MIL	8	5	13
	Husband	6	6	12

1.6 Recruitment and training of field researchers

The field researchers comprised of 2 experienced research assistants (both female) familiar with the local language of the district. They were given intensive orientation prior to each of the three phases on the different aspects of the study, such as recruitment procedures, tools, interviewing technique, taking field notes, and issues surrounding confidentiality, ethical and sampling procedures during data collection. The field researchers were also given an overview on the program by the RH team staff. The interviews were also conducted in the local language.

Two core team members, Jyotsna Tamang and Robert McPherson, supervised the fieldwork in all the three phases of the study, reviewed the field notes and provided necessary feedback to the field researchers.

1.7 Data analysis

All the interviews were tape-recorded with the consent of the participants. The field notes were transcribed in Nepali. Some of the interviews were later translated into English in order to obtain feedback from other core team members. After reviewing the interview transcripts, the major themes and concepts were identified for the purpose of developing into codes for organizing and analyzing subsequent interviews. Data from the Phase I study was entered into ATLAS –Ti for analysis. Data from Phase II and III were manually compiled and tabulated. The data were then crossed checked with the field notes for verification.

Chapter 2 - Background Characteristics

This chapter describes the demographic characteristics of the FCHVs and the household members in the two districts. The demographic characteristics of the respondents from Phase I was not collected. Information such as age, education, number of children and number of years working as an FCHV was solicited from the respondents.

2.1 Demographic characteristics of the participants

Characteristics of DPHO/NFHP staff (21)

A total of 21 DPHO/NFHP staff members were interviewed. In Jhapa 4 VHW/MCHW, 4 DPHO/NFHP staff and in Banke 4 VHW/MCHW, 5 DPHO/NFHP staff were interviewed. Four of the NFHP program staff were also interviewed at the central level (Table 2.1 in annex).

Characteristics of FCHVs (29)

The age of the FCHVs ranged from 22 to 58 years. More than half the FCHVs (18/29) were aged 30 years and above while only 11 FCHVs were aged below 30 years. In terms of education level, more than half the FCHVs (18/29) had secondary or more than secondary level education. Only one FCHV who was interviewed was illiterate. The number of years that the FCHVs have been working as a volunteer ranges from 1 to 25 years. Most of the FCHVs had worked as an FCHV for many years (21/29) while few had worked for a year (5/29) (Table 2.2 in annex).

Characteristics of the household members

All the 23 RDWs interviewed were aged 30 years and below with the minimum age being 18 years. In terms of literacy, 5 out of 23 were illiterate while 9 RDWs had completed their lower secondary level and above education. The RDWs interviewed represent a mixed ethnic group, for instance, in Banke there were RDWs who are from the Brahmin/Chettri, Newar, marginalized, Muslim community and Tharu community. In Jhapa the RDWs were from the Brahmin/Chhetri, Mongolian, Muslim and Rajbanshi community. Almost half the RDWs (9/23) had only one child while 12 RDWs had 2-3 children and one RDW had 4 children (Table 2.3 in annex).

The age of the 12 husbands ranged from 25 to 35 years. Only two husbands were illiterate. Four husbands had completed their secondary level education while the rest had completed their higher secondary level education and SLC. Half of the husbands were involved in agriculture and the rest were either teachers, mechanics, in service or businessmen (Table 2.4 in annex).

A total of 14 MILs were interviewed in the study. The age of the MILs ranged from 32 to 67 years. Most of the MILs were aged 50 years and above. Most of the MILs were illiterate while only 3 could read or write, one had completed grade 2 and one had completed her SLC (Table 2.5 in annex).

Chapter 3 - Program Implementation Procedures

This chapter presents the procedures and processes used to implement the CB-MNC program. More specifically the chapter discusses the role and responsibility of the community health workers and volunteers, the training aspects, meetings and the monitoring and evaluation of the program. These information were collected mainly from the project staff (DPHO & NFHP staff), VHW/MCHWs and the FCHVs. In order to solicit information about program inputs and procedures, the project staff and the VHW/MCHWs were asked to compare their roles, the meetings, monitoring and evaluation, training of the CB-MNC program with that of other maternal and child health programs (preferably the CB-IMCI program) they were earlier involved in.

3.1 Selection of female community based volunteers and TBAs

In Banke, the female community health volunteers were divided into two categories: the MSC Distributor and the Counselor while in Jhapa there was only one category of FCHV (i.e., counselor). All the FCHVs in the VDC counsel clients whereas the MSC distributor – who was selected on the basis of education, interest and physical capability – also distributes MSC to clients. TBAs were also included in the CB-MNC program in order to counsel pregnant and recently delivered women. It was mentioned by the project staff that new FCHVs were recruited for the CB-MNC only in Jhapa district in those areas where the area allocated was too big for a single FCHV to cover.

3.2 Role and responsibility of different community health workers involved in the CB-MNC program

VHWs/MCHWs

The role of the VHWs and MCHWs was to directly supervise the FCHVs. It was mentioned by the VHWs/MCHWs that these supervision mainly take place during the FCHV monthly meetings or sometimes in the field during the time of managing ORC (outreach clinics) and EPI (Expanded program on immunization). During these visits or meetings, the VHWs and MCHWs collect the forms and correct them if there were any mistakes. The VHWs also mentioned that they recruit the MG (mother's group) members. Only one VHW stated that he meets the pregnant women (PWs) and inquires about the messages that the FCHV has given during counseling. They collect the registers and on that basis they have to prepare the draft report for the Ilaka health facility. Many VHWs/MCHWs complained that their workload has increased as they have to do their own work and help the FCHVs to fill the registers and correct them.

The project staff were asked if the role of the VHW/MCHW was adequate in supervising the FCHVs. Almost all perceived that the VHW/MCHW's role was sufficient while only one highlighted that the role of the VHW/MCHW should be redefined. He highlighted that due to the large number of FCHVs and limited number of project staff in the district, the number of FCHVs supervised each month was not adequate. Hence the VHW/MCHWs should give 5 days in a month to supervise the FCHVs for CB-MNC program as well as for other programs. It was further stated by the project staff that much of the performance of the FCHVs depends on how active the VHWs/MCHWs are in their community. Therefore if the FCHVs do well then it is because the VHW/MCHWs who are active.

FCHVs

As mentioned by the FCHVs, their role mainly pertain to identifying pregnant women (PW) in their catchment area and provide counseling to them and their family members in both the districts. In addition to this the FCHVs also distribute keychains, iron supplement and Vitamin A.

In Banke the counselor FCHV refers the PW to the distributor FCHV who then counsels the PW and her family members on MSC. The FCHVs recommends the PW to use MSC after the baby is born but before the placenta is delivered. If not then MSC has to be taken immediately after the placenta is delivered. The FCHV then ensures that the PW has understood the information and dispenses MSC to them during the 8th gestation month. After completing the counseling, the counselor FCHVs have to fill in the CBMNC register while the distributor FCHV fill in the Misoprostol register. The distributor FCHV visits the RDW after her delivery in order to obtain the MSC cover and to enquire about her health and the health of the newborn.

As mentioned by the project staff, the FCHVs are required to meet the woman 4 times during pregnancy for counseling and 2 times after delivery to check if the mother or newborn is facing any problem. The purpose of emphasizing on the 4 visits during pregnancy was to ensure that the FCHVs do not convey all the BPP messages at once. One of the post delivery visits is made immediately after delivery (preferably within 3 days) in order to check the health status of the mother and newborn and to retain the empty MSC cover (if not used)/unused MSC. The second visit is made in order to give counseling and check on the mother and baby and to close the register. However these visits were not restricted to home visits and the FCHV can meet the PW at the MG meeting or any other place.

3.3 Training

The FCHVs were provided two training sessions: 1) a 5-day training that took place before the program was implemented and 2) a refresher training (two days in Jhapa and one day in Banke). The refresher training was provided to the FCHVs a year after the 5-day training. The objective of the refresher training was to investigate the reason for the low registration of the PWs and the barriers they face in identifying PWs, to improve the counseling skills and to check the quality of the recording and the problems FCHVs face while filling these forms.

Both these trainings were provided by the district core team members (DPHO and NFHP staff). The staff in the health facility such as the Health Assistant (HA), Auxiliary Health Worker (AHW), VHW and MCHW who did not receive training were only given orientation on the project activities. However, involvement of the health facility staff during the community level training was deemed as necessary especially for future programs as mentioned by one of the project staff below:

> *"We should have planned the training in a different way although both the NFHP and DPHO were involved in the planning phase. The district core team should have given training to the health facility staff and the health facility staff should have been involved while giving the community level training. This would have given them some knowledge of the program beforehand" (Project staff, BD060813).*

The project staff expressed their satisfaction towards the training as it was mentioned that various participatory methods such as role plays and group discussion were used which were more effective than previous trainings. The verbatim quote below illustrates this:

> *"The trainings conducted in other programs were based only on the lecture method and it was difficult for the illiterate trainees but this time (for CB-MNC) we did a lot of role plays and group discussions which made it easier for them to grasp the messages and the learn the skills…However the duration of the training was short and we should have extended the days instead of the time. They learnt a lot from this participatory way and we can see this effect when we go for the supervision (TSV)". (Project staff, BD1060814)*

On the other hand, some project staff expressed their discontent in the way the training was carried out and mentioned various ways in which the training could be improved. It was mentioned that the duration of the training was inadequate as role plays consumed most of the time and sufficient time was not given to practice on the registers. Lack of practice on the CBMNC registers and Misoprostol registers led to confusion among the FCHVs later on. As illustrated below since the training was fixed early the registers were not ready which led to confusion during the training:

> *"We had booked the time for the training with the DPHO as they were very busy. We didn't have any alternative as the next date for training was after 3 months and we went with what we had and maybe that was not a good decision. So when the training was scheduled, the registers were not ready. We went with the draft registers and we modified the registers during the training so there was a lot of confusion. If we had taken the final version of the registers, the training could have been better as the FCHVs would not have been as confused". (Project staff, KC060922)*

In addition to this, the FCHVs that were newly recruited for the CBMNC in Jhapa were given only two days of training due to which these FCHVs currently make excuses for not working efficiently. Some of the project staff perceived a lack of coordination between the different teams involved in the program training. Furthermore, the project staff reported that the PNC charts in Jhapa arrived only after some of the training had concluded. As a consequence many FCHVs do not know how to use the PNC job aid card.

Conducting training simultaneously in many sites lead to lack of strong trainers and effective supervision in each site during the 5-day training as mentioned by one of the project staff below. Similarly during the refresher training, it was observed that since the trainings were conducted simultaneously in ten sites, there were not enough "strong trainers" among the management team to guarantee that the training would be well conducted in each site.

> *"There were many teams involved but there was less coordination and the supervision of the training was also not effective. The problem was that we jumped into training before finalizing anything. The training of CB-MNC in Jhapa was a more classic cascade where we had simultaneous training in a lot of VDCs, the training was carried out by the trained district government officials. This is how most government training takes place. As a result of this we had less supervision in the training and we have to retrain them. On the other hand in the IMCI and MINI we had very good trainers, we did the training sequentially and didn't do a bunch of them together". (Project staff, KC060904)*

In addition to this the project staff reported that the FCHVs were not given sufficient time to practice on the registers during the initial training due to lack of time. The interviews with the FCHVs also corroborate this where some FCHVs faced confusion in filling the registers as they later realized (during the refresher training) that they had misunderstood the way to fill the registers. As one FCHV reported:

> *"During the refresher training I realized that I had not understood a lot of issues in the first training. I was filling the registers in the wrong way…I improved and corrected my registers after the refresher training. I liked the training…I think the training helped me in my work. It was because of my weakness that I was filling the registers in the wrong way". (FCHV, 40 years, 8 grade, Jhapa, JFS061029)*

According to the VHW/MCHWs, since the education level of the participants varied during the 5 days training many illiterate FCHVs could not grasp what was taught. It was also mentioned in Jhapa that since the trainers did not speak the local language, it was difficult for some of the FCHVs to comprehend what the trainers were trying to say.

During the refresher training, one of the main purposes was to improve the skills of the FCHVs/TBAs to counsel effectively and to use flipchart. However the training activities that were observed only included lecture, discussion and role play. The "superstar FCHVs" took the lead in the role plays. There were no activities conducted to evaluate and provide feedback on the skill of every FCHV. Apparently, there were six poster-size wall charts sent to Jhapa, for ten training sites. However, in the sites where the observation was carried out, there was no large "poster size" wall chart of the CB-MNC register and none of the participants could clearly see the actual register.

On the other hand, many FCHVs were satisfied with the 5-days training and the refresher training. They stated that they gained knowledge on a lot of new information regarding women's health and newborn health. Some suggested that if the MG members were also involved in the training and the program supervisors attended these trainings the community members would have more faith in them. They also stated that seminars should be held in the community for them to convince the community members.

During the refresher training in some sites, the FCHVs were made to practice filling the forms. This is when few FCHVs realised that they were filling the registers incorrectly and that the refresher training had helped them to refine their counselling skills and to improve the way in filling the registers. During the refresher training one of the FCHVs had mentioned some of them had not registered PWs as their understanding (from the 5-day training) was that they were only to give oral counseling and iron capsules to the PW who was to deliver in a week or a month's time and not to give the key chain.

3.4 CB-MNC job aids and registers

The CB-MNC program has several job aids which help the FCHVs to deliver the messages to their community. These are Birth Preparedness Package (BPP) flipcharts, key chains which some FCHVs use instead of the flipcharts and the PNC job aid card. The key chain (KC) which is commonly known as *sacho ko jhuppa* is a set of cards on which information regarding pregnancy, delivery and newborn care are printed. There are a total of 18 cards in Jhapa and 21 cards in Banke (where the key chain has additional information on matri surakshya chakki). The messages are on a small sized paper bound by a key ring in the form

of a key chain. There are three registers which are used by the FCHVs; the CBMNC registers filled by the counsellor FCHVs, the Misoprostol registers filled by the distributor FCHVs and only in Banke and the Birth Registration Forms used only in Banke.

The project staff highlighted that the CB-MNC job aids have made it easier for the FCHVs to provide counselling to women. The verbatim below was mentioned by a MCHW who compares the CB-MNC job aids with the job aids of other programs.

> *"Earlier (in other programs) there was no flipchart and very few posters. We had to give all the information orally. We were not clear on when to say which message. Now (in the CB-MNC program) the messages are clear, we have more posters, a book on the jeevan surakchya (flipchart). Even the illiterate FCHVs can use these job aids to counsel women as the pictures are clear. The registers are also clear and the illiterate swayam sewika (FCHV) can also fill them up easily". (MCHW, BM2060811)*

However, it was mentioned by the project staff that the FCHVs do not use the flipcharts in the proper way as they preferred to use the keychain instead of the flipchart to counsel community members. This was also observed during the counseling sessions where the FCHVs used the key chain, rather than the flip chart, to counsel the PW.

> *"The FCHVs from Banke are using it (flipchart) better than the ones from Jhapa. But the FCHVs from Jhapa were found using the flipcharts as if they have never used it before. They had told us that they prefer to use the keychain rather than the flipcharts. They don't know the messages well and which message is located where. But in Banke the FCHVs have been using the flipchart well." (Project staff, KC060922)*

Regarding the CB-MNC and Misoprostol registers there were different views in terms of difficulty in filling the registers. For instance, some of the district project staff mentioned that the FCHVs still face difficulty in filling the registers, while only few FCHVs mentioned that they face difficulty. This was mainly due to the illiteracy status and age of the FCHVs. One FCHV mentioned that although she does not face any difficulty in filling the registers the other FCHVs who are from the Rajbanshi community face difficulty. Some FCHVs stated that the pictures and the letters on the registers are too small for her to see. We had also solicited information on when the FCHVs circle the danger signs shown on the registers. One of the FCHVs from Banke reported that she circles the danger signs if the woman is facing any problems instead of circling them after giving counseling which is not correct.

In the Misoprostol registers, some of the FCHVs faced difficulty in calculating the expected date of delivery (EDD) as most pregnant women do not remember the date of their last menstruation and the FCHVs were not aware of how to calculate the EDD. During the counseling sessions it was observed that one of the FCHVs had taken the help of the PW's husband in order to fill up the Misoprostol register. Despite the help she had received, the FCHV had made a mistake while calculating the EDD of the PW. One of the FCHV had also gone to the health facility to take the help of the MCHW after her counseling session.

The FCHVs mentioned the following ways which would make it easier for them to fill the registers:

- The packet numbers in the MSC packet should be written in Nepali instead of English

- Add a space on the register to mention if the MSC covers is misplaced.
- Change in wording on the register such as addition of "general side effects after taking MSC" instead of "*sadharan asar haru* (side effects)".
- Should include 12 boxes indicating the months of the year date of delivery can be calculated and the box can be circled

None of the FCHVs faced any difficulty in filling the birth registration form. Only one FCHV was confused about how to fill the form if the RDW had given birth to twins.

3.5 Meetings

As mentioned by the project staff, there are several meetings that take place for the CB-MNC program such as the Ilaka level meetings, the monthly FCHV meetings and the MG meetings in the community. The HP and SHP in-charge, DPHO staff and NFHP staff attended the Ilaka level meeting and these meetings take place every month. The monthly FCHV meetings are held in the health facility and are attended by FCHVs, the health facility staff and (occasionally) DPHO/NFHP staff. These meetings are mainly for report collection and recording and sharing of experiences of the difficulties that the FCHVs face. The MG meetings are organized by the FCHV with the MG members in the community. During these MG meetings, either the VHW or the MCHW are present.

Although the FCHV meeting was held every month in the health facility, as reported by the VHWs/MCHWs, some FCHVs do not attend regularly -- especially in Jhapa. It was mentioned by the staff from Jhapa that they either send the register either through their husband or other FCHVs. In a few VDCs in Jhapa since the health facility has arranged to provide Rs.50 for attending the meeting, the FCHVs attend regularly. Although the FCHV meetings were not regular during the initial phase of the program in Banke, the FCHVs eventually became regular in attending the meetings. In Banke the program provides Rs.25 for tea and snacks during these meetings. In contrast to what the projects staff stated, the FCHVs in both the districts mentioned that they regularly attending the meetings. Some mentioned that they face difficulty to attend these meetings when they have household work, during the harvesting season, when their children are ill and during monsoon.

Submission of the reports, discussion on the registers and problems faced by the FCHVs are some of the activities that take place during these meetings. Other activities include collecting money for the *mahila swayam sewika heet kosh* (FCHV fund) and taking supply of commodities. The activities that take place during these meetings are explained by a FCHV below:

> *"We submit the monthly report and discuss about polio program, Vitamin A program and also about matri surakshya chakki (MSC). The mahila sisu karyakarta (MCHW) and the gramin swasthya karyakarta (VHW) come for the meeting. We also discuss other things such as proposal to make clothing for swayam sewika (FCHV) and how to manage money for this. We have also made a rule that if some swayam sewika (FCHV) come late then they have to pay fine. This meeting is very beneficial to us because we cannot go to the health post everyday to submit the registers and it is easier to go once a month. We also discuss the problems that we face while working so we can solve it there". (FCHV, 58 years, 8 grade, Banke, BFN061009)*

As mentioned by the VHWs/MCHWs, the importance of the FCHV monthly meetings is to bring about coordination between the FCHVs and the health facilities staff. These meetings also help in timely collection of the reports and to understand the difficulties that FCHVs are facing as the NFHP staff cannot visit all the FCHVs. During the meetings the FCHVs are given feedback for the problems they are facing and their registers are checked by the health facility staff. It was reported that in some of the meetings in Banke the FCHVs have made strict rules so that everyone attends the meetings regularly.

3.6 Monitoring and supervision

In order to assure quality of the work being implemented, supervision for the CB-MNC project is carried out at various levels. The project staff state that the work of the FCHV is supervised by both the NFHP staff and DPHO/HP staff. The supervision carried out by the DPHO and NFHP staff is known as Technical Support Visit (TSV) which is required to be carried out 'jointly' with the DHO staff. However, it was mentioned by the project staff that in reality the DPHO staff seldom participate. The supervision carried out by the DPHO staff takes place only at the health facility level. Therefore, supervision takes place in two settings: 1) the health facility (during monthly FCHV meetings) and 2) in the field (during TSVs conducted by NFHP staff and routine field activities conducted by health facility staff).

Field-level supervision is carried out mainly by the district NFHP staff which comprises a major percentage of their time while the HP staff primarily provide supplies and support during monthly FCHV meetings. Some of the VHW/MCHWs also mentioned that they conduct CB-MNC supervision during routine field activities such as EPI. During the monthly FCHV meetings, the main supervision activities are on FCHV reporting and supplies. The staff review the completed registers filled by the FCHVs and make necessary corrections. Sharing of problems faced by the FCHVs is discussed and necessary suggestions are given. The required commodities are also provided to the FCHVs.

The TSVs take place in the field level where the NFHP/SC staff visit the FCHV, the PW and RDW at their homes. They check the CB-MNC/Misoprostol registers and provide on-the-spot feedback and also assess the knowledge of the FCHVs. Some of the NFHP district level staff check the counseling skills of the FCHVs on their own initiative and they mentioned that the counseling skills of the FCHVs should be ensured by including this in the TSV forms. In addition to this, they also visit the PW/RDW's house in order to inquire about the information they have received from the FCHVs but they have not been able to observe the FCHV counseling the PW/RDW in the real setting.

All FCHVs who were interviewed mentioned that they have met the health facility staff while only half have met the NFHP staff. The FCHVs were further asked what the health facility and the NFHP staff did when they visited them. It was mentioned that the health facility staff checked their registers, made corrections and asked about their logistic supply while in addition to this the NFHP staff also asked the FCHV to demonstrate how they counsel the PWs and what they say to the community members about the program. It was further reported that the NFHP staff assess the knowledge of the FCHVs by asking them about the information on the keychain. Furthermore, the NFHP staff asks what the PW has learnt and understood and how they use the keychain. If the FCHV has not been able to convince a PW to follow the instructions on the key chain, the NFHP staff visit the PW and try to convince them.

The FCHVs were also asked about the differences they observed between the visits made by the DPHO and the NFHP staff. Although it was reported that the VHWs visit the FCHVs more often in the field, this is mainly during immunization day and when the VHWs have work in the outreach clinic. The major differences that were mentioned were that the health facility or DPHO staff inquires only about the registers and the logistics while the NFHP staff ask them about their visit, visit the PWs, ask how they fill the registers or to demonstrate how they counsel the PW as mentioned below.

> *"NFHP staff comes to my house and we can tell them about the problems of the village but in the health facility we cannot do that as there is a lot of crowd but in our house we can show the data. When the health facility staff come they don't have time and don't stay for long and leave immediately and they don't come to meet us…they come to the outreach clinic and come to our house but those who come from NFHP take their time and we can show them the village and where we work". (FCHV, 35 years, Grade 10, BFN061012)*

However, one FCHV mentioned that the VHWs discuss about other programs such as family planning (FP), expanded program on immunization (EPI) etc while staff from NFHP concentrate only on the *"garvawati ra nawajat sishu karyakram"* (maternal and newborn care program):

> *"When the mahila sisu karyakarta (MCHW) and the gramin swasthya karyakarta (VHW) come to visit me, we discuss about a lot of things such as, gau ghar clinic (ORC), family planning, immunization and jeevan jal (ORS) and they ask me about these things. They also ask about pregnant women and newborn baby. But when the NFHP staff comes for supervision then they only ask about the garvawati ra nawajat sishu karyakram (maternal and neonatal care program)". (FCHV, 40 years, 8 grade, Jhapa, JFN061029)*

The importance of the monitoring and supervision is mainly to give individual feedback to the FCHVs and the health facilities. As mentioned by the district level project staff, it provides a positive incentive to the cadres who implement the program and allow them to see that they are being watched, evaluated and appreciated. The review of the registers allow the health facility staff to give feedback to the FCHVs while the monitoring data allows the supervisors to identify weak area and facilities so that they can be followed-up for action. The CB-MNC staff and the DHO staff also review the monitoring data and plan ways to strengthen the program. The monitoring data is used widely in the districts especially among the Quality Assurance Working Group, during District-Level Review Meeting and Ilaka-Level Review Meetings.

The importance of the supervision is further highlighted by a project staff member in the verbatim given below:

> *"The TSV is more important than the review meetings. Our staff cannot attend all the monthly meetings so the TSV helps us in gathering information on the health facility's logistic supply and their knowledge on the related issues. On the other hand the TSV helps us in knowing how the FCHVs are working, their knowledge, their counseling skills and how they are registering the PWs. In the review meeting the FCHVs get group feedback while in the TSV they get individual feedback which is very important…I think that everyone needs supervision". (Project staff, KC060920)*

On the other hand, the FCHVs were also asked how useful the supervisory visits had been. Apart from two FCHVs, most mentioned that the supervisory visits were useful. The visits were thought to be very useful as it helped the FCHVs in improving their performance, encouraged them to work and to learn new things. It was further mentioned that the visit to the PWs in the community increases the trust in the FCHVs and the PW respects them more. The FCHVs also mentioned that they felt encouraged when the staff told them that they had done their work well and should continue to work hard and when the staff thanked them for the work done.

> *"The health post staff come and ask me how many matri surakshya chakki (MSC) I have and whether I have supply of keychain or not. The staff from NFHP visit the pregnant women and ask them what the swayam sewika (FCHV) has taught. They also ask them whether they have received the keychain or not…This supervision has helped a lot as I am motivated to become a better swayam sewika (FCHV). From the supervision I felt that I should be more energetic and should work harder". (FCHV, 38 years, grade 8, Banke, BFS061016)*

Household Campaign

In Jhapa a 2-day household campaign was organized after the refresher meeting in order to increase the registration of pregnant women and to inform each household about the program. The FCHVs along with the VHWs visited each household in her catchment area to identify new pregnant women. This led to increase in the percentage of women visited (31% in the third quarter to 52% in the fourth quarter and 57% in the fifth quarter as shown in the monitoring report) but the percentage has fallen in the remaining quarter (to 50% in the sixth quarter and 36% in the seventh quarter). As mentioned by the project staff, the household campaign initiative was planned during the District Implementation Planning meeting in Jhapa but not in Banke as it was not perceived to be sustainable.

3.7 Perception towards MSC Initiative

All the project staff, VHW/MCHW and the FCHVs perceived that MSC benefits the community as it has helped in preventing PPH especially where access to skilled health workers is limited.

In order to avoid the misuse of MSC, the project staff mentioned that time and effort has been given in packaging and distributing MSC. Although the MSC initiative was perceived to be very beneficial, it was mentioned by few project staff that MSC is required more urgently in hill districts rather than terai districts as transportation is easily available in the terai districts. Due to the two types of FCHVs involved in Banke, it was highlighted that there was confusion regarding who the MSC distributor is in the community and who counsels the PW on MSC. The program staff also state that due to this, there are coordination problems as explained below:

> *The FCHV who counsel and those who distribute are different so there is lack of coordination. Some women may only be counseled and may not receive the matri surakshya chakki. (Project staff, Banke, BD060813)*

Most of the FCHVs initially faced difficulty in distributing MSC while few of them reported they still face difficulty. Convincing the RDW and her family to take the MSC was the main

difficulty mentioned while few FCHVs also mentioned that they face difficulty in convincing the RDWs that the side effects they face are normal. The other problem was the difficulty in returning the MSC cover as many RDW forget and throw it away. Some also mentioned that the RDWs complain about the side effects and they have to convince them that it is normal. Since there are only selected FCHVs who distribute the MSC, one FCHV mentioned *"my catchment area is large so I cannot reach the PW on time to counsel her on MSC"*.

3.8 Perception towards the program strategy

In order to obtain information on the program strategy, the project staff and the VHW/MCHWs were asked the following questions:

> *The strategy of the CBMNC project is to provide health education to pregnant women, recently delivered women and their families by the FCHVs through inter-personal communication.*
> - *What do you think of this strategy?*
> - *How practical is the approach used in the CB-MNC project in order to be implemented through out the country? Why do you think so?*

Providing Antenatal Health Education to pregnant women and their family members was perceived as being effective by the project staff. The project staff perceived that the approach used in the CB-MNC project is practical although changes need to be made. Since the program is being implemented with the government so in terms of manpower and other resources they perceived that the program is feasible and can be implemented in other parts of the country. Few project staff in Banke feel that if the Banke model is replicated the MMR will reduce. However due to the high cost of MSC, which is Rs. 75 for the three tablets, the packaging and distribution cost can be high and may not be feasible.

The project staff had suggested various ways that can make the approach more feasible. They perceived that the TBAs should not be included in the program as they cannot distribute iron supplements and hence can give only counseling. The TBAs were considered to be more of a hindrance to the program. It was suggested that they should be given only orientation on the program and should refer pregnant women to the FCHVs. It was also suggested that unlike the *terai* districts, visiting pregnant women in the hill districts is not feasible due to the terrain. Therefore the number of visits should be reduced and the number of messages on the cards should also be reduced.

> *"We have to change the approach to make it more feasible. We have to reduce the 4 times household visit and reduce the messages on the cards. For instance if we talk to a woman in Jumla about arranging blood what is the use as the hospital there may not have such facility. Instead she will panic and be more worried. There are too many cards on delivery preparation and this is making the FCHVs confused". (Project staff, Jhapa, JD1060809)*

It was also suggested that the registers should be made simple and limited to whether the FCHVs has dispensed iron, MSC, key chain and whether the woman or her newborn is facing any problems. Improving the infrastructure of the health facilities before implementing the program was also suggested as the program creates demand but if the health facilities do not provide the services then the community will not benefit. One of the project staff also stated that the private practitioners and other organizations should be given orientation on the program and the BPP messages. He mentioned that the FCHVs give counseling according to

the flipchart but when the woman goes for delivery to a private hospital the health facility staff gave different information. This was also mentioned by the FCHVs who had told the pregnant women not to bathe the newborn before 24 hours but the nurse in the hospital did not agree. It was reported that having two different office in Jhapa (SC-US and NFHP) led to confusion among the stakeholders on who was implementing the program. Therefore there should be one office where both the implementing partner can work.

Effectiveness of the Antenatal Health Education in changing the behavior of the community members was solicited from the FCHVs. All the FCHVs stated that the project has had positive effect in bringing about change in behavior of household members regarding maternal and newborn care. It was mentioned that the household members initially did not listen to the FCHVs but now appreciate the knowledge they have gained from the FCHV.

3.9 Summary and Recommendations

There are two types of FCHVs for the CB-MNC program (in Banke district only): the counselor FCHV and the distributor FCHV. The role and responsibility of the FCHV for the CB-MNC program was mainly to identify and provide counseling to PW and their family members and also to distribute keychain, iron supplement and Vitamin A. In Banke the distributor FCHV also counsels the PW and her family members on MSC and dispenses it. With regards to the CBMNC, the role of the VHWs and MCHWs was mainly to directly supervise the FCHVs by collecting and correcting the registers during ORC, EPI and the FCHV monthly meeting.

There were two training sessions that took place for the CB-MNC program, the 5-days training and the refresher training which took place a year after the 5-day training. Role plays and group discussions were mentioned as effective methods for training. However, lack of time for the FCHVs to practice on the registers, late arrival of the PNC job aids in Jhapa and lack of strong trainers for effective supervision were the main drawbacks mentioned regarding the trainings. During the both trainings, the counseling and register filling skills of each FCHV was not assessed.

The Ilaka level meetings, the monthly FCHV meetings and the MG meetings in the community are the meetings that take place in the CB-MNC program. The FCHV meeting is held every month in the health facility but many FCHVs especially in Jhapa are not regular in attending these meetings. Some of the activities that take place in the monthly meetings are: submission of the registers, discussion on the registers and problems faced by the FCHVs, collecting money for FCHV fund and taking supply of commodities. The work of the FCHV is supervised by both the NFHP staff in the field and the monthly FCHV meetings and by the DPHO/HP staff during the FCHV meetings and routine field visits. The main activities conducted are review of the registers, assess counseling skills of the FCHVs, provide on-the-spot feedback, assess BPP knowledge of pregnant women and assist FCHV in counseling pregnant women and her family. The main supervision of the VHW/MCHWs is on FCHV reporting and supplies. The supervisory visits were perceived by the FCHV to be very useful as it had helped them to improve their performance, given them encouragement and reinforced trust among the PWs. In Jhapa a 2-day household campaign was organized which also helped to increase the registration of pregnant women.

Although providing Antenatal Health Education to pregnant women and their family members was perceived as being an effective overall program strategy, several changes were

mentioned by the project staff in order to make it practical. Reduction in number of household visits, reduction in the number of messages provided and simplifying the registers were the main suggestions mentioned. The MSC initiative was also perceived to have benefited the communities in Banke in preventing post partum haemorrhage in those areas where skilled health workers were lacking.

Recommendations

- The quality of trainers for the FCHV training should be increased to ensure effective training activities.
- Mechanism to ensure the FCHV's counseling and registration skill should be developed for the training
- Orientation to the family members of the FCHVs should be provided in order to help the FCHVs especially those who are illiterate to fill the registers.
- Orientation should also be provided to community based women's groups such as *Aama Samuha* (Mothers' Group), *Mahila Samuha* (Women's Groups); *Upabhokta Samuha* (Consumers' group), etc., for the purpose of referring PWs to FCHVs for BPP registration since door-to-door visits are not be feasible.

Chapter 4 - Performance of the Community-level Health Providers

This chapter describes the performance of the female community health volunteers in fulfilling their CB-MNC responsibilities, the support they receive from their family members and the community and also discusses their counseling skills. This chapter presents information collected mainly from the FCHVs.

4.1 Self-perceived capabilities of the FCHV

The FCHVs were asked how well they are able to counsel the PW and her family. All the FCHVs in both the districts stated that they were capable in carrying out their responsibilities. Most of the FCHVs stated that they would be better counselors if they received refresher trainings more often.

> *"In my opinion I think I am capable enough to give counselling to pregnant women and their families. I do according to what they taught us during the training and the family members understand what I tell them. That is why I think I am capable. The flipcharts and the sacho ko jhuppa (keychain) helps a lot and we do not need anything else apart from this". (FCHV, 38 years, Grade 10, Banke, BFN061015)*

4.2 Support given to FCHVs

Almost all the FCHV's family members support them in different ways. Most of the FCHVs get support from their family members such as husband, their children, and even MIL, FIL and their DIL. They mentioned that their family members encourage them to carry out their responsibilities and tell them that social work is good. Some members help in the household work when she is working, while others help them to fill the Vitamin A and polio forms. Only two FCHVs from Banke mentioned that their families do not support them and discourage them from working as they do not get any salary.

In Banke, husbands help to form queue during the Vitamin A and polio programs, take down names of children, gather women in the village and tell them about the program and to also give the Vitamin A to children. The following is a verbatim explaining how her family member encourages her in her work:

> *"They think it's (work) good. Everyone helps me. I have not missed even a single training. Till now they haven't said anything negative about my work. They say that it is social service and it's good so they let me do it…When I say that I'm going for my work they tell me to go. They help me fill my register during the immunization program. When there was the Encephalitis program, he (husband) had written the names of everyone on the register" (FCHV, 48 years, Grade 8, Banke, BFS061011).*

Regarding the CB-MNC program, the FCHVs from Jhapa mentioned that their husbands take their register to the health facility if they do not have time to attend the meeting which was also mentioned by the project staff. Few FCHVs also mentioned that their husband takes them around the village on his cycle for her visits to the PW. FCHVs also share their work with other FCHVs and MG members. The MG members help the FCHVs by informing her about women who are pregnant in the community. They share their work with other FCHVs in collecting the MSC covers. Most of the work that they share was during the polio and

Vitamin A programs. The neighbors help to publicise the programs while her family members help in filling out the registers etc.

It was mentioned that the CB-MNC program has given the FCHVs a lot of respect in the community especially in Banke where they distribute MSC. The FCHVs feel pride in giving service to the community. Therefore even though many FCHVs are old and they can voluntarily retire from the service, most of them do not want to do so since they feel that by serving the community as FCHVs, they gain recognition from their community.

In addition to this, the government also organizes a national "FCHV Day" every year in order to honor the work that the FCHV does. During this "FCHV day" they hold quiz activities and rallies in which the FCHVs walk around the town. The FCHVs expressed to the project staff and the core team member who attended this function that they (FCHVs) were proud that they had made a difference in the community by giving women and their families this information.

4.3 Difficulty of the FCHV in carrying out the responsibilities

Almost all the FCHVs in both the districts reported that they face various types of difficulties while carrying out their responsibilities for CB-MNC program. Most stated that it is difficult to manage time for their household chores and to visit the PWs and RDWs. Some also mentioned that their catchment area is big and the houses are scattered so they face difficulty in meeting all the PWs. In both the districts during monsoon the water level in the river rises and they cannot cross the river to the other side. Few also mentioned that the forms get wet due to the rain despite their efforts to protect them.

In addition to this, in both districts the community members usually ask the FCHV how much salary they receive for doing their work. Some get scolding from the villagers who think that the FCHVs are disturbing them. One FCHV from Banke tells us about how she tries to convince the community members about her work:

> *"I do face difficulties… when I go to the village they ask how much I get and what I get by working for 1-2 hours and come to them frequently to visit them, give them Key chain and iron so I must be getting something. I tell them that this is my work as I am a community volunteer and I do social work". (FCHV, 48 years, Grade 8, Banke, BFS061011)*

The FCHVs in Banke complained that the PWs do not comprehend the information given by them or do not listen properly and they have to spend a lot of time trying to convince them. The following is a verbatim of one FCHV from Banke who was upset about the community members' low level of understanding:

> *"When we work we have to face problems…but we have to do our work. I am alone at home and have to feed the children and send them to school and do my household chores. I have to work on an empty stomach but we take out time and do our work. Gaun ma gayera samjauda tini harule bujhdaina ani eutai kura dherai bhannu parcha. Maile bhanda pani dhyan didaina ani dukha lagcha (They (PW) don't understand and we have to repeat everything to them and sometimes they don't even listen to what I say so I feel bad)…No matter how*

much I explain to them they still throw the MSC covers". (FCHV, 38 years, Grade 10, Banke, BFN061015)

Some FCHVs who live near the army camp face difficulty in tracing PWs who are wives of the army officers and who often have to move to other camps within their pregnancy period. In Jhapa few FCHV of the hill community have problems in communicating with the women from the Muslim and marginalized community, mainly due to the Rajbanshi language are also due to the understanding level of the PWs. FCHVs are also called to the PWs house during emergency during night time. Only two FCHVs from Jhapa do not face any difficulty in carrying out their responsibility.

The project staff reported that those FCHVs from the urban municipality area lack conducive environment to perform their responsibilities because of the availability of various range of health facilities such as private clinics, hospitals, medical colleges etc.

4.4 Areas visited by the FCHV

The FCHVs contact PWs either at their homes, at outreach clinics or during mother's group (MG) meetings. However, some PWs also visit the homes of the FCHVs instead. During the observations of the counseling sessions, all the FCHVs had visited the PWs and RDWs at their home. Most of the FCHVs in both the districts visit the PW at least four times during their pregnancies while some visit them three times and few even mentioned going to the PW's house as many as 6-9 times. Slight difference was seen in the visits made to the RDW after delivery in the two districts. While most of the FCHVs in Banke mentioned that they visit the RDW 3-4 times after delivery, in Jhapa most visited the RDWs 1-2 times.

In comparison to the FCHVs from Jhapa, most of the FCHVs from Banke go to visit the PWs throughout their catchment area. Some do not go to particular *tol* or *gaun* (locality or village) because of the distance. For instance, one distributor FCHV reported that a particular *gaun* is far and on the way the road is muddy. So she meets the PWs from that village once and gives them the MSC and then other FCHVs from that area collect the MSC cover and meet the RDW. Another FCHV mentioned that she has 4 different areas to cover and she does not visit those areas as they are far from her house. She also mentioned that the people in that area do not understand the messages quickly as they lack awareness.

The FCHVs (mainly in Jhapa) do not go to all the areas for different reasons other than distance. Some do not visit particular areas as the area is near the health facility or near the MCHW's house. One also mentioned that earlier (before the household campaign program) she rarely visited the *Sukhumbasi tol* (settlement area of landless families) but after the program she has registered many PWs from that tol.

"Earlier I seldom went to Pallo ban and Wallo ban as it takes half an hour to reach there. During the door to door program I went there and registered 9 PWs. Now I go to all the areas. The Sukhumbasi people live in that area". (FCHV, 40 years, Grade 8, Jhapa, JFN061029)

Some also mentioned that they usually do not visit the PW at their homes as they live in the market area and the PWs usually come to their house instead. Another FCHV also mentioned that she doesn't go to the Sattar village as there are only few PW there and she tells them to come to her house instead. One FCHV said she goes less often to a particular *tol* as the *tol* comprises mainly of Brahmin/Chettris and they know everything.

4.5 Visits to the PW and her family

In both the districts, the FCHVs stated that they take permission from the mother-in-law or the husband before talking to the PW. In many of the counseling observations carried out by the field researchers, the MIL, SIL, the husband or the women from the neighborhood are present. At times the FCHVs also took help of other FCHVs during counseling. The neighbors ask the FCHVs if they are not certain about some things. It was reported by the FCHVs that few of the husbands also play a role in taking care of their wife in which the husband had come to inform the FCHV about their wife's pregnancy or to take iron capsules and key chain (KC).

The FCHVs from Jhapa were asked to describe a client encounter that they thought was unsatisfactory. Many narrated that among the PWs they visited, few refused to take iron capsules or go for AN check ups. Although some MILs also try to convince their DILs there are few MILs who refuse to listen to the information given by the FCHV. One FCHV also mentioned that a PW refused to take the KC and iron capsules so she was not registered. It was mentioned that PWs from rich families or those from very poor families usually do not follow her suggestions. They also mentioned that women who are from the Meche, Rajbanshi and Dhimal families are reluctant to follow her advice.

4.6 Visits to the RDW and her family

The FCHVs from Jhapa were asked to describe their unsatisfactory visit with a RDW. The FCHVs faced difficulty in counseling women from Dhimal, Rajbanshi and Meche community mainly because these women rely more on the information given by the TBA rather than the FCHVs. On the other hand, women of higher economic status do not listen to her due to her lower status and low literacy level. The FCHV reported some RDW visits as being unsatisfactory as the FCHV had not taken the PNC sheet with them and few mentioned that the families do not comply with their suggestions and had either applied oil on the cord stump or had bathed the newborn. The ways to improve these visits as mentioned by the FCHVs would be to visit the RDW more often before delivery.

4.7 Counseling skills of the FCHVs

The observation of the AN/PN counseling sessions was conducted in order to assess the counseling skills of the FCHVs. The counseling skills of the FCHVs was assessed according to the following skills that were observed during the counseling sessions: way the job aid was used, number of cards covered, explanation given for each card, whether the FCHV checked for understanding while explaining the cards and interaction with the woman or her family members. Overall the counseling skills of the FCHVs was good. The FCHVs counseled the PW/RDWs according to what they were taught during the training. The field researchers also observed the ways the registers were filled. Apart from few FCHVs, most filled the registers correctly. As mentioned in another section earlier, few FCHVs faced difficulty as they were illiterate.

Almost all the FCHVs had given full information on the cards and explained it in detail. It was interesting to note that one FCHV had repeated the messages in Awadhi language after explaining it in Nepali. Apart from a few FCHVs, many checked to see if the PW/RDW had understood the messages and had involved the family members or the neighbors during the sessions. For instance, the FCHVs had asked about the preparations for delivery such as

bringing the safe delivery kit, arranging for blood, decision to call the skilled health workers etc. Some FCHVs had given specific information on where to go for AN check up, delivery and whom to call for delivery.

The counseling to the PW by the MSC distributor was also observed as being very good. This FCHV had given detailed information to the couple about the importance of MSC, whom to call for delivery, where to keep the MSC, when to take it, how to take it etc. The following is an illustration of how the AN counseling took place.

> *The FCHV showed the flipchart to the pregnant woman and her husband and explained all the information in detail. Then she said "if your wife experiences bleeding during delivery, weakness and dizziness then take her to the hospital immediately. I have also brought 3 tablets which are called matri surakshya chakki. Give these three tablets with warm water to your wife as soon as the baby is born. This helps in preventing heavy bleeding". The pregnant woman asked "Has other women also taken this?" The FCHV said "Many women have already taken this in the community"… The husband was listening intently to all this. The FCHV further told them "call the skilled health provider during delivery. If the labor starts during the day time then call the health facility in-charge from the sub-health post". When the husband heard this he asked " what if the labor pain starts at night?" The FCHV said "then you should call the ma si ka (MCHW)". The pregnant woman just listened but the husband kept asking questions if he was not clear. (AN observation, Banke, BOANN61017)*

Only one FCHV was not well rehearsed in the BPP messages and had not explained the card in detail while another FCHV had taken the help of another FCHV while explaining the messages. Few FCHVs had just read the messages without checking or asking if the PW/RDW had understood. In Jhapa, of the three PN counseling session, one FCHV did not bring the PNC job aid card. One FCHV had only examined the newborn but did not tell the RDW to go for PN check up nor did she discuss about FP methods

Unlike what was observed above, one of the project staff expressed their concern regarding the counseling skill of the FCHV from Jhapa.

> *"The FCHVs from Banke are using it (flipchart) better than the ones from Jhapa. But the FCHVs from Jhapa were found using the flipcharts as if they have never used it before. They don't even know the content very well. They had told us that they prefer to use the keychain rather than the flipcharts. They don't know the messages well. But in Banke the FCHVs have been using the flipchart well." (Project staff, KC060922)*

4.8 Summary and Recommendations

The FCHVs in both the districts mentioned they were capable in carrying out their responsibilities and would become better counselors if they received refresher trainings more often.

The FCHVs receive support from their family members in many of their responsibilities such as during the Vitamin A and polio program. The FCHVs also get support from their husbands in carrying out their CB-MNC program responsibilities. The different types of difficulties that FCHVs faced while carrying out their responsibilities for CB-MNC program are: difficulty in managing time for their household chores, distance to the pregnant women's

house and carrying out their responsibilities during the monsoon season. It was mentioned that the FCHVs from the urban municipality area face difficulty in carrying out their responsibilities because of the availability of various range of health facilities.

The FCHVs usually contact the PWs either at their home, outreach clinic or during the MG meeting. Number of visits to the pregnant women ranged from 3-9 times while visits to the women after delivery ranged from 1-4 times which differed slightly between the two districts.

The counseling skill of the FCHV was found to be satisfactory. The FCHVs counseled the PW/RDWs according to what they were taught during the training. Apart from the illiterate FCHVs, the registers were filled in correctly.

Chapter 5 – Behavior Change at the Household Level

This chapter focuses on the findings collected at the household level from the RDWs, their husbands and MILs. This chapter discusses the care taken during antenatal period and post natal period, preparations made for delivery and the decision making dynamics.

5.1 Antenatal period

Care taken during pregnancy

In order to explore the influence of the BPP package on the behavior of the household members, the following question was asked to women who had more than one child:

> *What activities did you do differently this time compared to your last pregnancy? Why did you do things differently? (Probe: how did they prepare for delivery?)*

The activities that were carried out by the women during their current and previous pregnancies varied. For instance, in Banke, the RDWs had learnt (from the KC) about taking nutritious food during pregnancy whereas they did not know about this during their earlier pregnancy. In Jhapa the RDWs mainly mentioned that they had taken de-worming medicines during this pregnancy as this was not practiced earlier. Frequency in going to the health facility for ANC also differed as most of the RDWs had visited the health facility 4 or more times during their last pregnancy whereas they had gone to the health facility only 1-2 times during their earlier pregnancy.

> *"My first baby was born at home. This time I went to the hospital. We had arranged transportation from before. We had taken down the phone number of the ambulance. The doctor had told us that the fetus was in breech position and I may have to undergo an operation. We knew that the hospital expense would be high so we had saved from before…The swayam sewika (FCHV) had told me about Bheri Anchal hospital and had told me to contact Red Cross office for ambulance and had given the phone number. This was what I had done differently this time" (RDW, 24 years, Grade 10, Banke, BRDS070212)*

The commonly reported difference in both the districts was regarding the delivery preparedness. Many RDWs who had done things differently during this pregnancy emphasized that they had made several preparations before delivery such as arranging money, transportation and blood. Their main source of information was the KC and had decided to do things differently this time.

Similarly the husbands and MILs mentioned that they made delivery preparations such as arranging for SDK and transportation. Almost all the MILs reported that they had arranged or saved money for the delivery while very few husbands reported the same. Arranging for blood donors was mentioned by many husbands while only one MIL from Jhapa mentioned this. The following verbatim illustrates the types of delivery preparations made by the MIL.

> *"In our culture the woman has to be fed sweets and puri (roti deep fried in ghee or oil) after delivery. So I had bought flour, dates, and masala (spices) from the market. I had saved Rs 2000 in case my daughter-in-law face any difficulty during delivery. My son-in-law has a rickshaw and we had already discussed with him about taking my daughter-in-law in the rickshaw if she faces any*

problem. I had saved the money from the household expenditure that my son gives me. I saved from the very beginning so that we wouldn't have to ask anyone else during times of emergency".
(MIL, 59 years, illiterate, Banke, BMILN070209)

Different sources of contact during pregnancy

In Banke, the RDWs interviewed had come in contact with the health workers such as HA, ANM, MCHW, VHW, AHW from the health facility during her pregnancy period. Only one RDW had gone to the nursing home so she had met the doctor there. On the other hand in Jhapa, apart from the health workers in the health facility, they had met the doctors and nurses since many of the RDWs had gone for AN check up to the hospital or the private clinic. Only one RDW from Jhapa had visited the *dhami* (traditional faith health) every 2 weeks claiming that she was pregnant due to the *dhami's* blessing.

Antenatal check up

Going for antenatal check up was common in both the districts. Suggestions to go for ANC was made mainly by the FCHV in Banke while in Jhapa the husbands and the SILs had suggested the RDW to go for check up. However decision to go the health facility is mainly taken by the husband and the MIL after discussing with other family members. This finding also emerged from the interview with the husbands. Many husbands (7/12) had accompanied their wives to the health facility. Only few MILs had accompanied their daughter-in-law to the health facility.

"When I did not get my menses regularly, my sister-in-law took me to the hospital for the check up. After I found out that I was pregnant I told my family that the staff at the hospital had told me that I would receive information about pregnancy care from the health post. The decision to go to the health post was taken by my sister-in-law and mother-in-law" (RDW, 18 years, illiterate, Jhapa, JRDS070309).

Matri Surakchya Chakki

All the RDWs reported they received the MSC from the FCHVs. Only three RDWs reported that they did not take the MSC. Two of them delivered at the hospital while one had kept it in her maternal home and forgot to bring it back with her.

The RDWs were asked what they were told when they were given the MSC by the FCHV. Some FCHVs had mentioned that they should take MSC after delivery and before the placenta comes out while some FCHVs had also mentioned that MSC can be taken after the placenta comes out. Warning about the danger of taking MSC during pregnancy was also given. The RDWs were aware about the benefits of taking MSC as they mentioned that it prevents excess bleeding after delivery.

All husbands had seen the MSC. Those husbands whose wives delivered at home stated that they had given the MSC to their wife. Most of the husbands were aware that taking MSC prevent excess bleeding and helps in releasing the placenta. One of the husband believed that MSC was very useful because:

> *"The swayam sewika (FCHV) had told me that taking matri surakshya chakki (MSC) would help in releasing the placenta and I think this is very useful. During the earlier delivery my wife faced a lot of problem as the placenta was retained but this time she took the 3 tablets (MSC) and the placenta came out easily". (Husband, 31years, illiterate, Banke, BHN070206)*

On the other hand 2 MILs had not seen the MSC before. Although these MILs claim that they had given the MSC to their DIL after delivery, they were not fully aware about the use of MSC as illustrated below.

> *"Chintu's mother (FCHV) had given tablets (MSC) to my DIL before her delivery. When she had given these tablets, she told me to give all three tablets immediately after delivery so that it will help in releasing the puraina (placenta). Maybe these are vitamin tablets. I had kept these in a place where I could find it easily. I gave it to my daughter-in-law after delivery and she did not face any problems". (MIL, 59 years, Illiterate, Banke, BMN070209)*

Decision making in the household regarding treatment seeking during pregnancy and newborn care

Information regarding the main decision maker regarding seeking treatment for pregnancy and newborn care was solicited from only the husband and the following question was asked:

> *Who in your family takes the decision to seek treatment for your wife's health problem when she is pregnant or delivering? For your newborn infant?*

Although the earlier findings show that decision on antenatal check up and place of delivery was taken by the mother-in-law, the husbands mentioned that regarding treatment seeking, the mother-in-law, the husband himself or the head of the household takes the decision. The following verbatim is mentioned by a husband who explains how the decision is taken.

> *"My mother had taken the decision. My wife told me about her problem and then we told my mother. After she decided to take her to the health post I took her there. Since my mother is the elder member in our family she has to tell us what to do. And besides she is also experienced. Only a woman knows a woman's problem". (Husband, 27 years, SLC passed, Jhapa, JHS070305)*

5.2 Delivery period

Similar to the pregnancy care, the following questions was asked to the RDWs in order to explore the influence of the BPP package:

> *(If this is not her first delivery ask:) Did you do anything differently than your previous delivery? What did you do?*

Most of the RDWs had not done anything differently during their last delivery in comparison to their previous one in both the districts. The only differences that were mentioned in Banke was that the intake of MSC and use of SDK which they did not use/take during their earlier deliveries. In **Jhapa**, one RDW mentioned that she delivered at the hospital during the last delivery.

Place of delivery differed by district. For instance, in **Banke** almost all (8/11) RDWs delivered at home while less than half the RDWs from **Jhapa** delivered at home (4/10) and the rest delivered at the hospital. Although many RDWs had delivered at home, almost all mentioned that they had planned to go to the hospital or call a health worker if they had faced any problems during delivery. Few RDWs had delivered at the pharmacy and the nursing homes.

During the home deliveries, family members such as mothers-in-law, sisters-in-law and neighbors were present. None of the RDWs who delivered at home in Banke had called a health worker while two from Jhapa had called the Auxiliary nurse midwife (ANM) and the Health Assistant. Many perceived that the skilled health worker should be called only if the RDW faces any difficulty. Two RDWs from Jhapa refused to go to the hospital for delivery so the husbands had called the health worker. Some RDWs had also taken assistance from the TBA for delivery (5/12).

The MILs played a major role during delivery. Their role ranged from deciding where to deliver the baby and whom to call to assist with the delivery. It was mentioned by the RDWs that the decision to deliver at home or at the hospital, to call a health worker or to call a TBA was usually taken by the MIL. One RDW mentioned that the decision to deliver at home was taken by the husband while another reported that the husband and wife had jointly decided to deliver at home. Some of the husbands were also involved in calling the health workers to assist in the delivery.

In comparison to the MIL's role, the role of the husband was limited during the time of delivery. Almost all the husbands had called the health worker or the TBA for assistance. Apart from this some husbands had arranged cloth, boiled hot water and SDK during the delivery as mentioned below. They claimed to have learnt this information from the keychain:

> *"I called the doctor when my wife had labor pain. I gave her hot water and looked after her by giving her meals. I also massaged the baby, washed her cloth and prepared hot water for her bath. The FCHV had told me to help my wife as much as possible. I also took care of her as it is written on the keychain that pregnant women should be taken care of and should be loved so that is why I did all this". (Husband, 23 years, 10 grades, Jhapa, JHS070305)*

5.3 Perception on role of FCHV and FCHV visits

Information was also collected from the RDWs and her family members regarding their perceptions of what the FCHV does and whether she gets paid or not for her work. The respondents were aware that the FCHV works for the health of the mother and the child. In both the districts the RDWs and her family members perceived that the main responsibility of the FCHV was to distribute iron folate, vitamin A, giving information on pregnancy and work to improve the health of the pregnant women. In Banke it was also mentioned that the FCHVs also distribute MSC. Half the RDWs perceived that the FCHV gets paid for the work that she does. Similarly many husbands (7/11) and MILs (9/14) believe that she gets paid. They mentioned that she would not work if she did not get paid. Most perceived that she works for the HP while some said that she works for the government.

> *"She checks when someone is ill, teaches us when we don't understand, distributes this (KC) and gives iron. She works for the health post. She surely*

gets paid as she has to work a lot but I don't know how much she is paid. Women have to go to her house to meet her and to get information. She comes to our house only sometimes". (RDW, 24 yrs, 9 grade, Jhapa, JRDS070306)

Apart from one RDW from Banke, all RDWs were visited by the FCHV at their home. One RDW had met the FCHV at her shop which she has near her house. Among the husbands, most knew that the FCHV had visited their household and many of them had also met the FCHVs (8/11).

In order to explore how the FCHV provides counseling, the following question was asked to the RDW:

"When the FCHV explained to you the messages did she check to see if you had understood the messages or not? How much did you like this method of counseling? "

Half the RDWs in both the districts mentioned that the FCHV had checked to see if she had understood the messages or not. However some of the FCHV had not explained the message due to lack of time or due to the literacy status of the RDW. For instance in **Banke**, due to lack of time on the part of the FCHV she had told the RDW to read the KC at home and did not explain the messages. Another RDW mentioned that the FCHV had read the messages and told her that since she is educated she can read on her own. Similarly in **Jhapa**, one mentioned that the FCHV gave her the KC and left without explaining anything. Few mentioned that the FCHV just read the messages without asking if she had understood or not.

5.4 Perception about the information given by the FCHV

There were differences among districts in the satisfaction level of the RDWs regarding the information given by the FCHV. For instance in **Banke**, almost all the RDWs reported that they were satisfied with the information given by the FCHV. Only two mentioned that the information given to her was not new and would have preferred to receive more information on where to go for antenatal check up and delivery and how to arrange for transportation. In **Jhapa**, half the RDWs were satisfied with the information they received from the FCHV and half reported that they already knew about the information provided. The dangers signs were new information they received. Some mentioned that the FCHV did not give them specific information on transportation and delivery.

In both the districts all the RDWs perceived the information given by the FCHVs to be accurate and trustworthy. Although all the RDWs mentioned that the information given by the FCHV was trustworthy, only half mentioned that they would like to receive health information from the FCHV. Half of the RDWs mentioned that they preferred to get information from MCHW or the doctor in the hospital.

The husbands were given information on the card, iron capsules and arranging transportation. Only two mentioned that they learnt something new from the FCHV. Most stated that information on danger sign during pregnancy and delivery, newborn care and saving money & arranging blood/transportation were new. Almost all the husband perceived that the information they received from the FCHV was accurate. This is reflected in the verbatim given below:

> *"I think the information she (FCHV) gave was accurate. We did all that she told us. The swayam sewika (FCHV) had told us that it would be dangerous if my wife has prolonged labor. But during delivery the doctor from the health post told us that it is not necessary to take my wife to the hospital and to deliver at home. We called the anami (ANM) and ma si ka (MCHW) when she did not even deliver on the third day. We were told that if we had delayed further both the mother and the baby would have died. We should have listened to the swayam sewika (FCHV) as she had told us to go to the hospital". (Husband, 23 years, 10 grades, Jhapa, JHS070305)*

Similarly the MILs stated that they were counseled on nutritious food necessary during pregnancy, AN check up and importance of iron capsules. One of the MILs reported that the FCHV had not given any information and the rest highlighted that the information they received was very good and accurate. They perceived that the information on nutritious food, AN check up and the information that women with difficulties had to be taken to the hospital were accurate. One MIL explains why she perceives the information received to be useful.

> *"The information she gave was very useful. If they give such information to women like us then it will be easy for us to help our daughter-in-law during their pregnancy and take care on what food to take, how many times to go for check up. There are many things that mothers-in-law do not know of so, such information should be given to both mothers-in-law and daughters-in-law. The daughter-in-law has to know about the danger signs and tell us if she faces them as we will not know unless she tells us". (MIL, 64 years, illiterate, Banke, BMNO70217)*

As mentioned by the RDWs, the timing of the visit varied. For instance 3 RDWs mentioned that the FCHVs had visited (last) them during the 6th and 8th month of pregnancy while one FCHV in Jhapa had come during the last month and had not come after that. The last visit in Banke ranged from the 2 day after delivery to the 45th day while in Jhapa it ranged from the 2 day to the 12 day after delivery. In both the districts, the FCHVs had checked the health of the newborn and asked about their health, provided vitamin A and iron, asked them to come for immunization, counseled on taking nutritious food in both the districts and collected the MSC cover in Banke. However one Muslim RDW reported that the FCHV did not do anything as mentioned below:

> *"The FCHV had come 5-6 days after delivery and looked at my baby's face and went away. She did not do anything. When I delivered, my mother-in-law told me we should not tell people of other caste about the delivery as aakha lagcha (evil eye) and they will also tell us to go to the hospital. So she told me not to tell the swayam sewika (FCHV) about the delivery. Maybe that is why she (FCHV) did not do anything". (RDW, 18 years, illiterate, Jhapa, JRDS070309)*

5.5 Information on pregnancy and delivery

Radio program

The RDWs and their husbands were asked about new information they had heard on the radio on pregnancy and delivery care. Although more RDWs from Banke had listened to radio programs on pregnancy care and delivery care, most do not know the name of the radio program. Few mentioned that every Saturday and Tuesday the women in their area gather and listen to these programs on the radio. However in Jhapa, many RDWs did not listen to the

radio. The few who had heard about pregnancy and delivery information on the radio have listened to '*Gyan nai Shakti ho*' program. One RDW mentioned that she had listened to a radio program during the mother's group meeting but did not remember the name of the program.

Only half the husbands had heard about pregnancy and delivery information on the radio. Two mentioned that they heard about it on the health program on Radio Nepal station and the rest do not remember the name of the program. These husbands had heard about pregnancy care and about arranging money for delivery.

Specific information on delivery preparedness

Very few FCHVs gave specific information on delivery preparedness. The commonly mentioned information was regarding ANC check up.

Specific information on ANC check up

Specific information on the place to go for check up was given to many RDWs. In Banke, two RDWs had met the FCHV only after going for check up; therefore, they were not given any specific information, one RDW was given no information at all and the other one was told to go for check up but was not given any other information. In Jhapa two RDWs were not told anything about AN check up and three were only told to go to the health facility. The rest were given information on the timing of the health facility services, the cost of services and the specific dates for the outreach clinic.

> *The FCHV had told me "every month on the 18th gate (nepali date) we have the outreach clinic. It opens from 10 in the morning till 3 in the evening. In the outreach clinic they check the blood pressure and weigh the pregnant woman. There is a sister (nurse) who stays in the health post and if you go to her they will not charge you money". (RDW, 23 years, Grade 8, Jhapa, JRDS070301)*

Specific information on person to call for delivery

Information on the specific information that the FCHVs provided on whom to call for delivery, where to go and the cost were collected from the RDWs. In Banke, only three RDWs were told where to go for delivery or whom to call. Two RDWs had already decided to delivery at the hospital so the FCHV did not mention anything. Two were told to go to the hospital but were not given further information. In Jhapa only four were told where to go, the timing of the health facility for delivery, the amount it would cost for delivery etc. One RDW in Jhapa was asked to call the FCHV if her family members refused to take her to the hospital. The rest stated that they were not told anything. Information on cost of delivery at the hospital was mentioned to one of the RDWs as highlighted in the illustration below:

> *The FCHV had told me "During the time of delivery you should go to a big hospital. If you have to do operation (caesarean) then it will cost Rs.20000 and if you have to do normal delivery then it costs Rs.5000. But you should go to the Puja medical for delivery as it had good facilities". (RDW, 18 years, illiterate, Jhapa, JRDN070309)*

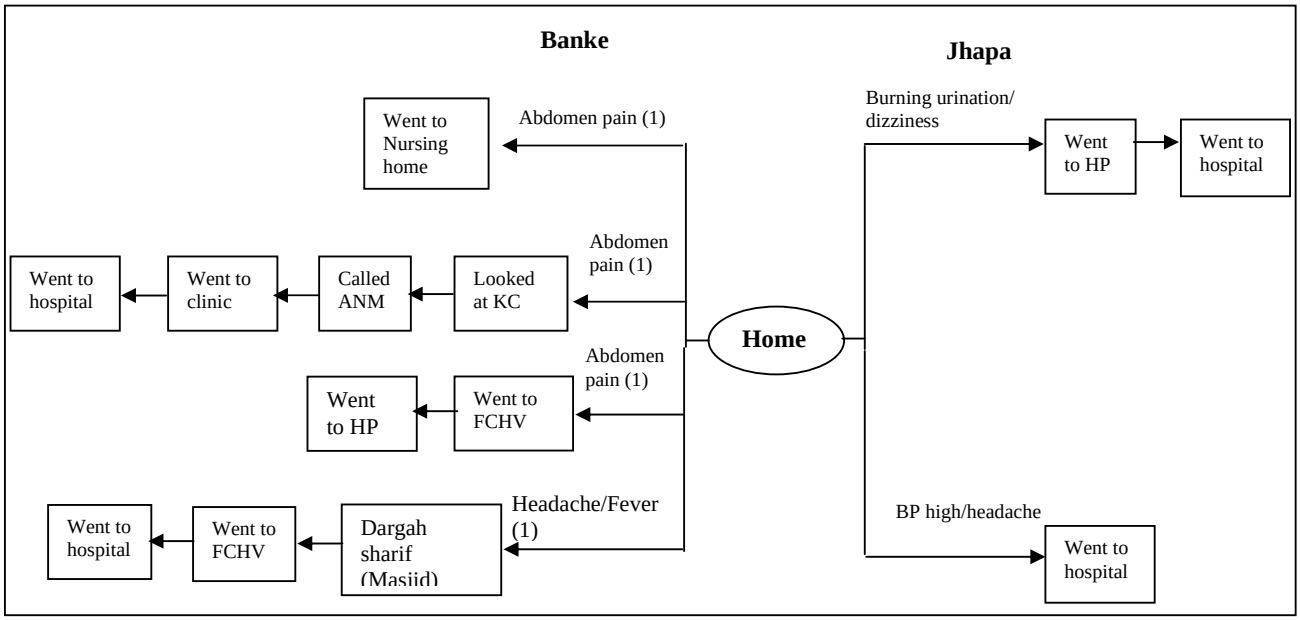
Specific information on transportation

Specific information given to the RDWs regarding arrangement of transportation during emergency varied in the two districts. For instance, in Banke many RDWs were told to call the ambulance or arrange rickshaw/*ladiya* during emergency. Two were told about the cost of the transportation and where to arrange for transportation. Only one FCHV had told the RDW that she would arrange for the transportation during emergency. In Jhapa only three were told to call the ambulance whereas the rest were not given any information. This maybe due to the fact that contact information for ambulance in Jhapa is well known among the community members.

5.6 Health care seeking behavior during pregnancy/delivery complication

In both the districts 6 women reported that they faced pregnancy complications (4 in Banke and 2 in Jhapa). These women reported that they experienced severe lower abdomen, burning urination, headache and high blood pressure. The figure below shows the care sought by the women and her family members after experiencing the problem.

Figure: 2. Care seeking behavior during pregnancy complications



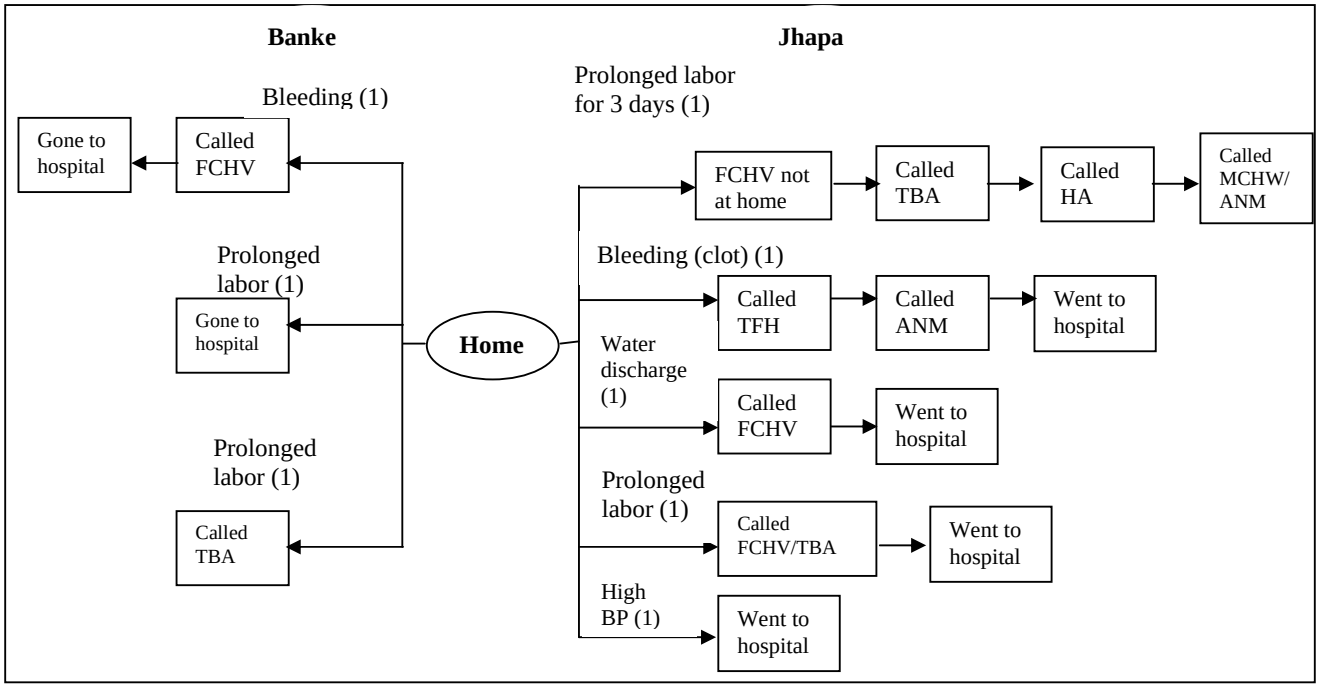
Two RDWs went to many places before receiving treatment of their problem. These RDWs consulted their family members and then sought treatment.

> *"My wife had experienced severe abdomen pain. She told me about it and I told my parents only when she could not stand up and the pain became more severe. The swayam sewika (FCHV) was not at home on that day so I looked at the sacho ko jhuppa (keychain) and came to know that lower abdomen pain is a danger sign. My mother told me to take her to the health post. Since the nurse at the health post is not always there I took her to another nurse who lives in the other VDC. The nurse did not have any medicine so I took her to the clinic in Nepalgunj. There was no doctor in the clinic at that time so I took her to the hospital. They gave her medicine and injection and we came home the next day". (Husband, 25 years, 10 grades, Banke, BHS0770216)*

Only one RDW in Banke had gone to a traditional faith healer in the Masjid who had chanted a *mantra* (prayer) and she had recovered and then visited the FCHV who took her to the hospital. The RDW in Jhapa mentioned that she knew about the danger of experiencing headache during pregnancy so she had immediately told her husband and gone to the health facility. Most of these RDWs did not take long to decide to go to a health facility for check up during their pregnancy complications.

As shown in the graph below, a total of 8 women reported they faced complications during delivery (3 in Banke and 5 in Jhapa). Many of them experienced prolonged labor (10 hours to 3 days) while two experienced heavy bleeding and clotting.

Figure 3. Care seeking behavior during delivery complications



Almost all the women had gone to the hospital to deliver when they faced complications. Only one RDW and her MIL in Banke reported that they had decided to go to the hospital if the RDW faced any complications. However on the day of delivery, her husband and father-in-law were not at home so they could not arrange for transportation. The FCHV was not at home at time so they took the help of the TBA. The FCHV had earlier told them that if they had any problem then they should take *ladiya* (bullock cart) from the villagers or carry the woman but the FCHV had not specified how to arrange for the *ladiya*. The baby was born at home with the help of the TBA.

One woman in Jhapa reported that they had called the FCHV when she faced labor pain but the FCHV was not at home. They called the TBA who also could not do anything. The family members called the health assistant who gave her an injection and told them not to worry. The health assistant had come back on the third day and taken the help of the ANM and MCHW to deliver the child.

5.7 Newborn care

Few of the women in both the districts had reported that they had bathed the baby and applied oil on the umbilical stump. Of those who had delayed bathing, the decision to delay bathing was mainly taken by the MIL.

In **Banke**, two RDWs had reported that they had bathed their baby immediately after it was born. Four of them mentioned that they had applied oil on the umbilical stump.

> *"The baby was born on a gundri (straw mat) which had a clean cloth over it. My mother-in-law cut the cord as soon as the baby was born and wrapped the baby in a clean cloth. We did not apply anything on the umbilical stump. I breastfed the baby within an hour. The swayam sewika (FCHV) had told us not to bathe the baby within 24 hours so we bathed the baby only after 24 hours" (RDW, 18 years, Grade 7, Banke, BRDN070215)*

Similarly in **Jhapa**, three women had bathed the baby before 24 hours and two had applied oil to the umbilical cord. The decision to delay bathing was mainly taken by the MIL. In both the districts, the RDWs mentioned that they had decided to delay bathing as the FCHV had told them about the danger of bathing the baby within 24 hours. Those who had been assisted by TBA during delivery had bathed their baby. In some cultures for example in the Muslim community there is tradition of bathing the baby as soon as it is born and feeding the baby with goat's milk as mentioned below:

> *"After the baby was born the chamarni (TBA) cut the cord and gave bath to the baby. After that she applied oil on the body and kept the baby near the fire. She did not apply anything on the umbilical stump. In our Muslim culture we have to bathe the baby as soon as it is born. We also do not breastfeed the baby for three days but feed the baby with goat's milk as we believe that the mother's milk will not come for three days". (RDW, 18 years, Illiterate, Jhapa, JRDS070309)*

Care seeking for problems faced by newborn

Four RDWs reported that their newborn baby had faced health problems during the first few days. They reported that their newborn had fever, swollen stomach, sore all over the body and one baby had cried for 4 days. Two RDWs also mentioned their newborn baby had problems but they were in the hospital at that time so the nurse took care of the baby.

All of them had immediately sought care from the health facility and one RDW called the FCHV who had then referred them to the health facility. One of the RDWs reported that her baby had swollen stomach and cold but nothing was written on the keychain so she took the baby to the clinic nearby.

5.8 Activities that would be done differently during the next pregnancy

Of those RDWs who planned on having a child again, many mentioned that they would do whatever they did the last time. Some mentioned that they would take more rest and eat nutritious food while others mentioned they would go for ANC four times.

The RDWs were also asked what help or support they would receive from the FCHV to do things differently this time. Most of the RDWs mentioned that they would prefer if the FCHV could also talk with the family members more and try and convince them as it is difficult for the RDW to convince their family members when decisions have to be taken.

While many husbands had mentioned that they would not have any more children, few reported they would sell their rice in time and collect money. They also mentioned that they would save money from the beginning. One also mentioned that he will ask his wife to do everything written on the KC and will give her more care and plan to deliver in the hospital.

5.9 Summary and recommendations

Antenatal check up was nearly universal among community women in both the districts. All pregnant women had either visited the health post/sub-health post or the clinics for antenatal care. Antenatal visits to the private clinics were more common in Jhapa than in Banke district. Respondents reported that their delivery preparation (saving money, arranging for transport, special diet, etc) was more thorough during their last pregnancy (most recent) as compared to the previous pregnancies.

Both the RDWs and their husbands were aware of the benefits of MSC while the mothers-in-law were not fully aware. The MSC was kept in a safe place and given to the RDW by either her husband or the mother-in-law after delivery. The decision regarding pregnancy and newborn care and care seeking for complications was taken by the mother-in-law and in some cases by the head of the household.

Institutional delivery was relatively more common in Jhapa, while non-institutional (home) delivery was high in Banke. Seeking assistance of trained health worker/skilled attendants was low in non-institutional deliveries. It was quite common to call TBAs and neighbors to assist births even during complications. Some had informed the FCHV who then referred them to the hospital. Timely care seeking for danger signs during pregnancy was poor although recognition about the danger signs and consultation on the problem with family members was done on time.

Many women were satisfied with the information received from the FCHV although women from Jhapa reported that they already knew some of the information given. Many husbands perceived the information on danger signs, newborn care and birth preparedness to be new. The recently delivered women, their husbands and mothers-in-law perceived the information provided to be accurate and trustworthy. Only half of the RDWs reported they would like to get health related information form the FCHV.

Listening to information on pregnancy and delivery care on the radio was more common in Banke than Jhapa. However most do not know the name of the radio program although few women from Jhapa mentioned they listen to '*Gyan nai Shakti ho*' radio program. Very few women received specific information from the FCHV on where to deliver, which skilled birth attendant to call for delivery, where to go if delivery complications arise and how to arrange for transportation. The women commonly received information regarding where to go for ANC check up, timing of the health facility and whom to meet.

In both the districts only few women reported they had bathed the baby within 24 hours and applied oil on the umbilical stump. Of those who had delayed bathing, the decision to delay bathing was mainly taken by the MIL. Timely treatment for the problems faced by the newborn was taken from health facilities with the help of the FCHV and by looking at the keychain.

Recommendations

- TBAs continue to form an important agent in the village for conducting deliveries. Some of them also appear to promote undesirable practices. Hence, the program should not totally ignore their roles and contribution.

- Communities need to be cautioned about the three delays, the need to hire a SBA (instead of relying upon TBA or neighbors) even for normal delivery and the importance of referring delivery complications in time.
- Pregnant women should be provided with specific information regarding delivery preparedness (what, where, whom and when). FCHVs should be instructed to provide information on types of delivery preparedness required by individual PWs based on the local context. Health provider staff should ensure that all FCHVs are knowledgeable of their local context.

Chapter 6 - Use of the Key Chain

This chapter discusses findings on the key chains. The key chain (KC) which is commonly known as *sacho ko jhuppa* is a set of cards on which information regarding pregnancy, delivery and newborn care are printed. There are a total of 18 cards in Jhapa and 21 cards in Banke (where the key chain has additional information on matri surakshya chakki). Ratings on usefulness of the cards, importance of the cards and other information were solicited from the project staff, VHW/MCHWS, FCHVs and the household members.

6.1 Distributing Key Chains to PWs

Most of the FCHVs from both the districts reported that the PWs in their catchment area have received the KC. In Banke three FCHVs have not given the KC to some women because they were out of stock in the health facility and the health facility was closed for a couple of days (due to strike). One FCHV mentioned that she has not given it to a PW from her area as she is aware of most of the messages written on the KC. In Jhapa the FCHVs stated that they were not able to give the KC to some women before the household campaign but now all the pregnant women have received the KC.

6.2 Possession of the Key Chain

All the RDWs from both the districts had received the KC from the FCHVs. The gestation period in which they received the KC varied. In Banke, some of them (4 RDWs) received the KC around the first few months of pregnancy (2-4 months) while about 3 RDWs received the KC during their 5^{th}-6^{th} month of their pregnancies. Two RDWs received the KC during their 7-8 month. In Jhapa, almost all the RDWs had received the KC before their 4^{th} month of pregnancy.

In both the interviews with the RDW and during the counseling sessions it was observed that KC was mainly kept in a box in the RDWs house and some had hung it on the bedroom wall. Very few kept them under their pillow or on the table and one also mentioned that she still looks at them.

6.3 Discussion on keychain

In the interviews with the FCHVs, it was reported that women in the community talk about the KC during their free time and during the mother's group meetings. Women also visit the FCHV and ask her for the KC and talk to her about their pregnancy.

In order to solicit information on discussion of the KC among family members and couples the following question was asked to the FCHVs:

> *Have you ever overheard a couple discussing about the (key chain)? What were they discussing?*
> *Have you ever heard of someone referring to the (key chain) to find out what to do? What did they refer to the (key chain) for?*

Some FCHVs have heard that PWs talk to their husbands about the KC. The husbands have taken effort to care for their pregnant wife after reading the key chain as in one instance, a husband had told his wife to eat nutritious food and had helped his wife. It was mentioned that some couples had saved around Rs.1000-2000 after reading the KC while few have

discussed where to save money and where to go for check up. Some FCHVs also mentioned that the literate husbands read the information to their wives who are illiterate.

The RDWs were asked with whom they have discussed the KC and what they had discussed. Similar to what the FCHVs had reported, the RDWs stated that husbands were the main persons to whom they had shown and discussed the KC with. Some of them had also discussed with their MIL and SIL.

It was mentioned that husbands were most interested in the danger sign cards and card on delivery preparation. Some of the husbands had only discussed the information on the cards while some had done according to the information provided. For instance, one husband had looked at the card immediately after the delivery and also when the daughter was sick in order to check if there was any information regarding the symptoms that his daughter was having. Another husband had taken down the number of the ambulance service after reading the KC and had gone to the blood bank to inquire about the services.

All the husbands reported that they had seen the KC. Most husbands were aware of the types of information provided in the KC. All husbands highlighted that the KC was very useful as it provided information on danger signs which help the woman and her family members to arrange for delivery and to seek timely treatment during complications.

The husbands reported that the cards on danger sign and birth preparedness (arranging money, transportation and blood) were the ones they looked at the most. Apart from one, all the husbands had talked to someone about the KC. All of them had talked to their wives while few had also talked to their mother and SIL. They talked about danger signs and nutritious food while one had discussed about family planning.

Although all the husbands had looked at the KC at some point, only three mentioned that they had looked at the KC when they wanted to know something new. One had looked at the KC when his wife was facing severe abdomen pain and had taken her to the health facility. One had looked at the card when his wife had vomited but did not find any information regarding this. The other had looked when his newborn had cold and cough but did not find any information.

Interviews with the MILs show that apart from three, all had looked at the KC. However some only had looked at the pictures a few times as they were illiterate. Apart from 2 MILs, the rest had talked to their DIL and son and told them to bring nutritious food from the market. Some had talked to their husbands and younger children. The MILs believed that the KC was very useful for them as they could help their DIL for pregnancy and delivery care. Those who had seen the KC appreciated that the KC gave useful information on pregnancy and delivery care.

> *I have seen this (KC). This is kunji (KC), The FCHV gave this to my daughter-in-law. This explains the type of care to be taken during pregnancy, what food to eat and what to do if she faces delivery complications. I know only this much. I don't know how to read so I looked at the pictures. I have looked at it 3-4 times. The last time I looked at it was 10 days after the baby was born. This is good and it is useful for those who cannot read. Since it gives information about pregnancy care it is very useful for even the old people. If we know all this we can help our son and daughter and neighbors and prevent them from danger. (MIL, 59 years, Illiterate, Banke, BMNO70209)*

6.4 Three options on the Key chain

In order to explore the usefulness of giving the flipcharts to FCHVs and the keychain to all RDW, the FCHVs were asked which of the three options would be most effective and why. The three options can be described as follows:

1. *Giving flipcharts to the FCHVs and nothing to the pregnant women;*
2. *Giving the FCHVs flipcharts and giving the women BPP messages on normal black and white paper; and,*
3. *Giving the FCHVs flipcharts and the women keychain as it is being done right now.*

All the FCHVs in Banke and almost all the FCHVs in Jhapa mentioned that the current provision of giving the flipchart to the FCHV and the KC to the PWs was the most effective. These FCHVs emphasized that since the KC is colorful, people are more tempted to look at them and read them. They mentioned that these KCs have helped the PWs as they do not tend to remember everything that is told by the FCHV. For instance, one FCHV from Banke mentioned that the KC is a better option as it is durable and children will not be able to tear it and the PW can carry it around and take it along with her and read it while collecting firewood and fodder. It was also mentioned that if the KCs are expensive then giving the PW information with pictures on paper is a better option rather than giving them nothing. Discussions with family members can also take place if the information is given on paper. The only concern they had was that the paper could get misplaced or children could tear them whereas the KC can be hanged and is kept safely. Only one FCHV mentioned that the messages can be given on a piece of paper as the community is aware of the messages.

Similarly in both the districts, the RDWs reported that women who are pregnant should be given KCs and the information should not be given orally as many women do not have high levels of education. Due to the household work women also easily forget the information told to them. Some have also mentioned that if the information is given on a sheet of paper then it may not be durable and the paper may get wet or may tear. On the other hand few RDWs have mentioned that giving information on a sheet of paper is also good but it should have pictures so that illiterate women can also understand.

6.5 Rating on importance of the cards

This rating exercise was conducted to assess the perceived importance of the BPP cards. The first 18 cards were shown to all the 17 DPHO/NFHP district staff in both Banke and Jhapa districts, NFHP central level staff and the VHW/MCHW. The remaining 3 cards (card 19-21) were shown only to the NFHP central level staff and the DHO/NFHP district staff and VHW/MCHW from Banke. The respondents were shown each card and asked to rate these cards according to their importance: 1. most important, 2. somewhat important and 3. least important.

The cards that were rated as 'very important' were given 3 points, the cards rated as 'somewhat important' were given 2 points and the cards rated as 'least important' were given 1 point. The total number of respondents who rated a particular card as very important were multiplied by 3, those who rated as somewhat important and least important were multiplied by 2 and 1 respectively. The total score was calculated by adding these points. (Eg. Card no 4: (14*3)+(3*2)+(0*1)=48 total score). The rank for each card was allocated according to the highest to lowest score. The rank for cards 19, 20, 21 are not allocated as information for

these cards were collected only from respondents from Banke district hence the number of respondents differed.

Table 6.1 illustrates those only 10 cards which have received the highest ranking. The analysis of the remaining cards is presented in the annex. The respondents have allocated very high rating to cards pertaining to danger signs and newborn care (4, 14, 16, 12 and 13) (Table 6.1). Cards related to family planning methods, arranging blood for emergency and ways to save/arrange money (Card 17, 18, 7 and 8) were allocated the lowest ratings by the project staff and VHW/MCHWs (Table 3.1 in annex).

Table 6.1 Perception of importance of the BPP cards by the project staff (N=17)

Card No.	Card Topic	Very Important (3)	Somewhat important (2)	Least important (1)	Total Score	Rank
4	Danger signs during pregnancy	14	3	-	**48**	**1**
14	Dangers signs in the newborn	14	3	-	**48**	**1**
16	Danger signs during the postnatal period	14	3	-	**48**	**1**
12	Danger signs during delivery	13	4	-	**47**	**2**
13	Newborn care	13	4	-	**47**	**2**
2	Types of pregnancy check up	10	5	2	**42**	**3**
1	Pregnancy check up (number of times)	9	6	2	**41**	**4**
10	Place of delivery, arranging for necessary things and skilled birth attendant for delivery	8	8	1	**42**	**5**
5	Preparations made during pregnancy	9	5	3	**40**	**6**
3	Nutritious food for pregnant women	7	8	2	**39**	**7**

Note: The number in the parenthesis denotes the points whereas the number for each card denotes the number of respondents

6.6 Cards frequently used by FCHVs

During the interview with the FCHVs, they were asked the following question:

> *According to you, which of these cards do you show the people the most and which ones do you show the least. (After the cards are kept in two piles ask) why do you show these cards the most and why do you show the other cards the least?*

Of the 26 FCHVs interviewed, half reported that they show all the cards equally to the RDWs and their families (13/26). The remaining FCHVs (13) mentioned that there are some cards that they show more often than other cards. Among these 13 FCHVs who prefer to show some of the cards more often, 7 are from Jhapa and 6 are from Banke district.

The cards shown more often to the RDWs and the family members are the cards on danger signs during pregnancy delivery and danger signs seen in newborn. These cards were shown more often as FCHVs perceived these cards are important. Cards on antenatal care, family planning and preparations for delivery were shown the least to the RDWs and her family members as many of these cards had the same messages (Table 3.2 in annex).

During the AN counseling sessions, it was observed that the FCHVs spent more time in explaining the cards on the danger signs compared to the other cards. However during these counseling sessions, one FCHV had felt embarrassed to explain the card on the danger sign during delivery because of the explicit pictures of a woman in the process of delivery that are shown on the card.

Messages that overlap or are repeated on the cards

As mentioned by the FCHVs, there were many cards in which the messages were repeated. For instance, it was mentioned that the 5 cards on birth preparedness (card no. 5, 6, 7, 8, 9) have the same messages. The two cards on family planning (card no. 17 and 18) and the 3 cards on MSC (card no. 19, 20, 21) were also perceived to have the same message. One FCHV suggested that the messages on cards on ANC (card no 1 & 2) could be combined into one card as they depict the same message. It was mentioned by the project staff and the FCHVs that the overlapping of the messages on these cards had led to confusion while explaining the cards to the pregnant women and her family members.

6.7 Understanding of BPP cards

Information on how the cards were understood was solicited from the FCHVs, RDW, MILs and the husbands. On order to solicit this information the FCHVs were asked the following question:

> *How well do people understand the message on this card after you have it explained to them. Do they understand it very well, understand it a little or don't understand it at all?*

According to the FCHVs, most of the cards were perceived to be easily understood by the community people and only a few were mentioned as being difficult for them to understand. For instance, the cards on postnatal check up and delivery preparation were perceived to be difficult for the community people to comprehend (Table 3.3 in annex).

Similarly information on the understanding of the cards was also solicited from the RDWs, their husbands and MILs. The respondents were asked if they had ever seen the cards before. Then they were asked to explain what story/message each card was trying to give. Then based on their explanation, the field researchers rated their understanding by rating '0' if the respondent had not explained the card at all, '1' if the card was partially explained and '2' if the card was well explained. Table 6.2 summarizes the finding of the RDWs, husbands and MIL regarding their understanding of the cards. The analysis of each category of respondent is presented in the annex (Table 3.4, 3.5, 3.6).

As shown in table 6.2, data on the RDWs who understood and cards 'partially well' and those who understood the cards 'well' is presented. Most of the RDWs could explain the cards 'partially well'. However, only about half the RDWs could explain the cards on delivery preparedness and types of FP methods available. In Banke very few RDWs (2/11) could explain the card on where to obtain MSC (card 20). Many husbands had understood the card related to ANC check up, delivery preparedness, intake of nutritious food and danger sign during delivery. Similar to the RDWs, very few husbands could explain where to obtain MSC. The cards that some husbands could not explain well were the cards on postnatal care and newborn care. Comparatively the MILs have not understood many of the cards well. The cards on antenatal check up and nutritious food were the only cards that were well explained by the MILs. In Banke the cards on where to obtain MSC and when not to use MSC were not explained by the MILs at all. This needs to be taken into consideration as MILs are the main decision makers regarding these issues (Table 6.2).

Table 6.2 Level of understanding of the cards by household members

Card No.	Card Topic	RDW (N=21)		Husband (N=12)		MIL (N=13)	
		Who understood the cards partially well	Who understood the cards well	Who understood the cards partially well	Who understood the cards well	Who understood the cards partially well	Who understood the cards well
1	Pregnancy check up (number of times)	17	4	7	2	6	-
2	Types of pregnancy check up	14	7	7	1	7	1
3	Nutritious food for pregnant women	13	8	8	3	7	1
4	Danger signs during pregnancy	12	7	5	4	3	1
5	Preparations made during pregnancy	10	7	6	4	-	-
6	Why is it necessary to arrange the money during pregnancy?	11	6	4	2	4	-
7	Ways to save/ arrange money	14	3	6	4	4	1
8	Arranging transport for emergency	12	3	4	6	5	1
9	Arranging blood for emergency	9	5	4	5	3	-
10	Place of delivery, arranging for necessary things and skilled birth attendant for delivery	12	2	7	1	3	-
11	Preparing for delivery	8	4	4	1	4	-
12	Danger signs during delivery	11	6	4	5	4	-
13	Newborn care	12	3	7	-	1	-
14	Dangers signs in the newborn	7	7	4	1	4	-
15	Postnatal check up	15	1	7	1	4	-
16	Danger signs during the postnatal period	8	9	4	4	4	1
17	Need for FP after delivery	12	3	6	3	2	-
18	Types of appropriate FP methods that can be used	10	2	8	2	3	1
	Only Banke	**N=11**		**N=6**		**N=5**	
19	Ways to prevent PPH when skilled birth attendant is not available	10	-	3	2	2	-
20	Where is MSC available?	1	1	1	-	-	-
21	When not to use MSC	3	4	1	4	-	-

6.8 Rating on usefulness of the cards

In order to explore how useful the messages on the cards were, the RDWs, their husbands and their mothers-in-law were asked to rate the usefulness of each card. The respondents were shown each card and asked to rate these cards according to their usefulness: 1. very useful, 2. somewhat useful and 3. least useful.

The cards that were rated as 'very useful' were given 3 points, the cards rated as 'somewhat useful' were given 2 points and the cards rated as 'least useful' were given 1 point. The total number of respondents who rated a particular card as very useful were multiplied by 3, those who rated as somewhat useful and least useful were multiplied by 2 and 1 respectively. The total score was calculated by adding these points. The rank for each card was allocated according to the highest to lowest score. Rank '1' indicates the highest score. The detailed analysis is presented in annex.

All the cards were perceived to be useful by all the three categories of respondents. In order to get a deeper understand of the usefulness of the cards, the RDWs were asked to choose four very important cards which they would give to their friend.

The cards that were frequently mentioned were the cards on ANC (card 1: n = 13), danger sign during pregnancy (card no 4: n = 10) and the danger signs during delivery (card no. 12: n = 11) cards. The other frequently mentioned cards were on newborn care (card no 13: n = 6), preparations made during pregnancy (card no 5=6) and PNC (card no 15: n = 6). Some respondents noted that they preferred cards no 1 and 15 because when the PW visit the health facility, apart from the regular check up, they receive other important information from the health service providers. Cards on danger signs are also preferred because if the PW is aware about these signs in advance then they will seek timely treatment.

Table 6.4 Cards most preferred by the RDWs (N=21)

Card	Card Topic	Frequency of respondents
1	Pregnancy check up (number of times)	13
12	Danger signs during delivery	11
4	Danger signs during pregnancy	10
13	Newborn care	6
15	Postnatal check up	6
5	Preparations made during pregnancy	6
18	Types of appropriate FP methods that can be used	5
6	Why is it necessary to arrange the money during pregnancy?	5
14	Dangers signs in the newborn	4
3	Nutritious food for pregnant women	4
16	Danger signs during the postnatal period	3
2	Types of pregnancy check up	3
9	Arranging blood for emergency	2
17	Need for FP after delivery	2
10	Place of delivery, arranging for necessary things and skilled birth attendant for delivery	1
11	Preparing for delivery	1
19	Ways to prevent PPH when skilled birth attendant is not available	1
21	When not to use MSC	1
8	Arranging transport for emergency	0
7	Ways to save/ arrange money	0
20	Where is MSC available?	0

6.9 Actions taken during pregnancy or delivery

Another way to assess whether a card is "useful" is to determine if the RDWs followed the advice that it gives. It was commonly reported that women had gone for antenatal check, taken nutritious food, saved money and gone to the hospital when they faced complications during pregnancy, delivery and when newborns faced danger signs. Arranging blood for emergency and going for postnatal check up were the actions least followed (Table 6.5).

The reason for not going for postnatal check up as reported by some of the RDWs were that they were not aware of where to go for the postnatal check up while few were not are not permitted to leave their homes before *nwaran* (name-giving ceremony) of the newborn child. FP methods were also not used as some of their husbands are working abroad while for some

RDWs, their menses has not yet resumed after delivery. Religion was also another reason mentioned for non-use of FP among the Muslim women. Many had also not arranged for blood as they had planned to deliver at home. One RDW also mentioned that the FCHV had told her that it was not necessary to arrange blood for delivery as she was taking iron pills and would not face any problem. Some had planned to go to the hospital if they faced any complications, thus they did not arrange for blood.

Half the RDWs mentioned that they did not call the skilled health worker for delivery as some had already decided to deliver in the hospital or had decided to go to hospital in case any complications arose. Presence of the TBA and FCHV during delivery was also a reason for not calling the skilled health worker. One RDW mentioned that she would have preferred it if the FCHV had convinced her MIL to call the health worker.

Table 6.5 Actions taken during pregnancy/delivery mentioned by the and RDWs

Card no.	Card Topic	Frequency of respondents who followed the instructions (N=21)
4	Danger signs during pregnancy	21
14	Dangers signs in the newborn	21
1	Pregnancy check up (number of times)	20
2	Types of pregnancy check up	20
3	Nutritious food for pregnant women	20
16	Danger signs during the postnatal period	20
6	Why is it necessary to arrange the money during pregnancy?	19
12	Danger signs during delivery	19
7	Ways to save/ arrange money	17
13	Newborn care	16
11	Preparing for delivery	13
5	Preparations made during pregnancy	12
8	Arranging transport for emergency	12
10	Place of delivery, arranging for necessary things and skilled birth attendant for delivery	11
17	Need for FP after delivery	11
9	Arranging blood for emergency	8
15	Postnatal check up	5
18	Types of appropriate FP methods that can be used	5
	Only Banke	**N=11**
20	Where is MSC available?	11
21	When not to use MSC	11
19	Ways to prevent PPH when skilled birth attendant is not available	9

Similarly information on the perceived actions taken by pregnant women in the community were also solicited from the FCHVs. Similar to the RDWs all the FCHVs have also mentioned that ANC check up were definitely carried out by pregnant women in their community. In addition to this almost all the FCHVs also mentioned that pregnant women go to the hospital if they face any danger signs during pregnancy and delivery and for their new born baby. As reported by most FCHVs, arranging transport (21/22), saving money (17/22) and arranging for skilled birth attendant (18/22) were some of the preparations made by women in their community (Table 6.6).

Table 6.6 Perceived actions taken by the community according to the FCHVs (N=22)

Card No	Card Topic	Definitely carry out this action	May or may not carry out this action	Don't carry out this action
2	Types of pregnancy check up	22	-	-
12	Danger signs during delivery	22	-	-
1	Pregnancy check up	21	1	-
4	Danger signs during pregnancy	21	-	1
8	Arranging transport for emergency	21	1	-
14	Danger signs in the newborn	20	2	-
16	Danger signs during the postnatal period	20	2	-
10	Place of delivery, arranging for things and skilled birth attendant for delivery	18	3	1
11	Preparing for delivery	18	3	1
5	Preparations made during pregnancy	17	5	-
7	Ways to save/ arrange money	17	5	-
18	Types of appropriate FP methods that can be used during breastfeeding	17	4	1
3	Nutritious food for pregnant women	14	7	-
13	Newborn care	14	8	-
6	Why is it required to arrange the money during pregnancy?	13	9	-
17	Need for FP after delivery	11	9	2
15	Postnatal check up	8	10	4
9	Arranging blood for emergency	4	11	7
	Banke only (N=12)			
20	Where is MSC available?	12	-	-
21	When not to use MSC	12	-	-
19	Ways to prevent PPH when skilled birth attendant is not available	11	1	-

6.10 Summary and Recommendations

The key chain is commonly known as *sacho ko jhuppa* in both the districts. This is a set of cards which gives information on pregnancy, delivery and newborn care. There are a total of 18 cards in Jhapa and 21 cards in Banke which have additional information on *matri surakshya chakki*. Several exercises on the cards were conducted with the respondents in all the three phases in order to explore the importance, usefulness and understanding of the cards.

All the RDWs had received the keychain from the FCHVs. The use of the KC by the family members usually depends on when they receive it from the FCHV. Few of the RDWs have received the KC at the later stage of gestation. Discussion on the KC mainly takes place with the husbands and at times with the MIL and the SIL. All the husbands had looked at the KC and were interested mainly on the cards on danger signs. Very few MILs mentioned they had not looked at the KC. Among the ones who had looked at the KC perceived that the KC was very useful especially during pregnancy and delivery care. Some husbands and RDWs had looked at the keychain after delivery and when their newborn was ill to see if the problem that had occurred was a danger sign. The respondents preferred to receive the KC rather than a sheet of paper mainly due to the durability of the sheet of paper.
As mentioned by the FCHVs the messages on delivery preparedness and antenatal check up were mentioned as being repetitive and thus caused confusion while counseling the family members. The cards on danger sign and newborn care were perceived to be the most

important by the project staff and VHW/MCHWs. The messages on the cards were well understood especially by the RDWs whereas the husbands and MILs had not understood the cards well. The husbands had not understood the cards on postnatal care and newborn care.

Regarding usefulness of the cards, the RDWs, MIL and husbands had perceived almost all the cards to be useful. However when asked to choose four cards which were the most useful the cards on antenatal care and danger signs were perceived to be the most important by the RDWs. Many women reported they had taken actions such as antenatal check up, saved money and gone to the health facility when they faced complications during their last pregnancy and delivery. Many RDWs also mentioned that they would go to the health facility if they faced any complications as now they are aware of the danger signs through the messages on the key chain.

Recommendations

- Care should be taken that pregnant women are given the KC at an earlier pregnancy period as their actions depend on when they receive the KC.
- Since the number of messages on the KC was perceived to be repetitive, the messages should be merged and reduced according to what is perceived to be important and useful by the FCHVs and community members.

Chapter 7 – Discussion and Conclusions

7.1 Introduction

In this section we address the larger policy questions raised by this process evaluation. Child mortality (children aged 12 to 59 months) declined precipitously from 43 to 14 per 1,000 live births between the 1996 and 2006 DHS surveys, while neonatal and maternal mortality both declined more modestly, neonatal mortality from 50 to 33 per 1,000 live births, and the maternal mortality ratio from 539 to 281 per 100,000 live births between the 1996 and 2006 DHS surveys (MoHP, 2007). Clearly reduction in maternal and neonatal mortality is one key to realizing further improvements in health in Nepal.

It is less clear how to achieve this reduction. One approach is to improve the availability and quality of delivery care and immediate newborn care in first-level and referral facilities. In Nepal, the effectiveness of this approach is constrained by a number of factors including preference of families for home delivery, and poor geographic access to health facilities due to poor roads and mountainous terrain. This process evaluation has examined a complementary approach, implementation of the Birth Preparedness Package by the Community-Based Maternal and Newborn Care project. There are questions concerning the effectiveness of the BPP that are addressed in part by data from the baseline and final household surveys for the CB-MNC project. These questions are represented by the boxes "Appropriate Service Provision" and "Maternal/neonatal health outcomes" in Figure 1. This report does not address quantitative measures of coverage or health outcomes.

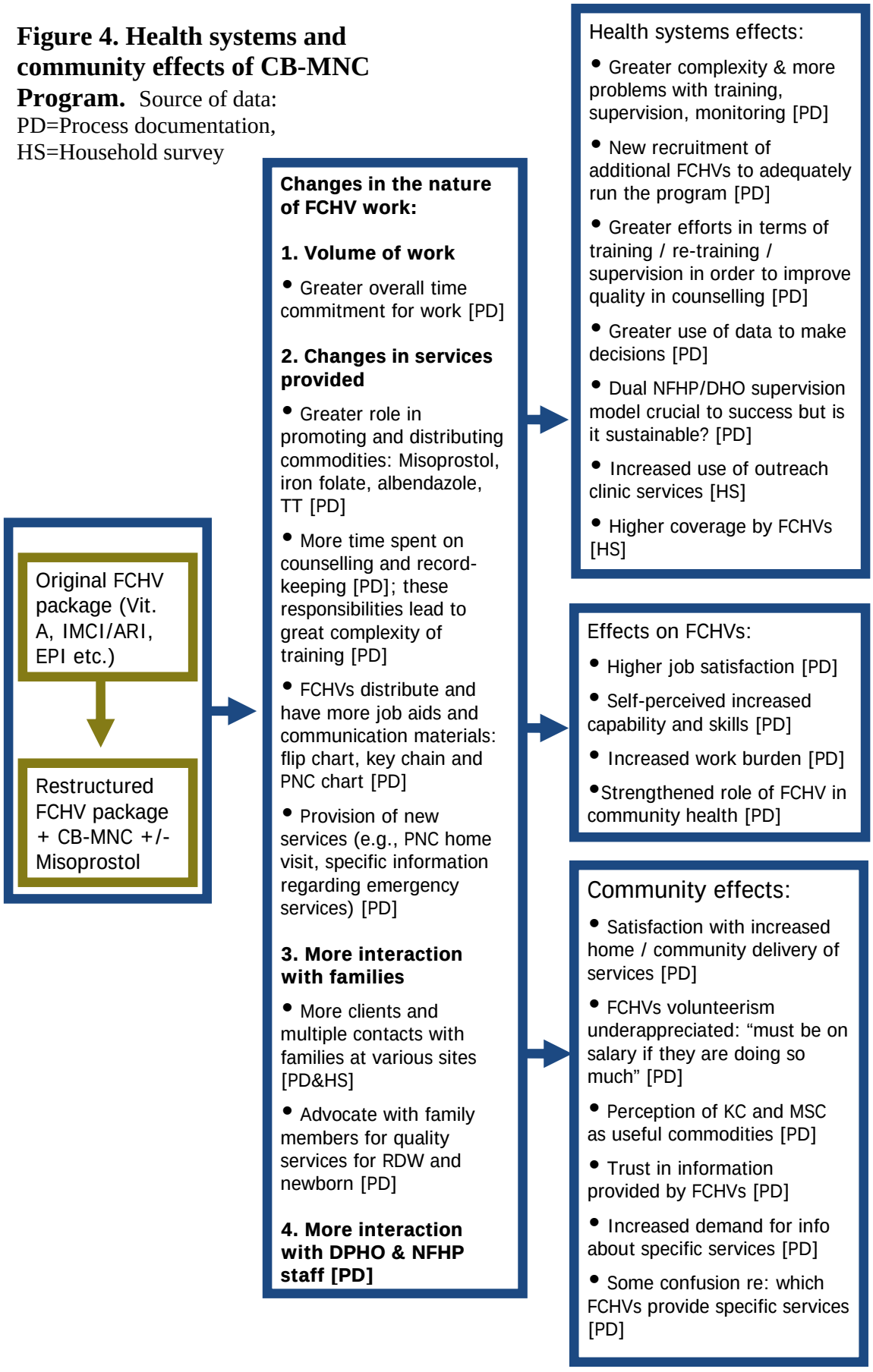
This report has addressed a second set of questions (see Section 1.3): What is the quality of services, what factors affect the performance of the FCHVs responsible for implementation at the community level, and what changes can be observed at the household level as a result of implementation of the BPP. Here we summarize the findings related to these research questions and discuss their implications for maternal and child health in Nepal.

7.2 Health systems and community effects of the CB-MNC program

Figure 4 displays the health systems effects of the CB-MNC program. The box in the center of Figure 4 indicates that the CB-MNC significantly changes the nature of FCHV work through 1) increased volume of work; 2) changes in services provided; 3) more interaction with families; and 4) more interaction for DPHO and NFHO staff. These changes in turn have effects on health systems, the FCHVs themselves and community relations with FCHVs, as shown in the three boxes on the right side of Figure 4.

The volume of work is clearly greater. Not only is there more work to be done, but there is less flexibility about when it can be performed. The increased volume of work originates not only from direct service provision, but also filling out forms and attending training sessions and meetings. The work affects FCHV motivation, and over time higher rates of FCHV attrition might be expected. The long hours worked by the FCHVs also give a number of community members the impression that they must be salaried employees of the government or an NGO.

Figure 4. Health systems and community effects of CB-MNC Program. Source of data: PD=Process documentation, HS=Household survey



The volume of work is significant not only for the CB-MNC program, but also for other health and nutrition programs. With the addition of the BPP activities, FCHVs have to assume more responsibilities. The CB-MNC recruited additional FCHVs in some cases in order to maintain coverage. Consideration needs to be given to simplifying or streamlining the BPP before it can be taken to scale.

The services provided by FCHVs are more complex and require that FCHVs develop a higher level of skills. This has both benefits and also results in new demands. The benefits include greater confidence of FCHVs in their new skills, and greater community satisfaction in the services FCHVs provide. The complexity of the services increases the demands on training, information systems and supervision. The process documentation indicated that more effort needs to be invested in identifying appropriate trainers, timing and coordination of training activities, and ensuring that the training offers enough opportunity for skills development, especially in counseling. The CB-MNC program has worked to revise the forms completed by FCHVs, VHWs and MCHWs, but further revision may be necessary before the forms are ready for use in a larger-scale program where there is less input from program staff (NFHP). The dual NFHP/DHO supervision model appears to have been crucial to success according to this process documentation.

7.2 Effects of the CB-MNC program of newborn care practices and careseeking

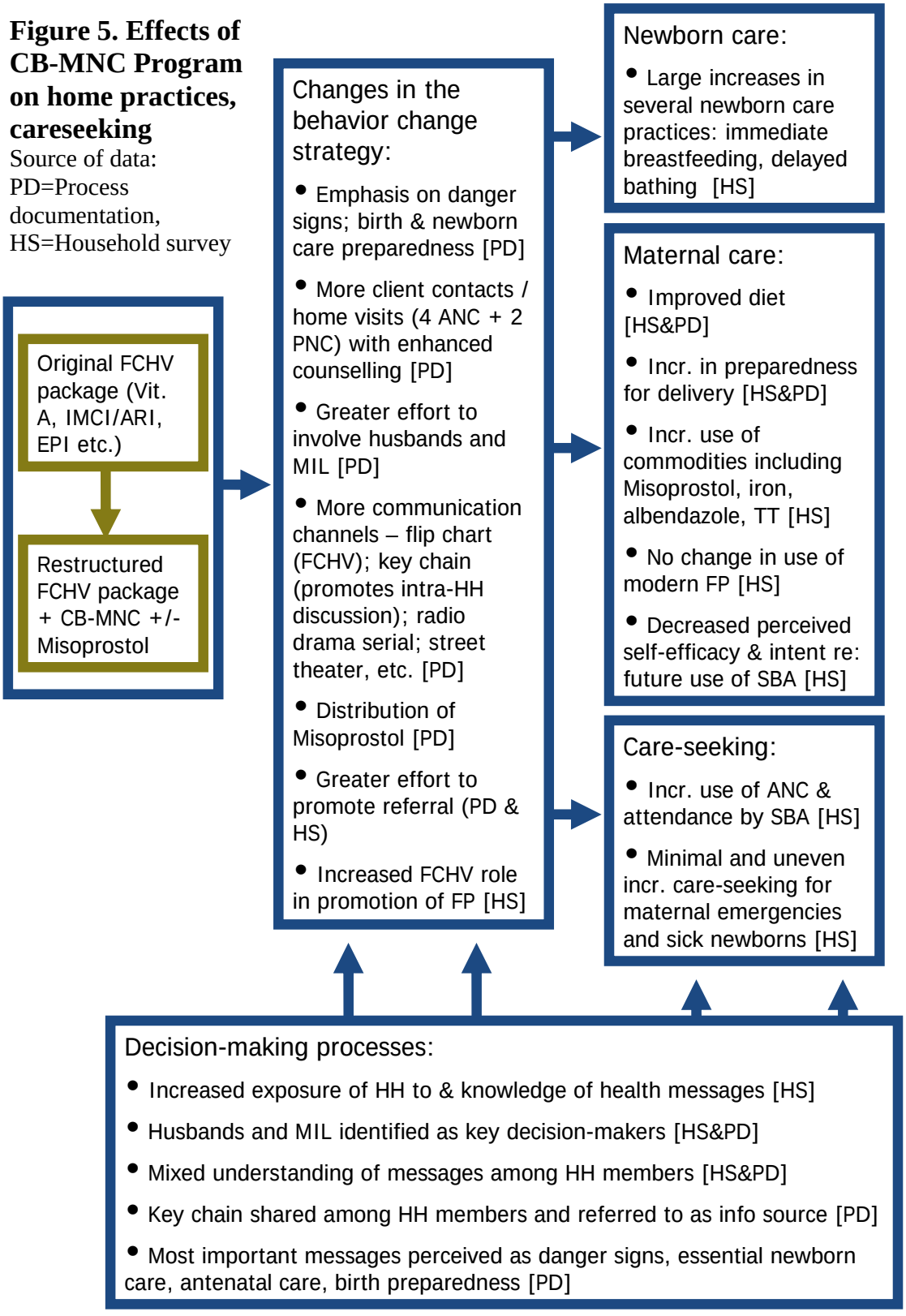
Figure 5 summarizes the effects of the CB-MNC program on newborn care practices and careseeking. Viewed as a behavior change strategy, the CB-MNC program has the following structure:

Table 7.1 Elements of the behavior change strategy of the CB-MNC program

Target groups for behavior change	Pregnant women, husbands, mothers-in-law
Behaviors promoted (partial list)	Improved diet during pregnancy, preparation for delivery (choice of facility, savings for care in case of emergency), preparation for newborn care, tetanus toxoid vaccination, albendazole and iron during pregnancy, attendance at antenatal care, immediate breastfeeding, delayed bathing of newborn baby, immediate drying and wrapping, immediate careseeking in response to maternal or newborn danger signs, misoprostol immediately after birth to prevent postpartum hemorrhage, use of modern method of family planning to space or limit births
Channels of communication	Counselling by FCHV during home visits (4 antenatal and 2 postnatal), flip chart (FCHV); key chain (promotes intra-HH discussion); radio drama serial; street theater, etc.

Examining Table 7.1, it is immediately apparent that the number of behaviors to be promoted is daunting. In addition to the behaviors listed in Table 7.1, many of the behaviors listed such as preparation for delivery and preparation for newborn care include a large number of sub-behaviors. Given this situation, the CB-MNC program chose to focus on provision of information concerning the target behaviors, and to use channels of communication that could accommodate a large amount of information: counseling by FCHVs, flip charts and key chains. This approach had strengths and weaknesses.

Figure 5. Effects of CB-MNC Program on home practices, careseeking
Source of data: PD=Process documentation, HS=Household survey



The strengths of the approach can be seen in the results of the final household survey (not presented here, See Figure 5): increases in a range of behaviors including delayed bathing, immediate breastfeeding, use of misoprostol, albendazole, iron and tetanus toxoid, and birth preparedness. These changes are consistent with the results of the process evaluation.

The limitations of this approach are indicated by results of both the process evaluation and the household survey. There was no effect on use of a modern method of family planning. Families indicated that the family planning card in the keychain was one to which they paid less attention, and FCHVs also spent less time on family planning compared to other topics. Similarly the process evaluation and the household survey indicated limited impact on use of skilled providers for delivery.

The approach thus did result in some changes in behavior, but the behavior change strategy could be refined to increase its impact. Possible ways to refine the behavior change strategy include:

1. Limit the number of cards in the keychain and flipchart. The process evaluation indicated many people don't pay attention to all of the cards, and don't consider some cards to be very useful. Also, there is redundancy in some of the cards. The number of cards in the keychain, or both the keychain and the flipchart could be reduced. Alternatively, cards in the keychain could be given out incrementally: During the first antenatal home visit by a FCHV 6 cards might be given, then 6 more added in each of the next two visits. This could create more of a focus for each visit, and give people more reason to look again at the keychain and discuss with other family members.

2. Change the role of radio. Each of the channels of communication have played a similar role in the CB-MNC program: To inform people of the recommended behaviors. While there is some logic in that approach, given the large number of behaviors being promoted, there may be other, more effective ways to combine different channels of communication, particularly when the BPP is implemented on a larger scale. For example, a series of radio spots might be created that explain the role of FCHV and the importance of discussing the keychain with family members, rather than promoting specific behaviors. This could address community perceptions that FCHVs are paid government employees, and lower acceptance of FCHVs and their work in some minority groups. It would also increase the effect of the keychains. This would not necessarily replace the radio serial, but rather complement it.

Plans for radio should also be based on previous research on radio in Nepal. For example, an article by Gunther and Storey showed a significant impact on perceptions of quality of care on users of services who were exposed to a radio drama aimed at clinic health workers (Gunter & Storey, 2003), a phenomenon known as the third person effect (Gunter & Storey, 2003; Gunther, 1991). Building on this work, one could imagine a radio drama aimed at FCHVs that similarly would have an effect on how community view the work and quality of care of FCHVs.

3. Increase role of VHWs and MCHWs in counseling. The process evaluation found that the VHWs and MCHWs played a much smaller role than NFHP staff in monitoring the quality of counseling and providing feedback to FCHVs on the counseling they provide. If the BPP package is implemented on a larger scale, with fewer NFHP staff to cover a larger area, it is anticipated that there will be difficulty maintaining the quality of counseling. Further work

will be needed to adequately train MoHP staff on the elements of good counseling and how to effectively provide supervision on counseling.

4. Behavior change models. The behavior change strategy incorporates some elements of behavior change models such as the Health Belief Model. There is the potential to make it even more effective if the strategy is based more explicitly on one of more models, and if more concerted efforts are made to affect determinants of these behaviors specified in the models such as self-efficacy, subjective norms and behavioral cues.

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