

## **Summary of Nepal Country experience – implementing PNC home visits: March 26, 2012**

### **1. Background**

Strategies for improving maternal, newborn and child health are outlined in the eleventh five year development plan (2007-2012) for Nepal. A National Neonatal Health Strategy was endorsed in 2004. The strategy focused on delivering a core package of neonatal interventions at community and facility levels, and outlined the systems supports that would be required to deliver interventions. In 2007, an assessment of progress in the area of newborn health by the Department of Health Services (DHS) found that limited progress had been made in implementation of the strategy. Since most deliveries still took place in the home, the assessment recommended the development of a community-based approach to improving ANC, ENC and PNC. The timing of PNC visits in the strategy was on days 3, 7 and at 6 weeks – and it was recognized that this timing needed to be changed in response to increasing evidence that neonatal deaths occurred in the early postnatal period.

Maternal and newborn health activities are implemented by the Child Health Division (CHD) and the Family Health Division (FHD) of the Department of Health Services (DOHS) of the Ministry of Health. The CHD is comprised of three sections – nutrition, EPI and IMCI. The FHD is responsible for pregnancy, delivery and maternal care. These divisions collaborate with the National Health Training Center (NHTC) and Regional Health training Centers, as well as with the National Health Information, Education and Communication Center (NHIECC). Services are de-centralized to districts in Nepal. Community health volunteers are Female Community Health Volunteers (FCHVs).

### **2. Policy/strategy adoption: improving early PNC home visits, 2007-2011**

#### **2.1 Process of adoption**

The DOHS formed a Technical Working Group to develop a community-based Newborn Care Package (CB-NCP). The working group was chaired by the CHD and FHD, and included ministry program staff, senior medical staff from the areas of obstetrics and pediatrics, national and regional training centers, the national IEC center and several development partners (CARE, PLAN, Save the Children (SC) and UNICEF). Available data on effective interventions were reviewed, as well as implementation experience in Nepal and elsewhere. A final intervention package was selected. A CB-NCP strategy paper was developed and endorsed by the MOH in 2007. In March 2008 the working group formed five sub-committees to develop methods and materials. Each group was led by the DOHS and included relevant stakeholders. The sub committees were: Strategy (implementation plan); Training (training methods, materials and a training plan); Monitoring and evaluation; Logistics; and BCC-IEC. Groups developed components of the package; these were then discussed and synthesized in the wider group. Support for the development process was provided by SC/SNL. The CB-NCP was finalized in 2008, as the primary government approach to improving maternal and newborn care at the community level. In the longer term, it aimed to integrate the package with existing safe motherhood and CB-IMCI packages, already being implemented. An office for overseeing implementation of CB-NCP was established in the Child Health Division – supported by

SC/SNL. The initial phase of CB-NCP was planned for a five year period (2007 – 2011). At the end of this period, program evaluation data would be used to decide whether it would be feasible to implement the program more widely. As a result of the development process, there was widespread acceptance of the approach, as well as commitment and coordination of development partners.

## 2.2 Content of policy

FCHVs are responsible for implementing the CB-NCP. The policy recommends 4 ANC visits, 1 visit at delivery (the guideline is that they should accompany the mother to a facility), and PNC visits at days 1, 3, 7 and 29. Mothers and newborns are screened at the same time. The training package includes the 7 core competencies recommended by WHO and others – in order to deliver key maternal and newborn interventions<sup>1</sup>. In addition, the policy allows FCHVs to treat newborns with suspected pneumonia or possible severe bacterial infection with the first dose of co-trimoxazole and then refer. They are also responsible for following-up newborns who have been treated at facilities on day 3 after the initiation of treatment.

## 2.3 Supporting policies and strategies

- FCHVs are permitted to assess, classify and treat newborns with suspected sepsis with the first dose of co-trimoxazole, and then refer. This policy supports the early identification and management of sick newborns.
- Delivery policy. The national policy is that all deliveries should be conducted at a health facility equipped for deliveries, by a skilled birth attendant. SBAs include doctors, nurses, auxiliary nurse midwives and paramedics who have received appropriate SBA training. All women should be kept in the facility for at least 24 hours – which promotes PNC before discharge.
- FCHV incentive policy. A policy on incentives for FCHVs was developed by Ministry of Health and Population. FCHVs are paid financial incentives based on how many key maternal and newborn tasks they complete. Key indicators of performance include: 1) the proportion of expected pregnant women registered by FCHVs; 2) the proportion of women delivering at a health facility; 3) the proportion of babies weighed at birth; 4) the proportion of newborns visited at day 1, 3 and 7 after delivery; 5) the proportion of newborns visited on the 28<sup>th</sup> day after delivery. Indicators are tallied. Based on the score, FCHVs receive 400 Rs per newborn (score of 70% or greater); 300 Rs per newborn (score of 60-69%); 200 Rs per newborn (score of 50 – 59%); or no incentive (score of 49% or below). Funds for the incentive scheme are provided by central government. They are administered by districts. Facility supervisors complete summary forms at monthly meetings with FCHVs in their area and submit these forms to the district. Incentive funds are paid into an FCHV bank account

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<sup>1</sup>Core PNC competencies: Promotion of NB care (early/exclusive BF, warmth, hygiene); Promotion of optimal care for mother (nutrition & family planning); Promotion of care-seeking for mother & newborn; Identification of danger signs in mother + referral; Identification of danger signs in newborn + referral; Support for breastfeeding; Care of low birth weight infant (feeding, skin-to-skin contact)

at the Village Development Committee (VDC) level – funds can be withdrawn directly by FCHVs.

- Incentive policies for mothers and health workers. An incentive policy was also adopted for mothers who make 4 ANC visits and then deliver at the health facility (900 Rs), and for facility-based staff: delivery in a health institution (1000Rs), referral facility delivery of a complicated birth (3500Rs) and caesarian section delivery (7500 Rs). Facility-based funds are divided between all facility staff. Reporting forms for target indicators are completed by facility staff and submitted to the district for approval and payment. Funds come from a central government allocation.

### Lessons learned: policy and strategy adoption

- The formation of a technical working group, and sub-committees to collect and review data, synthesize recommendations and develop methods and materials was essential for widespread acceptance of the CB-NCP, which included an updated policy on early PNC contacts. As a result the package was used by all partners, and activities were coordinated by the MOHP – implementation was subsequently planned systematically.
- A policy to allow FCHVs to classify and treat sick newborns with the first dose of co-trimoxazole and then refer was successfully integrated into the national CB-NCP approach.
- Policies on incentives for FCHVs, mothers and facility workers to support ANC, delivery and early PNC practices have been developed. These reflect a strong national commitment to improving both demand and supply for MN care, particularly around the time of delivery and the early PN period.

## 3. Selection and training of FCHVs

### 3.1 Selection criteria for FCHVs

FCHVs receive 19 days of basic training, and periodic 2-3 day refresher training courses on key topics. They receive no government salary. FCHVs are selected in communities by mothers groups. They must be female, married, live in the community and be respected. Ideally they will have completed at least a grade 10 education and be literate. Mothers groups discuss candidates and finalize the selection at a community meeting. FCHVs have been used in Nepal since 1988; currently it is estimated that there are approximately 48,000 FCHVs in the country, with a very wide geographic coverage. A national review<sup>2</sup> in 2006 found that:

- FCHVs have an average age of 38 years. Less than 1 percent of FCHVs are less than 20 years and 4 percent are over 60 years;

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<sup>2</sup> Government of Nepal. An Analytical Report on National Survey of Community Health Volunteers in Nepal. DHS – Family Health Division, ORS/MACRO, USAID. 2006.

- Forty-two percent of FCHVs have completed primary school or gone on to secondary education, 16 percent have attended but not completed primary school and 42 percent have never been to school.
- Sixty-two percent of all FCHVs are literate, 22 percent of FCHVs who have not been to school are literate.
- On average the annual turnover of FCHVs is about 4 percent. The turnover is high in a few districts only. FCHVs work an average of 5.1 hours per week. Seventy-seven percent of FCHVs would like to spend more time working as FCHVs in the future and only two percent prefer to spend less time.

FCHVs receive training in a number of program areas, including reproductive health, community-IMCI, and nutrition. They distribute family planning methods, ORS/zinc, vitamin A, polio vaccination, mebendazole, co-trimoxazole for pneumonia, and clean delivery kits. In addition, they are supplied with counseling materials and provide local counseling and health education. Their catchment area is on average 100-150 households. Health workers report that the capacity of FCHVs is highly variable. Some can master tasks quickly and easily, others have difficulty reading forms and managing their tasks. All FCHVs and mothers interviewed reported that they were able to reach households easily.

#### Lessons learned: selection criteria

- FCHVs have a wide geographic coverage and a relatively low turnover.
- Selection criteria are in general applied, although it is not always possible to find local volunteers who are literate. Illiterate FCHVs are often able to master the skills required.
- FCHVs and women report that they are usually able to reach households easily – suggesting that they live in communities and are able to make home visits.

### 3.2 Training of FCHVs

The CB-NCP training is 7 days in duration. Training materials are divided into six modules: clean delivery practice; immediate newborn care; infection prevention and management; LBW identification and management; birth asphyxia identification and management; hypothermia prevention and management. At the community level, the last day of the training is used to orient traditional healers, village development committees and mothers groups. Shorter refresher trainings are planned to follow the basic training. All FCHVs supplies and commodities are supplied on the last day of training.

FCHVs are trained in the CB-NCP package by facility-based health workers in their own areas. Training materials included job aids, counseling cards and community registers. Training was initiated by training a cadre of national master trainers. Master trainers were responsible for leading the first batch of health worker training in each district. In districts, cascade training is used; district level health workers are trained; these staff are then responsible for training

facility-based health workers. Facility-based health workers conduct training for community health workers and FCHVs. The basic training approach is summarized in the Box 1.

**Box 1: District Cascade Training – CB-NCP**

1. Facility health workers – DHO, hospital, and health facility staff: 5 day training + 2 day facilitator training (total 7 days)
2. Community health workers – VHW and MCHW: 5 day training
3. FCHVs: 7 day training

Methods for review and reinforcement of skills: Follow-up after training; routine supervision; monthly facility meetings (FCHVs)

A number of quality standards were established for training, including:

- A master trainer at the first facility training
- An SBA in each batch of training
- Supervision by a central level supervisor
- Enough training materials
- Enough time to complete all training modules

In 2010, 9 of 10 early implementation district managers reported that the quality of training has generally met these standards<sup>3</sup>. Six of ten districts reported that the asphyxia module sometimes presented difficulties for participants – most frequently the classification, management and reporting of birth asphyxia in the time available. No other major problems with the training modules were reported. Overall training has been successfully implemented and well accepted by trainers and participants. Materials are reported to be easy to use and understand, and are practice based. Follow-up after training, a useful approach for reinforcing skills, is generally not taking place. Several informants reported that training standards are not always applied. Sometimes the training is shortened; sometimes skilled facilitators are not available. It was reported that a competent cadre of district level trainers is essential to making training effective; they should oversee sub-district training by health workers

Lessons learned: Training

- Practice-based materials are liked and understood by participants.
- The birth asphyxia module was the most difficult module for participants to master, and many wanted more time on this area.

<sup>3</sup> Ministry of Health and Population, Nepal. Mid-Term Review of the Community-based Newborn Care Package Program in Nepal: August 17-19, 2010.

- Quality standards for training are needed in order to ensure that minimum standards are met – particularly as training is rolled-out more widely and has less technical oversight by partners and central MOHP staff.
- Follow-up after training is not conducted regularly, and would be useful for reinforcing skills and monitoring progress.
- A cadre of competent district trainers is essential to ensuring that FCHVs and health workers receive high quality training according to the national standards. District trainers should oversee sub-district training regularly.

#### 4. Implementation

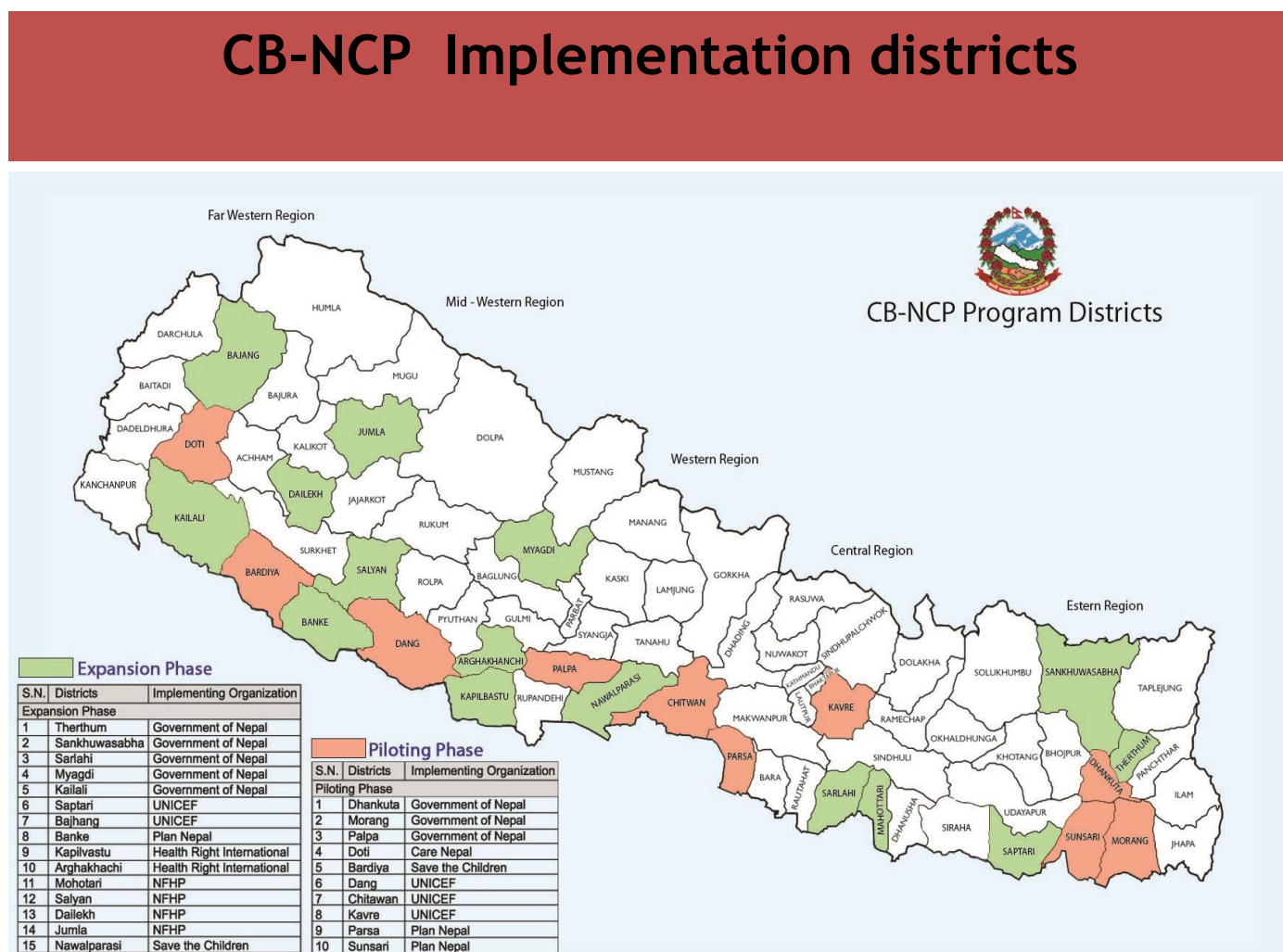
##### 4.1 Training coverage: CB-NCP

Implementation was begun in 10 pilot districts. The intention was to determine whether or not the CB-NCP was feasible and effective, and to learn lessons. Implementation was subsequently expanded – in 2011 – to 15 additional districts. Early implementation districts were supported by the Government of Nepal and by development partners. Criteria for selecting pilot districts are shown in Box 2. Districts and supporting partners are summarized in Figure 1. Partnerships between the MOHP and development partners were essential in the early implementation phase in order to: 1) provide resources for development of training and IEC materials and implementation costs; 2) provide technical support to ensure that all technical standards were met; 3) Monitor and evaluate early implementation more actively in order to document program effectiveness and lessons learned. Data on training coverage was collected by partners in each district and compiled at the CB-NCP desk in the CHD. By August 2010, training coverage of FCHVs in the 10 early implementation districts was 95%. In addition, 94% of facility-based health workers and 87% of community health workers had been trained<sup>4</sup>. Overall, implementation partnerships resulted in relatively rapid scale-up in district-based training – and a high training coverage.

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<sup>4</sup> Ministry of Health and Population, Nepal. Mid-Term Review of the Community-based Newborn Care Package Program in Nepal: August 17-19, 2010.

Figure 1: Map of CBMNC implementation by district and implementing partner, Jan 2012



Box 2: Criteria for selection of pilot CB-NCP districts

1. Reasonably low area of conflict
2. Motivated and interested DPHO
3. Accessibility
4. No previous newborn health projects
5. Reasonably well staffed government health facilities
6. CB-IMCI and Safe Motherhood programs in place
7. Population-based FCHVs available (instead ward-based FCHVs)
8. Human Development Index not in the highest 1/3<sup>rd</sup> of all districts

#### 4.2 Trends in coverage indicators: 2007 - 2011

The 2011 preliminary DHS in Nepal estimated the neonatal mortality rate to be 33/1000 live births – unchanged from the rate reported in the 2006 DHS. In 2011, neonatal deaths represented 61% of under-5 mortality. These findings suggest that more attention is needed to ensuring that neonatal interventions reach mothers and babies.

Data are reviewed from two sources;

- 1) National DHS data. Most recent surveys are 2006 and 2011. Preliminary data only are available from the 2011 survey. Key maternal and neonatal indicators are summarized in the indicator Table at the end of this section. Key indicators are shown in Figure 1.
- 2) Baseline and endline 30 cluster HH surveys from Bardiya district. Bardiya is a CB-NCP early implementation district. Activities are coordinated by the MOHP with support from SC/SNL.

##### 4.2.1 National trends in coverage (Figure 1)

Access to and utilization of ANC remains low. In 2006 ANC 4+ coverage was estimated to be 29% and this rose to 50% in 2011. In 2011, 58% of mothers had received ANC for the last birth from a skilled provider; and a high proportion reporting receiving essential ANC interventions, including: iron during pregnancy (80%); a blood pressure check (86%), urine sample (56%). A lower proportion reported a blood test (45%). Overall, there are limited data on quality of ANC. A high proportion of newborns were protected against NN tetanus at birth (78% and 82% respectively in 2006 and 2011).

Access to and utilization of skilled birth attendants remains low: A low proportion of births are attended by skilled providers (36% in 2011, with 35% of deliveries at health facilities) – although this proportion has increased substantially since 2006 (19%). In 2011, 63% of deliveries still took place at home - 40% were conducted by family members and 11% by TBAs.

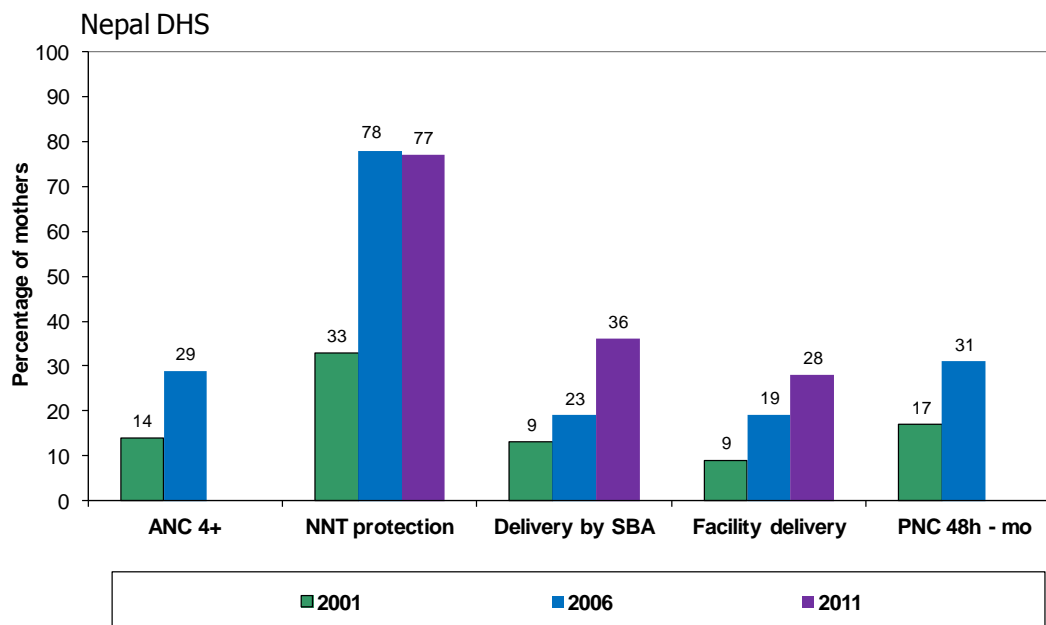


The cesarean section rate for rural women has increased from 2% in 2006 to 4% in 2011 – which suggests improved access to and availability of EmONC in rural areas. The urban cesarian section rate in 2011 was 15% - almost 4 times the rural rate.

Many women and newborns do not receive effective interventions in the immediate post-delivery period: Effective interventions in this period include thermal care (including skin-to-skin contact), early breastfeeding (within 1 hour of birth), clean cord care, and newborn resuscitation when required. In 2011, 68% of mothers reported that a clean blade was used to cut the umbilical cord – although 41% reported that something was put on the stump. Fifty-nine percent of mothers reported that their baby was dried and 62% that their baby was wrapped after delivery, with only 10% reporting skin-to-skin contact between mother and baby before delivery of the placenta. In addition, early bathing (in the first 24 hours) was still commonly practiced (73%) – a figure that is unchanged from 2006. The proportion of mothers initiating breastfeeding within 1 hour of birth was low at 45% in 2011. In addition, 28% of newborns were given pre-lacteal feeds, which are not recommended – never-the-less this is an improvement from the 37% reported in 2006.

Postnatal care contacts remain low: In 2011, 45% of women (regardless of place of delivery) reported receiving a PNC contact in the first 2 days after birth; 41% reported a contact within 24 hours. Thirty percent of newborns were reported as having a PNC check within 2 days of birth – suggesting that there may be missed opportunities to check the newborn, when the mother is checked. No data were collected place of PNC (home or facility) – this is recommended for future surveys.

Figure 1: Coverage of Maternal and Newborn Interventions, Nepal, 2001, 2006 and 2010



#### 4.2.2 Baseline and endline HH survey data from Bardiya District

Bardiya is one of the ten early implementation districts of the CB-NCP. A baseline survey was conducted in 2008 and repeated in 2011 after approximately 30 months of implementation (see section 4.3 for a description of the main elements of implementation). A representative sample of women who had delivered in the 12 months prior to the survey was taken. Findings are summarized in Figure 2.

Principal findings include:

- A reduction in home deliveries. The proportion of home deliveries declined from 66% to 19% - and the proportion of facility deliveries rose from 34% to 81%.
- SBA assisted deliveries increased from 30% to 75%. The proportion of deliveries at which an FCHV was present (a policy of the CB-NCP approach) rose from 10% to 41% (facility deliveries) and 16% to 52% (home deliveries). Women reporting that they had been given advice on the place of delivery by an FCHV rose from 66% to 97%; and those reporting that an FCHV had given advice on the need for a skilled provider rose from 44% to 94%. The proportion of women making a birth plan also rose – from 66% to 94%. Taken together

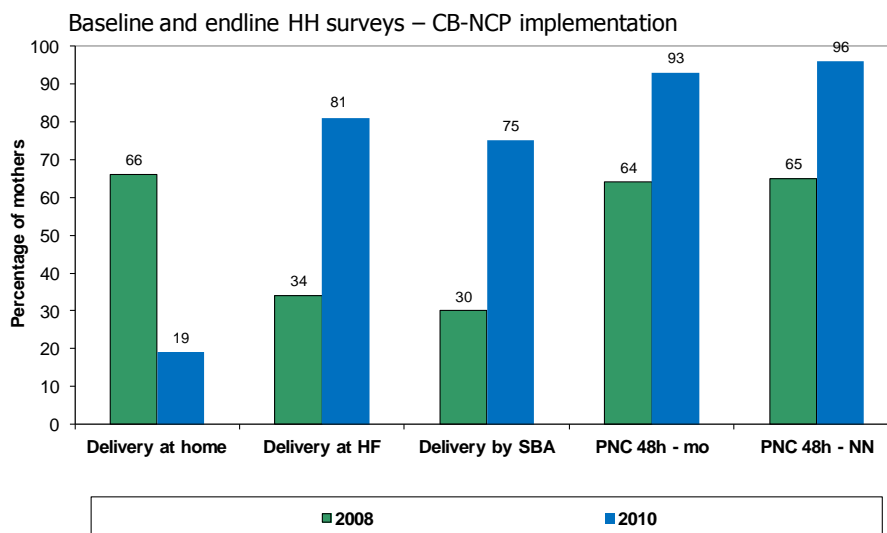
these data suggest that FCHVs are reaching a high proportion of women and giving messages on safe delivery.

- PNC visits. The proportion of women reporting that they received a PNC check within 2 days of delivery rose from 64% to 93%. The proportion of newborns receiving PNC check within 2 days of delivery rose from 65% to 96%. The proportion of newborns receiving a PNC check within 2 days of a facility delivery rose 83% to 100% - and the proportion receiving a PNC home visit after a home delivery rose from 55% to 76%. These data indicate that more PNC contacts are being made, and that mothers and newborns are receiving PNC at the same time. The majority of facility deliveries receive a PNC check; and a high proportion of home deliveries. Overall, FCHVs were notified of the delivery by 66% mothers – of those who notified the FCHV 75% received a PNC check at home within 2 days; compared with 55% who did not notify the FCHV. These data suggest that birth notification can increase the proportion of early PNC visits.

#### Overall summary: coverage data

- Increases in coverage of key interventions, including PNC contacts are noted nationally – however rates remain low and have been slow to change. In most districts of the country FCHVs are present, but the CB-NCP package has not yet been implemented.
- Data on implementation of the CB-NCP package in one district, show marked improvements in facility deliveries and deliveries by a skilled provider. PNC contacts for both mother and newborn have shown marked improvements – including increases in PNC home visits. FCHV birth notification appears to increase the likelihood of an early PNC contact.
- PNC indicators for both mother and newborn need to be added to all future DHS and population based surveys, to ensure that trends in PNC contacts can be tracked. Revised standard definitions should be used.

Figure 2: Delivery Practices, Bardiya District Nepal, 2008 and 2010



### 4.3 Program implementation

The MOHP intended the CB-NCP to be implemented using the existing district-based health care system as much as possible, including existing human resources, supervisory systems, logistics management and distribution systems. The IMCI focal person, already present in districts and supported by the government, was trained to support CB-NCP implementation. A CB-NCP desk was established in the central office of the CHD to support implementation, and collection and management of data – this position was supported by SC/SNL.

To deliver the CB-NCP package FCHVs aim to reach all women and children in their communities. Their role in implementing CB-NCP includes:

- Community-based surveillance to identify pregnant women, births and newborn deaths – using community registers
- Referral to facilities for facility delivery. If this is not possible, they attend home births – to ensure that women and newborns receive delivery and immediate post-delivery interventions. FCHVs are trained to identify babies with asphyxia and to treat with stimulation, suction or bag and mask. They weigh babies, identify LBW babies and provide care or refer as needed.
- Post-natal home visits to provide essential newborn care, to recognize and treat mothers and sick newborns and to ensure referral when necessary. FCHVs are trained to give co-trimoxazole for the treatment of newborns with suspected sepsis.

- Health education for mothers and caretakers – using counseling, mother’s group meetings and other channels. Health education and behavior change activities were designed to improve home behaviors, including early PNC visits, recognition and care-seeking for sick newborns, and to improve the demand for skilled birth attendants.

#### Program activities: Supporting implementation of the CB-NCP

Supports that have been important for implementation include:

#### **Local planning and coordination**

Monthly facility meetings between FCHVs, VHWs and MCHWs and facility in-charges are important for supporting implementation. These provide an opportunity to re-supply volunteers, collect completed recording forms, and to solve problems. They reinforce the need to register and track all pregnant women. Forms for incentive payments are also completed. Meetings are sometimes used to give technical updates and to test FCHV knowledge. Currently, they are the most effective method for overseeing FCHVs and solving problems.

#### Lessons learned: local planning

- Monthly planning and review meetings between health facility staff and FCHVs are important for supporting and sustaining community level activities – and ensuring that pregnant women are tracked.

#### **Monitoring and supervision**

##### *Supervision*

Supervision visits are generally not taking place. District managers report that regular supervision is one of the hardest elements of the program to conduct and sustain – particularly at the community level. Supervisory checklists are available – but rarely used. Barriers to regular supervisory visits include lack of available staff, vehicles, fuel and per diems. When visits are made they are often made with staff from supporting partners – using partner resources. (Supervision guidelines: FCHVs are supervised by community health workers (VHWs and MCHWs); 20% of FCHVs should be supervised each month. Community health workers are supervised by facility-based health workers from primary health care centers (PHC-C); 100% should be supervised each month. PHC-C staff are supervised by the district public health officer; 10% of health facilities should be supervised each month).

## *Monitoring*

FCHV community registers. FCHVs conduct community-based surveillance for pregnant women and then follow pregnant women through delivery and the newborn period. Three register forms are completed by FCHVs:

- CB-NCP 1: Pregnancy surveillance form
- CB-NCP 2: Newborn service form
- CB-NCP 3: Infected baby treatment and referral forms

Community registers serve as job-aids to reinforce practices and key services. Community register forms are compiled monthly at sub-health posts by VHWs and MCHWs. Completed registers are given to sub-health posts on the first day of every month at regular monthly facility meetings. The forms allow tracking of live births, still births, newborn deaths, cases of illness, delivery care provided, and post-natal care received.

Facility-based registers. VHWs and MCHWs collect forms from FCHVs at sub-health posts. They also complete facility registers for deliveries and sick newborns managed at the facility. Four forms are completed:

- CB-NCP 4: Infected newborn treatment form
- CB-NCP 5: Newborn service form at health facility
- CB-NCP 6: Newborn service compilation form – for reporting (CB-NCP forms 2 and 5)
- CB-NCP 7: Infection newborn compilation form – for reporting (CB-NCP forms 3 and 4 + IMCI OPD form – HMIS 16a)

Facility compilation forms are submitted to the district and entered into a CB-NCP database; data are sent to the CB-NCP desk in the CHD. This system runs parallel to the routine system. Summary forms allow tracking of total numbers of newborn deaths, cases of illness, delivery care practices, post-natal care practices and treatment practices for sick newborns.

Community registers are an effective job aid, and can be completed by most FCHVs. Districts often have difficulty entering CB-NCP forms on their own – and require partner support to complete data entry. Data are used locally – at the health post level - for reinforcing FCHV practice and planning. There are concerns about the number of forms, their length and how they will be linked with the routine HMIS in the longer term. In order to be sustainable the forms will need to be integrated better with the routine system, and simpler to use. There remain concerns about whether the community-based monitoring system will be sustainable in the longer term.

## Validation of community register data and comparisons with the baseline

In 2010, a validation survey was conducted in Bardiya District to determine whether or not data recorded by FCHVs on community registers were valid and reliable<sup>5</sup>. This survey sampled 600

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<sup>5</sup> Karki Y.B. Data Verification Survey of Community-based Newborn Care Program, Bardiya District 2010. Preliminary Report. The Population, Health and Development (PHD) Group. August 2010.

newborns who had been born in the previous 6 months and who had been registered by FCHVs. Households were visited and a standard questionnaire administered to the primary caretaker. The questionnaire collected information on key practices around delivery and the post-natal period. Data from household questionnaires were then compared to those from FCHV community registers. Findings are summarized in Table 1.

**Table 1: Comparison of Key Indicators from Community Register Data, Validation and Baseline Household Surveys, Bardiya District 2010**

Indicator	Baseline survey	Community Register data	Validation survey
Received BPP counseling from FCHV	-	97%	94%
Delivered at health facility	32%	67%	66%
FCHV present at home delivery	16%	68%	28%
CDK used at home delivery	34%	60%	53%
Skin to skin contact at birth	16%	95%	71%
Breastfed within 1 hour of birth	69%	95%	88%
Weighed within 3 days (home births)	<1%	93%	89%
PNC visit from FCHV within 3 days	3%	95%	46%

*Validation survey findings:* The validation survey found that data reported from community registers was generally consistent with survey findings. This suggests that for most indicators, FCHVs are able to record their findings correctly on registers. Larger differences between FCHV recorded data and data from the validation survey were noted for two indicators: the presence of the FCHV at a home delivery, and PNC visits within 3 days of delivery. For these two indicators, the validation survey found rates that were much less than those reported by FCHVs – it seems likely that FCHVs are over-reporting these two measures. Although the household survey findings are subject to recall bias – it is thought to be less likely that this would be a significant problem for whether the FCHV was present at the delivery; or the timing of the PNC visit.

Routine HMIS. The routine facility-based HMIS includes PNC contacts within 24 hours, 3 days and 7 days of delivery. A facility delivery is counted as PNC within 24 hours. The national policy is for women to remain at the facility for 24 hours – however the reported average length of stay is 6 hours.

### Lessons learned: Monitoring and supervision

- Community registers are a useful job aid and generally can be completed by FCHVs. Available data suggest that they are being completed accurately and are relatively complete.
- Collecting and compiling register data at all levels of the health system adds a substantial burden on staff. The community-based reporting system currently runs parallel to the HMIS. There are concerns that this system may not be sustainable when partner support is withdrawn. Community register data are often not used at higher levels for planning and decision-making. In the longer term, there are plans to integrate reporting with c-IMCI; and to incorporate community-based data into the routine HMIS.
- Supervision visits are often not taking place at lower levels. Monthly meetings between FCHVs and facility staff are an important way to provide support and oversight.

### **Essential medicines and supplies.**

The package of essential equipment and supplies for FCHVs includes: Co-trimoxazole tablets, vitamin A, a bag and mask, DeeLee suction, a thermometer, a timer, weighing scales, a flip chart for key delivery and post-delivery messages, a pregnancy counseling card, and the FCHV community registers – containing all register forms. Partners provided FCHV kits in the first phase of implementation. No stock outs were report during field visits, and district managers reported that supplies were generally available.

### Lessons learned: essential medicines and supplies

- Stock-outs have not generally been a problem in CB-NCP areas supported by partners
- The government has not yet assumed responsibility responsibility for medicines, equipment and supplies in most areas.



## Care-seeking

CB-NCP has increased care-seeking at facilities. Increased pressure has therefore be placed on referral sites to better provide delivery, essential newborn care and EmONC services. In many areas there are a number of barriers to care-seeking including geographic barriers, lack of transportation, lack of money, and other cultural factors such as a reluctance to allow newborns to receive injections and a preference for traditional healers and methods. In these areas FCHV work with mothers groups and the community to identify strategies for assist care-seeking – including a community fund for paying the costs of transportation. There are limited data on the quality of delivery, ENC and PNC, and management of sick mothers and newborns. More data are needed, in order to identify gaps and develop approaches to addressing them. Reports from facility and district staff report that common problems include lack of space and beds for delivery, and lack of some essential medicines and supplies. Staff are often not applying standards. A substantial increase in effort towards improved quality of facility-based care at all levels is needed.

### Lessons learned: care-seeking

- In many areas, rates of care-seeking for delivery and management of sick mothers and newborns have increased following implementation of the CB-NCP.
- Quality of delivery an EmONC needs to be reviewed, and approaches to addressing gaps developed.
- Substantial inputs into improving the quality of care for mothers and newborns are needed.

### **Behavior change and communication.**

The primary focus of health education was one-on-one counseling by FCHVs and community health workers, using job aids. In addition, VDCs, mothers groups and traditional healers, were given orientation on the CB-NCP and on key newborn health behaviors, on the last day of FCHV training. It was hoped that these groups could also provide key messages to caretakers and families. In some districts, FCHVs developed songs and skits based on the key messages. National and district-level mass media approaches were developed by the Saving Newborn Lives project and UNICEF. These included a radio series and television program which incorporated newborn messages. There was general agreement that involving mothers groups and other community leaders was important for generating support and awareness. In PLAN areas, large meetings were held with health workers, FCHVs, pregnant women, husbands and mothers. At these meeting key interventions, including timing of PNC visits were discussed – and all participants committed verbally to making the correct number of contacts during pregnancy, delivery and after delivery. Household visits by FCHVs and are reported as being the most important approach to changing behaviors. FCHVs report that counseling materials are adequate and understood. Their presence in communities supports early newborn practices. Support from husbands and mothers is also very important – and they should be targeted in health education.

### *Incentives*

The FCHV incentive program is reported to be working in all areas visited. Incentives claim forms are completed at monthly meetings, using community registers. Funds are paid monthly into joint FCHV bank accounts. FCHVs report that these are a strong motivator. Reported concerns with the incentive program include:

- Incentives may reduce commitment to other program areas, such as c-IMCI and family planning which do not receive incentives.
- Misreporting. In some areas mis-reporting has been reported to be a problem (contacts with the mother and baby are reported – although they have not been conducted). Facility staff are responsible for reviewing FCHV registers and cross-checking that visits have been made. In areas visited, facility staff that periodically do cross-checks using facility registers. In general they do not believe mis-reporting to be major problem.
- Sustainability. The incentive program is funded by government central funds – and not by partner projects. It is believed that this makes the system more likely to be sustainable in the longer term.

The family and health worker incentive programs are also reported to be an important factor in the increased proportions of facility deliveries.

**Indicator Table: PNC home visit review - Nepal**

Objective/ Result	Indicator	NATIONAL				BARDIYA DISTRICT	
		1996DHS	2001 DHS	2006 DHS	2011DHS	HHS 2008	HHS 2011
IR1: Increased availability of and access to key MNC services	Proportion of mothers who received at least 4 ANC visits	9%	14%	29%		58%	81%
	Proportion of mothers who received TT2+ during pregnancy	33%	45%	63%			
	Proportion of newborns protected against NNT at birth	-	33%-	78%	77%		
	Proportion of deliveries by skilled birth attendants	10%	13%	19%	36%	30%	75%
	Proportion of deliveries at a health facility	8%	9% (89% home)	19% (81% home)	28%	34%	81%
	Proportion of rural pregnancies having a c-section	0.7%	0.6%	1.9%			
	Proportion of mothers who had a care contact in the first 2 days after delivery	-	17%	31%		64%	93%
	Proportion of newborns who had a care contact within 2 days after delivery	-	-	-		65%	96%
IR 2: Improved quality of key maternal and newborn care services	Proportion of mothers who received iron tablets or syrup during pregnancy		23%	60%			
	# of pregnant women who took 2 doses of Sp as IPT during pregnancy	NA	NA	NA			
	Proportion of babies who had the cord cut with a clean instrument		9% (CDK)	61% (new blade)		34%	70%

		NATIONAL				BARDIYA DISTRICT	
Objective/ Result	Indicator	1996DHS	2001 DHS	2006 DHS	2011DHS	HHS 2008	HHS 2011
	Proportion of babies who were dried, wrapped immediately after birth	-	-	42.6% dried 44.9% wrapped		48% (home)  86% (facility)	89% (home)  99% (facility)
	Proportion of children age 0-23 months whose first bath was delayed at least 24 hours after birth	-	-	9%		49%	94%
	Proportion of mothers who initiated BF within 1 hour of birth	18%	31%	35%		64%	90%
	Proportion of babies weighed at birth	-	-	17%			
IR 3: Improved household level knowledge and attitudes for key essential newborn care and related maternal care behaviors	Proportion of pregnant women who slept under an ITN the previous night	NA	NA	NA			
	Proportion of newborns exclusively breastfed		87%	88%			
	Percentage of infants age 0-5 months exclusively breastfed	61%	68%	53%			
	Proportion of children born in the last 5 years who were born least 24 months after the previous surviving child			78%			