BACKGROUND

Countries that have made real head-way in reducing maternal and neonatal mortality have generally done so by significantly increasing the proportion of deliveries done under skilled birth attendance. Such an effort is underway in Nepal and the Nepal Family Health Program (NFHP) has contributed to it, for example, through strengthening basic emergency obstetrical care (BEmOC) services. However, reducing mortality through increased use of skilled delivery services is a difficult long-term challenge in a setting like Nepal and we do not expect large gains quickly.

The Nepal Family Health Program has piloted a package of primarily community-based inputs with the goal of improving maternal and neonatal outcomes. This work was implemented under the leadership of the Ministry of Health and Population, Family Health Division (FHD) and District (Public) Health Offices (D(P)HO) in the districts of Banke, Jhapa and Kanchanpur. Implementing partners included Nepal Family Health Program (USAID), JHU/HARP-GRA (Johns Hopkins University), ACCESS Project (SC/US & JHPIEGO), PLAN, and USAID (funder).

The main emphasis of community-based maternal and neonatal care (CB-MNC) has been to significantly increase coverage of a minimum package of high-impact, cost-effective, largely community-based interventions with the potential for significant population-level mortality impact over the short-to-medium term. The package was, to a considerable extent, based on existing service elements and other recent experiences in Nepal, but includes some innovative components.

The CB-MNC package was intended to be:

- In principle, implementable at scale using the Government of Nepal (GON) health sector staff and resources.
- Eventually fully integrated with other maternal and child health (MCH) activities, community-based integrated management of childhood illnesses (CB-IMCI) and ongoing training initiatives, etc. In the three initial districts, the CB-MNC activities were integrated with related activities e.g., ‘iron-intensification’ and pregnancy registration.
- Selective rather than full continuum-of-care (focusing on specific interventions with the greatest potential impact).
- Initially closely documented and monitored, to enable us to learn lessons and progressively refine the approach for greater impact and ease of implementation.

To achieve impact the intervention requires:

- A high level of uptake of appropriate household-level practices (behavior change).
- Prompt & appropriate treatment-seeking (demand).
- Availability of appropriate services (access/quality).
In the table below, ten main goals and associated sets of activities\(^1\) are outlined (the first seven have been implemented in all three districts; the last three in selected districts).

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<th><strong>Household practice/service utilization goals:</strong></th>
<th><strong>What the intervention entailed:</strong></th>
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| 1. Receive **key antenatal ‘clinical’ interventions:**  
  a) Iron/ folate  
  b) De-worming - albendazole  
  c) Tetanus Toxoid (TT) | 1. • Demand creation through counseling / health education provided by Female Community Health Volunteers (FCHVs), with complementary behavior change communication (BCC) / community mobilization activities.  
  • Provision of services through existing channels (peripheral health facilities, outreach clinics, FCHVs),  
  • Monitoring/ supervision, logistics and policy review. |
| 2. Recognize, promptly seek and receive **appropriate care for danger signs:**  
  a) In pregnancy.  
  b) Around time of delivery.  
  c) During postpartum/ neonatal period. | 2. • FCHV-provided counseling (individual/group), leveraging household social support (with BCC and community mobilization) and providing specific information for care-seeking;  
  • Provision of quality emergency services (site strengthening).  
  • Monitoring/ supervision (e.g. tracking commodity stock status). |
| 3. Use appropriate **essential newborn care** household practices (clean blade, surface and hands; stimulate, dry, wrap, quick to the breast, delay bathing; nothing on cord). | 3. FCHV (plus Trained Traditional Birth Attendant (TTBA) in some settings)—provided counseling/ health education (as above). |
| 4. Plan for, seek and receive **skilled birth attendance/ quality emergency obstetrical care** on a timely basis. | 4. Site-strengthening, mapping/inventory of service-delivery-points, FCHV-provided health education— with specific referral information given (with BCC/ community mobilization as in 3, above). |
| 6. Early initiation & exclusive **breastfeeding** through six months of age. | 6. FCHV-provided health education/counseling (with post-partum home-visit assessment), supervision/ monitoring (with BCC, community mobilization). |
| 7. **Receive postpartum iron.** | 7. FCHV orientation, logistics, supervision. |
| 8. Appropriately use misoprostol (matri suraksha chakki) for **preventing postpartum hemorrhage,** if not delivering with skilled birth attendance (Banke). | 8. Logistics (procurement, distribution, control system), training/orientation for health workers (including FCHVs), counseling pregnant women (by FCHVs, other health workers), supervision/ monitoring. |
| 9. **Low-birth-weight babies** identified through early postpartum home visit & receive risk-reducing interventions (kangaroo-mother-care, KMC/ skin-to-skin, breast-feeding assessment/ counseling. Kanchanpur only, done under ACCESS project). | 9. Policy clearance, on-the-ground formative research (KMC), health worker orientation (including FCHVs), logistics (for new commodities), FCHV-provided assessment/ counseling. |

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\(^1\) Note that although this includes all the main activities, it is not an exhaustive list.
Summarizing the three main sets of activities:

A. Community-level antenatal contact – with pregnant women and household decision-makers, mainly by Female Community Health Volunteers (FCHVs) and, where appropriate, by Trained Traditional Birth Attendants (TTBAs), focusing on the following six areas:

1. Seeking specific antenatal services (e.g., TT, iron, de-worming, etc.) from FCHVs or other health workers.
2. Seeking skilled attendance at delivery (or Emergency Obstetric Care (EOC)), including financial and transport planning.
3. Recognizing and promptly seeking care for danger signs (including locality-specific information on where to go for care; FCHV to address obstacles to prompt care-seeking).
4. Performing essential new-born household care practices (clean delivery, appropriate cord-care, temperature control, breastfeeding—early and exclusive to six months).
5. Seeking immunization and postpartum family planning.
6. Informing FCHV soon after delivery, to trigger early postpartum home visit.

FCHVs use this antenatal health education contact to dispense:
- Iron/ folate and
- Misoprostol (matri suraksha chakki) (in Banke).

In Kanchanpur, counseling/health education has been implemented somewhat differently from the other two districts—where Birth Preparedness Package key-chains are given to pregnant women and where the approach depends more heavily on individual counseling. In Kanchanpur, this component:
- Targets other adult household members (mothers-in-law, sisters-in-law) as well as pregnant women.
- Uses a more active, group-based, participatory, problem-posing/solving pedagogy (based in part on the Mother and Infant Research Activity (MIRA) approach which was piloted in Makwanpur District of Nepal).

In addition to counseling/ health education, there have been additional complementary BCC/ community mobilization support (including radio drama serial, etc.) in each of the three districts. In Banke, there has been additional activity targeting marginalized communities to raise awareness of and increase access to FP.

B. Strengthening existing services, including minor renovations/ repairs and provision of training and equipment for selected Basic Emergency Obstetric Care (BEOC) sites; service mapping/ inventory for skilled attendance and management of complications (pregnancy-related, delivery-related, postpartum and neonatal); logistical and other monitoring. In Banke, there was a separate activity strengthening expanded program of immunization (EPI) services and increasing community support for such services.

C. Postpartum home visits by FCHVs (and sometimes TTBAs), within the first two-three days, which have included:
- Assessment—(case detection) looking for danger signs (neonate—following CB-IMCI protocol; mother—questioning on danger signs) and referral, as appropriate.
- Counseling/ negotiation (especially on essential newborn care & breastfeeding, recognition of danger signs—but also including EPI & FP).
- Dispensing iron and vitamin A.

In specific districts there have been other elements covered by the postpartum home visit, notably:
- in Banke:
  - Recovery of misoprostol/matri suraksha chakki and documentation of its use.
  - Birth recording to support civil registration;
- in Kanchanpur—low-birth-weight package (implemented under the ACCESS Project)—for those found to be low birth-weight on initial screening, it includes:
  - Kangaroo-mother-care and feeding counseling/ support.
  - A follow-up home visit around day five-six (to reassess neonate for danger signs, assess feeding and reinforce counseling).

CB-MNC – Next Steps

- Streamlining, simplifying the package (including monitoring provisions) to make it more amenable to scale-up.
- Incorporating aspects of the CB-MNC intervention in Nepal’s national community-based neonatal/ safe-motherhood approach.
- Possible addition of new technical elements, e.g., chlorhexidine for cord stump care, early neonatal vitamin A dosing, calcium to be added to antenatal care for prevention of eclampsia, development of more effective screening and care for pregnancy-associated night-blindness.
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