Nepal Family Health Program
Technical Brief #11
Community-Based Postpartum Hemorrhage Prevention

After a mother dies in childbirth, the grandmother takes in her grandchild: a family tragedy and an uncertain future for the newborn.

BACKGROUND

In Nepal fewer than 20 percent of births are delivered with a skilled service provider. Maternal mortality is high (281/100,000 – Demographic Health Survey 2006), almost half of which is a result of postpartum hemorrhage (PPH).

The district of Banke borders on Uttar Pradesh, India, in the plains area at the base of the Himalayas. The population of 445,000 is predominantly rural and served by a zonal hospital, private medical school, 3 primary health care centers, 9 health posts, and 35 sub-health posts.

Female Community Health Volunteers are frontline local health resource persons who provide community-based health education and outreach services in rural areas, with a special focus on maternal and child health. Outreach activities including vitamin A supplement distribution, mass immunization campaigns, and community-based pneumonia treatment. There are 665 FCHVs in Banke (~1/600 population) .

Banke District was selected as a pilot setting to test new community-based approaches to reduce risk amongst those still not seeking skilled birth attendance. The Banke program also focused on a new intervention in Nepal—the provision of misoprostal to women late in pregnancy by FCHVs, to be taken immediately after delivery, for births not attended by a skilled provider. Misoprostol reduces the likelihood of life-threatening postpartum hemorrhage.

The focus of the Nepal Family Health Program (NFHP) is to improve delivery and use of public-sector family planning and maternal and child health (MCH) services, particularly at the community level. Part of NFHP work has been to train FCHVs, enabling them to expand the range of support they can provide in their communities.

INTERVENTION DESIGN

This activity has been part of a broader pilot of community-based safe-motherhood and neonatal interventions (see **Technical Brief #10: Community-Based Maternal & Child Health**). This set of mainly community-level activities was designed to be:

- implementable at scale with Government of Nepal health sector staff and resources;
- eventually fully integrated with other MCH activities; and
- focused on specific interventions with greatest potential impact;

It was also designed to be closely documented and monitored, in its initial stages, to enable us to learn lessons and progressively refine an approach for greater impact and ease of implementation.

Key Achievements

- Provisional approval of misoprostol by the Nepal drug regulatory authority for PPH prevention.
- Neonatal mortality significantly declined and suggestive evidence of maternal mortality impact.
- Strong partnership resulting in a sense of ownership among a wide range of partners; this will facilitate more rapid expansion.

FCHV Role with Pregnant Women

The Female Community Health Volunteers have been the key cadre in implementing this program. Their role has involved:

- Antenatal counseling with pregnant women and household decision-makers;
- At eight months of pregnancy, dispensing misoprostol with instructions on its use, and warnings about not using before delivery and possible side-effects (and how to manage them).
- Soliciting agreement to promptly inform FCHV after delivery, to trigger postpartum home visit.
- At early post-natal home visit (within first two-three days of birth) FCHV:
  - *Assesses*, looking for danger signs and refers, as appropriate.
  - *Counsels* on essential newborn care.
  - *Dispenses* (iron, vitamin A).
  - *Documents* use of misoprostol, recovering any unused drug, and recording birth (to facilitate subsequent civil registration).

IMPLEMENTATION

NFHP launched the initiative mid-way through the project (in 2005), and this involved:

- Building support among stakeholders and obtaining all necessary approvals;
- Development of training, monitoring and IEC materials;
- Conducting baseline studies, and setting up monitoring system;
- Orienting district and health facility staff; and
- Training of community workers.

STUDY METHODS

Data presented here are mainly from the household surveys described below and from monitoring data for the first 18 months of program implementation.

Household Surveys

- Pre- and post- 30 X 30 (n=900) cluster surveys of households with women having delivered over the past 12 months (June 2005, June 2007)
- Interviewing recently delivered women in all households, and husbands, mothers-in-law and fathers-in-law in a subset of households.
- Focusing particularly on pregnancy/ delivery/ postpartum-related service utilization and related household practices.

Project Management Information System

Comprehensive computerized system based on records from community health workers and monitoring visits by project staff. Follow-up done and documented for all intervention beneficiaries.

Special Studies

NFHP conducted a series of special studies to document targeted issues, including:

- Maternal death monitoring/ audit;
- Health-education/ counseling component;
- Following up cases not using misoprostol;
- Barriers to use of skilled birth attendants.

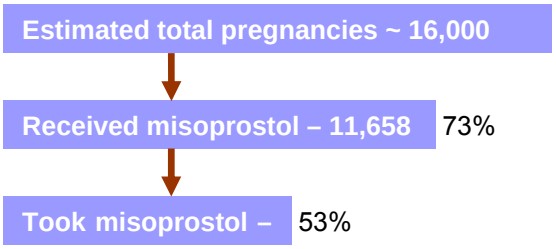
RESULTS

Misoprostol Coverage (18 months)

Of those who received but did not take misoprostol, 70% delivered with a health worker.

Program Reach among the Disadvantaged

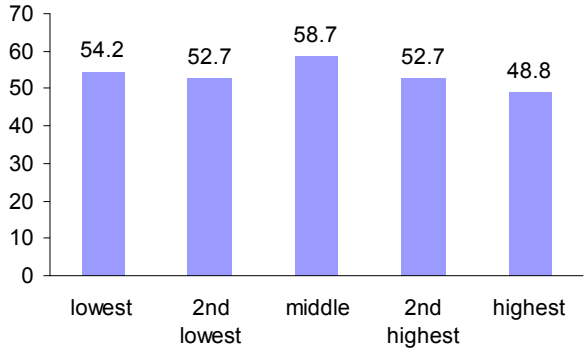
As a proportion of:



	Population	Beneficiaries
Brahmin/ Chetri (privileged)	22%	19%
Dalit/ Muslim (disadvantaged)	33%	36%
From far side of Rapti river	19%	21%

Proportion Taking Misoprostol

(by HH Assets Wealth Quintile, %)



Reported Heavy Postpartum Bleeding

Proportion reporting exceptionally heavy bleeding:

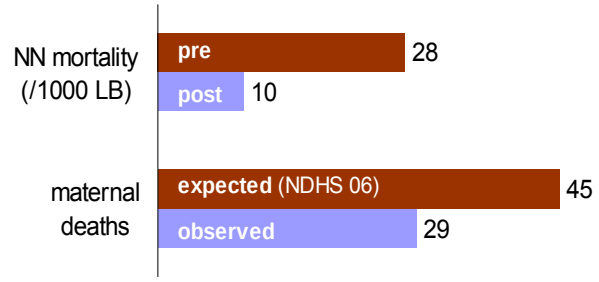
- Baseline 37%
- Follow-on – all respondents 29%

  Of those who *didn't receive* miso 35%

  Of those who *received* misoprostol 28%

  Of those who *received & took* miso 26%

Mortality Impact (district-level)

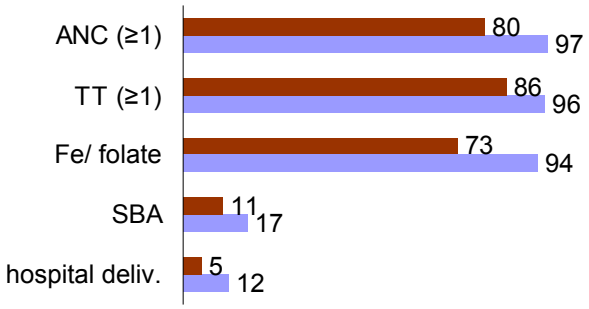


For neonatal deaths, the relative risk ratio = 0.34 (95% CI 0.19, 0.60).

Note that among the 11,658 women reached with misoprostol over the first 18 months of the program (~73% of all the women pregnant in rural Banke over this period) there were only 16 deaths, i.e. fewer than half the expected number (33).

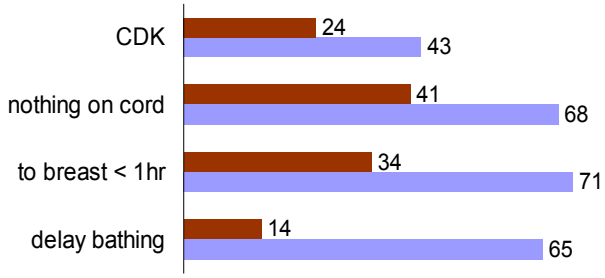
Among the remaining 27% of pregnancies the number of deaths (13) was very similar to the national rate documented in NDHS 2006. Note that the profile of this group of women was lower risk than the women reached with misoprostol – more heavily high caste, higher level of literacy, and more favorable household assets wealth quintile distribution .

Service Utilization (pre-/ post- %)



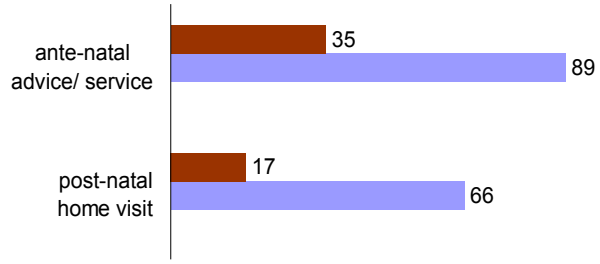
Coverage for antenatal care was already relatively high at baseline but has increased to near-universal coverage. Coverage for skilled birth attendance remains quite low but has improved. In addition to increases in the use of skilled providers (doctors, nurses, auxiliary nurse midwives), use of relatively unskilled Maternal Child Health Workers to assist in deliveries (not included in the figures above) doubled from 3.6% to 7.6%.

Essential Newborn Care Practices (pre-/ post- %)



Reported use of a clean blade for cutting the cord was already nearly universal at baseline and has remained so. Use of clean delivery kit, however, increased markedly as did refraining from putting anything on the cord, early breastfeeding and delayed bathing of the newborn.

FCHV-Provided Services (pre-/ post- %)



FCHVs have played a central role in this program and to do so has required that they effectively make contact with pregnant women. It is encouraging to note that about 90% of recently delivered women report some support from their local FCHV during their last pregnancy. Postpartum visits were less universal and were confined largely to women who had been given misoprostol.

LESSONS LEARNED

- **Community volunteers can be trained to appropriately and effectively counsel and provide misoprostol for community women.** FCHVs (many of whom are illiterate), given suitable training and supervision, perform adequately, providing PPH prevention counseling and then safely distributing misoprostol to pregnant women unlikely to be reached by skilled providers.
- Effective community interventions can be complementary to the effort to increase institutional deliveries.

CONCLUSIONS

- Relying entirely on government health workers and an existing national volunteer cadre, relatively high population coverage was achieved.
- The approach used was effective in reaching disadvantaged segments of the community at higher risk of poorer outcomes.
- Target behaviors, including key ENC practices and care-seeking, significantly improved.
- Strong partnership resulted in sense of ownership among a wide range of partners; this will facilitate more rapid expansion.

NEXT STEPS

- Stakeholder advocacy, obtaining necessary approvals and securing resources for expansion.
- Further refinement of a community-level Safe-Motherhood/ Neonatal package.

Misoprostol repackaged as mothers' safety pill.

This technical brief is one of a series seeking to capture key lessons learned from the USAID/ Nepal bilateral project, the Nepal Family Health Program (367-00-02-00017-00), 2001- 2007. The document was produced with support from the American people through the U.S. Agency for International Development. The views expressed in this document do not necessarily reflect those of USAID.

The Nepal Family Health Program is implemented by JSI Research & Training Institute, Inc., in collaboration with EngenderHealth, JHPIEGO, Johns Hopkins University/ Center for Communication Programs (JHU/ CCP), Save the Children, Nepal Technical Assistance Group (NTAG), Management Support Services (MASS), Nepal Fertility Care Center (NFCC) and, for a period, CARE and ADRA.

USAID
FROM THE AMERICAN PEOPLE