

Misoprostol for Postpartum Hemorrhage

Reaching women wherever they give birth

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Stories of Success in
BANGLADESH, NEPAL, and ZAMBIA



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For further information about this initiative, please contact:



588 Broadway, Suite 503 • New York, NY 10012 USA • pphproject@familycareintl.org
www.familycareintl.org



15 East 26th St, Suite 801 • New York, NY 10010 USA • pubinfo@gynuity.org
www.gynuity.org

Introduction: Why misoprostol matters

For years, Millennium Development Goal 5 (MDG 5) — Improve maternal health — has been acknowledged as the least likely, among the eight ambitious MDGs, to be achieved. Although few developing countries are on track to meet MDG 5, there have been some encouraging signs of progress. Efforts to strengthen health systems, to educate girls, and to broaden access to and use of family planning, antenatal care, and skilled childbirth attendance have contributed to a 47% reduction in the estimated number of maternal deaths worldwide between 1990 and 2010, during which time an estimated 287,000 women and girls died from pregnancy- and childbirth-related causes (WHO, 2012).

But this global improvement masks important regional and national variations. And in spite of the increase in facility births with skilled attendance, many women still deliver at home — in many countries, a majority of births still occur without skilled care — for a variety of reasons, including cost and transportation barriers, cultural traditions, and concerns about the quality of facility care. For these women especially, childbirth remains as fraught with risk as it always has been. Increasing momentum toward achieving MDG 5, particularly in the countries where maternal mortality remains stubbornly high, requires the development and implementation of strategies to provide women with equitable access — regardless of the setting in which they give birth — to proven interventions that effectively address the leading causes of preventable maternal death.

Postpartum hemorrhage (PPH) can be prevented and treated, but it remains the leading cause of maternal mortality, accounting for roughly one-quarter of maternal deaths globally. A class of medications known as uterotonics has been proven effective both for preventing PPH and for stopping bleeding after it has started. Oxytocin is the best-known uterotonic, and it is typically the preferred drug for prevention and treatment of PPH. However, oxytocin must be given by injection, and requires cold storage from the time of its manufacture until the moment it is used. Oxytocin is the standard of care, therefore, in higher-level health facilities where appropriately qualified health workers are always on hand, the supply of electricity is consistent, and a reliable cold chain is maintained for drug distribution. For women who give birth in facilities where these conditions are not always in place, and for the millions who still deliver at home, access to a uterotonic is too often limited or simply unavailable.

Misoprostol is a safe, effective, and affordable uterotonic that can be used to prevent and treat PPH. Most importantly, it comes in tablet form, it can be stored without refrigeration, and its administration requires no special skills. Misoprostol is therefore often the best available option for preventing and treating PPH in home births or at health facilities that lack electricity, refrigeration, and/or skilled health providers. In

2011, WHO added misoprostol for PPH prevention to the core list of essential medicines (see box), an important step in supporting national governments to include misoprostol for this use in policy frameworks and national programs.

In spite of the evidence about misoprostol's safety and effectiveness, it is currently unavailable to many of the women who need it most. In many countries, access to misoprostol is limited because of concerns that use will deter facility-based births, political opposition to distributing a drug that can also be used in medical abortions, drug registration and other regulatory issues, and inefficiencies in national distribution systems, among others. Confronting misconceptions about misoprostol, addressing legal and policy barriers, and developing reliable distribution methods have the potential to make a significant contribution to national efforts to achieve MDG 5.

Global Stamp of Approval for Misoprostol for PPH Prevention

In March 2011, the World Health Organization added misoprostol for PPH prevention to its list of Essential Medicines. It had previously been included for other reproductive health indications, including labor induction, medical abortion, and treatment of incomplete abortion. The Expert Committee, after evaluating the evidence for misoprostol, decided it is a safe and effective method of PPH prevention. The Committee also moved the drug from the complementary to the core list of essential medicines, validating its importance for women's health.

Many countries are addressing these challenges and have made significant progress in introducing and scaling up the use of misoprostol for PPH. This publication presents stories from three countries — Bangladesh, Nepal, and Zambia — that offer both inspiration and guidance for others seeking to expand access to misoprostol, and highlight the essential role of national-level commitment and support for developing effective programs.

Information for these stories came from a review of the literature (see references for each section) and from interviews with key informants in each country. It should be noted that all of these stories focus on the use of misoprostol for prevention of PPH. While there is also reliable evidence on the use of misoprostol for treatment, there are not yet country examples of widespread implementation. These stories do, however, reveal several common themes, which are described in detail in the final section. It is hoped that these lessons can help women everywhere, wherever they give birth.

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BANGLADESH:

“This time, I had less bleeding...I felt good”

Setting the scene

In Bangladesh, more than three-quarters (77%) of women deliver at home, without a skilled attendant. Reaching these women with interventions to prevent the leading cause of maternal mortality — postpartum hemorrhage (PPH) — is essential for the country to build on the remarkable progress it has made in reducing maternal mortality: Bangladesh has achieved a 40% decline in just the nine-year period from 2001 through 2010 (Streatfield et al. 2011]. The government’s commitment to lowering maternal mortality has fueled progress in expanding access to misoprostol for PPH, and a recent survey of national efforts to reduce maternal mortality identified community distribution of misoprostol as one of the interventions that Bangladesh should continue to scale up (Streatfield et al., 2011). As one doctor working on this issue explained, “I am working for the mothers of my country.”

“The close collaboration between all of the partners throughout the task force and including all the partners in all of the efforts; that is the main reason for the success.” - EngenderHealth

Telling the story

Planning together. The story in Bangladesh is one of collaboration, of many organizations coming together to address a significant problem and identifying best practices to do so. The government acknowledges that achieving the MDGs requires multiple approaches, and misoprostol is viewed as a piece in this larger effort. In order to address the pressing needs of the large majority of women who still deliver at home, action was needed at the community level. The government viewed misoprostol as available, affordable, culturally acceptable, and feasible for implementation without the need for high-tech training.

In October 2006, a meeting was held to discuss best practices for PPH prevention, including active management of the third stage of labor (AMTSL), misoprostol, and other approaches. A major outcome of this meeting was the decision to create a National PPH Prevention Task Force, which would bring together the organizations that worked on this issue to strengthen collaboration and maximize impact through a concerted effort. Under the leadership of the Director General of Health Services (DGHS), the task force meets twice a year, and participants discuss activities related to misoprostol and AMTSL, development of curricula and communications materials, and related issues. EngenderHealth staff trained the Task Force members in advocacy, in order to create a larger group of people with the skills to engage in efforts to continue to push expanding access to misoprostol. While the impact of this advocacy training has not been measured, it is an interesting approach to consider.

Timeline of Key Activities and Milestones in Scaling Up Misoprostol for PPH

Year	Activity
2006	<ul style="list-style-type: none"> • National Stakeholders' Meeting on Scaling up of PPH Prevention Activities – included presentation on misoprostol • National PPH Prevention Task Force formed under the leadership of the DGHS
2007	<ul style="list-style-type: none"> • The Misoprostol Use Policy and Rollout Plan drafted by National PPH Prevention Task Force
2008	<ul style="list-style-type: none"> • National assessment on the availability and routine use of AMTSL • Approval of misoprostol tablets for prevention and treatment of PPH by Director of Drug Administration • Misoprostol included on Essential Drug List • Government approval of Guideline and Implementation Plan for piloting misoprostol distribution and use; pilot districts were selected by the DGHS, Director General of Family Planning (DGFP), and National PPH Prevention Task Force • First phase of pilot project begins in Tangail District (until June 2009) • Bangladesh Rural Advancement Committee (BRAC) research study on distribution of misoprostol by community health workers to women for prevention of PPH in home births
2009	<ul style="list-style-type: none"> • International Centre for Diarrhoeal Disease Research, Bangladesh (ICDDR,B) operations research project begins in 29 upazilas (sub-districts) in six districts (until September 2010) • Second phase of pilot in Cox's Bazar District (until September 2010); included a greater emphasis on capacity building of government staff and systems than the first pilot
2010	<ul style="list-style-type: none"> • National scale-up plan presented and approved at National PPH Prevention Task Force Meeting
2011	<ul style="list-style-type: none"> • Scale up begins with implementation in four districts, with plans to scale up nationally

“The task force was instrumental,” explains an EngenderHealth staff member, “in moving things along.” The effectiveness of the task force highlights the importance of involving the right partners. Government involvement was strong from the outset. Relevant ministries were actively included in all decisions, such as choosing pilot districts; this included both the Directorate General of Health Services and the Directorate General of Family Planning, both of which play critical roles in reaching women with maternal health services. The Task Force also had strong representation from the highly influential Obstetrical and Gynaecological Society of Bangladesh (OGSB). From the beginning, OGSB members were strongly supportive of introducing misoprostol for PPH — making “passionate pleas” at task force meetings — because they were already using it and could see firsthand that it was saving women’s lives. In addition to legitimizing and validating misoprostol for PPH, the OGSB assisted with provider training, as misoprostol moved from a topic of conversation to a part of government programs.

Moving from concept to action. The task force and its members moved misoprostol for PPH prevention from theory into practice. Early on, the task force considered the question of distribution mechanisms — how to get tablets to the women who need them. Several research studies were conducted:

- In a pilot project in Tangail district in 2008-09, community health and family planning field workers distributed misoprostol at the community level to pregnant women at or after 32 weeks of pregnancy.
- A second pilot in Cox’s Bazar district sought to replicate successful lessons learned from the Tangail pilot, and to transfer the skills to government and NGO managers, supervisors, and field workers. These projects also developed user-friendly tools with pictorial information to ensure that women got proper information.
- A 2009 study by the ICDDR,B, with assistance from Venture Strategies Innovations (VSI), included misoprostol in community delivery kits (CDKs) used by the NGO Rangpur Dinajpur Rural Service (RDRS) Bangladesh in its reproductive health program in six districts.
- In a five-year maternal, neonatal, and child health program begun in 2008 in rural areas of northern Bangladesh, BRAC used community health workers to provide misoprostol to women for prevention of PPH in a home birth setting. These workers provided the tablets at the time of childbirth, rather than giving them to women during their pregnancy.

After completion of these studies, the task force was presented with the available evidence. It then debated whether the government should proceed with national scale up. Members discussed several concerns: whether misoprostol’s potential side effects could effectively be monitored at the community level (the research studies had documented very low side-effect rates); whether this community-based PPH strategy should take

precedence over other competing health priorities; whether Bangladesh should move ahead when WHO, at the global level, had not issued guidance in support of misoprostol use for PPH prevention at the community level.

One concern that arose in these discussions, as in many countries considering broader use of misoprostol for PPH, is that misoprostol distributed at the community level would be used for other indications, including abortion. In fact, usage was strictly monitored during the pilot projects — spot checks were performed, and unused tablets were collected — and evidence showed that misoprostol was used appropriately, for the indication for which it was intended; the studies did not find any women using the drug for anything other than preventing PPH.

Soon after this meeting, the government approved the scale up of misoprostol for PPH. In reality, the government was already convinced to go ahead even before this Task Force meeting, because it had worked closely with research partners throughout the pilot programs. The government then developed an operational plan, and included misoprostol (together with AMTSL and magnesium sulfate) in its July 2011 Program Implementation

“Many mothers die due to excessive bleeding during delivery. If we can provide them with tablets by the name of misoprostol, they can be saved. The cost of these tablets is only Tk 24, whereas the cost of a mother’s life is invaluable.” - Shomi Kaiser, actress

Plan as one of the interventions to be scaled up to reduce PPH and eclampsia.

Scale up commenced in 2011, expanding community-level misoprostol distribution to four more districts. But, of course, this still represents only a beginning, as Bangladesh has a total of 64 health districts. Real national scale up will require that a number of significant challenges be addressed: community health workers and other program staff will need to be trained, consistent supplies and timely distribution of tablets ensured, and (perhaps the most difficult challenge) systems for monitoring and supervision strengthened. Ongoing advocacy in support of this initiative will be necessary to ensure that government support and resources are available to overcome these challenges in the face of competing priorities.

Case Study: Preventing PPH creates a local advocate and expands access to family planning

Howa Akter Sumi became pregnant at age 22, three years after her marriage at age 19. A Family Welfare Assistant (FWA) named Rawshan Ara Apa came to her home when she was four months pregnant and gave her information on antenatal care, including the importance of delivering in a health facility. She also told Howa about misoprostol. When Howa's pregnancy reached eight months, Rawshan visited again, and used a flipchart with pictures to explain how to use misoprostol. She also gave Howa a packet of pills and her cell phone number in case there was an emergency.

On February 19, 2012, Howa's family contacted Rawshan to say that labor had started. She advised them to go to the hospital, but they explained that they preferred home delivery because of their family tradition. She reminded Howa to take the misoprostol tablets after delivery. Howa explained what happened: "In normal course of time I delivered a son and within 5 minutes of delivery I took the misoprostol tablets, and by the grace of Almighty Allah hemorrhage stopped very quickly and I did not have any side effects. My mother told me that she has observed many deliveries also having excessive bleeding afterward, but with giving misoprostol there was much less bleeding."

Pleased by her experience, Howa wants all women to know about this. "It is my earnest request to the appropriate authority to take necessary action so that all pregnant women receive such services." She also explained how her positive experience with misoprostol strengthened her confidence in Rawshan Ara Apa and through her counseling and assistance she had started using an IUD. As Rawshan explains, "The misoprostol program is not only helping in reducing maternal death due to excessive hemorrhage after delivery, it is also playing a part in achieving success in my working field. I can cite from the story of Howa Akter how misoprostol is helping in accepting family planning methods."

Lessons Learned

Bangladesh has embarked on what will soon be a national strategy to address the leading cause of maternal death, focusing on the large majority of women who still give birth outside of health facilities. The initial successes of this strategy are attributable to a number of important factors:

- Active participation by the national government, reflecting its strong commitment to developing and adopting best practices for reducing maternal mortality

- Creation of a National PPH Prevention Task Force that mobilized key partners to work together to move the process forward towards national expansion
- Inclusion of the OGSB, which played a critical role in validating a medical intervention that did not yet have WHO's support at the global level
- Intensive monitoring and data collection during the pilot projects, which provided evidence to demonstrate effectiveness and to address concerns
- Building the misoprostol for PPH strategy within existing systems, as part of a broader effort rather than as a stand-alone project

Bangladesh continues to move forward in these efforts to make childbirth safer, and its success offer valuable lessons for other countries that face similar challenges.

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INTERVIEWS WITH:

Ellen M. Themmen, Technical Director, Deputy Project Director, Mayer Hashi project, EngenderHealth, Bangladesh Country Office
 Dr. Md. Saikhul Islam Helal, Team Leader, PPH Prevention/Maternal Health, Mayer Hashi project, EngenderHealth, Bangladesh Country Office (formerly MOH)

Nepal: A pill that “saves the mother”

Setting the scene

Eight of the world’s ten tallest mountains are in Nepal’s northern region. Nepal’s geography limits people’s access to safe childbirth and other health services. Home births remain common in Nepal, and maternal mortality is high, with a maternal mortality ratio of 281 deaths per 100,000 live births. Nepal has made impressive efforts to address this situation, including programs to expand access to misoprostol for PPH. As in many other countries, PPH is a significant cause of maternal death, but it has been replaced as the leading cause — thanks in large part to the programs described here — by eclampsia and pre-eclampsia.

Telling the story

Meetings can make a difference. There are many starting points to a story, and people in Nepal were talking about using misoprostol to address PPH as early as 2002-2003. But real movement on this issue began at Jhpiego’s Asia regional meeting on PPH prevention, held in Bangkok in 2004. There, the right message got to the right people, and this led to the right follow up. At the meeting, participants learned of a pilot study conducted by Jhpiego in Indonesia; the project demonstrated that community distribution of misoprostol by community midwives and health volunteers was a safe, acceptable, and feasible strategy for reaching women who deliver at home.

The Nepalese government was committed to making progress toward achievement of MDG 5. Evidence presented at the Bangkok conference showed that community-based misoprostol distribution was feasible and effective. Armed with a concrete example of success in Indonesia, meeting participants from Nepal — including senior government representatives, NGOs, and members of the Nepal Society of Obstetricians and Gynaecologists (NESOG) — developed an action plan to test distribution of misoprostol at the community level.

Upon returning home from this meeting, partners recognized that a program with national impact would require a high level of government support and commitment. Meetings were held with the Director of the Family Health Division (FHD) and representatives of other key government departments, where advocates sought not just to relay information, but to actively engage and involve government so that it had true ownership of the strategy. Partners also focused on sensitizing NESOG members to the needs of women in remote, rural communities: most OB/GYNs worked in large, urban hospitals and were initially resistant to providing misoprostol for PPH prevention at the community level. The Bangkok meeting, and these follow-up efforts, helped to turn NESOG members into important advocates for misoprostol.

Soon after, a Technical Advisory Group (TAG) was formed to provide technical support in the pilot and scale up of misoprostol distribution for preventing PPH. Advocacy continued in the TAG meetings, chaired by the Director-General of the FHD, featuring presentations by both national and international experts. The meeting highlighted the scientific evidence that community-level distribution of misoprostol is safe and effective for the women of Nepal.

Timeline of Key Activities and Milestones in Scaling Up Misoprostol for PPH

Year	Activity
2004	<ul style="list-style-type: none"> • Staff from the FHD of the Ministry of Health and Population (MoHP) and the Nepal Family Health Project (NFHP) attended Jhpiego Asia regional meeting on PPH prevention at the community level in Bangkok • Two months later, FHD Director presented on misoprostol for PPH prevention at the annual NESOG meeting, signaling FHD support • MoHP created a TAG to provide technical support in the pilot and scale up of misoprostol
2005	<ul style="list-style-type: none"> • The TAG, representing a range of stakeholders, planned a district-wide pilot
2005-07	<ul style="list-style-type: none"> • Pilot project conducted in Banke District
2009	<ul style="list-style-type: none"> • Based on success shown in pilot evaluation findings, the MoHP approved the incorporation of community-based distribution of misoprostol for PPH prevention into Remote Areas Strategy
2010	<ul style="list-style-type: none"> • Misoprostol included in national Essential Drug List • MoHP approved misoprostol for nationwide expansion • Nepal Family Health Project II replicated Banke model in four mountain districts (Jumla, Kalikot, Mugu, and Bajhang) — these districts were selected in keeping with the “remote areas guidelines” issued by MoHP FHD
2011	<ul style="list-style-type: none"> • Scale up to 20 additional districts (9 supported by USAID, 8 by UNICEF, 2 by CARE, 2 by Swiss-government supported bilateral)
2012	<ul style="list-style-type: none"> • Plans to scale up to two more districts through Government of Nepal funding

Piloting and scaling up. In 2005, the USAID-funded Nepal Family Health Project (NFHP) launched a pilot project in Banke district. The Minister of Health traveled to the pilot district to inaugurate the program, reiterating high-level government support for the initiative and providing motivation for government staff at all levels. This district-wide approach involved many partners: FHD provided leadership; NFHP supported the pilot implementation; the international NGO Plan supported commodity procurement; Jhpiego’s ACCESS program (now MCHIP) provided technical assistance; and the Banke District Public Health Office coordinated and supported implementation through its existing health system. The project was designed to be closely documented and monitored, in its initial stages, in order to facilitate learning lessons and progressively refine an approach for greater impact and ease of implementation. Launching the Banke pilot involved several components: building support among stakeholders and obtaining all necessary approvals; developing information, education, and communication materials; conducting baseline studies; orienting district and health facility staff; and establishing training and monitoring systems.

In the pilot project, misoprostol was distributed by community health workers known as Female Community Health Volunteers (FCHVs). The FCHV would teach a pregnant woman how to safely and properly use misoprostol; the woman would then be given the pills to keep with her: “She is the person who we are sure will be there at delivery, so we gave it to her.” Training the FCHVs was easy, according to one of the program implementers; what was most challenging was ensuring that a reliable and sufficient supply of misoprostol pills made it to the health posts and into the hands of the FCHVs.

Importantly, this project was not implemented as a stand-alone program. Rather, it was implemented within the broader safe motherhood program, using existing staff and systems. Misoprostol was distributed as part of the larger birth preparedness package of interventions, for example by including a few additional pages on misoprostol use in community educational materials. The results of the pilot were very encouraging (see box).

Why it matters: The impact of Misoprostol for PPH

Results from the pilot study in Banke district indicate an increase in the proportion of women who received a uterotonic, from 11.6% to 74.2%. During the pilot study, 18,761 women received misoprostol and related counseling; of these, 74% took the misoprostol for prevention of PPH after childbirth. Study results show that community-based distribution of misoprostol for PPH prevention can be implemented in a low-resource, geographically challenging setting, and successfully reach women who are poor and live in remote areas. (Rajbhandari, S et al., 2010)

After the successful pilot, the TAG considered whether and how to scale up this initiative. While many supported the idea, there was some resistance. This was in part due to the lack of support from WHO at the global level — WHO had not yet supported misoprostol for prevention of PPH at the community level. There were also concerns that scaling up community-level misoprostol distribution would conflict with efforts to encourage active management of the third stage of labor (AMTSL) as the standard of care for preventing PPH, an approach that requires the presence of a skilled birth attendant. As one advocate for this new program recalled, “We said, yes, our first line is AMTSL. But if there is no skilled provider and a woman is delivering at home, we shouldn’t let the woman bleed to death. We have to do something.” TAG members requested NESOG for recommendations from the OB/GYN community, and NESOG advocated strongly for scaling up the misoprostol distribution program.

Concerns were also raised that, if misoprostol were distributed directly to women, they would use it for abortion. (Abortion was legalized in Nepal in 2002, and the government began providing abortion services in 2004.) These concerns were addressed through the development of separate packaging and labeling to differentiate the drug’s various uses and indications. Misoprostol tablets intended for use in preventing PPH were labeled as “mother’s safety pills — it saves the mother.” In addition, during the pilot every package was numbered, which enabled detailed and accurate tracking of use, and provided evidence that the pills were being used for their intended purpose.

Ultimately, there was agreement that community-based misoprostol distribution can complement efforts to increase institutional deliveries. The government decided to pursue a dual approach to preventing PPH, promoting AMTSL in health facilities and the use of misoprostol for home births. An important finding in the pilot, in fact, was that health facility deliveries actually increased, because the FCHVs emphasized in their counseling that women should choose facility delivery. “This was most important, the counseling attached to this,” explained one expert. “That will increase institutional deliveries. That was a key thing we took to the Director of FHD.”

In line with this approach, the government decided that the scale up would focus on remote mountainous areas where skilled care facilities were least accessible. In 2010, the Banke model was replicated in four mountain districts — Jumla, Kalikot, Mugu, and Bajhang — in keeping with the remote areas strategy. In 2011, partners scaled up use of misoprostol for PPH to 20 districts, with support from multiple sources including USAID, UNICEF, CARE, and the Swiss government.

One of the major challenges in scaling up is maintaining a reliable supply of drugs. The government has allocated funds to purchase misoprostol, which is an important step. But the challenge remains of ensuring not only that the misoprostol is procured but that it is efficiently and effectively distributed where it is needed.

Lessons Learned

Nepal addressed what was its leading cause of maternal death through a targeted approach designed for specific contexts — strategies to increase the utilization of and improve the quality of health facilities, and strategies to make misoprostol available in places that health facilities were inaccessible. The success of the program was due to:

- Commitment and ownership by the government, which views this strategy as a key element of its efforts to achieve MDG 5
- A high degree of coordination among the major agencies working on maternal health, through the TAG, which resulted in a sense of ownership and buy-in among a wide range of partners (including UNICEF, Save the Children, and Plan)
- Rigorous monitoring and evaluation and documentation during the pilot stage, which enabled partners to show concretely that the program led to increases in facility births and did not result in unintended use of the drug.

Nepal continues to move forward with misoprostol as part of a larger package of strategies for reaching the most remote populations with interventions to improve maternal health.

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INTERVIEWS WITH:

Dr. Kusum Thapa, Asia/Near East Technical Advisor, Jhpiego (previously General Secretary of NESOG)

Dr. Swaraj Rajbhandari, independent consultant, formerly worked with NFHP

Zambia: “It works”

Setting the scene

Encouraging women to deliver their babies in a health facility with skilled providers is an important approach for improving maternal and newborn survival. But many women still give birth elsewhere. According to the 2007 Demographic and Health Survey (DHS), more than half of Zambian women (52%) deliver at home, and this proportion reaches two-thirds (67%) in rural areas. The Zambian government, while working to strengthen the health system and increase availability and utilization of skilled delivery services, has recognized this reality and developed strategies to help women now. While maternal mortality has declined in Zambia, there is still a long way to go from a current ratio of 591 maternal deaths per 100,000 live births (CSO et al., 2009) to achievement of the MDG 5 target of 162 deaths per 100,000 live births (MOH et al., 2010). Making misoprostol available to women is one strategy that Zambia is pursuing as part of its comprehensive efforts to improve maternal health.

Telling the story

Help for women giving birth at home. In Zambia, both the government and NGO partners recognized the urgent need to effectively address postpartum hemorrhage, the country’s leading cause of maternal mortality. As in many countries, active management of the third stage of labor is considered the first line of treatment for preventing PPH but, because utilization of skilled, facility-based care is relatively low, many Zambian women — particularly in rural areas, where maternal deaths are highest — do not have access to its benefits. If a woman does go to a health facility, too often skilled providers and the needed drugs (like oxytocin) are not available. Even when women plan to deliver in a health facility, many factors can prevent this from happening. Narratives gathered by the Society for Family Health (SFH) highlight these issues:

- A 39-year-old woman had planned to go to the clinic, but then she was not sure whether her pains were labor contractions, so she called “an old woman who conducts deliveries in our community” and gave birth at home.
- A 38-year-old woman delivered at home “because all my other pregnancies I delivered at home by the same TBA, because the facility here does not conduct deliveries and its about 40 kilometers to Mphanshya Mission, and there is no transport to get there. And even if there was transport, I did not have transport money.”
- A 23-year-old woman “planned to deliver at Chelstone clinic, but I did not have transport money for a taxi to take me to Chelstone clinic. So I decided to call the nurse who lives near us. The nurse who delivered me told me to go the hospital next time because if I have problems during delivery they cannot be handled at home.”
- A 21-year-old woman delivered at home because “labor started in the night and I could not get to Kasisi [Rural Health Centre] because there was no transport to take

me there. But next time I will try and get to the hospital in advance, maybe stay with some relatives if they will agree, because the nurse said labor comes differently some times with complications.”

- A 24-year-old woman delivered at home and “had no plan because even if I chose to deliver at facility, the facility closes at 16:00 hrs and I did not have transport money to get to Kasisi since labor started at night and I delivered around 06:00 hrs in the morning. And moreover my last two children were delivered at home though I would have loved to go to the health facility if I had the means.”

Fortunately, all these women were able to benefit from misoprostol. Here is the story of how such access became possible.

Timeline of Key Activities and Milestones in Scaling Up Misoprostol for PPH

Year	Activity
2008	<ul style="list-style-type: none"> • Misoprostol registered in Zambia for prevention of PPH • The SFH, with support from Venture Strategies Innovations (VSI), a qualitative study on beliefs and practices regarding PPH among rural women and service providers to inform design of future PPH prevention programming • MOH published, “Misoprostol in Obstetrics: Clinical Guidelines for Prevention and Treatment of Postpartum Hemorrhage” • Publication of Standard Treatment Guidelines, Essential Medicines List, and Essential Laboratory Supplies List for Zambia included misoprostol for PPH
2009	<ul style="list-style-type: none"> • Two pilot projects conducted in response to MOH’s request for local evidence on the distribution of misoprostol at antenatal care (ANC): <ul style="list-style-type: none"> • Project by MOH and VSI implemented at 19 health centers in five rural districts • SFH distributed misoprostol to 205 government health facilities in 10 rural districts, trained health facility and community workers, and developed materials to promote correct use
2010	<ul style="list-style-type: none"> • VSI and UC Berkeley Bixby Center conducted evaluation of intervention • Zambian Pharmaceutical Regulatory Authority approves MisoSafe, a social marketing misoprostol product for preventing PPH • Joint dissemination meeting of the MOH/VSI and SFH pilot studies
2012	<ul style="list-style-type: none"> • MOH called on partners to revise national guidelines for misoprostol for PPH • MOH authorizes scale up of misoprostol for PPH — SFH plans to expand to four more districts (covering 14) and MOH will also expand to additional districts (of a total of 72 districts in Zambia)

Piloting for evidence. In 2009, Zambia moved forward with pilot testing the provision of misoprostol at ANC visits. The 2007 DHS found that 94% of women who had a live birth in the five years preceding the survey had received ANC from a health professional (CSO et al., 2009), making this a key contact point for women planning on facility delivery and for those planning to give birth at home.

Two pilot projects were launched in early 2009:

- A project by the MOH, with support from VSI, implemented at 19 health centers in five rural districts between January 2009 and March 2010
- A project in which SFH began distributing misoprostol in March 2009 to 205 government health facilities in 10 rural districts

In both projects, women were given misoprostol during their ANC visit with instructions on how to use it, whether they delivered in a health facility or at home. Health facility staff and community health workers were trained, and materials were developed to promote correct use of misoprostol. The message around misoprostol distribution emphasized that women should seek delivery with skilled providers if possible. Interestingly, a different approach was taken in one of the SFH project districts, where misoprostol was distributed through trained traditional birth attendants (TBAs).

A key component in both projects was community education. Safe Motherhood Action Groups (SMAGs), community members linked to local health facilities, were trained to educate community members about birth preparedness, the importance of delivering in a health facility, the risks of PPH, and correct use of misoprostol. SMAGs are currently in place only in some districts, but the Ministry of Health has plans to expand the program.

Why it matters: The impact of misoprostol on PPH

Misoprostol increased protection from PPH in the intervention communities, both for home births and facility births. Nearly half (49%) of women in the intervention area who delivered at home were protected with a uterotonic drug compared to fewer than 1% in control areas (VSI and MOH, 2010).

After these projects were completed, their results were shared at a joint dissemination meeting in September 2010. Based on the success of the pilots and the positive reactions of women and providers, the participants at the meeting made a recommendation to expand the misoprostol program nationally. But, as in other countries, there were concerns about WHO's lack of a clear statement in support of using misoprostol for PPH, which generated concerns that this may not be an effective drug. At the dissemi-

nation meeting, evidence was presented to address these concerns: According to staff from SFH, “We proved to them that this drug works, and the women themselves told the stories.” Then, in 2011, WHO added misoprostol to its Essential Medications List for prevention of PPH.

Here, too, the concern was raised that promotion of misoprostol could discourage women from giving birth in facilities. Evidence from the pilot projects, however, showed an increase in the proportion of women delivering at health facilities in intervention districts as compared with control districts. This highlighted the importance of engaging the community as a partner and presenting misoprostol as part of a package of interventions to address PPH and improve maternal health. “The key message is that the best place to deliver is the health facility, and this message is very clear,” explained someone closely involved with the work.

In 2012, the MOH, persuaded by the evidence, authorized scale up of misoprostol activities to four more districts, and scheduled further expansion into additional districts. WHO’s addition of misoprostol for PPH prevention to the core list of essential medicines in 2011 was a factor in the government’s decision to scale up misoprostol’s use for PPH. The MOH also called on its partners to revise national guidelines for using misoprostol for prevention of PPH.

Case Study: No one was at the health center

At an antenatal visit during her second pregnancy, Muti Kapungo, age 20, of Luko, was given three MisoSafe tablets and instructions on how to use them. Back at home, she told her husband and sister-in-law about the drug. When she went into labor, she made the journey to Litoya Rural Health Centre, but was informed on her arrival none of the skilled providers was currently there.

Muti returned home and had her husband call the village’s traditional birth attendant. “After the baby was born, I told the TBA to give me the three tablets from the plastic bag before the placenta came out, and I was helped with water by my sister-in-law who was also in the delivery room,” she said. “When I settled and was feeding the baby, the TBA asked me about the tablets and I explained that I was given them at the clinic in Mongu to prevent excessive bleeding after delivery.”

When asked if she would recommend MisoSafe to other women, Muti responded, “Yes, because I did not bleed much as in my last delivery and I did not have a problem with the placenta taking long to come out like last time.” (PSI and SFH, 2011)

Lessons Learned

When asked about lessons learned from their work on misoprostol for PPH in Zambia, one woman summed it up with two words: “It works.” She then went on to say, “It will prevent a lot of maternal deaths due to PPH, so they should make it available to women and teach them how to use it and encourage women to go to the health center for delivery.” Some of the keys to success included:

- Government commitment to taking assertive action to achieve MDG 5, and to developing realistic strategies that address the high percentage of women who still give birth at home
- Integration of misoprostol distribution with existing systems, by using ANC as the point of misoprostol distribution
- Community engagement, by focusing on local SMAGs as a key vehicle for educating community members and building support
- Testing the feasibility of including TBAs in strategies for increasing access to safe use of misoprostol in home births.

Even though international evidence existed regarding use of misoprostol for PPH prevention, the government wanted to see local evidence. The pilot projects were useful in addressing concerns and convincing the government to move towards national expansion.

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Interviews with Jolly Chilambwe and Rose Shikonka, Society for Family Health

Conclusion: Spreading the word

Success can be inspiring and informative. These three country stories shed light on what is possible, how it can happen, and what it can mean. Countries that need and want to develop more effective strategies for addressing PPH can learn from the experiences of Bangladesh, Nepal, and Zambia as they consider their own programs. As Dr. Kusum Thapa, former General Secretary of the Nepal Society of Obstetricians and Gynaecologists, pointed out, the current climate is much more positive than when they started their efforts in 2004: there is now a great deal of evidence that misoprostol works, WHO supports its use for PPH, and service providers and policy makers are much less skeptical. Dr. Md. Saikhul Islam Helal of Bangladesh echoed this sentiment: “We would like to share this with everyone. A mother is a mother, not just a mother in Bangladesh, and we have to save her.”

All three governments were highly motivated to achieve MDG 5. Given the high rates of home births in their countries, they recognized misoprostol as an essential element of a package of strategies for improving maternal health. In considering these country experiences, several themes emerge, as does a general road map for scaling up.

Six Common Themes

Commitment: Leadership and ownership by the government is critical. Successful pilot projects, and ultimately national scale up, can only occur when the Ministry of Health and other relevant government agencies are committed to making progress on MDG 5, addressing postpartum hemorrhage as a leading cause of maternal death, and reaching all women with effective interventions.

Collaboration: Collaboration is a key to success. Expanding access to misoprostol — and reducing maternal mortality more broadly — cannot be achieved by the government alone. In all three countries, a task force, technical advisory group, or other mechanism for collaboration and coordination among stakeholders was a key to successful program implementation.

Community: A community strategy for preventing PPH is essential. Even when women understand the importance of facility delivery, and plan to get there, many things can keep this from happening. Reducing maternal mortality requires strategies for reaching the many women who still give birth at home.

Collection of data: Careful collection of monitoring data during pilots helps address concerns. While monitoring data and conducting evaluation is important for assessing progress toward program goals, it can also be used to address other issues. Several concerns commonly arise during program development, including worries that community-level misoprostol distribution will discourage facility delivery, or that

misoprostol will be used for purposes other than prevention of PPH. Both of these concerns are evidence collected as part of monitoring and evaluation indicated that facility deliveries increased, and that women used the tablets correctly.

Credibility: The stamp of approval from credible medical sources is crucial.

Professional associations, particularly OB/GYN societies, played a key role in gaining the confidence, buy-in, and ultimate approval from Ministries of Health.

Comprehensiveness: Misoprostol is not a panacea, but should be part of a comprehensive package for addressing PPH. In all three countries, misoprostol is not promoted as a magic pill that will solve all problems, but as part of a package of interventions and approaches to address PPH and maternal mortality. In all cases, governments are also working to increase skilled attendance at birth, promote AMTSL, and implement other strategies for improving access to and the quality of maternal health care.

Steps for Scale Up

Every country is unique, with its own contextual factors and health priorities. The lessons of these three countries' experiences begin to provide a basic roadmap, but countries must always develop their own strategies that take into account their unique challenges, needs, and populations. For example, Nepal used female community health workers as the best mechanism for community-level misoprostol distribution, while in Zambia, ANC visits were identified as the most effective strategy.

Across a range of contexts, however, the following key steps can provide a strong foundation for developing a flourishing program:

- 1. Prepare the ground:** Present scientific evidence, ensure that it is presented to the people in a position to make decisions, by people who are recognized experts from the national, regional, or global level.
- 2. Plant the seeds:** Do a pilot study. While there is a good deal of evidence now, policy makers are often only persuaded by local evidence. A pilot study will help to build that evidence, and to identify distribution approaches that are best suited to country-specific (or even more local) contexts.
- 3. Let it grow:** Scale up to additional sites in a phased manner and in a collaborative way. A coordinating mechanism like a task force can be an important and effective tool for making this happen.
- 4. Water and maintain:** Ongoing advocacy and technical assistance are often essential for ensuring continued government support, monitoring results, and ensuring adequate supplies.

It is encouraging that maternal mortality has declined globally over the past 20 years. In order to continue this trend, and to make sure that this trend benefits all women in all countries, more countries should consider the role that misoprostol — both in facilities where oxytocin is not available or feasible to administer, and distributed at the community level — can play in a package of interventions for addressing PPH and improving maternal health.

Every day, far too many women needlessly suffer the pain and danger of postpartum hemorrhage. Far too many families lose mothers, sisters, and daughters to this preventable and treatable cause of maternal death. The approaches described here, when adapted for each country's unique context and challenges, have the potential to contribute substantially to reducing this toll of tragic loss, and to help more countries achieve their MDG 5 targets. It is urgently important that countries take advantage of this opportunity to reduce maternal mortality and improve women's health.