

POLICY BRIEF

Scaling Up Misoprostol for Postpartum Hemorrhage: Moving from Evidence to Action



Introduction

Globally, postpartum hemorrhage (PPH)—excessive bleeding after childbirth—is the leading cause of maternal death and injury. Yet, most cases of PPH can be safely and effectively prevented and/or treated in virtually all settings. Lifesaving uterotonic medicines, including oxytocin and misoprostol, can prevent excessive bleeding and reduce bleeding after it has started. Use of misoprostol—particularly for women who give birth at home or in facilities that lack basic supplies, medicines, and infrastructure—offers an unprecedented opportunity for countries to improve maternal health and achieve Millennium Development Goal (MDG) 5. This brief explores strategies to help governments and their partners reduce maternal mortality by expanding access to misoprostol for PPH.

PPH accounts for an estimated 25% of maternal deaths worldwide, with regional estimates for Africa and Asia considerably higher at 33.9% and 30.8%, respectively.^{1,2}

If uterotonics—including misoprostol—were made available at every birth over a ten-year period, 41 million cases of PPH would be prevented and 1.4 million lives could be saved.³

Uterotonic medicines (including oxytocin and misoprostol) increase the frequency and strength of uterine muscle contractions, causing the blood vessels to compress to reduce the incidence and severity of PPH.^{4,5}

Benefits of misoprostol: safe and effective, easy to administer, cost-effective, widely available, stable at room temperature, practical for use in home births and health facilities. Misoprostol can be administered orally (600mcg) to prevent PPH or sublingually (800mcg) to treat PPH once it has begun.

Expanding access to misoprostol for PPH

Over the last decade, significant progress has been made in improving maternal health. Ongoing efforts to increase access to skilled care, to promote facility-based births, and to strengthen health systems are critically important and should be expanded vigorously wherever possible. In the short term, however, not all women are able to give birth in health facilities. It must be an urgent priority, therefore, to pursue strategies to safeguard the lives of women who deliver at home. All women, wherever they give birth, need access to a uterotonic for the prevention and treatment of PPH.



Oxytocin is the first-line choice for prevention and treatment of PPH; however it requires cold storage and health providers with the skills and equipment to provide intravenous therapy.

Backed by multi-country research, national-level experience, and innovative programming, a new global consensus is emerging that expands the options for prevention and treatment for PPH. Misoprostol is the best available option for preventing and treating PPH in settings where conditions for use of oxytocin do not exist, and is a safe, effective, and affordable medicine for use in low-resource settings. Community-level access to misoprostol can be an especially critical strategy for countries with low levels of facility-based deliveries and acute shortages of trained health care personnel.⁶

Key elements for introducing misoprostol for PPH:

- Creating a supportive national policy
- Including misoprostol in national health budgets
- Preparing and disseminating national clinical guidelines
- Training health workers
- Ensuring consistent supply and distribution
- Building community awareness and demand

Skilled birth attendance is still not accessible for millions of women in developing countries. Today, 35% of all deliveries in developing countries are not attended by skilled health personnel.⁷

The International Federation of Gynecology and Obstetrics (FIGO) and the International Confederation of Midwives (ICM) support misoprostol as a safe and effective strategy to prevent and treat PPH in low-resource settings. New global guidance on community-based distribution of misoprostol for PPH prevention—when oxytocin is unavailable or not feasible—is available from FIGO^{8,9} and the World Health Organization (WHO) in 2012.¹⁰

Creating a supportive national policy

A number of countries in Africa and Asia have launched national programs that include misoprostol for PPH. In countries newly committed to scaling up misoprostol for PPH, establishing supportive national policies can be an important—but not sufficient—first step. The adoption of national guidelines, the registration of misoprostol for PPH, and its inclusion on national Essential Medicines Lists (EMLs) are among supportive policies for advancing the availability and uptake of misoprostol for PPH.

In some countries it has been a considerable challenge to move beyond the initial steps, i.e., from registering misoprostol and developing supportive national policies to increasing availability and distribution. As countries begin planning implementation at scale, it will be important to consider what tools and mechanisms are available to move policies into practice and to address barriers that might emerge. Further, once misoprostol has been approved on national EMLs, it will be essential for governments to include the purchase of this medicine in national budgets.



Providing national guidance and training

National guidance on administration of misoprostol for PPH can support safe and effective use; training curricula for health workers, standard treatment guidelines, and reference materials should be updated as new evidence and guidelines become available. Further, national clinical guidelines often indicate which cadre of health provider is authorized to administer specific medications. In many countries low and mid-level health workers are already administering misoprostol; governments should consider authorizing, properly training, and providing clear guidelines for these workers.

In 2009, Ghana approved National Safe Motherhood Protocols authorizing community-level providers to administer misoprostol to prevent PPH. These protocols have become the cornerstone of Ghana's efforts to scale up misoprostol for prevention of PPH.¹¹

Training health providers

Supporting the rollout and distribution of misoprostol for PPH prevention and treatment, either at the community or health facility level, requires identification, training, and mobilization of a sufficient and robust workforce. For many countries confronting acute shortages in health personnel, this will present a considerable challenge.

In recent years, Ethiopia has demonstrated the potential for countries to rapidly train and expand their health workforce. Between 2003 and 2010, Ethiopia trained 30,000 health extension workers and deployed them to health posts throughout the country, expanding coverage of key health services to even the most remote settings. Efforts to train health extension workers across the country in use of misoprostol for prevention of PPH at community-level births are underway.^{12,13}



Ensuring consistent supply and distribution

In addition to developing a national strategy to scale up misoprostol, countries will need to purchase and distribute this medicine at scale. New national-level policies and guidance must be backed by an adequate, safe, and affordable supply of good quality misoprostol and the mechanisms to deliver it effectively and reliably to women. Despite the fact that misoprostol is widely produced and relatively inexpensive, some countries have experienced challenges ensuring adequate and consistent national supplies. It will be important for countries to identify local or global manufacturers willing and able to bring a quality misoprostol product to market at sufficient quantities.



Recent innovations in mobile health (mHealth) to support supply chain management can improve efficiencies and address challenges in forecasting and ensuring a reliable supply of misoprostol. Programs using text messaging (SMS) to collect and monitor stock-level data for essential medicines have been highly effective in increasing access to and reducing stock-outs of these medicines.¹⁴

Global mechanisms and international support

For many countries, complex national registration processes and challenges with forecasting and procurement mechanisms have made the purchase of misoprostol expensive and burdensome. Leadership by international agencies in creating efficiencies in supply and distribution will be crucial for countries committed to rolling out this approach.

The WHO Prequalification of Medicines Program evaluates the safety, quality, and efficacy of medicines, and facilitates global and national procurement by ensuring international standards are met and maintained.¹⁵ Prequalification of a misoprostol product could expand access and availability of misoprostol and enable agencies like the United Nations Population Fund (UNFPA) to use their vast network to support the planning, pooled procurement, and efficient delivery of misoprostol.

In 2011, misoprostol for prevention of PPH was added to WHO's Essential Medicines List, guiding countries to include misoprostol in national EMLs and to prioritize a safe and consistent supply.

Evidence has shown that pooled procurement and bulk purchasing strategies can be highly effective mechanisms for countries challenged by the cost of commodities or the complexity of sourcing new commodities from manufacturers. A number of regional and global pooled procurement mechanisms, such as the Pan American Health Organization (PAHO) Revolving Fund and UNFPA Global Programme

to Enhance Reproductive Health Commodity Security (GPRHCS), have enabled countries to obtain commodities at a reduced cost, facilitated rigorous quality assurance beyond the capacity of any one country, and increased the consistency of supply by demonstrating reliable and sizable demand to manufacturers.

Global efforts to increase access to maternal health commodities provide important opportunities to expand use of misoprostol for PPH:

- The UN Commission on Life-Saving Commodities for Women and Children seeks to increase access to life-saving commodities for women and children by improving production, distribution, and use.¹⁶
- The Maternal Health Supplies Working Group—chaired by PATH and Population Action International—was launched in 2010 to increase resources, improve policies, and foster political will to expand access to maternal health supplies.
- UNFPA's Global Programme to Enhance Reproductive Health Commodity Security (GPRHCS) provides technical and financial support to enable governments to effectively access and distribute reproductive and maternal health medicines and supplies.^{17,18}

Packaging

Several studies have found that misoprostol can be correctly used by community health workers for PPH prevention when packaged specifically for this use. Currently, only a few of the global manufacturers of misoprostol produce the three-pill blister pack to support correct dosing for PPH prevention and prevent degradation during storage. The development of appropriate packaging by international and national manufacturers, for both prevention (600mcg administered orally) and treatment (800mcg administered sublingually) of PPH, should be prioritized as procurement mechanisms are developed and countries scale up distribution. Pilot experience has shown specific packaging for PPH facilitates ease of use and acceptability among end-users.



In Afghanistan, misoprostol was packaged for PPH prevention in sealed paper packets with three 200mcg tablets and labeled with pictures and written instructions specifically to facilitate distribution by community health workers. In this pilot program, the packaging, supported by education and training, led to high levels of correct use by community health workers and by women.¹⁹

Building community awareness and demand

Community-based distribution of misoprostol can be an essential element in a country's strategy for addressing PPH. Such efforts can and should be embraced by health providers, women, and their communities, and strategically integrated into existing health systems as part of a continuum of care for PPH.

Increasing acceptability, demand, and use of misoprostol for PPH among women and their communities is as essential as building the systems for supply and distribution. Community awareness and education campaigns on the use of misoprostol for prevention of PPH have been successful in many countries. Many of these programs combined demand-creation and awareness-raising activities with efforts to distribute misoprostol for use at home births.

In Tangail District in Bangladesh, the Mayer Hashi pilot project demonstrated high acceptability and demand among both health workers and women themselves; 92% of the women who had received the medicine in advance were successfully able to self-administer it.²⁰

Conclusion: Moving from evidence to action

For the first time, a convergence of global leadership, national commitment, and solid experience can make the rapid introduction and scale-up of misoprostol for PPH a reality in countries where postpartum hemorrhage remains a major cause of suffering and death. National governments and partners need to work together to ensure that every community and every woman has access to a uterotonic for preventing and treating postpartum hemorrhage.

Endnotes

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