

COMMENTARY

Confronting Maternal Mortality Due to Postpartum Hemorrhage and Unsafe Abortion: A Call for Commitment

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In July 2012, in Dar es Salaam, Tanzania, more than 35 obstetrician/gynecologists, nurse-midwives and public health professionals working in Africa recommitted to and reinvigorated their efforts towards achieving Millennium Development Goal (MDG) 5 at a Regional Experts' Summit. During the weeklong conference convened to explore the myriad factors contributing to maternal mortality in the 12 African countries represented, the experts identified solutions that exist today, and that can be made available on a large scale to confront preventable maternal deaths. One such solution, misoprostol, is a simple and effective medicine that can contribute significantly to our efforts to reduce maternal mortality.

Given its status as a safe and effective medicine that is both heat-stable and easy to administer, the potential of misoprostol to save women's lives is largely untapped. Misoprostol is recognized by the World Health Organization (WHO) as an essential medicine for addressing two major causes of maternal mortality: postpartum hemorrhage (PPH) and unsafe abortion^{1, 2}. FIGO, the International Federation of Gynecology and Obstetrics, also recommends misoprostol for all of its obstetric and gynecologic indications, including prevention and treatment of PPH, treatment of incomplete

abortion, treatment of missed abortion, medical abortion, cervical ripening and induction of labor³. WHO's 2012 guidelines recommend the provision of misoprostol for prevention of PPH by community health care workers and lay health workers where skilled health workers and oxytocin are not available⁴. This is in addition to its inclusion in the WHO's *Safe Abortion Technical and Policy*

Guidance for Health Systems in combination with mifepristone or alone for termination of pregnancy⁵.

Backed by these policy endorsements and peer-reviewed literature, and drawing upon a breadth of experiences of introducing misoprostol for maternal health throughout Africa, the experts identified three primary activities that must be accelerated now to save more women's lives in our communities, and our countries.

SCALE UP DISTRIBUTION OF MISOPROSTOL FOR PREVENTION OF POSTPARTUM HEMORRHAGE FOR HOME DELIVERIES TO ENSURE THAT ALL DELIVERIES ARE PROTECTED WITH A UTEROTONIC DRUG

Postpartum hemorrhage is the leading cause of maternal death globally and contributes to an estimated third of all maternal deaths in Africa⁶. It

is our common understanding that efforts should be continued to improve delivery conditions for all women, including encouraging facility deliveries and the use of oxytocin as the first line drug in PPH management. However, in the meantime, women who deliver at home (an estimated 50% of births in Africa⁷) cannot and should not be ignored. The different cadres of health care professionals, including trained community health workers (CHWs) and traditional birth attendants (TBAs), should be empowered and incentivized to support their communities in their appropriate roles and distribution modalities. This will complement efforts to increase facility delivery rates and serve to link women to the formal health system. While there are inherent challenges in utilizing community-level providers (e.g., training, quality of care and sustainability), within each country's existing health infrastructure, the goal should be to reach women wherever they deliver through all available means of care.

Numerous studies have demonstrated the effectiveness of misoprostol in reducing PPH in community settings^{8,9}. Research also demonstrates that when educated on the proper use of misoprostol by a CHW, women are capable of safely self-administering misoprostol at home births^{10, 11}. In Afghanistan, births with skilled providers were found to be higher in areas where misoprostol was made available directly to women, likely due to the reinforcement of messages by CHWs of the importance of delivering in a health facility¹¹.

In Mozambique, a country represented at the Regional Expert Summit the Mozambican Association of Obstetricians and Gynecologists (AMOG) piloted the introduction of misoprostol for PPH prevention through antenatal care and by traditional birth attendants in rural areas where only 34% of women deliver with skilled attendance¹². The availability of misoprostol for home deliveries paired with a community awareness campaign on the importance of facility

deliveries (which involved TBAs) contributed to near universal uterotonic coverage in the postpartum sample. This coupled with 99% correct use at home births spurred the Ministry of Health in Mozambique to authorize a phased scale-up of the intervention as resources permit¹³.

STRENGTHEN EFFORTS TO PROVIDE INTEGRATED POSTABORTION CARE (PAC) SERVICES, THROUGH THE USE OF BOTH MEDICAL AND SURGICAL METHODS.

Complications of unsafe abortion contribute to 47,000 (13%) maternal deaths annually¹⁴. Yet, treatment of incomplete abortion and other life-threatening complications of unsafe abortion is a reproductive right granted to all women¹⁵. In addition, PAC provides the opportunity to counsel and provide women with family planning methods to prevent future unwanted or mistimed pregnancy. Misoprostol was approved by the WHO for treatment of incomplete abortion in 2009 when it was included on the Essential Medicines List and its importance was reinforced in 2011 when added to the Priority Medicines List for Mothers and Children. Because it can be used by a broad array of providers and in facilities without surgical capacity, it expands access to treatment and offers an advantage in scaling up PAC services¹⁶.

The Rwanda Ministry of Health has spearheaded efforts to address the country's high rate of maternal mortality attributed to unsafe abortion by introducing misoprostol as part of an integrated PAC program which emphasizes the introduction of misoprostol treatment at the health center level, as well as treatment with manual vacuum aspiration at district hospitals. Prior to the program, cases of incomplete abortion and miscarriage were treated at the hospital level. The duration of hospitalization was long (3 days) and the cost was high (transport, fees, medications, etc). After six months of implementation, on

average, half of all cases of incomplete abortion in project districts were treated at health centers¹⁷. By the close of data collection, this proportion increased to 91%¹⁸. The Rwanda Ministry of Health has validated a National PAC Protocol and Training Manual to expand these services nationally as part of its maternal mortality reduction strategy. In addition to training of health care providers across the health system, the scale-up strategy involves monitoring and evaluation at the facility and district level to ensure correct use of misoprostol.

ENSURE THAT PROVIDERS ARE TRAINED AND MEDICINES ARE AVAILABLE FOR MEDICAL ABORTION TO BE PROVIDED TO WOMEN WITHIN EACH COUNTRY'S LEGAL FRAMEWORK.

In developing countries, 56% of all abortions are unsafe compared to just 6% in developed countries¹⁹. Even when abortion laws may be highly restrictive, in 97% of countries, the law permits pregnancy termination at least for one indication - to save a woman's life⁵. A focus on the provision of comprehensive abortion services, including both medical and surgical methods, as well as awareness of family planning and safe abortion *within each country's legal framework*, will help address the 47,000 maternal deaths which occur annually due to unsafe abortion. While provision of medical abortion with both mifepristone and misoprostol is the WHO-recommended regimen⁵, where mifepristone is not available, misoprostol alone can be used safely and effectively by trained providers, especially under 10 weeks gestation. Medical abortion offers an alternative where provision of surgical methods is challenging due to equipment shortages or availability of trained providers and it is preferred by many providers and women.

In Ethiopia the Tigray Regional Health Bureau piloted the provision of safe abortion services at all three levels of the health system: hospital,

health center and health post, including the unprecedented provision of early termination with misoprostol by trained health extension workers (HEWs) serving at the village level²⁰. At Adigrat Hospital, where between 2002 and 2004, abortion complications contributed to the leading cause of hospital admission, five years later during the comprehensive abortion care pilot when early termination and PAC were provided by HEWs and health centers had all treatment methods, it became the tenth cause of hospital admission²¹. In the pilot, over 4,500 women received abortion-related services, the majority of which were provided by nurses, thereby shifting the responsibility to lower level providers and increasing service uptake at the health center level. These results were met with support by the Federal Ministry of Health and other stakeholders and are informing national safe abortion guidelines and monitoring and evaluation efforts.

Even after dozens of successful pilots and programs, women are still dying because we are not reaching them where they are. We have overcome the initial hurdles. With partners, we have demonstrated feasibility and acceptability in a host of settings and regions, including in Nigeria, Kenya, Tanzania, Ghana, Zambia, Uganda, as well as in countries in Asia such as Afghanistan, Bangladesh and Nepal. We have begun the important work of updating clinical guidelines and training health workers on correct use of misoprostol for PPH and PAC. Following on the example set by Nigeria in 2006, over twenty developing countries have approved the registration of misoprostol for obstetric use, and others allow use while efforts are underway to register a dedicated quality product. But as a community, we are still struggling to make misoprostol available to all women who need it because we have not scaled up successful pilots or disseminated updated guidelines. With one woman dying every two minutes, we have not been quick enough in translating our research into practice.

What remains are issues of funding and political will to expand access and ensure that misoprostol is part of routine practice and available where it is most needed. Political leadership and commitment paired with predictable, adequate funding have been identified as essential elements of success in public health interventions ranging from the reduction of maternal mortality in Sri Lanka to the near eradication of guinea worm in sub-Saharan Africa and Asia²². To have the greatest impact, governments should prioritize the integration of misoprostol into broader maternal health programs and engage those who are closest to women during the most critical moments in pregnancy and childbirth. Misoprostol should be readily accessible to providers in rural areas like Health Extension Workers in Ethiopia who are dedicated to reaching women at the community level with essential maternal and child health services, nurses who can offer postabortion care at rural health facilities, and birth attendants living and working side by side with women in their villages.

We have an opportunity to tap into the potential of misoprostol today. It is one of the commodities included in the recommendations of the United Nations' Commission on Life-Saving Commodities for Women and Children. We can confidently say we are making progress with regard to the prioritization of tools to address the most important causes of maternal mortality, including misoprostol, which women can access through the health system and use themselves at home births to prevent PPH. Given its tremendous promise to save women's lives due to unsafe abortion, we hope this leads to the availability of misoprostol at all health facilities for use in postabortion care as well. Access to safe and effective treatment methods for these leading causes of maternal mortality should be considered a human right.

This global attention to maternal health, the most inequitable of all health indicators²³, and the

importance of supplies and products to ensure better outcomes are very welcome. The sustained commitment of resources and endorsement of innovative and realistic strategies to reach the women who need the most attention will be necessary if we want to see drastic improvements in maternal mortality figures and health equity in the years to come. We call upon our governments and partners to support these long-term initiatives and to carry the momentum even beyond the 2015 MDG deadline.

Challenges that seem insurmountable can be overcome when there is will. Just a few weeks after the Regional Experts' Summit in July 2012, the HIV/AIDS community convened in Washington, D.C. and began celebrating the prospect of an "AIDS-free generation." This came about through tremendous advocacy, unprecedented political and financial investment, awareness-raising in communities, training throughout health systems, and an unwavering commitment to ensuring that treatment and prevention options reach people in greatest need.

We know that it can be done. When can we commit to the end of unnecessary maternal deaths? When will we celebrate a generation where children do not lose their mothers too soon and pregnancy is an untarnished time for celebration? This is the vision we are committed to realizing in Africa.

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