Venture Strategies Innovations
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Policy Addressing Misoprostol for Postpartum Hemorrhage

Summary of Selected Publications

Maternal mortality—One death every 7 min, *Potts, M. et al., 2010*

Summary	Policy Recommendations/Implications
The authors of this commentary refer to the World Health Organization expert recommendation that "in the absence of active management of the third stage of labour, a uterotonic drug (oxytocin or misoprostol) should be offered by a health worker trained in its use." Each year, 45 million women deliver without a skilled attendant, a situation in which the greatest number of maternal deaths occurs. Evidence shows that these women can safely self-administer 600µg misoprostol orally to effectively prevent postpartum hemorrhage (PPH).	• Without widespread, community use of misoprostol, it is unlikely that Millennium Development Goal 5, reducing maternal mortality by 75% between 1990 and 2015, will be achieved in sub-Saharan Africa. • Results of randomized-controlled trials should not be used to inform policy for settings beyond which the trial covered.

Estimation of potential effects of improved community-based drug provision, to augment health-facility strengthening, on maternal mortality due to post-partum haemorrhage and sepsis in sub-Saharan Africa: an equity-effectiveness model, *Pagel, C. et al., 2009*

Summary	Policy Recommendations/Implications
Using a mathematical model, the authors assessed the effect on maternal mortality of three potential packages of intervention on rural communities in Africa: 1) health-facility strengthening with oxytocin at deliveries; 2) health-facility strengthening with distribution of misoprostol via antenatal care visits and antibiotics via community health workers; and 3) all interventions in package 2 combined with community-based distribution of misoprostol and antibiotics by female volunteers (e.g. traditional birth attendants) in villages. Based on estimates of maternal mortality due to postpartum hemorrhage and sepsis in Malawi and sub-Saharan Africa, package 1 would reduce mortality by 7% and 12%, respectively; package 2: 25% and 24%; and package 3: 36% and 32%. The greatest gains in reducing maternal mortality would occur where community interventions are undertaken alongside facility strengthening efforts.	• Since women in the poorest communities bear the greatest burden of maternal death, community-based distribution of misoprostol and antibiotics should reach these populations for whom facility delivery is often infeasible. • Community interventions, including distribution of misoprostol for prevention of PPH, can enhance health-facility strengthening efforts as part of an integrated program for health system strengthening.

Saving maternal lives in resource-poor settings: Facing reality, *Prata, N. et al., 2008*

Summary	Policy Recommendations/Implications
Authors conducted a literature review to identify interventions that require minimal treatment/infrastructure and are not dependent on skilled providers and ran simulations to determine the potential number of maternal lives that could be saved through implementation according to potential program impact. The authors identified three safe motherhood interventions suitable for low-resource settings that can be implemented with current resources: 1. Family planning 2. Access to postabortion care (and safe abortion where legal) 3. Misoprostol for PPH	• Given significant human and financial constraints, program planners and policymakers must reassess and reprioritize maternal health interventions in order to significantly reduce the maternal mortality ratios (MMR). • Due to current shortages in higher level providers, it is essential that community-level providers and women themselves, where appropriate, have access to misoprostol. • Safe abortion should be available to the extent of the law. • Postabortion care should be available regardless of the legality of abortion due to the severe consequences that likely follow untreated incomplete abortion.

Tackling the unacceptable: Nigeria approves misoprostol for postpartum haemorrhage, *Jadesimi, A. and F. Okonofua., 2006*

Summary	Policy Recommendations/Implications
In January 2006, Nigeria was the first country to register misoprostol for the prevention and treatment of PPH to address the MMR of 800-900 maternal deaths per 100,000 live births. Misoprostol is registered as a prescription drug, but with training of public and private sector professionals, it can potentially be made available to lower level providers. The International Federation of Gynecology and Obstetrics (FIGO) and the Women's Health Action Research Centre co-sponsored a policy meeting in Abuja since FIGO made combating PPH globally its top priority in 2003.	Reaching the Millennium Development Goal (MDG) of reducing maternal mortality by 75% by 2015 cannot be reached without widespread use of misoprostol; it is the only appropriate uterotonic for home deliveries (with or without a traditional birth attendant).

Parachute approach to evidence based medicine, *Potts, M., et al., 2006*	
Summary	**Policy Recommendations/Implications**
Randomized controlled trials (RCT) are usually required before new interventions are implemented. If other evidence of effectiveness is good (observational studies and clinical experience), and potential benefits large, the resultant delays may be unethical. Oral rehydration therapy for treatment of diarrhea was implemented before RCT results; similarly, circumcision to reduce HIV risk and misoprostol to treat PPH in poor countries show the price of delaying interventions.	• RCTs are needed and when appropriate, should be part of the empirical evidence necessary for decision making; but while evidence accumulates, people's lives are at risk in low-resource settings. • Failure to reduce maternal deaths as rapidly as knowledge permits would be reprehensible and therefore, based upon the existing scientific evidence, misoprostol should be made available widely and beyond health facilities.
Postpartum hemorrhage in resource-poor settings, *Geller, S.E. et al., 2006*	
Summary	**Policy Recommendations/Implications**
Proven technologies are limited in their applicability in developing countries because of a lack of resources and infrastructure. Antenatal hemoglobin testing, iron supplementation, Active Management of the Third Stage of Labor (AMTSL), uterotonics, timely diagnosis of PPH, and transport to a higher level facility remain critical albeit uncertain solutions in low resource settings.	• Low-tech solutions are the best option for practical use of existing resources in the short-term. • A trained birth attendant at every delivery is not realistic with current resources and cultural norms. • Misoprostol, as well as community education, improvements in emergency care systems, training for birth attendants, and oxytocin in Uniject are promising solutions for reducing PPH-related maternal mortality. • A referral system and professionally trained health workers are critical.
Three meetings and fewer funerals: Misoprostol in postpartum haemorrhage, *Potts M. and M. Campbell, 2004*	
Summary	**Policy Recommendations/Implications**
Meetings held by FIGO in September 2003, in Kampala, Uganda in May 2004, and in Nairobi, Kenya in July 2004 all emphasized the importance of addressing prevention of maternal mortality. Resolutions: • PPH is a top priority (FIGO) • Misoprostol should be made widely available in private pharmacies and the public sector along with instructions for its use to "ensure that misoprostol is available to all pregnant women whose lives could be saved by using it." (Uganda) • Further studies to guide policy on the drug's use and availability are requested (Kenya)	• African governments recognize that they will not approach the reductions in maternal mortality called for in the MDGs without significant changes to the death toll due to PPH. • Misoprostol effectively stimulates strong uterine contractions; it is safe, heat-stable, low-cost and has been identified as an important technology for reducing maternal mortality at home births. • South-south partnerships with generic manufacturers of misoprostol can facilitate the registration of misoprostol in countries where it is not on the market.
Prevention and treatment of postpartum hemorrhage: new advances for low-resource settings, *Miller, S., et al. 2004*	
Summary	**Policy Recommendations/Implications**
AMTSL is effective in the prevention of PPH but further research is necessary to determine which of the interventions provides the most protection against PPH. Results of in-progress community-based studies will inform whether or not to recommend widespread use of Uniject and misoprostol at the community level.	• Oral/rectal misoprostol or Uniject are promising options for prevention of PPH when conditions are not favorable for safe injection of oxytocin.