



## Global Health Challenges

Winter 2016

### Train Birthing Attendants & Reduce Postpartum Hemorrhage

*Misoprostol is a drug that reduces postpartum hemorrhage, the world's leading cause of maternal death, by 38%, costs under US \$3 and can be administered by trained traditional birth attendants. In three months, pilot a plan to train 100 birth attendants to administer misoprostol, then scale to 5,000 attendants over two years. A successful model will be evidence-based, will include continuous monitoring and testing, and a commitment to change if evidence suggests your approach is not working.*

**The Problem:** Postpartum hemorrhage (PPH) is the excessive loss of blood following childbirth. PPH is the leading cause of maternal death. It is estimated that that 25-35 percent of the 400,000 maternal deaths a year are due to PPH, a risk that is 100 times larger in developing countries.<sup>1, 2,3</sup>

**The Proven Solution:** Misoprostol is a drug that prevents and treats PPH, and is recommended by the WHO. The drug costs less than \$3, and does not require refrigeration, an important feature in the developing world.<sup>4</sup> Randomized controlled trials show that this ultra-cheap drug can reduce PPH by up to 47 percent.<sup>5</sup>

The drug does not require a doctor to administer treatment. Instead, misoprostol is generally administered by traditional birth attendants (TBAs) during at-home births. Total cost per DALY, including the cost of training TBAs and distributing misoprostol, is estimated at \$6.<sup>6</sup>

**Your Challenge:** We will award up to \$20,000 to a social entrepreneur who can develop an organization and train 100 birthing attendants to administer misoprostol. A winning proposal will also include a plan to scale and train at least 5,000 birthing attendants nationwide within two years.

You must have a localized plan that can manage uncertainty, including:

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<sup>1</sup> Mousa H, Walkinshaw S. Major postpartum haemorrhage. *Current Opinion in Obstetrics and Gynecology* 2001;13:595-603.

<sup>2</sup> <http://emedicine.medscape.com/article/275038-overview>

<sup>3</sup> Prata N., Bell S., Quaiyum A. Modeling Maternal Mortality in Bangladesh: the role of misoprostol in postpartum hemorrhage treatment. 2014. <http://bmcpregnancychildbirth.biomedcentral.com/articles/10.1186/1471-2393-14-78>

<sup>4</sup> <http://bixby.berkeley.edu/what-we-do/core-research/maternal-health/miso/>

<sup>5</sup> Prata et al.

<sup>6</sup> <http://www.ncbi.nlm.nih.gov/pubmed/20079493>

- An evidence-based model which identifies the strongest factors limiting access to proper misoprostol administration, specific to the region in which you will operate
- An evidenced-based model of how and why your intervention will boost proper use of misoprostol
- A plan for continuous testing and evaluation of the program
- A commitment to change the plan if the evidence suggests that the approach isn't working

### Market Information:

- The greatest need for misoprostol and TBA training is in sub-Saharan Africa. An estimated 247,000 maternal deaths occurred in this region in 2000, with a lifetime risk of maternal death being 1 in 16.<sup>7</sup>
- One challenge may be securing a supply of misoprostol. Monopoly pricing in areas with limited drug supply can lead to high costs. Working with misoprostol manufacturers with strong in-country manufacturing facilities and presence will help to avoid this bottleneck.
- A second challenge is that misoprostol has gained attention as a potential drug for abortion inducement, leading to political motivations to curb its use in some areas.<sup>8</sup> In many sub-Saharan African countries, misoprostol is not approved for distribution at all.<sup>9</sup>
- There is no need to invent a new TBA training curriculum. The WHO and a number of national governments have already developed TBA training programs, which can be found free online.
- Although the drug is less effective than oxytocin (an alternative drug), it does not require refrigeration and is consequently recommended by the WHO in settings where health facilities do not have reliable cold storage.<sup>10</sup>
- Past winners of this challenge include [Mothers Delivery Kit](#) (Nigeria), [Aarogyam](#) (India), and [Peach Health](#) (Ghana).

### Ready To Start?

Download a First Round Application Packet at [www.d-prize.org/application.pdf](http://www.d-prize.org/application.pdf)

Questions? Email the D-Prize team at [help@d-prize.org](mailto:help@d-prize.org)

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<sup>7</sup> Blum, Jennifer; Prata, Ndola. "Proposal for the Inclusion of Misoprostol in the WHO Model List of Essential Medicines." Submission to the 17th Expert Committee on the Selection and Use of Essential Medicines. March 2009. [http://www.who.int/selection\\_medicines/committees/expert/17/application/Miso\\_Incl\\_1.pdf](http://www.who.int/selection_medicines/committees/expert/17/application/Miso_Incl_1.pdf)

<sup>8</sup> Another Pill That Could Cause a Revolution. (2010) <http://www.nytimes.com/2010/08/01/opinion/01kristof.html>

<sup>9</sup> <http://medicationabortion.com/#!misoprostol/cn5l>

<sup>10</sup> <http://www.who.int/bulletin/volumes/87/9/08-055715/en/>