FLETCHER D-PRIZE COMPETITION

2024-25 Academic Year

Health Access Challenges

Train Health Extension Workers & Reduce Postpartum Hemorrhage

We challenge you to design a new social enterprise to save the lives of women giving birth. Misoprostol is a drug that reduces postpartum hemorrhage, the world's leading cause of maternal death, by 38%. Fletcher D-Prize will award up to $20,000 to teams with a plan to launch a pilot distributing misoprostol through a trained network of traditional birth attendants or other health workers, and a vision to scale this venture country-wide.

The Poverty Problem

Postpartum hemorrhage (PPH) is the excessive loss of blood following childbirth. PPH is the leading cause of maternal death. It is estimated 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.[1, 2,3]

The Proven Intervention

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.[4] Randomized controlled trials show that this ultra-cheap drug can reduce PPH by up to 47 percent.[5]

The drug does not require a doctor to administer treatment. Instead, misoprostol is generally administered by health extension workers like traditional birth attendants (TBAs) and community health workers (CHWs) during at-home births. Total cost per DALY, including the cost of training extension workers and distributing misoprostol, is estimated at $6.[6]

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

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

3 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

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

5 Prata et al.

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

Your Distribution Challenge

Fletcher D-Prize will award up to $20,000 to teams that can create a new organization that provides misoprostol to women giving birth, who otherwise would be at risk of PPH.

You must have a vision to reach 100,000 women within five years. Our award is meant to enable the first step toward this vision by supporting a small test pilot of your idea, that trains a few dozen health extension workers, and helps anywhere from 250-500 women.

Designing Your Social Enterprise

We believe a successful distribution entrepreneur must have compelling answers to the following questions:

(1) *Why is the intervention appropriate for your local market?*

- The greatest need for misoprostol and health extension worker 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.[7]
- 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 winning proposal will have a plan to secure misoprostol.
- 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.[8] In many sub-Saharan African countries, misoprostol is not approved for distribution at all.[9] A winning proposal must address this challenge.

(2) *How will your model increase the number of health extension workers trained and supplied to administer misoprostol to prevent postpartum hemorrhage?* Your proposal should include a plan to recruit, train and incentivize health extension workers, which could be traditional birth attendants (TBAs) or another form of community health worker (CHWs). A major challenge will be ensuring that these workers, once trained, continue to provide quality care to the women they serve. A winning idea will include a method for continually monitoring your health extension workers.

There is no need to invent a new health extension worker training curriculum. The WHO and a number of national governments have already developed training programs, which can be found free online.

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[7] 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

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

[9] http://medicationabortion.com/#!misoprostol/cn5l

(3) *How will you measure the marginal impact of your work?* One challenge will be proving your work leads to *marginal* or *incremental impact.* Said another way, you must prove that your model led to *more instances of postpartum hemorrhage treated* than if your organization did not exist.

- You will most likely have to track this data yourself, as in most operating regions there is not existing data gathering and reporting.
- During the early pilot stage, you should consider a process for tracking impact that is simple and efficient. For example you could collect data from local health authorities and compare maternal mortality statistics in your pilot region to those of a neighboring area. Regardless of your plan, simply tracking how many women who receive misoprostol or how many health extension workers are trained is not enough to prove *incremental* impact.
- As you grow, you will need to consider more robust measurement processes that consider $ per DALY or $ per death averted, and commit to changing your plan if the evidence suggests a new approach.

(4) *Can your operation scale?* We seek ideas that will result in a massive increase in the number of health extension workers trained and supplied to deliver misoprostol to prevent postpartum hemorrhage.

For instance, a winning proposal will consider what a TBA or CHW training program looks like when targeting thousands of TBAs or CHWs (in terms of costs to train, logistics, etc). Also for consideration: how are large numbers of health extension workers properly monitored, how will large quantities of misoprostol be secured, and what size of support and managerial staff will be required to keep everything working.
We also expect that a successful social enterprise will plan to raise significant funding to scale, either through investment or philanthropy.

Market Conditions

- 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.[10]
- Past winners of this challenge include Mothers Delivery Kit (Nigeria), Peach Health (Ghana), and KOIKOI Stories (Uganda).

Ready To Apply?

Download a First Round Application Packet and start creating your proposal at https://sites.tufts.edu/dprize/.

Questions? Email Kaushik Chaudhuri at Kaushik.Chaudhuri@tufts.edu.

[10] http://www.who.int/bulletin/volumes/87/9/08-055715/en/