

# FLETCHER D-PRIZE COMPETITION

2022-2023 Academic Year

## Health Access Challenges

### Increasing demand for Voluntary Medical Male Circumcision (VMMC)

*We challenge you to design a new social enterprise that reduces the risk of HIV acquisition for men by generating demand for Voluntary Medical Male Circumcision (VMMC). Fletcher D-Prize will award up to \$20,000 to teams with a plan to launch a pilot of this work, and who have a vision to drive 100,000 procedures within five years and scale country-wide.*

#### The Poverty Problem

UNAIDS estimates that 1.4 million new HIV infections occurred in sub-Saharan Africa in 2015, out of 2.1 million new infections globally.<sup>1</sup> New infections among people aged 15 and over are particularly prevalent in Eastern and Southern Africa.<sup>2</sup>

Furthermore, human papillomavirus (HPV), a common sexually-transmitted virus, is the cause of almost all cases of cervical cancer.<sup>3</sup> In sub-Saharan Africa in 2016, cervical cancer caused an estimated 2.1% of total deaths among women 15-49 years old,<sup>4</sup> and an estimated 4.3% of total deaths among women 50-69 years old.<sup>5</sup>

#### The Proven Intervention

VMMC is the voluntary surgical removal of the foreskin of the penis.<sup>6</sup> A meta-analysis of three large randomized controlled trials of VMMC in Eastern and Southern Africa found that men who had participated in the program had a 54% reduction<sup>7</sup> in their risk of acquiring HIV during the

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<sup>1</sup> UNAIDS Global AIDS Update 2016, Pg 2. [http://www.who.int/hiv/pub/arv/global-AIDS-update-2016\\_en.pdf](http://www.who.int/hiv/pub/arv/global-AIDS-update-2016_en.pdf)

<sup>2</sup> UNAIDS Global AIDS Update 2016, Pg 6. [http://www.who.int/hiv/pub/arv/global-AIDS-update-2016\\_en.pdf](http://www.who.int/hiv/pub/arv/global-AIDS-update-2016_en.pdf)

<sup>3</sup> Centers for Disease Control and Prevention – What Are the Risk Factors for Cervical Cancer? – 2014: [https://www.cdc.gov/cancer/cervical/basic\\_info/risk\\_factors.htm](https://www.cdc.gov/cancer/cervical/basic_info/risk_factors.htm)

<sup>4</sup> Institute of Health Metrics and Evaluation: GBD Compare 2016: <http://ihmeuw.org/478q>

<sup>5</sup> Institute of Health Metrics and Evaluation: GBD Compare 2016: <http://ihmeuw.org/478t>

<sup>6</sup> World Health Organization - Voluntary Medical Male Circumcision for HIV Prevention Factsheet – 2012: [http://www.who.int/hiv/topics/malecircumcision/fact\\_sheet/en/](http://www.who.int/hiv/topics/malecircumcision/fact_sheet/en/)

<sup>7</sup> 95% confidence interval: 38%-76%

first 21 to 24 months after circumcision.<sup>8</sup> Based on this evidence, WHO and UNAIDS have recommending scaling-up VMMC in countries with high rates of HIV transmission among heterosexual couples and low baseline rates of male circumcision.<sup>9</sup> WHO's fourteen "priority countries" for scale-up are Botswana, Ethiopia, Kenya, Lesotho, Malawi, Mozambique, Namibia, Rwanda, South Africa, Swaziland, Tanzania, Uganda, Zambia and Zimbabwe.<sup>10</sup>

One randomized controlled trial in Uganda found that partners of men who participated in a VMMC program had a 23% reduction<sup>11</sup> in their risk of acquiring high-risk HPV over a two-year period.<sup>12</sup>

It's important to note that condom use after male circumcision is essential for HIV prevention. Another randomized controlled trial in Uganda found that circumcision of HIV-infected men did not reduce HIV transmission to female partners over 24 months before it was stopped early due to futility.<sup>13</sup>

More detailed information on this program is available in GiveWell's [VMMC intervention report](#).

## Your Distribution Challenge

Fletcher D-Prize will award up to \$20,000 to a team that can create a new organization that motivates men to undergo a VMMC procedure, who otherwise would not.

You must have a vision to mobilize 100,000 men for treatment 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 targets anywhere from 100-250 men, and connects them to existing treatment options.

## Designing Your Social Enterprise

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

(1) *Why is this intervention appropriate for your local market?* A successful proposal will operate in one of the fourteen priority countries for VMMC scale-up mentioned above. We highly recommend you target a local region where VMMC treatment rates are the lowest.

(2) *How will your model create demand for VMMC among patients, and connect them to existing service providers?* There are many local NGOs and health service providers that already exist and can perform this specific treatment. Your model should seek to cooperate with these

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<sup>8</sup> Siegfried et al. 2009. Male circumcision for prevention of heterosexual acquisition of HIV in men.

<http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD003362.pub2/full>

<sup>9</sup> World Health Organization - Voluntary Medical Male Circumcision for HIV Prevention Factsheet – 2012:

[http://www.who.int/hiv/topics/malecircumcision/fact\\_sheet/en/](http://www.who.int/hiv/topics/malecircumcision/fact_sheet/en/)

<sup>10</sup> World Health Organization - Voluntary Medical Male Circumcision for HIV Prevention Factsheet – 2012:

[http://www.who.int/hiv/topics/malecircumcision/fact\\_sheet/en/](http://www.who.int/hiv/topics/malecircumcision/fact_sheet/en/)

<sup>11</sup> 95% confidence interval: 7%-37%

<sup>12</sup> Wawer et al. 2011: Effect of circumcision of HIV-negative men on transmission of human papillomavirus to HIV-negative women: a randomised trial in Rakai, Uganda: [http://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(10\)61967-8/abstract](http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(10)61967-8/abstract)

<sup>13</sup> Wawer et al. 2009. Circumcision in HIV-infected men and its effect on HIV transmission to female partners in Rakai, Uganda: a randomised controlled trial. <https://pubmed.ncbi.nlm.nih.gov/19616720/>

existing resources by focusing on generating demand.

It is absolutely critical that patients elect to have VMMC *voluntarily*. Your proposal should specifically address how you will ensure there is no coercion among patient outreach. A proposal that fails to adequately address this concern will not be funded.

(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 uncircumcised men voluntarily completing circumcision* 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 show that 90% of men in a local area received treatment after your pilot compared to historical baseline data (which is likely 50% or lower coverage). Or alternatively, you could show 90% coverage in your pilot region compared to a lower (50% or lower) coverage in a neighboring area. Regardless of your plan, simply tracking how many men voluntarily elected for VMMC is not enough to prove incremental impact.
- As you grow, you will need to consider more robust measurement processes, including understanding the long-term impact of your work on local HIV rates.

(4) *Can your operation scale?* We seek ideas that will result in a massive increase in the number of voluntary candidates for VMMC who would otherwise not pursue treatment, with a plan to scale up and target a larger region of 100,000 VMMC candidates nationwide within five years. You should explain your vision to reach this target.

The ideal social enterprise will have a plan to raise significant funding to scale, either through investment or philanthropy.

## Ready To Apply?

Download a First Round Application Packet and start creating your proposal at [www.fletcher.tufts.edu/D-Prize](http://www.fletcher.tufts.edu/D-Prize).

Questions? Email Dorothy Orszulak at [dorothy.orszulak@tufts.edu](mailto:dorothy.orszulak@tufts.edu).