

# **A conversation with Development Media International, June 20, 2018**

## **Participants**

- Roy Head – CEO, Development Media International (DMI)
- Cathryn Wood – Director of Strategy and Development, DMI
- Chelsea Tabart – Research Analyst, GiveWell

**Note:** These notes were compiled by GiveWell and give an overview of the major points made by Mr. Head and Ms. Wood.

## **Summary**

GiveWell spoke with Mr. Head and Ms. Wood of DMI to learn about DMI's progress and future plans. DMI is a GiveWell standout charity. Conversation topics included DMI's two randomized controlled trials (RCTs), its progress over the last year, its available funds and how it expects to allocate them, and how it would prioritize future funds.

## **Child survival**

### **Burkina Faso RCT**

DMI has been waiting to heavily promote the results of its Burkina Faso child survival RCT until the release of two follow-up papers, which are scheduled to be published in the British Medical Journal (BMJ) Global Health on July 17.

The RCT's findings include:

- an increase in malaria diagnoses of 56% in year one ( $p < 0.001$ ), 37% percent in year two ( $p = 0.003$ ) and 35% in year three ( $p = 0.006$ )
- an increase in pneumonia diagnoses of 39% in year one ( $p < 0.001$ ), 25% percent in year two ( $p = 0.01$ ), and 11% in year 3 ( $p = 0.525$ )
- an increase in diarrhea diagnosis of 73% in year one ( $p < 0.001$ ), 60% in year two ( $p = 0.01$ ), and 107% percent in year three ( $p < 0.001$ )

### *Second paper*

The second paper models mortality reduction using diagnostic data from health centers. The paper finds that malaria accounted for 61% of estimated lives saved in the trial, and estimates overall mortality reductions of 9.7% in year one, 5.7% in year two, and 5.5% in year three.

### *Third paper*

The third paper estimates the intervention's cost-effectiveness.

Based on provider costs, i.e., what was actually spent by DMI (including staff time, travel costs, supplies, administration, start-up costs, etc.), the paper calculates cost-effectiveness estimates of:

- \$94 per disability adjusted life year (DALY) for the trial itself,
- \$15 per DALY for national scale-up, and
- \$7-\$27 per DALY for scale-up scenarios in five countries (Burkina Faso, Mozambique, Burundi, Niger, and Malawi) for 2018-2020.

The paper also estimates the intervention's "economic costs", i.e., the value of the one-minute radio spots at market prices (though DMI in fact received its airtime for free), as well as care-seeking costs incurred by households (e.g. costs of transportation to health centers, out of pocket expenditures, etc.), though the latter have been less of an issue in Burkina Faso since health clinic consultations became free in 2016.

### *ImpactMatters review*

ImpactMatters reviewed DMI's Burkina Faso intervention and found it highly cost-effective. It gave DMI three stars (its highest rating) for each of the three components of its impact audit (quality of evidence, quality of monitoring systems, and learning and iteration).

### **Scale-up in Mozambique**

DMI is launching a national child survival campaign in Mozambique promoting treatment-seeking for children with pneumonia, malaria, and diarrhea. The campaign is currently in the production phase. DMI plans to have radio spots on the air by the end of 2018 and to run the campaign for 18 months between 2018 and 2020. DMI expects to spend roughly \$2.75 million on the campaign, including about \$500,000 of GiveWell-directed funding.

Based on projections from the Burkina Faso RCT, DMI predicts that the campaign will save 6,400 lives on average per year and achieve a cost-effectiveness of \$15 per DALY.

### *Monitoring and data collection*

Originally, DMI had planned to collect data directly from health facilities in order to estimate the error rate in centrally-aggregated data in Mozambique. However, DMI was advised by a consultant on routine data collection in Mozambique that there is not a major difference between data from those two sources. DMI now plans to track health clinic data on consultations for malaria, pneumonia, and diarrhea using time series analysis. DMI expects it to be at least a year before it has meaningful monitoring results from clinic data.

DMI also plans to use baseline and endline surveys to measure exposure (i.e. whether a survey participant has heard the radio spots), knowledge (i.e. what the participant learned from the spots), and intentions (i.e. how the participant intends to behave based on that information). DMI expects to see a correlation between the behavioral results indicated by health center data and the survey results; positive behavioral results would be less plausible if not accompanied by improvements along the metrics measured by the survey.

DMI also plans to conduct regular mobile phone surveys in order to stay informed about changes on the ground and learn quickly about potential problems (e.g. if a radio station has stopped broadcasting the spots).

### *Control zones*

Although this is a nationwide campaign, radio signals carrying DMI's spots do not reach certain areas of the country; these areas can therefore serve as naturally-occurring "control" zones. DMI has also deliberately selected some control zones based on their comparability to treatment zones in terms of, e.g., baseline attendance at health clinics, average distance to a health clinic among the population, etc. DMI believes that deliberately matching up control and treatment zones based on these factors (for which it is using data from the Demographic and Health Surveys Program) will be more robust than propensity score matching.

## **Family planning**

### **Burkina Faso RCT**

The primary outcome of DMI's family planning RCT in Burkina Faso is specified as overall modern contraceptive uptake, though DMI is only considering four contraceptive methods (since other methods are used in very low quantities). The midline results DMI has received so far are:

- Distribution of injectable contraceptives increased by 14% (p=0.07)
- Distribution of contraceptive pills increased by 22% (p=0.05)
- Distribution of implants increased by 3% (not statistically significant)
- Distribution of male condoms increased by 22% (not statistically significant)

DMI does not have midline results on the overall primary outcome.

The RCT measures results using three methods:

1. An endline survey comparing modern contraceptive uptake at that point to baseline levels. (DMI is complementing this data with the next two measurement methods in part because surveys are susceptible to self-report bias.)
2. Data from health clinics on contraceptives issued to patients.
3. Data on contraceptives distributed to clinics from CAMEG (Centrale d'Achat des Médicaments Essentiels Génériques et des Consommables médicaux), Burkina Faso's government agency for distribution of health supplies.

The trial will ultimately run from May 2016 to December 2018.

A funder offered DMI additional support to extend the trial; DMI declined because a) it is already getting statistically significant results, which it expects to be solidified by the end of the year, and b) there is increasing political attention in the Sahel

region on supporting family planning, which means there is an increasing likelihood over time that the trial could become contaminated.

### **Work in other countries**

DMI is part of a consortium that plans to launch family planning campaigns in seven countries (Tanzania, Mozambique, Zambia, Malawi, Uganda, Madagascar, and Ethiopia) later this year. DMI expects this to be confirmed within the next few weeks. DMI expects to spend about £12 million over 3 years on these campaigns.

### **Early childhood development (ECD)**

DMI decided it was not satisfied with the original design of its ECD pilot study in Burkina Faso. It has shifted to focus instead on qualitative preparatory work for a major ECD RCT in Burkina Faso, which it would conduct in partnership with Professor Betty Kirkwood (London School of Hygiene & Tropical Medicine). DMI's goal is to identify barriers to ECD and interventions that might be useful. (For example, it would be useful to know what kinds of play items are available to children before broadcasting messages encouraging parents to give children something to play with).

DMI plans to submit an application to the Wellcome Trust for funding for this RCT later this year.

### **Other work**

#### **Stunting in Tanzania**

DMI is continuing its work as part of a consortium aiming to reduce child stunting in Tanzania. DMI's role is to broadcast messaging on nutrition and ECD. DMI has been approached by a number of funders (e.g. UNICEF) about expanding this campaign to additional regions. DMI expects to conduct a midline survey for this project in January or February of 2019.

#### **Nutritional messaging with the World Food Programme (WFP)**

DMI and the WFP worked with seven radio stations in Mozambique to build their capacity to produce spots focused on nutritional messaging. The project went well, and both the WFP and the radio stations have expressed interest in extending the program. DMI thinks the project will likely continue; it is currently awaiting a final decision from the WFP.

### **Creating new social norms**

When asked how long campaigns need to last in order to bring about behavior change and change social norms, Mr. Head explained that DMI's research demonstrates that behavior change can be achieved after campaigns of just one year, although DMI recommends the implementation of three-year campaigns in order to maximize efficiency, cost-effectiveness, and impact.

Mr. Head thinks it might take up to 20 years of exposure to messaging for new and complex behaviors to become ingrained as social norms. (DMI does not intend to run its campaigns for this long; ideally, country governments would take over at some point.) An argument could be made for running campaigns in a given area only every other year, though the practicalities of that would need to be worked out.

## **Funding**

DMI's major funders include:

- UNFPA (United Nations Population Fund), for family planning
- DFID, for current nutrition work in Tanzania
- UNICEF, to extend nutrition work in Tanzania
- The Mulago Foundation (\$200,000 a year in unrestricted funding)

For its Mozambique child survival campaign, DMI has funding from:

- Unorthodox Philanthropy (roughly \$2 million)
- Fondation Botnar
- The Swiss government
- Members of Founders Pledge

Excluding funding for the multi-country family planning campaign which DMI expects to receive but which has not yet been finalized, DMI's budget is roughly £3 million per year.

DMI's sources of unrestricted funding are essentially only the Mulago Foundation and GiveWell-directed funds.

### **Difficulty fundraising for child survival campaigns**

DMI has had difficulty raising funds for child survival campaigns in West Africa, which is the work it would most like to prioritize. DMI believes there is the most potential to save lives via such campaigns in West Africa, and sees West Africa as having the most significant gap in terms of an absence of other organizations doing similar work in the region.

#### *Continuing child survival campaign in Burkina Faso at a national scale*

DMI has had difficulty raising money to continue its child survival campaign in Burkina Faso at a national level despite strong evidence of effectiveness (DMI believes that its child survival campaign can save about 3,000 lives per year in Burkina Faso and achieve a cost-effectiveness of \$22 per DALY). DMI would need roughly an additional £1 million per year in order to run its ideal child survival campaign in Burkina Faso.

#### *Expanding child survival campaigns to other West African countries*

DMI also does not currently have enough funding to launch new national child survival campaigns in other West African countries where it would like to work (e.g.

Chad, Niger, Gabon, Benin, Côte d'Ivoire, and Guinea). It has done feasibility studies in Niger, Côte d'Ivoire, and Guinea.

DMI has been conducting a UNFPA regional campaign which has allowed it to make contacts and do training in six West African countries. If DMI had significant unrestricted funding, it would like to expand its child survival work into those countries.

DMI currently has 23 local staff in Burkina Faso, in part in order to be able to use Burkina Faso as a hub for expanding into other West African countries in the future. DMI estimates it could productively spend about \$1 million per year per country once it expands.

*All GiveWell are available at <http://www.givewell.org/conversations/>*