

A conversation with Development Media International on July 31, 2014

Participants

- Will Snell – Director of Public Engagement & Development, Development Media International
- Timothy Telleen-Lawton – Research Analyst, GiveWell
- Sean Conley – Research Analyst, GiveWell

Note: This set of notes was compiled by GiveWell and gives an overview of the major points made by Mr. Snell.

Summary

GiveWell spoke with Will Snell of Development Media International (DMI). The conversation focused on how to decide between a community radio campaign or a national radio campaign in the Democratic Republic of the Congo (DRC), as well as DMI's method for selecting priority countries. Other topics included differences in radio listenership between countries, infrastructure differences between community and national radio broadcasters, and DMI's room for more funding.

Community vs. national radio campaign in the DRC

The DRC has a population of 67 million, 55% percent of which are over the age of 15. DMI may conduct an exclusively national radio campaign, an exclusively community radio campaign, or conduct national and community campaigns in parallel, depending on its funding situation:

1. Regional campaign working with community radio stations
 - DMI conservatively estimates that on average 70,000 people listen to each community radio station.
 - Community radio station listenership estimates range from 50,000 to 100,000 to 200,000, depending on the size of the station and the estimate methodology. The best estimates of this figure have been collected by non-governmental organizations (NGOs) that work with DRC radio stations. There is no strong evidence for these figures.
 - If DMI worked with 35 community stations in 6 provinces, it would reach about 2.45 million people.
 - The cost of this campaign is about \$1 million. Therefore the cost-per-person-reached is about \$0.40/person.
2. National campaign working with Radio Okapi (the United Nations DRC station)
 - 15 million people listen to Radio Okapi on a daily basis, and 21 million listen once a week. This is a much larger audience than the community stations reach.
 - The DMI campaign on Radio Okapi costs about \$1.9 million.

DMI will receive \$1 million from UNICEF, the UK Department for International Development (DFID) via IMA World Health, and Save the Children for a community radio campaign starting next February. If DMI received another \$1 million before the start of the year to use in DRC, there would be two options:

1. Run a limited-scope Radio Okapi campaign in parallel to the community radio campaign.
2. Set the additional money aside, try to raise another \$1 million, and consider switching at the end of the year from community radio to Radio Okapi.

It may be more efficient to work with Radio Okapi, which would be logistically simpler than working with 35 to 55 community radio stations. However, working with Radio Okapi would limit the number of languages broadcast in as well as the targeting of the languages.

DMI will have a stronger opinion on the community vs. national radio issue following the start of the DRC community radio campaign next year. Its opinion will depend on several factors:

- The logistics of running the DRC community radio campaign
- The strength of partner stations
- The quality of audience feedback
- Estimates of audience size
- Estimates of behavior change and the translation into mortality reduction

DMI and UNICEF are discussing ways to amend existing health surveys to function as baseline measurement (and possibly as endline measurement) for DMI's DRC campaign. At any given time, there is usually a large-scale health survey happening across multiple provinces in the DRC. According to UNICEF, there is a survey happening later this year, and another occurring early next year. The cost of conducting independent surveys in the DRC would be disproportionately high compared to the overall cost of the campaign. If an arrangement with UNICEF cannot be reached, DMI will have to secure additional funding to conduct a limited set of independent surveys.

Mr. Snell has a strong sense that the importance of each person reached in a community radio campaign will be significantly higher than in a national campaign (perhaps by a factor of two to four). This is because Radio Okapi listeners are more likely to be relatively well educated and to live in urban areas. There are fewer people from the 4th and 5th income quintiles in the Radio Okapi audience.

There are two NGOs that operate networks of community radio in the DRC: Search for Common Ground (network of 100 stations), and Hirondelle Communications (network of 77 stations). About 50 of the stations are in both networks. Mr. Snell estimates that there are about 400 community radio stations in the DRC, but there is not reliable data for this.

DMI's rough estimate for a campaign in the DRC is a cost of \$2.23/Disability-adjusted life year (DALY). DMI's model predicts an 11% reduction in mortality and a \$2.6 million annual cost for the campaign.

Radio market differences between countries

Burkina Faso is on the far end of the spectrum of community vs. national radio listenership – Burkinabé people listen to community radio far more than other radio types. On the other end of the spectrum is Eritrea, where state radio is the only type allowed to broadcast. It is easy to design a campaign in countries at either extreme of the spectrum because there is no need to allocate resources between state and community radio.

Most countries are in the middle of the spectrum – state radio and television previously held a dominant market share due to regulations forbidding non-state broadcasters; deregulation over the last two decades has led to an explosion of community radio broadcasting.

There are many considerations regarding the quality of state radio stations:

- Quality of broadcast content (is the station a government mouthpiece?)
- Quantity of content
- Regional or centralized broadcasts?
- Broadcasts in regional languages?
- Availability and quality of non-state radio? (typically there are many commercial stations in the capital cities, as well as rural stations with a religious or local focus)

Listenership data

DMI has reasonably good audience estimates in some countries, which are compiled by either advertising agencies or research groups, although these tend to be restricted to capital cities; reliable audience data at national level is very rare. For the DRC, IMMAR, a French research consultancy, conducted a series of TV and radio surveys in Kinshasa. IMMAR was also contracted by Radio Okapi to estimate its national listenership. DMI does not know how robust this survey data is.

Campaign design spreadsheet

For internal modeling, DMI uses a campaign design spreadsheet that combines demographic information from each region of the target country:

- Population, sorted by gender, age group, urban vs. rural
- Health statistics from the UNICEF Multiple Indicator Cluster Survey (MICS)
- Coverage of key health behaviors (insecticide-treated net usage, antenatal care, vaccination rates, etc.) from the MICS survey
- Media penetration from the Demographics and Health Survey program (DHS)
- Model of estimated audience for each radio network in each province

Estimates of DMI program cost-effectiveness in the DRC are variable, though on par with estimates for other countries. Using full Radio Okapi listenership, the DRC cost-per-DALY is

under \$2. Adjusting downward from full Radio Okapi listenership generates a cost-per-DALY comparable to most other countries.

The DHS survey does not give language data, only the proportion of men and women listening to radio in each province. There are reliable maps of the four major languages spoken in the DRC, which DMI uses to estimate the proportion of listeners speaking each language in each province.

Infrastructure differences between community and national radio

Community stations

Community radio stations broadcast in FM. They consist of an FM tower, an amplifier, and a power source (such as a local electricity grid, a generator or solar panels). There is a legal limit to the wattage the stations can broadcast at (in Burkina Faso the limit is 500 watts). 500 watts provides a broadcast radius of approximately 30 km, depending on the terrain. Many community stations have equipment that could broadcast at a much higher wattage and reach a larger radius. In countries without a wattage restriction, community stations broadcast at higher wattages. For example, in Cote d'Ivoire one Catholic radio station broadcasts at 3000 watts, which means that it covers one-third of the country's land area.

Community radio stations broadcast a variety of material – recorded music, live shows, and recorded talk shows. It is common for community stations to rebroadcast some content from state radio. For example, stations often broadcast state radio news reports on the hour. This is usually done by using a high-power receiver to pick up the state broadcast and then rebroadcasting it from their tower. Wealthier community stations sometimes use satellite equipment to pick up, for example, Voice of America or Radio France International, and rebroadcast these live.

National stations

National radio stations broadcast mostly on FM, though sometimes on shortwave or medium wave (AM) as well. Medium wave broadcasts have a range of 200-300 miles. Medium and short wave broadcasts are more expensive to produce, due to high energy requirements. In addition, most listeners only have FM receivers.

Cameroon national radio has 10 regional stations, broadcasting on FM. Each regional station plays some regional content. In some other countries, the regional broadcasting stations simply relay the national radio broadcast. Radio Okapi has 35 transmitters in the DRC. Each relays the national broadcast, which is mainly in French with local language content interspersed throughout the day.

Evaluating priority countries

DMI uses a quantitative model to predict the need and potential for impact in each country considered. The model takes into account:

- Population size
- Relative burden of disease
- The distribution of various diseases across the population
- Media penetration
- Availability and distribution of treatments

Qualitative considerations include:

- The fragmentation of the media landscape
- Alignment of DMI campaign with government policy priorities
- Quality and quantity of existing mass media campaigns promoting mother-child health
- Quality and quantity of other public health campaigns targeting mother-child health
- Supply-side considerations – availability and distribution of treatments
- Security, logistics, and political stability
- The funding environment

In addition to explicit considerations of program quality, the likelihood of receiving donor funding for a program is also considered. DMI has found an inverse relationship between the attractiveness of a country from a program perspective and funder interest in that country.

In 2013 and 2014, DMI staff traveled to Cameroon, Cote d'Ivoire, Sierra Leone, the DRC, Zambia, and Mozambique. The purpose of these trips was to meet with the potential stakeholders of mass media campaigns – Ministry of Health and Ministry of Communication officials, WHO and UNICEF representatives, and bilateral in-country funders.

Cameroon

Cameroon is doing poorly on Millennium Development Goals 4 (reduce child mortality) and 5 (improve maternal health). Child mortality is not being reduced significantly, and there is little work being done with mass media health campaigns. The media environment in Cameroon is well developed – both radio and television are popular and the state broadcaster is well run, with regional programming and health shows. These conditions are ideal for a DMI campaign.

The state broadcaster offered DMI free airtime in exchange for assistance producing broadcast material. The Minister of Health and his colleagues were onboard and there was significant political support for a DMI campaign. However, no funders in Cameroon who support health campaigns had the budget to fund the DMI project.

The availability of drugs is relatively good due to vertical interventions that provide treatments and drugs in parallel to the health system.

DMI decided to prioritize Cameroon. Because there was no funding available in country, DMI tried to raise interest from global funders and U.S. foundations. DMI was unable to interest funders – Cameroon is not discussed at international health conferences; it is not a high priority for funders.

DMI's rough estimate for a Cameroon campaign is a cost of \$5.33/DALY.

Zambia

In contrast to Cameroon, Zambia is a "donor darling" – many countries give money for development there. Additionally, there is a wide range of health interventions ongoing, including several that use mass media.

However, DMI does not believe that any current mass media behavior change campaigns on child health in Zambia cover the whole country (including rural areas), broadcast on all relevant health issues and broadcast content at high frequency (several times per day).

Because mass media campaigns already operate in Zambia, it is difficult for DMI to set up a comprehensive health campaign there. Such a campaign would overlap with existing campaigns in terms of issues addressed and areas covered.

Mozambique

DMI hopes to receive funding from 3 or 4 bilateral agencies for a Mozambique campaign. DMI estimates that running a campaign in Mozambique would cost approximately \$2 million a year.

DMI's rough estimate for a Mozambique campaign is a cost of \$5.12/DALY.

Cote d'Ivoire

Cote d'Ivoire is a wealthy country with a lot of poverty. Some donors view the country as middle income (which Mr. Snell believes to be incorrect), while others view it as a post conflict area. Because of these conflicting characterizations, Cote d'Ivoire is underfunded; it is a good candidate for a DMI campaign. DMI has good support from the Ministry of Health, but it is difficult to find sources of funding in country.

DMI's rough estimate for a campaign in Cote d'Ivoire is a cost of \$6.80/DALY. The DMI model estimates a 12.7% reduction in mortality from a campaign.

Burkina Faso

From its analysis of the post-RCT scale-up in Burkina Faso, DMI concluded that the best return on investment comes from working with 29 of the 120 stations in the country. Some stations cover the same area, some stations have very low listenership, and some stations are frequently off-air.

The estimated cost-per-person-reached in Burkina Faso for a scaled-up campaign is about \$0.14 per person reached.

Cameroon vs. the DRC

If GiveWell moved \$1.5 million to DMI by early next year (after DMI had spent \$1 million on a community radio campaign in the DRC), there would be several options:

- Reserve the \$1.5 million for a national Radio Okapi campaign in the DRC in 2016.
- Immediately expand the DRC community radio campaign to all 11 provinces, with some funding left over for the following year.
- Start up a national yearlong campaign in Cameroon.

The Cameroon and DRC campaigns are roughly comparable in terms of cost. There are arguments in either direction – either it is likely that DMI can attract aid agency funding in the DRC to expand, so GiveWell funding should go to a Cameroon campaign; or DMI will be unable to attract additional funding for Cameroon, so it would be safer for GiveWell money to go into the DRC.

Room for more funding

Without expanding its central office, DMI has the capacity to run campaigns in 4-5 countries. The limiting factor of scaling up campaigns quickly is recruiting staff in country. The Burkina Faso campaign is based off a very intensive model, DMI has 35 staff in Burkina Faso (14 of whom are scriptwriters). The large number of staff could be driving the high quality of DMI's product there.

Staffing requirements would be lower in other countries. For the \$1 million community radio campaign in the DRC, DMI has budgeted for 4-5 scriptwriters. For an average national campaign, Mr. Snell estimates that a team of 20 staff would be required. Only one or two of these staff members are recruited by DMI's central office; these employees then recruit the rest of a country's staff. Multiple campaigns could be started in tandem, with staff being trained in London and Ouagadougou, then heading to their target country.

Funding for DMI's central office in London lasts until about the end of next year.

Assuming an average funding requirements of \$1.8 million/year for each country campaign, it would cost about \$9 million/year to run campaigns in five countries. \$1 million/year of this would be funding for the London office (much of which is classified as direct project support).

2015 funding

Funding for the Burkina Faso RCT is beginning to wind down in sequence. For example, RCT broadcasting is finishing in January 2015. There is a backlog of unused scripts, so funding for script production is beginning to drop off.

Currently, the London office is approximately 75% funded for 2015 and 10% funded for 2016. If DMI began running five country campaigns simultaneously, it would need to expand its central office capacity slightly.

Monitoring & evaluation

DMI employs a qualitative research team in Burkina Faso. This team does three sorts of research:

1. Formative research – to understand to the barriers to changing behaviors and attitudes.
2. Pretesting spots – do audiences like the spots being produced? Do they understand the health messages?
3. Feedback research – researchers go to the field to collect as much detailed information as possible about who is listening, when they are listening, listener preferences, to what extent spots are changing behaviors, what barriers remain to behavior change, etc.

DMI also employs broadcast monitors at its partner stations to ensure that the DMI material is being broadcast.

In the midline survey, surveyors were not blinded to the allocation of the participants; they knew whether they were surveying people who were within range of stations broadcasting DMI's messages or not.

All GiveWell conversations are available at www.givewell.org/conversations