

A conversation with Michael French, October 15, 2014

Participants

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Note: These notes were compiled by GiveWell and give an overview of the major points made by Dr. Michael French.

Summary

GiveWell spoke with Dr. Michael French of the Schistosomiasis Control Initiative (SCI) as part of its process to update its review of SCI. The conversation was intended to better understand SCI's work in Ethiopia, as a case study to better understand SCI's role, impact, and need for additional funding.

Timeline of schistosomiasis programs in Ethiopia

In 2007, prior to SCI's involvement, Save the Children ran a one-time treatment for about 1 million children for schistosomiasis (SCH) and soil-transmitted helminths (STH).

In mid-2012, the University of Gondar invited SCI to an international symposium on SCH, which served as an introduction for SCI to Ethiopia. After this, Dr. Fenwick, Director of SCI, and other senior SCI staff established a relationship with senior Federal Ministry of Health (FMOH) officials.

In 2013, SCI moved into more serious conversations with FMOH. In July 2013 SCI provided support for the launch of the FMOH's National NTD Master Plan at an international symposium in Addis Ababa. Around the same time, SCI collaborated with the Ethiopian Health and Nutrition Research Institute (EHNRI; now renamed as the Ethiopian Public Health Institute), the technical arm of the FMOH, to plan and fund nationwide mapping.

SCI had long been interested in working in Ethiopia because of the size of the country and the burden of NTDs, particularly SCH and STH. In recent years the FMOH has understandably focused heavily on the significant public health burdens of HIV, malaria and TB. As these programs matured and became embedded in the FMOH system, it provided an opportunity to focus increased resources and attention on the significant NTD burden in the country. This has included an increase in human resources in the NTD team from a single NTD officer about two years ago to a team of 7 people today

An overview of the historic and planned treatments:

1. Last year (2013) SCI funded 1.4 million combined SCH/STH treatments.

2. This year (2014) there have not been any SCH treatments. The END Fund has funded the FMOH to provide STH treatment in areas where there is no SCH infection. The final treatment numbers have yet to be released, but Dr. French believes around 6-7 million children will be treated. First, two regions (Amhara, Oromia) were treated in June. In October or November, one further region (SNNPR) will receive treatment. SCI is not directly involved, but the program is using the mapping data EPHI collected (in partnership with SCI) to decide where to treat.
3. Between now and the end of March, there will be 3.6 million combined SCH/STH treatments funded by SCI.
4. In the following year, 7 million combined SCH/STH treatments are planned.
5. Beyond that, plans include 10 million treatments in the following year and then, for the 2 following years, 15 million treatments, which would be approximately full scale for SCH. A full-scale program for STH probably requires about 30 million treatments.

Mapping

The mapping took longer than planned. Teams were trained in November 2013, and the mapping was completed in April 2014. The results were analyzed and officially provided to the FMOH at a dissemination event in June 2014 (along with mapping results for lymphatic filariasis and podoconiosis, also mapped by EPHI, but not with SCI support). The mapping was conducted in collaboration with the Partnership for Child Development (PCD; also based at Imperial College) and also included the mapping of water, sanitation, and hygiene (WASH) practices and school-feeding requirements.

Prior to this exercise, some prevalence data existed. For example, the website www.thiswormyworld.org lists the historical mapping data available, although these surveys do not cover the whole country and include surveys of varying size, target populations, and diagnostic methodologies. Data like these, combined with local knowledge, provided some sense of the problem (for example, that a small number of areas could basically be excluded because they are sandy and not populated) but were not robust enough to begin a national-scale SCH/STH program.

The results of the nationwide mapping are now a major factor in the development of the design of the treatment plan. They were broadly in line with Dr. French's expectations. For example SCH existed in the areas where it was expected to and STH exists pretty much everywhere. The mapping showed that there may be slightly less SCH than expected, that SCH is focally distributed (as is expected), and there are many areas that need STH-only treatment.

Dr. French's activities

Examples of Dr. French's work to assist the Ethiopia program:

1. Initial program setup activities: creating processes and scheduling meetings to lay groundwork for future activities; developing and finalizing contracts

between funders, Imperial Collage and implementers (the contracts are more complicated than normal because there are 2 funders and 2 implementing agencies).

2. SCH/STH action plan: This will provide a detailed plan for next 12 months and more general plan for 5 years. FMOH initiated this and asked Dr. French and SCI to drive this forward. For example, he has provided an outline that can be adapted by the country.
3. Mapping plan: Dr. French was the main technical advisor from SCI. He worked very closely with people from EHNRI to a) write the research protocol, b) advise on the recruitment of trainers, and c) train technicians, d) supervise activities, and e) help with data collection and analysis.
4. Last year's mass drug administration (MDA): Dr. French was less involved with the MDA than with the mapping but was involved in developing the plans. The Ministry of Health was responsible for running the program and delegating work to regional governments. It had experience from other mass distribution programs. For technical training, it worked with health workers who already had extensive general experience and then provided NTD expertise largely from WHO guidelines, though SCI provided some technical guidance.

Dr. French has been living in Ethiopia, which has helped him build relationships, enabled him to hear more activity details, and allowed him to provide timely advice. For example, he has stronger relationships with the officials in Ethiopia and a clearer sense of whom to go to for various requests. Also, by being close to the activities, some problems with data flowing back to central level have been clearer, which makes it easier for him to help develop solutions.

Problems in recent activities

There have not been major problems that Dr. French is aware of. The important mapping data flowed from the district to the central level relatively well (which is generally a key challenge). The government culture in Ethiopia involves strong sense of ownership and a high level of autonomy at the regional level that could lead them to be hesitant to release data to donors and the public.

Some mapping data was collected with mobile phones. In the future, it might make sense to strengthen training on the use of phones.

The delays in mapping were caused by:

1. Imperial College approval of contracts,
2. microscopes were stuck in customs for 3 months, and
3. a smaller issue where another mapping program was running behind schedule and using equipment and human resources that the SCH/STH mapping surveys also required.

Dr. French is not aware of any issues with the STH MDA that is being implemented this year (which the SCI is not directly involved in), but he has not yet looked closely at the data.

There are many common problems, for example, distance between schools, inaccessibility of certain regions, and equipment breaking. These types of issues are generally accounted for in plans.

Treatment strategy

Currently, the SCH/STH program is just treating school-aged children (SAC). The program is entirely through schools (there is no community-based program), though it also targets non-enrolled children by encouraging them to come to the school on the treatment day. While he has not yet seen data, Dr. French is expecting to see large regional variation in coverage because enrollment varies a lot. In some nomadic regions, enrollment is very low (e.g. 30%). SCI-funded work is delivering combined SCH/STH treatments.

Pre-SAC are currently treated against STH. SCI will look to further collaboration with the FMOH and FMOE Nutrition teams who are responsible for the treatment of the under 5s.

Partnerships and work of other organizations

The Deworm the World Initiative (DtWI) will be providing technical advice to Ethiopia, based on its experience in Kenya. Dr. French recently had a weeklong visit with an associate director from DtWI to discuss this partnership. DtWI is returning in a few weeks for a learning exchange, which will also include officials from the DtWI Kenyan office. As part of this, SCI and DtWI will look to arrange a learning exchange trip to Kenya later in 2014 so that the setup and activities of the Kenyan program can be discussed. Kenyan and Ugandan officials also helped with training for mapping.

With funding from Dubai Cares, the Partnership for Child Development (PCD) implemented a small pilot program in 30 schools in the southern region (SNNPR) to look at feasibility of a comprehensive school health and nutrition program, which includes deworming, nutrition, and WASH interventions and home-grown school-feeding. Related to this, the grant included funding for a region-wide situational analysis, covering an area with about 17 million people. Therefore, the decision for this to be included in the broader national mapping and to include the distribution of SCH, STH, WASH facilities, and school-feeding needs. SCI and PCD partnered on the design, implementation, and analysis of this national mapping. Overall, PCD provided both technical assistance and about 20%-25% of the funding for the national mapping.

Outside of the work funded by SCI and the END Fund, Dr. French is not aware of any other major implementation activities related to SCH/STH in Ethiopia. Some organizations (such as the Liverpool School of Tropical Medicine and RTI ENVISION) are treating LF, which uses albendazole and so also treats for STH. Many

organizations do work on other NTDs. For example, Ethiopia has the world's largest need for trachoma control, and there is a large collaboration between several organizations to address this.

Budget decisions

Setting the budget is an iterative process. To start, drug donations of praziquantel (PZQ) are limited (although increasing) and are set by WHO and Merck KGaA. The size of the donation to Ethiopia seemed like a sensible starting point when balancing the desire to scale quickly against the concern of stretching capacity too thin. Additional drugs could have been purchased through DFID (and the option remains for the future), but it was decided not to because the donations seemed sufficient. Also multiple sources of drugs would add complexity to the program.

Getting sufficient funding from SCI this year was straightforward because it was primarily restricted funding from The END Fund. The END Fund has two grants in Ethiopia, one through SCI and one direct to FMOH. The grant to SCI is intended to deliver combined SCH/STH treatments. The first year of this 3-year grant ends in February 2015. So far, the budget agreed upon has been sufficient and there has not been a need to request additional funding. However, the program is still small and as it scales may be more likely to have funding gaps or to deviate from the budget.

Future plans

As the program scales, it will need additional funding. The plan for next year has been to scale up the number of treatments but to not yet reach national scale, which Dr. French believes is an appropriate step, given current capacity in the country. This plan is aligned with the current budget and allocation of PZQ donations.

If Ethiopia wanted to reach national scale next year, it would need to find additional sources of funding and increase human resource in the country. There have been conversations with other funders who may be interested in filling future funding gaps.

There have been discussions with WHO to consider increasing the amount of PZQ donations. If this happened, program officials would need to find more funding to support delivery costs. This funding would be needed in the first half of next year.

Other than funding, scaling up the size of the program may be limited by several factors:

- Capacity at FMOH.
- Data flow from lower levels where data are collected back the central level. FMOH is willing to share data when it has it, but the flow to the central level can be challenging given the federal, devolved nature of the country. The addition of NTD treatment into the country's Health Management Information System reporting structure should help to address this issue.
- Reporting. There is a growing realization from all partners that a crucial step in the process of implementing control programs is the timely, efficient, and

comprehensive reporting of results to funding bodies particularly, and the broader control community more generally. Having this step completely embedded in the process, and having the resources in country to achieve it, will help to strengthen the relationship between funders and implementers and facilitate future donations.

Measurement and evaluation

A baseline survey was originally planned for September but was delayed due to work on the action plan. It will likely happen in late November or early December when the dates of the SCH/STH treatment campaign are finalized. The first follow up will be a year after the baseline, just prior to the second round of treatment.

In selecting sentinel sites, the intention will be to avoid areas that already have been treated. Treatments so far have only covered about only 10% of areas. These areas were selected based on a combination of high infection rates and best data on infection rates; in addition, the FMOH wanted to ensure that as many regions as possible were able to commence their programs. Dr. French is not particularly worried about this influencing the baseline.

The measurement will be done according to standard SCI methodology, which includes treating children at sentinel schools during the MDA, rather than at the time of the survey. This has received ethics approval from Imperial College and is currently under review at the Scientific and Ethical Review Board at EPHI. There will be no other special effort made in regards to the sentinel sites, beyond ensuring they are schools that will definitely be included in the MDA.

There was no coverage survey for the 2013 treatment because it was a pilot, and there were time-pressures to distribute the PZQ tablets before they expired. The expectation is to conduct a standard SCI coverage survey after the 2014 MDA, but the details are not yet planned.

Dr. French expects data from these surveys will be shared widely. SCI is very tentative to share data without the explicit consent of the countries. This is because SCI respects that the data belong to the country, and it does not want to abuse the goodwill in its relationships by sharing data without explicit permission.

Influence of funding

Without SCI, Ethiopia would have had to look for other funding, because it would have been unlikely to have had the resources to support a national SCH/STH program. For example, mapping cost almost \$1 million. If it had found other funders and other technical advisors, Ethiopia probably could have run a successful program. Without funders, it would have been limited to a small scale, e.g. treatments at health facilities.

The involvement of The END Fund and DFID in Ethiopia has not had a substantial impact on how the program is run. For example, it has not influenced who gets treatments. It has had some input in improving financial processes and reporting.

Prior to funding from The END Fund and DFID, Dr. French thinks that the use of unrestricted funding was incredibly important and that without it there may not be a program in Ethiopia, or at least it would have been delayed by a year or two. He does not know if The END Fund or DFID would have gotten involved without the mapping data. At a minimum, the mapping effort significantly increased the probability of attracting external funding and accelerated the program by a few years.

Ethiopia needed both funding and technical assistance, though organizations like DtWI or RTI could potentially provide that. While in many ways SCH/STH treatment is technically straightforward to do, that does not mean it is easy. Technical assistance is needed for many activities (examples include: mapping, engaging stakeholders, writing an action plan, creating training materials, developing community mobilization materials, monitoring processes, analyzing measurement and evaluation data, and reporting to donors). Without assistance, many of these activities would not have happened, would have been delayed, or would have been done less effectively.

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