

## A conversation with Giuseppina Ortu on June 20, 2014

### Participants

- Giuseppina Ortu – Senior Program Manager, Francophone Countries, Schistosomiasis Control Initiative (SCI)
- Ben Rachbach – Research Analyst, GiveWell

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

### Summary

Giuseppina Ortu is a Senior Program Manager at the Schistosomiasis Control Initiative (SCI). She has managed its programs in Burundi and Rwanda since 2011, and she provides technical assistance in other francophone countries.

GiveWell has been re-evaluating SCI's evidence of effectiveness (<http://blog.givewell.org/2013/11/29/rethinking-scis-evidence-of-impact-2/>). As part of that investigation, GiveWell spoke with Dr. Ortu about the methodology of SCI's study in Burundi.

### Administration of deworming drugs in the Burundi study

The Schistosomiasis Control Initiative (SCI) ran a study on Burundi's national control program from 2007-2011. During the study, researchers tested students at sentinel schools for schistosomiasis in mid-May every year. Researchers did not provide treatment to any students.

Students in sentinel schools were supposed to receive schistosomiasis treatment at their schools as part of the Burundian government's annual mass drug administration (MDA) in mid-June. The ethics review board in Burundi approved the option of treating children from sentinel schools as part of the MDA.

The MDA was part of Mother-and-Child Health Week, a national program in Burundi that delivered vaccines and other medical interventions. The treatment delivery system was the same throughout the country, including in regions containing sentinel schools.

#### *The treatment team's knowledge about sentinel schools*

It is unclear whether the treatment team knew which schools were sentinel schools. Researchers visiting the sentinel schools would have been highly visible, so teachers, students, and people living nearby likely knew if a school was a sentinel school. Conceivably, if the treatment team knew which schools were sentinel schools, it may have been particularly careful to provide treatment to the students in the sentinel schools. The best way to avoid this would have been for the researchers to sample different schools every year so that the treatment team could not predict which schools would be sampled next. However, switching schools every year would have prevented the researchers from following the same students from one year to the next.

The treatment team did not know the medical test results of the individuals whom they were treating in sentinel schools, but the team might have been told that there were some students with positive test results in particular schools.

The team leading the sentinel school study and the teams administering treatment were part of the Burundian government's neglected tropical disease (NTD) control program. However, there was little overlap between the team leading the study and treatment teams, because the people leading the study worked for the central government, while the treatment teams consisted of workers from district health centers. On the other hand, it is possible that one of the leaders of the study also supervised the MDA.

#### *Methodology of the study before 2011*

Dr. Ortu began working for SCI in February 2011. She visited Burundi since then and observed the epidemiological evaluation performed in 2011 in some of the sentinel sites selected in areas endemic for schistosomiasis, and several mass drug distributions in many parts of the country throughout the last 3 years. The methodology for the study at that site and for distributing deworming drugs during the mass drug administration as described above seemed to be in place. She believes that for the epidemiological study the same methodology was used prior to 2011, but she is not certain. Marie-Alice Deville-Garrick, SCI's former program manager in Burundi, led the study from 2007-2010, so she would be the most direct source on the methodology that was used during those years.

#### **Potential external sources of treatment**

SCI is not aware of any other NGOs that provided deworming treatment to children in Burundi outside of the Mother and Child Health Week when praziquantel (PZQ) mass administration is performed. However, it is possible that the children in the country, possibly including children in sentinel schools, received additional schistosomiasis treatment from other NGOs and that the Burundian government did not inform SCI of this. Likewise, she does not know whether all the schools that, according to the mapping performed in 2007 were supposed to receive MDA, actually received it. The government does not always closely track the activities of NGOs in the country and since 2007 has reported the PZQ treatment data per district w/o further details on which specific community or school received it every year.

It is also possible that the subjects of the study received PZQ from health centers or hospitals, but generally they would not be able to afford treatment for themselves and health centers do not stock PZQ.

#### **Variation in the reported number of subjects in the study**

SCI has provided GiveWell with two reports on the Burundi study. One report, from June 2011, was written by Artemis Koukounari. The other report, from September 2011, was written by Ben Styles. (Both Dr. Koukounari and Dr. Styles are statisticians who formerly worked at SCI.) The two reports indicate different numbers of students included in the study and retraced at each followup. Although she was not directly involved in the analysis, Dr. Ortu believes that the

following are the reasons for the differences between the data in the reports: (These apply to both the pilot and national studies discussed in the reports.)

- Dr. Koukounari only included students who were in first grade during the first year of the study and who were successfully surveyed every year of the study. In addition to the children counted by Dr. Koukounari, Dr. Styles included students who entered first grade and were added into the study in subsequent years, as well as students who were missing data from some years. Each of these strategies for data analysis has benefits and drawbacks.
- SCI initially planned to do a cross-sectional evaluation of sixth grade students every year, because each year the current sixth grade class would have received more rounds of treatment over the course of elementary school than the previous year. SCI did not complete this plan, but Dr. Koukounari included the data from the sixth grade students in the baseline data. Dr. Styles did not include this data.

### **Upcoming paper on the study**

Sarah Knowles, SCI's biostatistician, will analyze the data from Burundi for an upcoming paper. SCI will share that paper with GiveWell prior to publication.

SCI is discussing which data to include in the published study. Currently, Dr. Knowles is reanalyzing the data to clearly define the study cohort while also demonstrating the general impact of the program in the population.

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