

A conversation with Dr. Fiona Fleming, August 1, 2017

Participants

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

Summary

GiveWell spoke with Dr. Fleming of the Schistosomiasis Control Initiative (SCI) to discuss several monitoring reports that SCI had shared with GiveWell.

Background

SCI conducts surveys in areas where it has conducted or plans to conduct mass drug administrations (MDAs) for neglected tropical diseases (NTDs), specifically soil-transmitted helminthiasis (STH) and schistosomiasis (SCH). Coverage surveys are used to determine whether the drugs were actually administered, while impact surveys are used to track changes in the prevalence and intensity of the diseases. The drugs SCI distributes are praziquantel (PZQ) and albendazole (ALB).

Tanzania impact survey

In a Tanzania impact survey, a sample of two schools per district was selected for the survey. These schools were not selected at random; instead they were schools that had been found to be highly endemic of SCH in the previous survey. These selection decisions were made when program managers had a high degree of independence in determining how they would conduct their programs. At the time there was no consensus on methodology among program managers in different countries.

Malawi coverage survey from 2016

Sample selection

Three of the districts in the Malawi coverage survey had previously been surveyed, and SCI wanted to see if there had been any change in the coverage rates in those districts since the last survey. The other three districts were randomly selected, one from each the northern, central, and southern regions of the country. Within districts, villages were randomly selected from a list of villages provided by the government. Within villages, households were selected at random using either village household registers or the random walk method.

Survey process

To determine whether children had received treatment during the latest MDA, SCI asked the children to identify dose poles, PZQ and ALB tablets, and symptoms of SCH and STH. Responses were binary (yes or no); no 'don't know' responses were recorded. Children answered the questions themselves, without their parents answering by proxy.

The survey was conducted independently from the Ministry of Health, likely using some of the same surveyors from SCI's 2014 coverage survey. Data were collected through phone by SurveyCTO, an app which is designed to minimize errors and which uploads data daily. Since data are uploaded so frequently, the SCI team can look through them regularly to check for problems.

Burundi re-mapping survey

SCI recently conducted a survey to remap the prevalence and intensity of STH and SCH in Burundi. These data allow SCI to understand which areas still require treatment, and with what frequency.

Conclusions

The remapping indicated that the latest MDA reduced the prevalence of STH and SCH. However, this does not mean that continued treatment is not required. The treatment reduces transmission rates, so if treatment stops, the prevalence of the diseases will go back up within two years.

Quality assurance

An SCI supervisor found that a team responsible for five of the districts was not adhering to protocol. The team was replaced, the managers for three of the districts were replaced, the results from before the replacement were thrown out of the data analysis, and those five districts were remapped in 2016.

Côte d'Ivoire coverage survey

Some of the data for the Côte d'Ivoire coverage survey conducted in 2016 may not be reliable for the following reasons.

Possibility of other NTD MDAs

SCI found that interviewees were more likely to report receiving ALB than PZQ, even though the two drugs were both meant to be administered together in the latest MDA. It is possible that a treatment for lymphatic filariasis (LF) may have been administered between the time of the PZQ and ALB treatment and the time of the survey. This would affect the interviewees' answers because ALB is also used to treat LF. It is also possible that the amount of drugs available was insufficient, so people received only ALB and not PZQ.

SCI plans to investigate this by asking further questions of the national program and of the district officials to find out whether other NTD MDAs may have happened during that time period. This will help SCI know how reliable their data are.

SCI believes that the data from one of the three districts surveyed, Prikro, does not suffer from this issue.

District-specific problems

Bangolo

SCI was told before the survey that Bangolo was one of the treated districts, and conducted its survey there based on this information. However, SCI later found out that Bangolo had not been a part of the latest MDA. This leads SCI to believe that interviewees in this district may have been responding about some treatment other than the PZQ and ALB.

Aboisso

In Aboisso, SCI had difficulty finding people to interview, since many people there live in camps such as internally displaced people's camps. Since the district lacks a regular community structure, there were fewer people available to interview than usual. This resulted in very large confidence intervals for the district.

Quality assurance in SCI surveys

SCI sends supervisors into the field with survey teams to ensure that the teams are adhering to protocol; these supervisors monitor each team for a few days before moving on to the next.

In data quality checks, 10% of diagnostic slides are re-read by another technician to double check that the surveyors accurately measured egg counts.

An example of a problem that this process was able to detect and correct: supervisors discovered that some teams were throwing out urine samples if a child provided less than 10 mL of urine, rather than reading the sample and recording the volume, as the protocol called for.

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