Ethiopia Coverage Survey 2017
Recommendations Report

Evidence
Action

1 Programmatic Recommendations

This report reviews the coverage validation survey which was conducted in 7 districts of Ethiopia, in August 2017, following 3 rounds of mass preventive chemotherapy (PC) for schistosomiasis (SCH) and soil-transmitted helminths (STH) delivered in May 2017. The following programmatic recommendations are:

Table 1: Observations and corrective measures to help [maintain and] improve the high/low coverage in Ethiopia.

Finding or observation	What to look for	Corrective action
All districts surveyed reached the target of 75% coverage for both PZQ and ALB despite Harare reporting coverage lower at 62% and 64% respectively.	All sub-district reports are not returned on time for inclusion in final report Treatment registers are incomplete and/or aggregated data are incorrect	Reiterating the importance of sending reports back to the central level on time. The Technical Assistants in the regions will be given further capacity building to ensure a good level to understanding and accountability for reporting. A Data Quality Assessment will be carried out this year after the valuable insights gained in the last once performed.
Both reported coverage and surveyed coverage were high in six districts (2 districts in 3 different regions)	The MDA programme protocols are in place and functional	Sustain programme momentum for the next year to maintain coverage levels.
Coverage was substantially higher in children who attend school than children who don't attend school	Poor communication of MDA in targeted communities	Investigate ways to improve coverage in non-attending SAC.
Communication channels were under-utilised	Main method of sensitisation is through teachers, other methods are under-utilised	Reinforce the importance of sensitisation messages during training Conduct a needs assessment of all social mobilisation and evaluation of current tools (radio, posters, town criers, health professionals, etc.) through the Operational Research carried out by SCI and Emory University.

Finding or observation	What to look for	Corrective action
Reason for refusal was variable in different regions.	In Oromia and SNNPR, the main reason was not knowing about the treatment. In Harare it was not attending school and, in Tigray it was fear of the side effects.	Reiterate the importance of sensitisation messages during training and increase the number of days of social mobilisation Conduct refresher training prior to distribution and assess training through supervision. Consider carrying out key informant interviews to identify why distributions didn't occur in certain villages. Information from these discussions will be used to determine the appropriate course of action.
The coverage validation results are similar for both PZQ and ALB	Tablets were distributed at the same time.	Sustain programme momentum for the next year to maintain both drug coverage levels.
Coverage rate was similar in both boys and girls indicating equity by gender at the district level	Maintain coverage good coverage rates	Sustain programme momentum for the next year to maintain coverage levels.

2 Methods

All methods described in associated protocol:

https://share.imperial.ac.uk/fom/IDE/SCI/The%20Hub/ETH_Coverage_Survey_Protocol_2017-4.docx

2.1 Field methods

The protocol was well adhered to and extensive training was done prior to data collection to ensure an appropriate level of understanding on design and implementation. The training included a practical session of creating a map of the village for segmentation and use of mobile technology for data collection. Handouts were given to data collectors which were then used in the field as an *aide memoire* with all the required information needed for protocol compliance.

Supervision was done in person and online. A team from EPHI went out to each time and they visited data collection team to observe their activities as well as support the team leaders to supervise their teams correctly. The SCI London team monitored the data entry through the Survey CTO system by running daily reports and feeding back to the teams in the field if there were any data that was not expected. The main pieces of feedback were related to using the

mobile phone programme correctly. For example, the dates were entered by some as the Ethiopian calendar dates instead of the internationally recognised date and where two segments were required from one village, the data was entered as one segment. These points were quickly identified on day one and then communicated to all data collectors for clarification to prevent further anomalies for data cleaning.

2.2 Deviations from protocol

The only deviation from protocol as in the inclusion criteria. Due to a small delay in the initiating the data collection, the districts in Oromia were then outside the preferred three-month post MDA timeframe. However, all were completed within 5 months from the date of drug distribution which is still within the WHO guidelines.

2.3 Ethical approval

Ethical approval was granted by the National ethics board of Ethiopia as well as by Imperial College Research Committee ICREC_8_2_2.

ETH_Ethics Approval Signature

3 Survey Recommendations

Table 2: Observations and corrective measures for the survey process itself

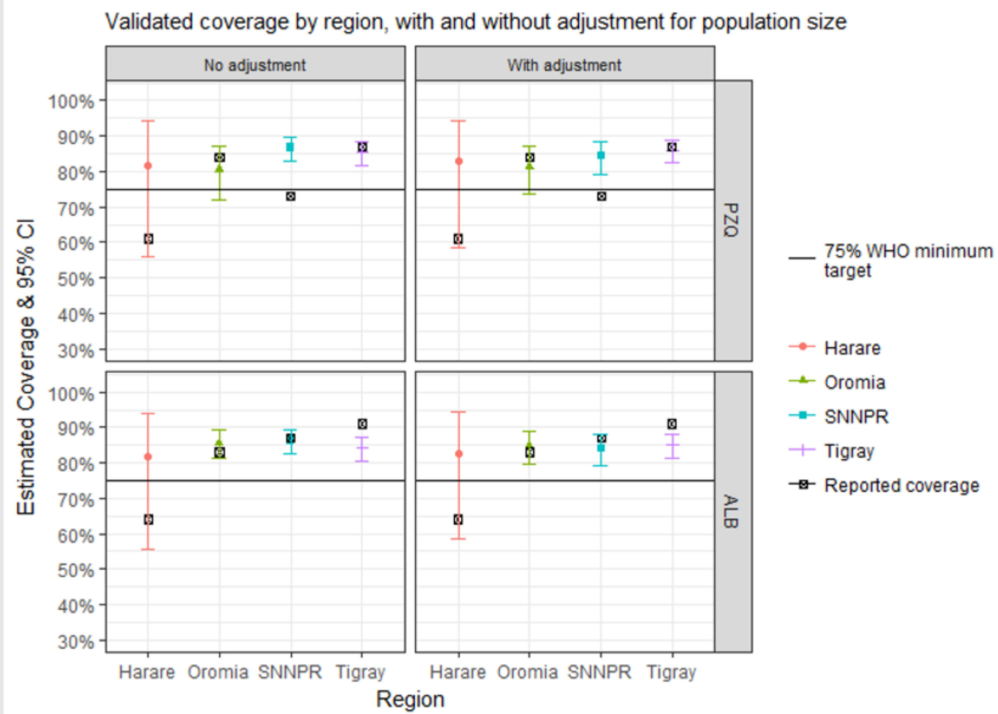
Finding or observation	What to look for	Corrective action
The new WHO coverage guidelines were used for the first time and Probability Proportional to Estimated size Sampling (PPES) used.	WHO Tool - Coverage survey builder was used for randomisation of segments selected for validation.	Continue to use the PPES framework.
Handouts were given in Amharic to data collectors to assist with protocol adherence	Protocol being followed in the field.	Gain feedback on the handouts and refine to increase compliance further.
Only one non-enrolled child was interviewed in one district.	The survey is done at household level and therefore the children interviewed were randomised, not a purposive sample.	Follow up in this district with qualitative data collection to understand the reasons behind non-attending children are not found or not engaged in the programme.
Survey was conducted in the school holidays	Timing of data collection	Timing of data collection should be considered when planning the next survey.

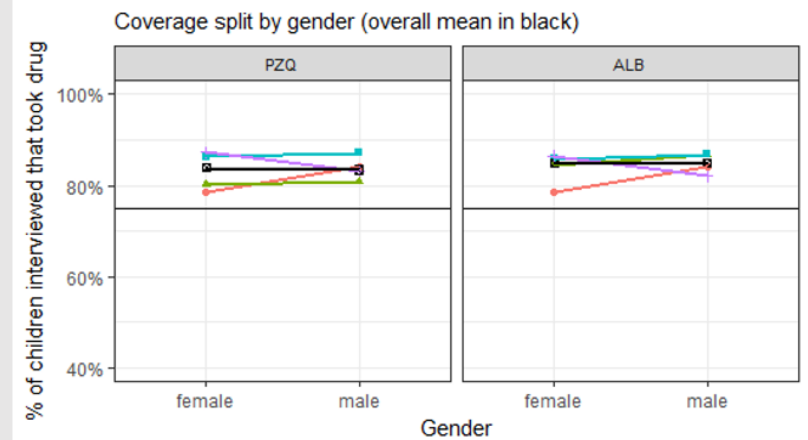
4 Results

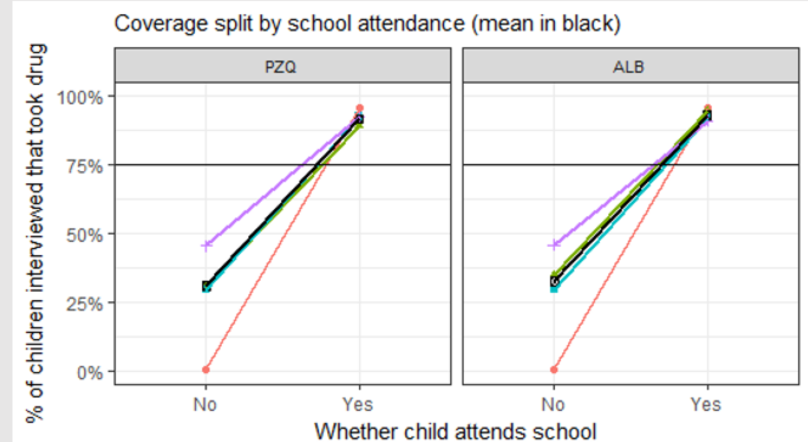
4.1 Dashboard

Ethiopia Coverage Survey 2017

SCI Schistosomiasis Control Initiative



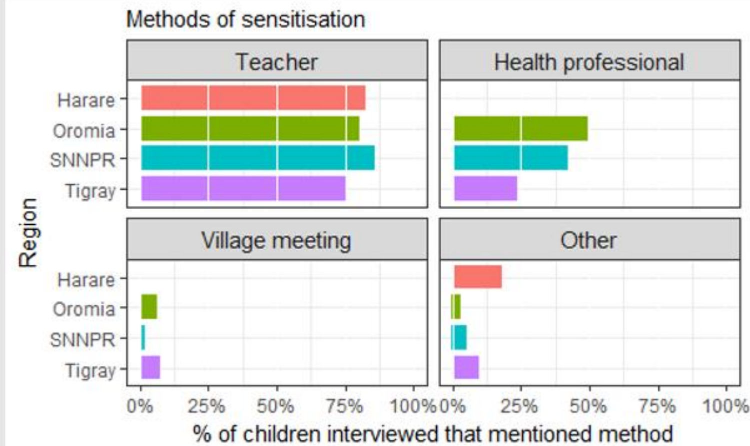


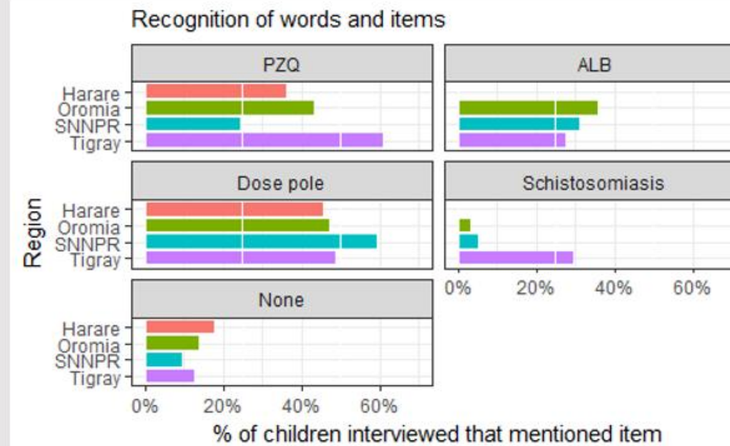


All regions managed to exceed the WHO target of treating at least 75% of the at risk population. The region level coverage for PZQ is: Harare – 82%, Oromia – 81%, SNNPR – 87% and Tigray – 85%.

Although there were little differences in the coverage rates for boys and girls, coverage for children not attending school was poor in all regions. In Harare, only one non-attending child interviewed reported taking the drugs.

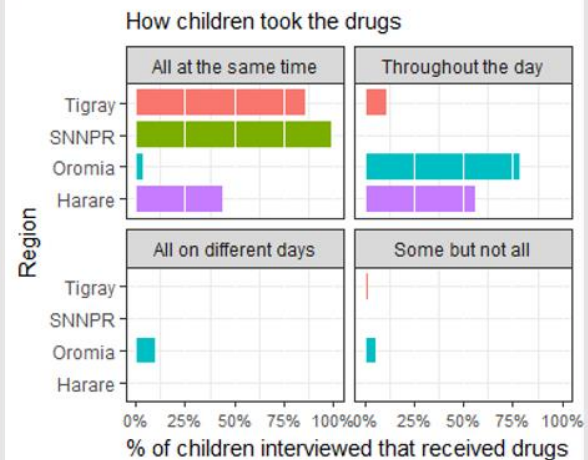
SCI Schistosomiasis Control Initiative

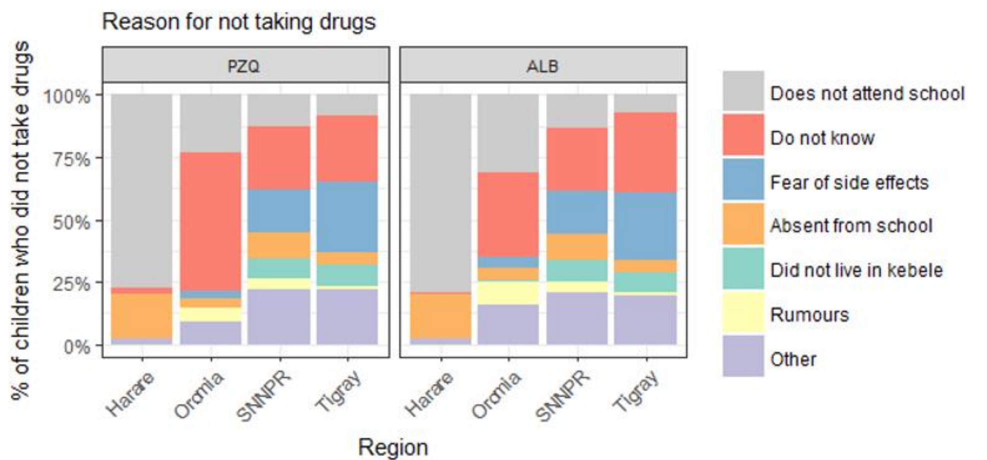




Comments and additional info

Over 99% children in all regions who received PZQ reported the distributor was present at the time.





4.2 Results table: children

Table 3. Coverage survey results overall and by district

		SNNPR		Tigray		Oromia		Harare
Indicators	**Overall**	**Abeshega**	**Boloso Sore**	**Ahferom Woreda**	**Asgede Tsimbla**	**Ambo**	**Kimbibit**	**Erer**
N villages	147	24	28	22	23	23	23	4
N children interviewed	5915	829	603	852	905	951	1004	771
PZQ coverage: not adjusted for population size (95% CI)	82.8	90.7 (86.6, 93.7)	81.2 (75, 86.1)	92.1 (89.6, 94.1)	78.9 (74.1, 83)	86.4 (80.9, 90.6)	74.8 (58.1, 86.3)	81.8 (55.7, 94.1)
ALB coverage: not adjusted for population size (95% CI)	84.1	90.1 (85.8, 93.2)	81.2 (75, 86.1)	91 (88.2, 93.1)	78 (73, 82.3)	86.2 (80.8, 90.3)	85.2 (76.8, 90.9)	81.8 (55.7, 94.1)
PZQ coverage: adjusted for population size (95% CI)		91.1 (88.5, 93.3)	80.5 (76.1, 84.2)	92.4 (90, 94.2)	79.2 (75.4, 82.6)	84.8 (80.7, 88.1)	76.5 (68, 83.3)	82.8 (76.5, 87.7)
ALB coverage: adjusted for population size (95% CI)		90.5 (87.6, 92.7)	80.5 (76.1, 84.2)	91.2 (88.7, 93.2)	78.1 (74.2, 81.6)	84.6 (80.6, 88)	85.2 (79.2, 89.6)	82.8 (76.5, 87.7)
Percentage of children attend school	85.5	92.8	87.7	92.4	77.5	83.4	82.4	84.8
PZQ coverage in attending SAC	91.9	94.8	89.2	96.2	88.3	95.7	83.2	96
PZQ coverage in non-attending SAC	31.1	38.3	22.2	42.2	46.6	39.9	18.5	0.9
PZQ p-value of difference between attendance	<0.0001	< 0.0001	< 0.0001	< 0.0001	0.02	< 0.0001	< 0.0001	< 0.0001
ALB coverage in attending SAC	93.1	94.1	89.2	94.8	87.2	95.5	93.7	96
ALB coverage in non-attending SAC	32.7	38.3	22.2	43.8	46.6	39.9	28.2	0.9
ALB p-value of difference between attendance	<0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Percentage girls	47.9	51.9	48.6	51.6	49	45.6	45	44.6
PZQ coverage in girls	82.9	90.7	79.5	92.7	81.9	85.3	70.4	78.5
PZQ coverage in boys	82.8	90.7	82.3	91.3	76	87.4	71.2	84.1
PZQ p-value of difference between sexes	0.4544	0.0086	0.7260	0.3357	0.0206	0.8679	0.3585	0.0003

Indicators	Overall	SNNPR: Abeshega	SNNPR: Boloso Sore	Tigray: Ahferom Woreda	Tigray: Asgede Tsimbla	Oromia: Ambo	Oromia: Kimbibit	Harare: Erer
ALB coverage in girls	83.9	90	79.5	91.6	81.5	85	78.8	78.5
ALB coverage in boys	84.3	90.2	82.3	90	74.7	87.2	82.2	84.1
ALB p-value of difference between sexes	0.5782	0.0092	0.7260	0.1892	0.0098	0.9502	0.9837	0.0003

Calculation of 95% confidence intervals of coverage, and p-value of differences between subgroups incorporated clustering at the village and household level. Statistical methodology is available from SCI on request.

4.3 Pdf of dashboard

ETH_Coverage Validation_June2013