

**REPORT ON THE COVERAGE SURVEY FOR THE ZAMBIA ICOSA MDA CONDUCTED IN JANUARY 2015  
(Survey conducted from 5<sup>th</sup> May to 30<sup>th</sup> June, 2015)**

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Zambia is one of the countries that have been given support to combat and control Schistosomiasis (SCH) and Soil Transmitted Helminthiasis (STH). The Zambia Ministry of Community Development Maternal and Child Health (MCDMCH) in conjunction with the Centre for Neglected Tropical Diseases (CNTD), Liverpool conducted preventive chemotherapy treatment (PCT) for SCH and STH using praziquantel (PZQ) and Albendazole (ALB), respectively. PCT was conducted in all 8 districts of Lusaka province in January 2015, namely Lusaka, Chongwe, Chilanga, Chirundu, Shibuyunji, Lufunsa, Kafue and Luangwa. Following this MDA, it is necessary to conduct a coverage survey, which was done between 05<sup>th</sup> May and 30<sup>th</sup> June, 2015. For this purpose, three districts, namely Chilanga, Chirundu and Shibuyunji were randomly selected.

For ICOSA, the target coverage level is 75% for both drugs, in line with WHO guidelines (WHO, 2011). If high drug coverage is not attained, untreated individuals could potentially act as reservoirs of transmission, hindering control and elimination efforts. To validate the accuracy of reported PCT coverage rates, independent and external drug coverage surveys should be carried out across all areas given PCT, particularly at the beginning of a programme, to ensure that prompt corrective action is taken where sub-optimal coverage is found.

The objectives of the survey therefore, were to:

1. Validate reported district treatment coverage in schools and communities
2. Assess treatment coverage by gender
3. Assess treatment coverage in enrolled and non-enrolled school age children (SAC)
4. Assess treatment coverage in adults
5. Understand reasons those eligible for treatment did not receive or accept treatment

### **Methodology**

The survey was conducted according to the protocol prepared by SCI and agreed by both SCI and LSTM. Basically, the survey was done in four parts. The first part was to make a sampling frame, an activity which involved the collection of names of villages and where possible their total populations from the selected districts. The second part was to randomly select villages from the three districts,

thirdly to collect data on coverage from the household in the selected villages and finally enter the collected data into a database for analysis.

Briefly, 18 villages were selected in each district. Within each village, the team selected a total of 12 households (according to the strategy defined in the sampling procedure in the protocol and interview all eligible participants). Four (4) people (2 adults aged above 15 and 2 children aged below 15) were interviewed per household.

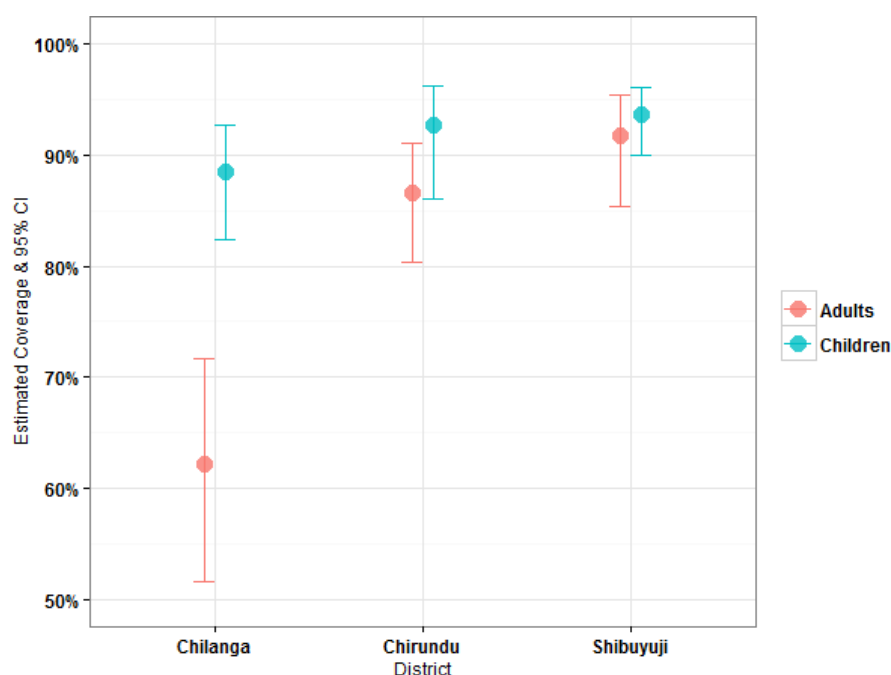
### Collection of village lists

This was the first activity conducted. Each of the three districts was visited. In order to quickly have the names of the villages, we used the MCDMCH health delivery system that is district, rural health centre and then Health outreach post (HOP). Table 1 below shows the districts visited and the number of health centres and where possible the number of HOPs and villages.

**Table 1: Districts population totals and number of RHCs, and villages in the districts visited**

District	District total population	# of hospitals	# of Health Centres	Number of Villages/communities
Chilanga	156,989	0	7	59
Chirundu	66,370	1	6	275
Shibuyunji	97,349	0	9	123
<b>TOTAL</b>	<b>320,708</b>	<b>1</b>	<b>21</b>	<b>457</b>

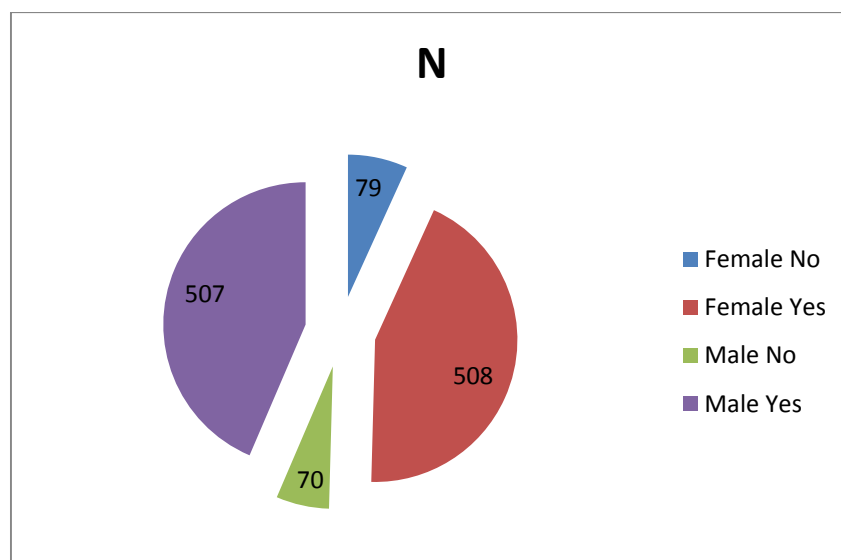
Overall, Chilanga had the lowest MDA coverage of the three districts visited both in SAC and adults. (Figure 1). The results also show that in all the three districts, coverage of SAC was above 85%.



**Figure 1: PZQ coverage in SAC and adults per district**

**District treatment coverage in SAC in schools and communities**

In total about 1,164 School Aged Children (SAC) were interviewed. Of these, 1,050 were enrolled in school and only 149 were not in school at time of survey (Figure 1). The coverage of PZQ treatment in enrolled children was 95.17% while in non-enrolled children it was 66.44%.



**Figure 1. Overall school attendance among SAC by gender**

Of the three districts surveyed, Chilanga with 88.52% had the lowest treatment coverage in SAC while Shibuyunji with 93.62% was the highest (Table 2).

**Table 2: Coverage of MDA for SCH and STH in SAC in schools and communities per district**

District	District total population at survey	Number of Households	No. of SAC interviewed	MDA Coverage
Chilanga	156,989	214	418	88.52%
Chirundu	66,370	195	354	92.66%
Shibuyunji	97,349	208	392	93.62%
<b>TOTAL</b>	<b>320,708</b>	<b>617</b>	<b>1,164</b>	

The coverage of MDA in SAC when aggregated by gender was similar. Both male and female SAC had a similar coverage (Table 3).

**Table 3: SAC PZQ treatment coverage by gender per district**

District	Gender	No. of SAC interviewed	No. Received PZQ	MDA % Coverage
Chilanga	Female	222	198	89.19
	Male	196	172	87.75
Chirundu	Female	170	157	92.35
	Male	184	171	92.93
Shibuyunji	Female	195	184	94.36
	Male	197	183	92.89
<b>TOTAL</b>		<b>1,164</b>	<b>1,065</b>	<b>91.49</b>

### MDA coverage in adults

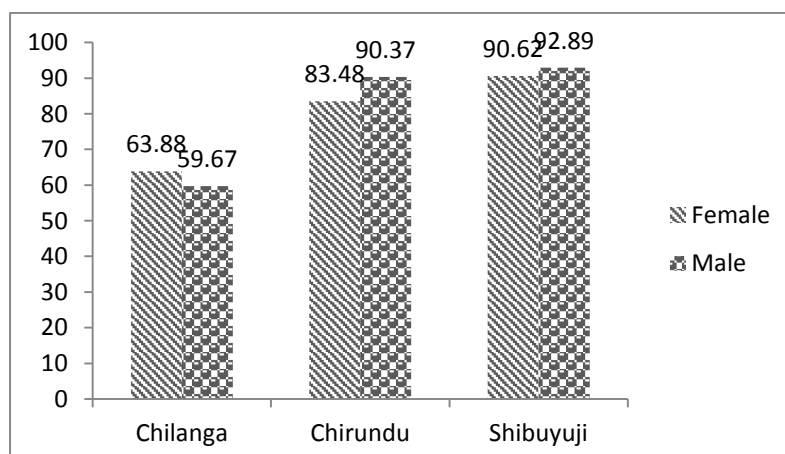
In total about 1,282 (717 females and 565 males) adults were interviewed. Of these, 1,023 were reported to have swallowed PZQ (Table 4). The treatment coverage for PZQ in adult females was 78.52% while in adult males it was 81.42%. Of the three districts surveyed, Chilanga with 62.20% had the lowest treatment coverage in adults while Shibuyunji with 91.70% was the highest (Table 4).

**Table 4: Coverage of MDA for SCH and STH in adults in the communities per district**

District	Number of households	No. of adults interviewed	No. of adults who swallowed PZQ	MDA coverage %
Chilanga	216	444	276	62.20
Chirundu	214	417	361	86.60
Shibuyunji	216	421	386	91.70
<b>TOTAL</b>	<b>646</b>	<b>1,282</b>	<b>1,023</b>	<b>79.80</b>

When coverage data was aggregated according to sex and by districts, Chilanga had an absolute lower coverage of PZQ treatment in male adults than the other two districts (Figure 2).

**Figure 2: Treatment coverage adults by gender per district**



## **Reasons advanced for not swallowing praziquantel**

As is a normal occurrence in every preventive programme, there are some people who refuse to participate in the exercise. They do so for many reasons. In this coverage survey however, the most notable reasons for not swallowing PZQ were; breast feeding, away from school or village, distributor did not come and being pregnant. Others reasons included being away working in the field and lack of interest (Annex 1). As reported above, Chilanga had the lowest MDA coverage. Lack of interest in participating in the MDA could be one of the reasons for the low coverage observed in Chilanga. This is explained by the fact that Chilanga had the highest proportion of people that said that they were not interested. The other reason that could be attributed to Chilanga's low MDA coverage is that the drug distributors did not visit the household for PZQ distribution as indicated in Annex 1. Further to these two reasons is the finding that most participants in Chilanga district were not aware of the MDA. Besides, the majority population in Chilanga district is semi-urban. This could have also contributed to the observed low MDA coverage.

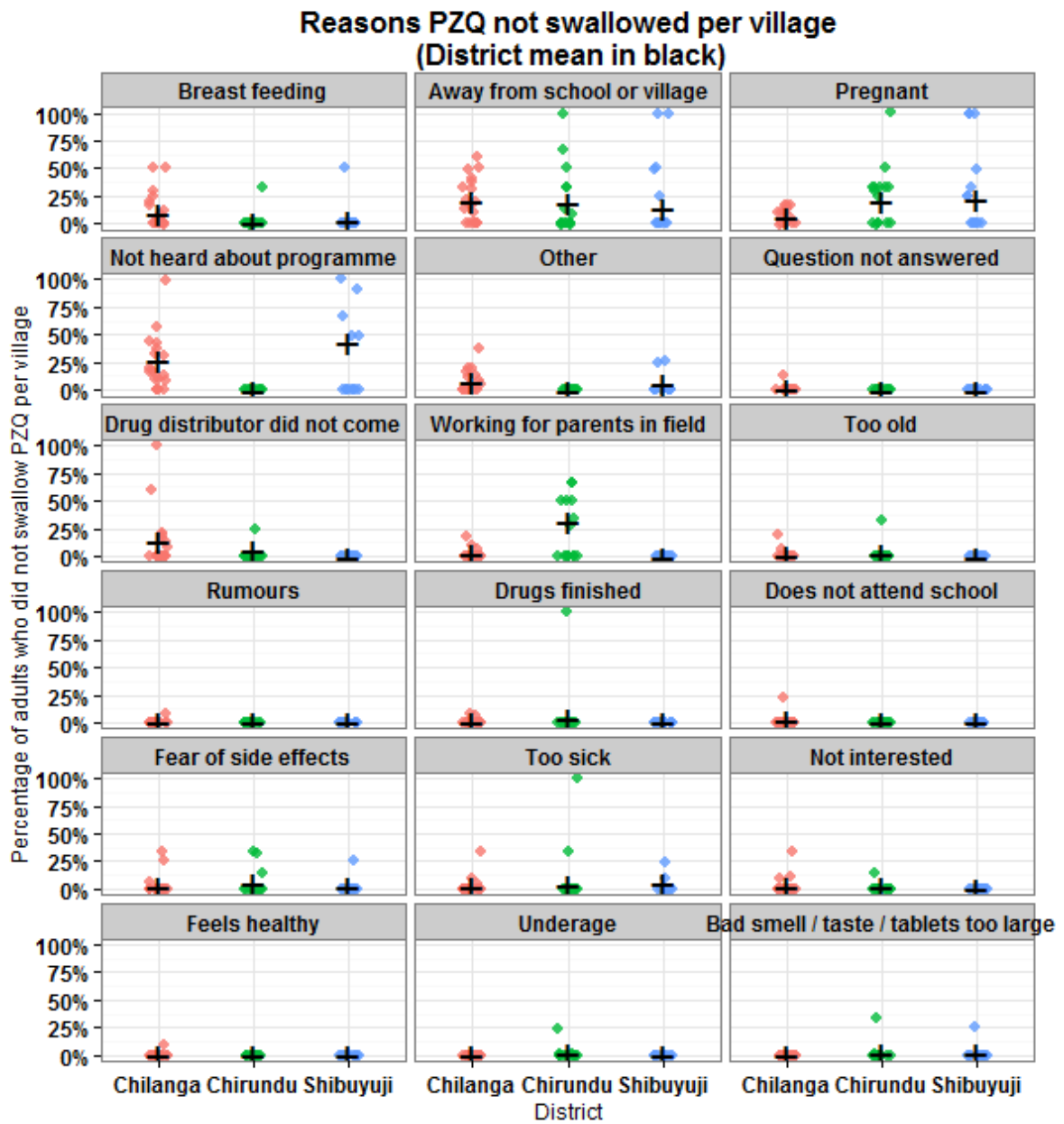
The results showed that PZQ was being distributed in places that were within 30 minutes walking distance (Annex 2). These places included health centres, community health posts and central village points. In addition, a door to door drug distribution was also used in all the three districts surveyed (Annex 3). The results also showed that people were informed about the MDA mostly through the health workers (Annex 4).

## **Conclusions**

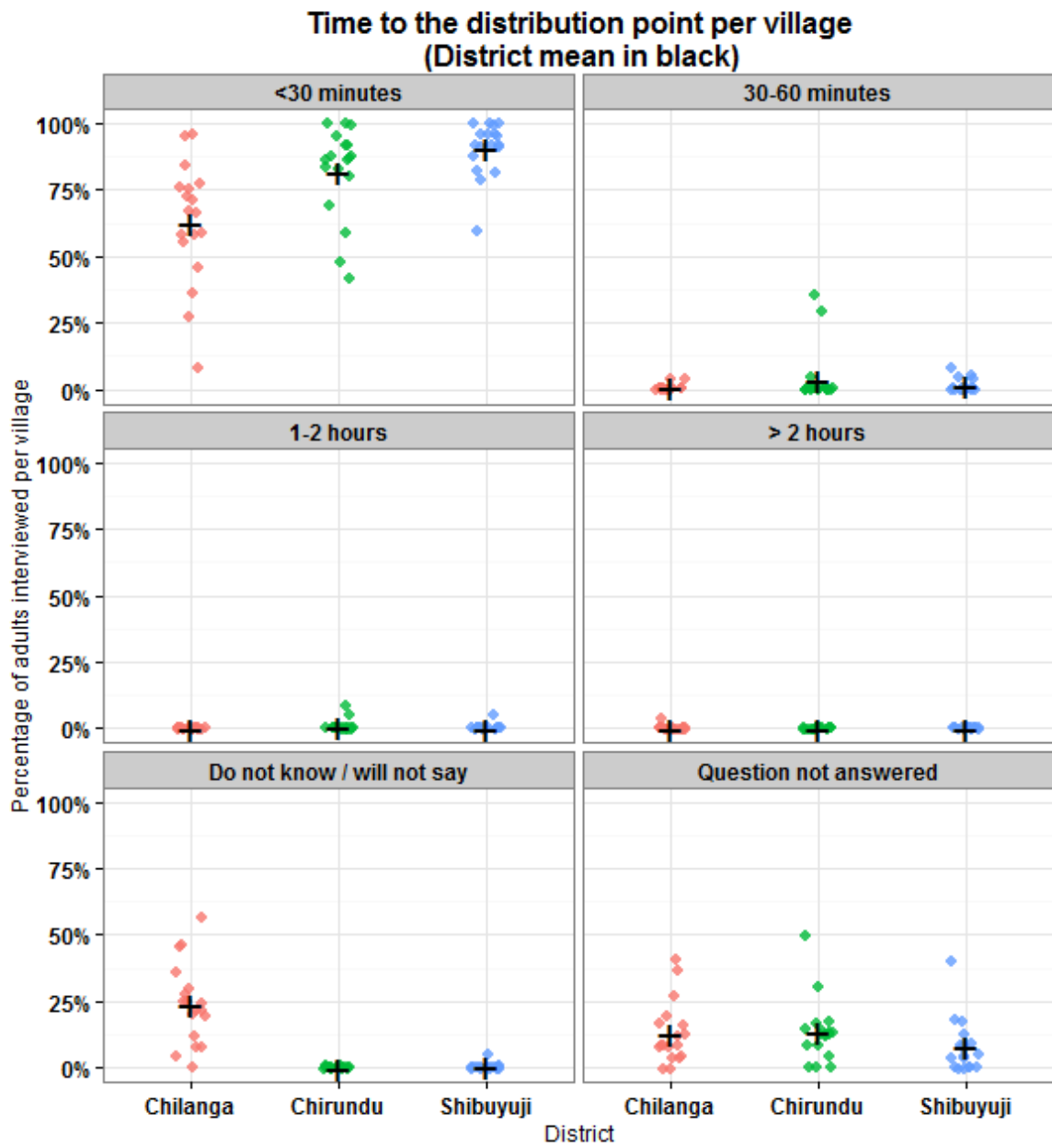
The target coverage level for the ICOSA programme is 75% for both drugs (PZQ and ALB. If however, high drug coverage is not attained, untreated individuals could potentially act as reservoirs of transmission, hindering control and elimination efforts. It can be said from this coverage survey that the coverage for SAC was well above the target of 75% as set by WHO. This was not the case with the adults. Chilanga did not achieve the target of 75% MDA coverage in adults (62.2% coverage). Health workers played a very pivotal role in sensitizing communities. These results also showed that one has to use a variety of approaches in order to achieve a better coverage, ranging from a health facility, schools, a central place in the village to even conducting a door to door drug distribution. Compared to the reported MDA coverages (63% Chilanga; 91% for Chirundu and 116% for Shibuyunji) our survey proved that indeed Shibuyunji had the highest coverage in both SAC (93.62) and adult (91.7%). In conclusion, one would say that in the next MDA treatment rounds, more time should be given for social mobilization in order to achieve a higher coverage survey especially in Chilanga district.

Annexes

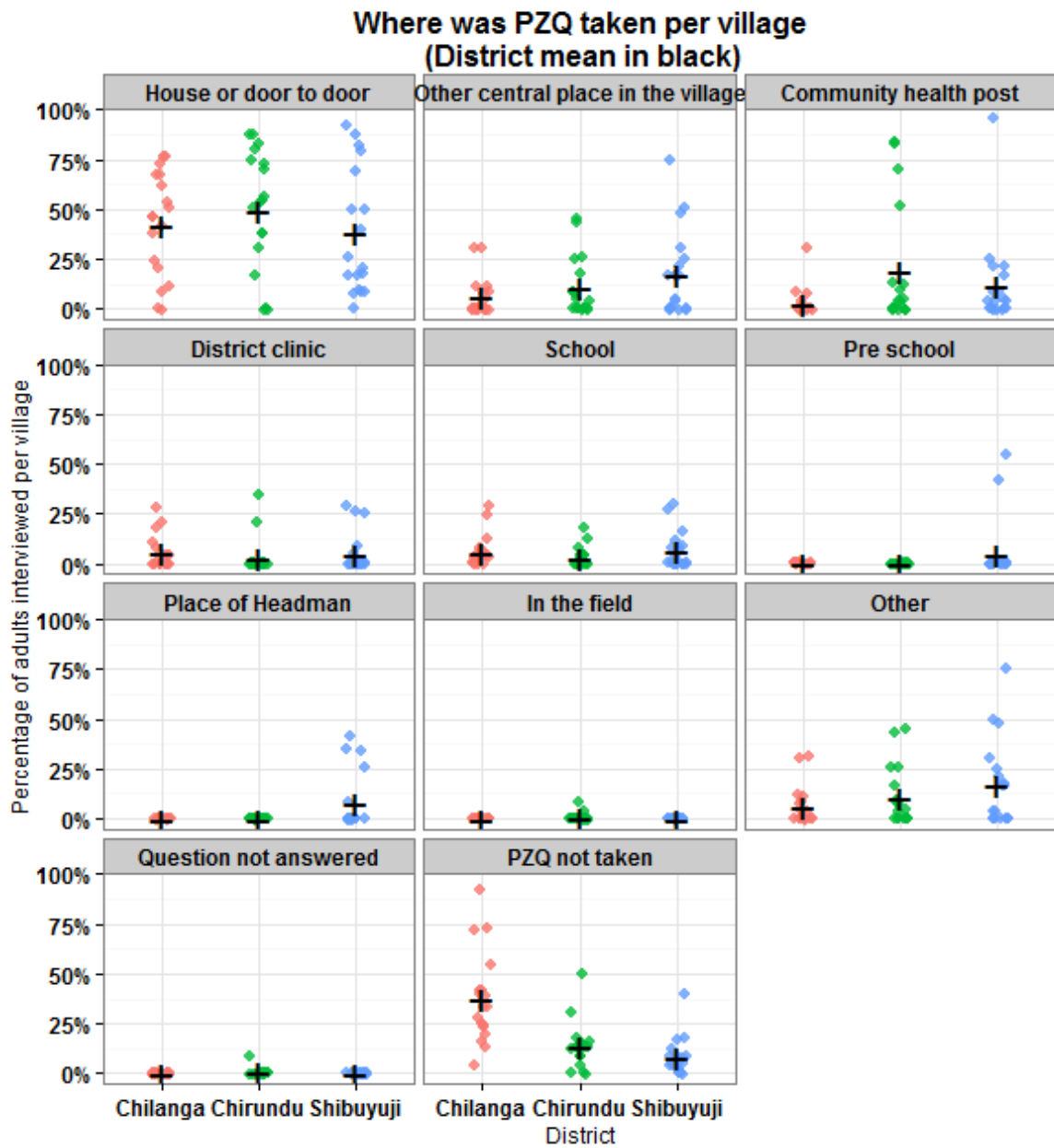
Annex 1



Annex 2



Annex 3





Annex 4

