

Integrated Treatment Coverage Survey for Neglected Tropical Diseases Conducted in Eight Local Government Areas (LGAs) across Kebbi, Kogi, Kwara and Sokoto, Nigeria



June 2018

Table of Contents

1.0	Executive Summary	3
2.0	Introduction:	3
3.0	Aims and objectives of survey	3
4.0	Methodology	4
4.1	Implementation	4
4.2	Study Area	4
4.3	Sample size determination.....	4
4.4	Data Recording and Analysis	4
4.8	Ethical Approval and Consent.....	5
5.0	Results	5
5.1	Survey study population	5
5.2	Treatment Coverage – Praziquantel	5
5.4	Epidemiological Coverage - Mebendazole	7
5.5	Epidemiologic Coverage for LF - Ivermectin and Albendazole	8
5.6	Epidemiologic Coverage of Ivermectin - OV	8
5.7	Epidemiologic Coverage of Zithromax/tetracycline eye ointment - Trachoma	9
5.8	Reason for not participating in MDA	9
5.9	How information on MDA reached respondents	11
6.0	Discussion	11
7.0	Conclusion	12
	Annexes	14
	Annex 1: Survey Area Statistics and Donor Agency	14
	Annex 2: Coverage Survey Team Composition	15

1.0 Executive Summary

Through funding received from GiveWell and UK Aid Match in 2017, Sightsavers worked with State and Federal Ministry of Health (FMOH) to carry out mass drug administration (MDA) in Kebbi, Kogi, Kwara and Sokoto states in Nigeria. It is estimated that 20,542,206 persons at risk in 84 NTD endemic Local Government Areas (LGAs). Treatment was provided for at least one of the five PCT NTDs which are schistosomiasis, soil transmitted helminthiasis (STH), onchocerciasis, lymphatic filariasis and trachoma in these LGAs. A treatment coverage survey (TCS) was conducted afterwards to validate the reported coverage rates.

The coverage survey was conducted in eight randomly selected LGAs across four states. A two-staged cluster sampling methodology with the community as the primary sampling unit and household as secondary sampling unit was used. The sample size was also calculated using a WHO developed Coverage Survey Builder (CSB) v2.5. Independent enumerators administered the questionnaires using android phones while FMOH staff supervised the implementation of this process.

A total of 18,200 individuals were interviewed across 240 clusters composed of 48% females and 52% male respondents. The findings show that LGAs achieved geographic coverage that ranged from 77% to 97%. Epidemiologic coverage varied as follows:

- 70%-75% onchocerciasis
- 67%-87% lymphatic filariasis
- 87%-97% trachoma
- 78%- 94% schistosomiasis
- 78%-87% soil-transmitted helminths

These results validated most reported coverages. However, several survey results were discordant. Most reported and survey coverages were above the WHO minimum recommended treatment threshold.

2.0 Introduction:

Through funding received from GiveWell and UK Aid Match in 2017, Sightsavers worked with State and Federal Ministry of Health (FMOH) to carry out mass drug administration (MDA) in Kebbi, Kogi, Kwara and Sokoto states in Nigeria. Treatment was provided for at least one of the five PCT NTDs – schistosomiasis (SCH), soil transmitted helminthiasis (STH), onchocerciasis (OV), lymphatic filariasis (LF) and trachoma (TRA) in these LGAs. A TCS was conducted afterwards to validate the reported coverage rates.

The following table summarizes disease endemicity in each state. Treatment was provided in accordance with WHO recommendations.

Table 1: Disease endemicity and funder

State	Endemicity	Funder
Kebbi	LF, OV, SCH, TRA	UKAM/Givewell/QEDJT
Kogi	OV, SCH,STH	UKAM/Givewell/A.G.Leventis
Kwara	LF, OV, SCH,STH	UKAM/Givewell
Sokoto	LF, OV, SCH, TRA	UKAM/Givewell/ JOAC

3.0 Aims and objectives of survey

Aim:

To validate the reported coverage of MDA campaigns in 2017 for Onchocerciasis, Lymphatic Filariasis (LF), Trachoma, Schistosomiasis and Soil Transmitted Helminthiasis in Kebbi, Kogi, Kwara, and Sokoto States.

Objectives:

- To compare surveyed coverages to target coverage threshold.
- To compare surveyed coverage with reported coverage
- To compare surveyed coverage with programme reach coverage
- To identify reasons for non-compliance in the recent MDA campaign by drug distributed, sex, age, wealth status, disability and geographic location.
- To determine the most common method of community sensitization.

4.0 Methodology

4.1 Implementation

Personnel from FMOH and Sightsavers trained forty enumerators on the rationale for the coverage survey, the methodology, and survey implementation. The study teams were selected from individuals who were not involved in any of the MDA campaigns. Each team was made up of a supervisor and 10 enumerators per state who worked closely with local guides. The supervisor ensured the quality of the data collected and transmitted. After training, teams were dispatched to LGAs to liaise with LGA NTD Programmes to inform the selected eight LGAs of when the survey would occur and to facilitate local guides. See Annex 1 for the work plan and Annex 2 for the list of enumerators.

4.2 Study Area

The survey covered eight LGAs that were randomly selected in four states: Idah, Ofu (Kogi State), Goronyo, Binji (Sokoto State), Kalgo, Danko Wasagu (Kebbi State) Ifelodun and Ekiti (Kwara State) where MDA was conducted.

4.3 Sample size determination

The survey was powered to determine coverage at the LGA level. Sample size was calculated using an excel-based tool (Coverage Survey Builder - CSB version 2.5). This was used to automatically calculate the sample size (SS) based on relevant statistical variables such as:

- Estimated reported coverage of 50% (proportion of the population that you expect would have swallowed the drug),
- 95% confidence limit, a design effect of 4 (measure that reflects the degree to which respondents in the same subunit are likely to be similar in terms of the information provided in response to an interview question)
- Non-response rate of 10% (percentage of members of the survey population sampled for the survey but for whom data were not obtained due to absenteeism, refusal, or any other reason).

4.4 Data Recording and Analysis

An open source android-based mobile data collection platform was used for recording and uploading of data collected in the field on a daily basis. Data was monitored online to check for errors and corrections made where errors were detected. At the end of the field data collection, the team lead and data management expert did data cleaning and analysis. Coverage estimates with 95% confidence intervals were calculated based on the following formulae:

Epidemiologic coverage:

$$\frac{\text{Number of individuals who ingested drugs (by drug)}}{\text{All survey respondents}} \times 100\%$$

Program coverage:

$\frac{\text{Number of targeted individuals who ingested drugs (by drug)}}{\text{All eligible survey respondents}} \times 100\%$

Geographic coverage:

$\frac{\text{Number of endemic villages where MDA is implemented (by drug)}}{\text{Total number of endemic villages where MDA is required}} \times 100\%$

The proportion of the population who did not ingest the drugs during the recent MDA campaigns was also determined. Further analysis was conducted to describe the demographics of the sampled population disaggregated by sex, age, disability, educational attainment, geographic location. The reasons for not taking the drug were identified. Furthermore, the level of significance of the proportions of the population that swallowed the drugs, were missed or refused treatment and how they differ per drug/disease was performed.

4.8 Ethical Approval and Consent

Permission for the survey was obtained from the Ministries of Health of the four states. Courtesy visits were made to each of the ministries before field visits were conducted. Community leaders gave general consent and thereafter-verbal consent was obtained from household heads in every sampled household before commencement of interviews. At the end of the data collection, the coverage survey team debriefed the stakeholders.

5.0 Results

5.1 Survey study population

Survey teams enumerated 18,200 people within 5,553 households in eight LGAs. Data were collected from 226 (94%) out of 240 delineated clusters across the eight LGAs. The number of clusters reached per LGA ranged from 24–30. Factors responsible for variations in clusters reached included security challenges and inaccessibility of communities due to bad terrain.

The age structure showed that participants 15 years and above represented 67% of the survey population. Analysis of the gender structure indicated 52% male participation compared with 48% for females. Gender analysis at LGA level showed Ekiti in Kwara state had the highest female representation accounting for 51% while Danko Wasagu had the lowest at 45%.

Concerning residency majority of respondents (99%) had been living in the community for more than three months.

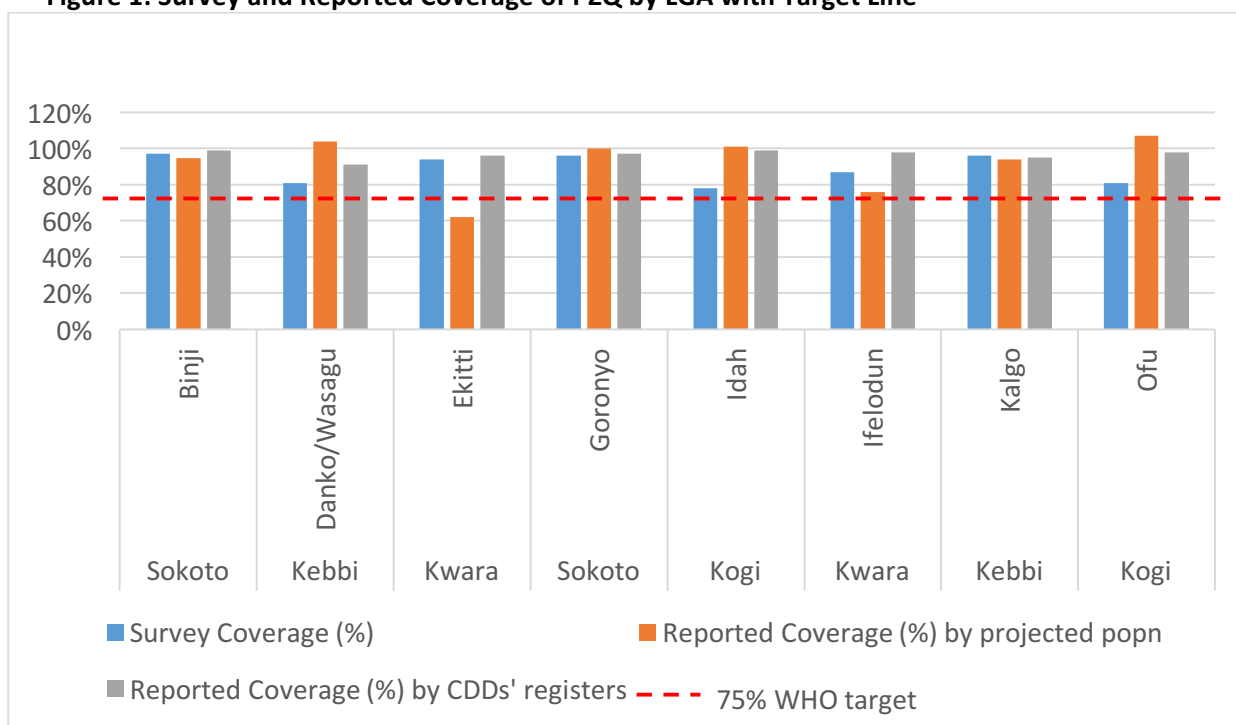
5.2 Treatment Coverage – Praziquantel

Eight LGAs across four states conducted MDA for schistosomiasis. The coverage for the MDA was 89% (95% CI: 86.43 – 91.62). Survey results are mixed for confirmation of reported coverage using praziquantel by LGA. For Binji, and Kalgo, the reported coverage was within the confidence intervals of the survey estimate. For Danko/Wasagu, Goronyo, Idah and Ofu, survey coverage was less than reported coverage, which in many cases exceeded 100%. For Ekiti and Ifelodun, survey coverage exceeded reported coverage. However, in all LGAs the survey coverage exceeded the WHO recommended threshold of 75% (Table 2).

Table 2: Survey and Reported Coverage of PZQ by LGA

State	LGA	Survey Population (5-14 yrs)	Survey Coverage (95% Confidence Interval)	Reported Coverage by projected population	Reported Coverage by CDDs' registers
Sokoto	Binji	946	97.4(95.1 - 98.6)	94.8%	98.7%
Kebbi	Danko/Wasagu	587	80.6(57.6 - 92.7)	104.3%	91.4%
Kwara	Ekiti	909	93.5(87.8 - 96.6)	61.8%	96.3%
Sokoto	Goronyo	753	96.1(91.8 - 98.2)	100.3%	97.1%
Kogi	Idah	827	77.6(70.6 - 83.4)	101.2%	98.5%
Kwara	Ifelodun	851	87.0(77.7 - 92.7)	76.3%	97.5%
Kebbi	Kalgo	607	95.7(91.4 - 97.9)	94.4%	94.6%
Kogi	Ofu	475	81.5(69.5 - 89.5)	106.7%	98.0%
Total		5,955	89.3(86.4 - 91.6)	92.5%	96.3%

Figure 1: Survey and Reported Coverage of PZQ by LGA with Target Line



With reference to gender based coverage for schisto MDA, there was no significant difference between male (90%) and female (89%) based on the total survey population ($p=0.127$). In Kalgo, survey coverage differed slightly with 97% in males and 93% in females ($p=0.018$)

Further analysis of PZQ treatments demonstrated that children who were enrolled in school were more likely to be have received treatment than those who were not attending school in all LGAs. Overall 92.6% of survey respondents reported that they attended school. Of enrolled children, 93% received PZQ versus 47% in non-enrolled. Within LGAs, there were significant differences in treatment coverage for enrolled and non-enrolled SAC across the states as shown on table 3.

Table 3: PZQ Coverage among Children School Age Children

State	LGA	Variable	Total Population	Survey Coverage (95% Confidence Intervals)	P Values
Sokoto	Binji	Attending	914	98.7%[97.2-99.4]	0.00
		Not attending	32	59.4%[34.4-80.3]	
Kebbi	Danko/Wa sagu	Attending	444	90.8%[72.8-97.3]	0.00
		Not attending	143	49.0%[16.8-81.97]	
Kwara	Ekitti	Attending	898	94.2%[89.3-96.9]	0.00
		Not attending	11	36.4%[12.8-68.9]	
Sokoto	Goronyo	Attending	709	99.4%[98.1-99.8]	0.00
		Not attending	44	43.2%[21.8-67.5]	
Kogi	Idah	Attending	786	80.9%[74.3-86.1]	0.00
		Not attending	41	14.6%[5.8-32.5]	
Kwara	Ifelodun	Attending	789	92.3%[85.6-96.0]	0.00
		Not attending	62	19.4%[7.7-40.9]	
Kebbi	Kalgo	Attending	515	97.9%[96.2-98.8]	0.00
		Not attending	92	83.7%[60.3-94.6]	
Kogi	Ofu	Attending	460	83.9%[73.3-90.8]	0.00
		Not attending	15	6.7%[0.7-40.7]	
Total		Attending	5,515	92.7%[90.6-94.3]	0.00
		Not attending	440	47.3%[33.3-61.7]	

5.4 Epidemiological Coverage - Mebendazole

Three LGAs treated STH using mebendazole. Overall, 82% (77.37-86.12) confirmed swallowing MBD during the survey. Survey coverage was less than reported coverage for Idah and Ofu. In Ifelodun, survey coverage was greater than reported coverage. In all LGAs the surveyed coverage exceeded the WHO recommended target of 75%.

Table 4: Survey and Reported Treatment Coverage of MBD for SAC by LGA

State	LGA	Survey popn (5-14 yrs)	Survey Coverage (95% Confidence Interval)	Reported Coverage (%) by projected popn	Reported Coverage (%) by CDDs' registers
Kogi	Idah	827	77.6%[70.6-83.4]	101.2%	99%
Kwara	Ifelodun	851	87.0%[77.7-92.7]	76.3%	98%
Kogi	Ofu	475	81.5%[69.5-89.5]	106.7%	98%
Total		2,153	82.2%[77.4-86.1]	93.6%	98%

There was no difference in survey coverage by gender. In terms of reaching children in school versus out of school, there was a significant difference in treatment coverage in all the three LGAs (Table 5).

Table 5: Survey coverage of SAC by school attendance

State	LGA	Variable	Total Population	Survey Coverage(95% Confidence Interval)	P Values
Kogi	Idah	Attending	786	80.9%[74.3-86.1]	0.00
		Not attending	41	14.6%[5.8-32.5]	
Kwara	Ifelodun	Attending	789	92.3%[85.6-96.0]	0.00
		Not attending	62	19.4%[7.7-40.9]	

State	LGA	Variable	Total Population	Survey Coverage(95% Confidence Interval)	P Values
Kogi	Ofu	Attending	460	83.9%[73.3-90.8]	0.00
		Not attending	15	6.7%[0.7-40.7]	
Total		Attending	2,035	86.0%[81.9-89.3]	0.00
		Not attending	118	16.1%[8.7-27.8]	

5.5 Epidemiologic Coverage for LF - Ivermectin and Albendazole

In the two LGAs that conducted LF MDA, survey coverage exceeded reported epidemiologic coverage by more than 10 percentage points. Each survey coverage estimate exceeded the WHO recommended threshold of 65%.

Table 6: Survey and Epidemiologic Coverage for LF (>5 years) by LGA

State	LGA	Survey popn	Survey Coverage (95% Confidence Interval)	Reported Coverage (%) by projected popn	Reported Coverage (%) by CDDs' registers
Sokoto	Binji	2,279	85.7%[82.9-88.1]	72.3%	79%
Kebbi	Kalgo	2,037	79.2%[73.2-84.2]	68.6%	78%

By gender, coverage was consistently lower in females than males.

Table 7: Epidemiologic Coverage for LF by Gender (>5 years) by LGA

State	LGA	Sex	Total Population	Survey Coverage (95% Confidence Intervals)	P Values
Sokoto	Binji	Male	1212	88.4%[85.4-90.9]	0.000
		Female	1067	82.6%[78.6-85.9]	
Kebbi	Kalgo	Male	1076	83.6%[76.6-88.7]	0.000
		Female	961	74.4%[67.1-80.6]	

With respect to age, when limited to eligible population (greater than 5 years), program coverage was greater in school-aged children than adults. (Table 11).

Table 8: Programme Coverage for only eligible population for LF by Age by LGA.

State	LGA	Sex	Total Population	Survey Coverage (95% Confidence Interval)	P Values
Sokoto	Binji	5 - 14	941	96.6%[94.2-98.0]	0.000
		15+	1167	89.5%[85.3-92.5]	
Kebbi	Kalgo	5 - 14	607	95.4%[90.8-97.7]	0.000
		15+	1215	85.2%[74.2-92.0]	

5.6 Epidemiologic Coverage of Ivermectin - OV

In three LGAs that conducted OV only MDA, the reported epidemiologic coverage fell within the confidence intervals of the survey estimates in Idah and Ofu, but was greater in Ifelodun. In each LGA the survey coverage was less than the recommended WHO threshold of 80%. See Table 9.

Table 9: Epidemiologic coverage for Ivermectin – OV

State	LGA	Survey popn	Survey Coverage (95% Confidence Interval)	Reported Coverage (%) by projected popn	Reported Coverage (%) by CDDs' registers
Kogi	Idah	2595	70.2%[62.4-76.9]	68%	83%
Kwara	Ifelodun	2387	70.5%[62.1-77.6]	80%	79%
Kogi	Ofu	2168	75.1%[64.6-83.4]	74%	81%

5.7 Epidemiologic Coverage of Zithromax/tetracycline eye ointment - Trachoma

Three LGAs in the survey conducted MDA for trachoma. In Binji, the survey coverage was less than the reported coverage, which exceeded 100%. The estimate of 94% exceeded the WHO recommend threshold of 90%. In Goronyo and Kalgo, survey coverage estimates were nearly identical to reported coverage and the respective confidence intervals of the survey estimates included the 90% target. In all three LGAs the survey validates that the MDA program reached the recommended target.

Table 10: Survey and Reported Epidemiologic Coverage of Zithromax by LGA

State	LGA	Survey popn	Survey Coverage (95% Confidence Interval)	Reported Coverage (%) by projected popn	Reported Coverage (%) by CDDs' registers
Sokoto	Binji	2324	93.5%[90.9-95.4]	103%	95%
Sokoto	Goronyo	2154	87.2%[80.4-91.9]	88%	85%
Kebbi	Kalgo	2010	89.7%[82.3-94.2]	90%	97%

When disaggregated by gender, there was no statistical significance in the two LGAs in Sokoto state. However, in Kalgo, Kebbi state, the difference was significant but the survey estimate range includes the 90% target (Table 11).

Table 11: Surveyed Coverage of Population Treated with Zithromax by gender

State	LGA	Sex	Total Population	Survey Coverage (95% Confidence Interval)	P Values
Sokoto	Binji	Male	1227	93.3%[90.5-95.3]	0.701
		Female	1097	93.7%[90.8-95.8]	
Sokoto	Goronyo	Male	1110	86.7%[79.9-91.4]	0.417
		Female	1044	87.8%[79.8-92.9]	
Kebbi	Kalgo	Male	1057	91.2%[83.1-95.6]	0.016
		Female	953	87.9%[79.5-93.2]	

5.8 Reason for not participating in MDA

The reasons for not participating in MDA vary depending on the MDA being conducted. For schistosomiasis and STH MDA the most frequently given reasons for not participating included children not aware that MDA took place and being absent from school during the day of the drug distribution (Figure 2). For oncho/LF MDA the major reasons for not participating are pregnancy or breast feeding, participant being sick or on other medication, followed by being absent during the distribution (Figure 3). Some also said the fear of side effect affected their participation. During the

trachoma MDA the major reason was absenteeism, followed by CDD did not come to participant's house, seriously sick, pregnant, breastfeeding and taking another medication at the time of MDA (Figure 4).

Figure 2: Reasons for not participating in Schisto/STH MDA (n= 618)

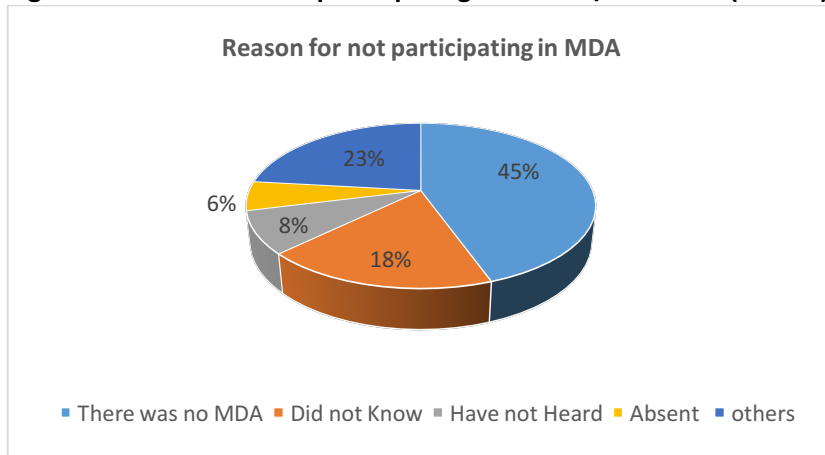


Figure 3: Reasons for not participating in Trachoma MDA (n= 473)

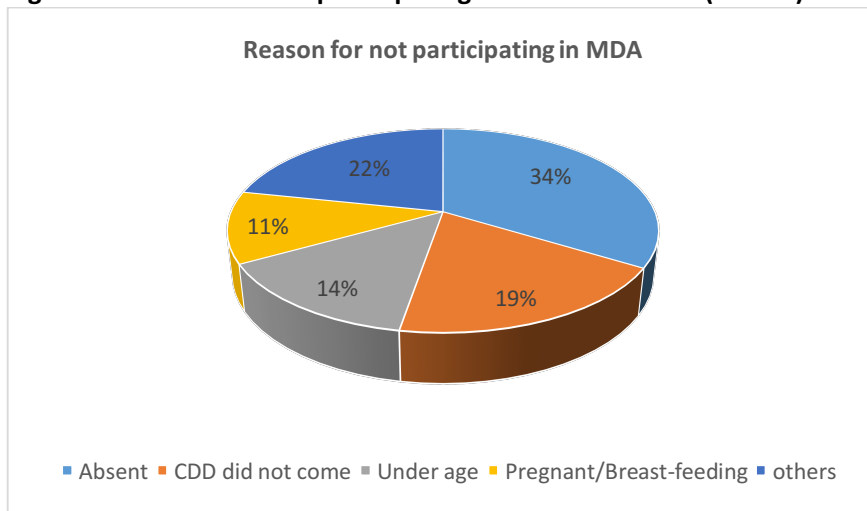
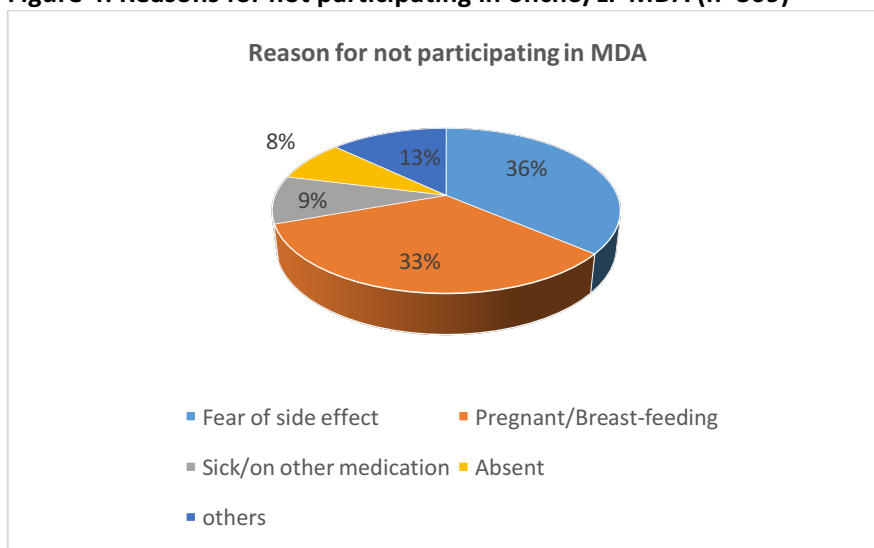


Figure 4: Reasons for not participating in oncho/LF MDA (n=309)



5.9 How information on MDA reached respondents

MDA was conducted using the community and school based strategy or a combination of both. Schistosomiasis and STH MDA was implemented using the school based strategy and where enrolment is low a combination of school and community based strategy was used. The major source of sensitization reported by the respondents for schistosomiasis/STH MDA was by the teachers (67.6%) and followed by health professional (11.4%). 9.4% of the respondent heard about the MDA from place of worship and 6.7% from the town crier (Figure 5).

For the other MDAs, oncho, lf and trachoma community based approach was used. The source of information the was most prevalent for this approach was from friends/neighbors (27.9%) followed by the community drug distributors CDDs (21.3%) and 14.2% of the respondents said they heard about the MDA from the community leaders. Another 10.2 % said they got the information from friends/neighbors as well as from the community leaders (Figure 6).

Figure 5: Sensitization for schistosomiasis and STH MDA (n=6,054)

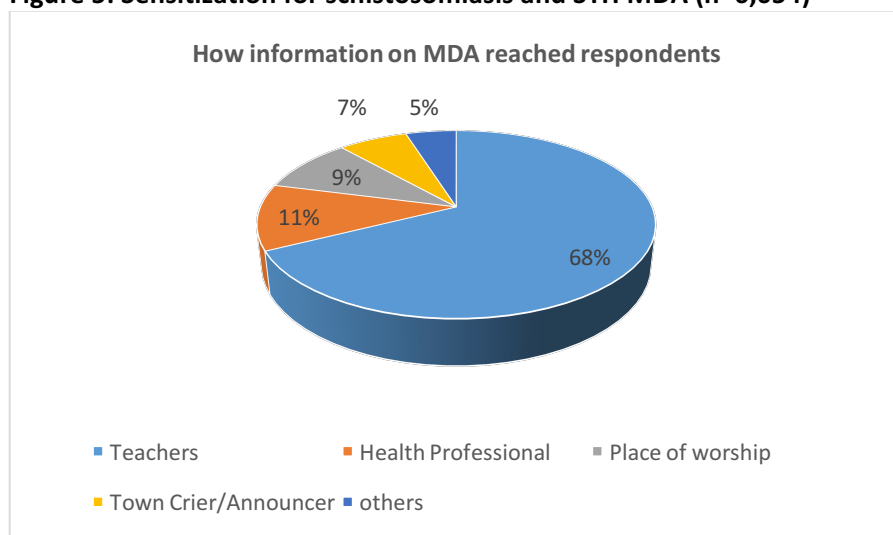
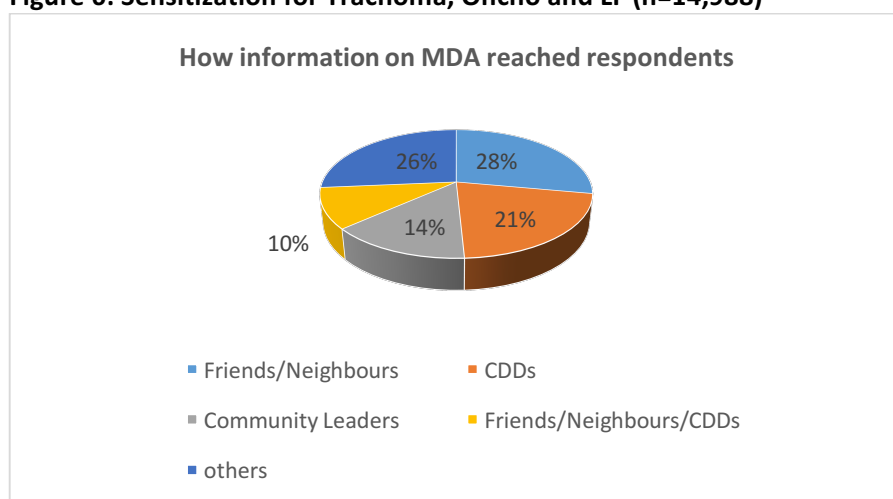


Figure 6: Sensitization for Trachoma, Oncho and LF (n=14,988)



6.0 Discussion

The findings from the survey will be discussed along the lines of coverages (geographic and epidemiological), methods of community mobilization and sensitization, reasons for non-compliance, gender participation, and data reporting.

The WHO recommendation for geographic coverage is 100%, that is, reaching all eligible communities and this is a basis for an LGA to qualify for impact assessments. The survey results revealed that the sampled LGAs achieved 100% geographic coverage. All the communities visited showed that MDA was conducted based on the intervention planned for the LGAs. WHO has also set a disease specific benchmark for epidemiological coverage; OV-80%, LF-65%, TRA-100%, SCH/STH 75% of SAC which 28% of the total population. The three LGAs surveyed for LF achieved the 65% coverage while it ranged between 70%-75% for OV and between 87%-97% for trachoma. SCH exceeded WHO benchmark of 75% (achieved 78%-94%) in all the surveyed LGAs while the coverage for STH ranged from 78% to 87%, which also exceeded the benchmark.

When the survey coverages were compared with the reported coverage based on disease, for mebendazole, over reporting was noticed in two LGAs (Idah & Ofu) while one LGA (Ifelodun) under reported. The same scenario played out across all the diseases. This could be attributed to inconsistency with the denominator and the fact that the actual population of some communities may be higher than the projected population that is relied upon by the FMOH for reporting purposes. The low coverages can be attributed to under-reporting, which could be caused by poor documentation at the different reporting levels while the high coverages could have resulted from having actual population higher than projected with reference to the 2006 population census.

One of the issues with MDA for SAC is the ability to reach all SAC in the communities. The recommended strategy has been the school-based strategy; however, this has not been effective in reaching the non-enrolled. Hence, the result of the survey further shows the effectiveness of treatments within defined systems/boundaries and the need to improve the strategy of reaching non-enrolled SAC. The reason for the improved coverage could be that the programme used innovative ways to reach more non-enrolled SAC such as treating SAC at Quranic schools and other informal learning centers, and training more health workers to trace non-enrolled in the communities. Markers were also used to distinguish the enrolled SAC who have been treated in formal schools from non-enrolled SAC to prevent double treatment in the community.

There was a high level of participation by community members during the OV and LF MDAs. This could be tied to the long existence of the programmes in these communities. However, sickness, breastfeeding, absenteeism, taking another medication and not being aware of MDA are some of the common reasons given for not participating. Continuous annual mobilization and sensitization efforts within schools and communities focusing on the benefits of participation towards elimination and highlighting the criteria for exemption for each of the disease to improve demand for medicines and adherence is necessary.

The data on gender participation depicts variations in level of women participation across states owing to social cultural differences. This was more obvious in Kebbi and Sokoto states where cultural restriction on women are more prevalent than in Kogi and Kwara where this is more relaxed. Real time data collation, entry and analysis helped the programme to flag up districts with low coverages and a mop up treatment was conducted in those districts to ensure the minimum coverage benchmark is achieved. Thus the need to carry out a data quality assessment.

7.0 Conclusion

The results of the survey revealed that the reasons for the difference in both coverages may be due to poor documentation, over reporting or under reporting during MDA. In some cases, we noticed issues with the projected population being used to set treatment targets.

Based on the findings, the following action points are recommended:

- The quality of training should be improved (especially reporting tools) at the community and front-line health facility levels because the primary data are generated during MDA are at these levels.
- Denominator issues should be regularized at the different levels
- Issues with population should be looked at closely by observing trend of treatment and ensuring that the same population figure is used to set annual targets across board.
- Review and enhance community mobilization. Different community mobilization strategies (continuous announcement, using social media campaign, targeting pressure groups in the community and improving on gender-targeted sensitization) should be used based on the treatment strategy. Low therapeutic coverages can also be improved by using the different urban treatment strategy or campaign method for MDA for LF in urban and semi urban areas.
- To reach more non-enrolled SAC, treating SAC at Quranic schools and other informal learning centers, and training more health workers to trace non-enrolled to reach more non-enrolled should be improved and sustained.
- Spot-checks and data quality assessment should be conducted in randomly and purposefully selected LGAs periodically.

ey Area Statistics and Donor Agency

LGA	Population				Endemicity					Funder
	Total	PreSAC	SAC	Adults	LF	Oncho	STH	SCH	Trachoma	
Kalgo	112,056	22,411	31,376	58,269	1	0	1	0	1	UKAM/Givev
Wasagu/Da nko	347,969	69,594	97,431	180,944	1	1	1	0	0	
Idah	104,724	20,945	29,323	54,457	0	1	1	0	0	UKAM/Givev
Ofu	252,142	50,428	70,600	131,114	0	1	1	0	0	
Ekitti	71,968	14,394	20,151	37,423	1	1	1	1	0	UKAM/Givev
Ifelodun	270,345	54,069	75,697	140,579	0	1	1	0	0	
Binji	137,805	27,561	38,585	71,658	1	0	1	0	1	UKAM/Givev
Goronyo	239,188	47,838	66,973	124,378	1	1	1	1	1	

neans endemic and 0 non-endemic

Annex 2: Coverage Survey Team Composition

Kogi State: Team Leader – Mike Igbe	Kwara State: Team Leader – Audrey Nyior
Aristakus La'ah	Marufat Olaniyan
Victoria Ishola	Abel Yahaya Hayas
Ibrahim Damina	Hameed Lawal
Adah Nicholas Omodu	Oluwakemi Olariyike
Daniel Christopher	John Ezra Atom
Sunday Enegela	Olayinka Oluyemi
Esther Abbah	Kantiok Kazanka Jacquelyn
Seyi Ojo	Abubakar Sadiq
Friday Attah	Didam Shakamang
Shakamang Bossan	Ruth Jonathan
Kebbi State: Team Leader – Agnes Offore	Sokoto State: Team Leader – Funmi Areola
Ephraim Andrew La'ah	Audu Monday Bitrus
Nahum Elisha Kinchai	Samson Yakubu
Yali Bobai	Victor Ijabor
Emmanuel William	Sidi Habila Yatai
Solomon Ubata	Ishaya Ayuba
Meshach Yakubu	Bege Haruna
Simon Raymond	Haruna Bunza
Aminu Muhammad	Kabiru Ishaka
Murtala Abubakar Na'iya	Bayero Enoch
Omega Sambo	Bridget Yakubu