

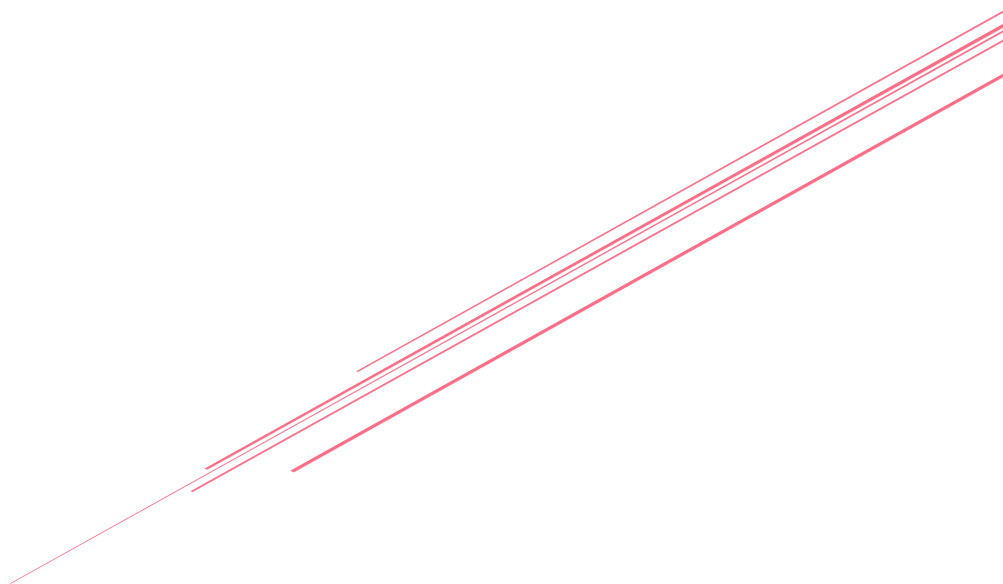
Evidence  
**Action**



Deworm the  
World Initiative

School-based Deworming in  
Oyo State, Nigeria

Process Monitoring and Coverage Validation  
Report



July 2019 Round

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# Glossary

**FLHF.** Frontline health facility

**FMOH.** Federal Ministry of Health

**LGA.** Local government area

**MDA.** Mass drug administration

**NTD.** Neglected tropical disease

**SAE.** Severe adverse event

**STH.** Soil-transmitted helminths

**WHO.** World Health Organization

# 1.0 Executive Summary

In July 2019, Oyo state carried out the first round of its third year of school-based deworming, targeting both enrolled and non-enrolled children, ages 5-14 years. Treatment was administered in 13 local government areas (LGAs) endemic for soil-transmitted helminths (STH) out of 20 total LGAs in Oyo. The state targeted 4,645 public and private primary and junior secondary schools for deworming.

On Deworming Day, 80% of schools had all required key deworming materials (reporting forms and drugs), while all schools had the required drugs. The supply chain for reporting forms was particularly poor, as 13% of schools lacked required forms (treatment register and summary forms), a critical component for deworming.

Average attendance during the teacher trainings was at 68% of expected attendees present from 71% of targeted schools. Topic coverage during training was generally high, with all topics completely covered in 75% or more trainings, except for side effects and the roles and responsibilities of different actors. Key messages on worms to be treated, the target age-group, drugs, and dosage were covered completely in all trainings, with similarly high (at least 95%) post-training knowledge by participants.

Overall awareness of Deworming Day was higher among the parents of enrolled children (97%) compared to parents of their non-enrolled counterparts (47%). Similarly, a larger proportion of parents of enrolled children indicated that they would send their children for deworming compared to only 14% for the parents of non-enrolled children. To boost the reach of non-enrolled children, more posters should be placed at major health facilities, content and scope of radio messages should be reviewed, and teachers should be leveraged to pass messages to parents. These suggestions are in line with preferred means of messaging reported by parents of non-enrolled children. Across the various media used to communicate deworming information, the inclusion of all children (5-14 years) needs to be emphasized, as 75% of parents of enrolled children believed that only enrolled children were eligible.

Adherence to a number of key drug administration steps was generally high. Administration of the correct drug dosage (100%), requesting children to chew the mebendazole tablet (97%), and provision of health messages prior to treatment (93%) all had high adherence rates. However, requesting children to wash hands prior to treatment is an area for improvement, as this was noted in only 13% of schools. All eligible children were treated in 87% of the 30 schools monitored on Deworming Day. However, non-enrolled children were dewormed in only 20% of schools.

## 2.0 Background

Evidence Action provides technical support to Oyo state government as it conducts school-based deworming through mass drug administration (MDA) for school-aged children (SAC) in a bid to control parasitic worm infections. In 2019, the first round of its third year of school-based deworming took place in thirteen out of 20 local government areas (LGAs) in Oyo that are endemic for STH.

A total of 924,543 enrolled and non-enrolled children aged 5-14 years were targeted to receive deworming drugs in both public and private primary and junior secondary schools. Teachers (5,226 in total) were trained to administer deworming tablets at schools on Deworming Day.

Evidence Action recruited an independent firm, Infotrak Research and Consulting, to monitor random samples of program activities to assess the quality of implementation, adherence to protocol, and supply chain effectiveness. During this round, monitors observed 27 teacher trainings, 30 schools on Deworming Day, and interviewed 18 parents. Evidence Action designed data collection tools and sampling methods, and cleaned and analyzed the data from the above activities. The findings are presented in this report.

## 3.0 Methodology

### 3.1 Process Monitoring

Process monitoring was conducted in the 13 LGAs that conducted deworming. A random sample of 27 teacher training sessions (out of 209) and 30 schools implementing deworming (out of 4,645) were monitored. The sample sizes were calculated to meet a 90% confidence level and a margin of error of 15%, distributed across all LGAs based on the number of activities happening in each LGA.

At every teacher training session sampled, one master trainer was interviewed, four participants (teachers) were interviewed before the training, and four participants were interviewed after the training. The pre- and post-training participants were systematically sampled so that every third participant to arrive at the venue was interviewed pre-training and every third participant to receive training materials was selected for post-training interview.

On Deworming Day, the monitor conducted interviews at the sampled schools with the following individuals:

1. Head teachers, to assess their knowledge of deworming, frontline health facility (FLHF) staff engagement, deworming preparedness, mobilization, and availability of deworming materials.
2. A member of the deworming team (usually a teacher), to ascertain their knowledge of deworming and the activities they conducted in preparation for deworming.
3. One parent who brought their children for deworming, to understand their experience with deworming.
4. Three children (two enrolled children from the class register and one non-enrolled child). This was conducted in different classes that were randomly selected.
5. FLHF staff, to obtain feedback on Deworming Day as well as on severe adverse event (SAE) referrals.
6. Finally, monitors observed one class as deworming occurred to assess adherence to guidelines, such as the recording of treatment, administration of the right dosage to the correct age-group, and deworming steps. Monitors also made observations to assess school infrastructure, including WASH facilities, presence and location of sensitization materials, and where deworming took place.

To assess the effectiveness of the community mobilization and sensitization methods, two randomly selected households with enrolled children and one household with non-enrolled children within the school catchment area were interviewed. **Table 1** below shows the targeted and achieved sample sizes for the monitoring activities.

**Table 1: Process Monitoring targeted and actual sample sizes**

Monitoring activity	Population	Target sample size	Actual sample size
<b>Teacher training</b>			
Total number of teacher training sessions	209	27	27
Pre-training interviews		108	105 <sup>1</sup>

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<sup>1</sup> In some trainings, the required sample of 4 participants per training was not achieved as participants arrived after the administration of the pre-training interview, with monitors subsequently monitoring other training related aspects. After the training,

Post-training interviews		108	106
<b>Deworming Day</b>			
Head teachers interviewed		30	30
Total number of schools deworming monitored	4,645	30	30
Number of Primary schools	3,939	25	26 <sup>2</sup>
Number of Junior secondary schools	807	5	4
Parents interviewed		30	18 <sup>3</sup>
Enrolled children interviewed		60	60
Non-enrolled children interviewed		30	5 <sup>4</sup>
<b>Community Mobilization</b>			
FLHF staff	140	30	28
Households surveyed - Parents of enrolled children		60	59
Households surveyed - Parents of non-enrolled children		30	23 <sup>5</sup>

## 3.2 Coverage Validation

There was no coverage validation conducted in Oyo state for the first round of MDA in 2019; coverage validation will be conducted in the second round of MDA in a bid to keep implementation costs for the year down.

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some monitors reported participants leaving immediately, making it difficult to meet the required sample of 4 participants for post-training interview.

<sup>2</sup> One school doubled as a junior secondary

<sup>3</sup> Parents could not be found in 12 schools on Deworming Day

<sup>4</sup> Non-enrolled children were not available on Deworming Day in some of the monitored schools

<sup>5</sup> There were difficulties in locating households where all children aged 5-14 do not attend school.

# 4.0 Results

## 4.1 Review of teacher training

Of the 27 teacher training sessions that were observed, 96% of the trainers mentioned that they had also been trained prior to them conducting teacher training. The most common manner in which participants were invited to trainings were phone calls (64%), SMS (41%), and the use of an official memo (22%). An attendance sheet was present in 96% of trainings.

Trainers are encouraged to use a combination of methods to share information and keep participants engaged. In most cases, monitors observed trainers lecturing (96%), and in 85% of trainings they encouraged participation/discussion among the attendees. Demonstration and group work were used 67% and 44% of the time, respectively.

### 4.1.1. Attendance during the teacher trainings

On average, 28 teachers were expected to attend each training, but only an average 19 (68% attendance rate) attended, representing 71% of the expected schools. The attendance rate of 68% is 29 percentage points lower than head teachers' self-reported attendance on Deworming Day, when 97% of head teachers reported either attending or sending another teacher to training. The difference in the two figures may be due to the fact that training in some instances occurs over several days and some teachers do not attend the first training.

On average, almost half (48%) of participants arrived after training had started. The main reasons for late arrival included late invitation (48%) and attending to school duties (38%). The program should address the low attendance rate and ensure that teachers arrive for the training on time.

## 4.2 Topic coverage at teacher training

Seven topics were meant to be covered in the training sessions, including information on worms, the target population, drug administration steps, side effects, recording and reporting forms, the roles and responsibilities of various actors on Deworming Day, and community sensitization. For the purposes of this report, the seven topics are compacted into five thematic areas.

To gauge the effectiveness of training sessions in terms of knowledge transfer, a sample of 105 participants were interviewed prior to training start and 106 were



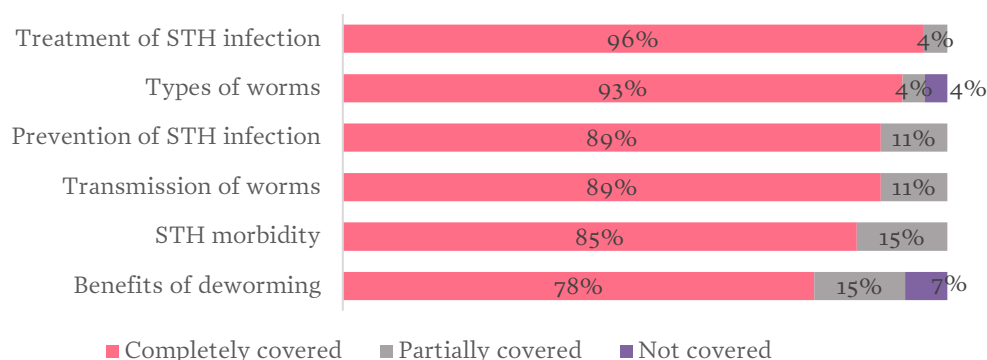
interviewed at the end of the sessions<sup>6</sup>. Monitors assessed the coverage of individual messages as well as participants’ pre- and post-training knowledge levels.

During training observations, the monitors had a checklist with which to indicate if a topic was either covered completely, partially, not covered, or if wrong information was delivered. “Completely covered” means **all** the information and messages in a given topic were relayed. The sections below discuss coverage of key content that trainers should have delivered during training.

#### 4.2.1 Information on worms and target population

Trainers are supposed to cover six messages regarding worms, i.e. type of worm, transmission, prevention, morbidity, treatment, and benefits of deworming. Among these, information on type of worms and their treatment was covered completely in 93% and 96% of the trainings respectively, while the rest received less than 90% complete coverage as shown in **Figure 1** below. Benefits of deworming received far less coverage (78%).

**Figure 1: Messages covered under worms (n=27)**



The above coverage translated to an 11 percentage point increase in knowledge of worms to be treated in the current round, as shown by the change from pre- to post-training knowledge (85% to 96%, respectively). Post-training, the proportion of teachers able to cite at least one mode of worm transmission went up from 88% in pre-training interviews to 99%.

In all trainings, the trainers explained the worms that would be treated and in 93% of the trainings, they explained that all enrolled and non-enrolled children aged 5-14

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<sup>6</sup> In some trainings, the required sample of 4 participants per training was not achieved as participants arrived after the administration of the pre-training interview, with monitors subsequently monitoring other training related aspects. After the training, monitors reported participants leaving immediately, making it difficult to meet the required sample of 4 participants for post-training interview.

years were to be treated. To minimize SAE, children under five as well as sick children are not to be treated on Deworming Day. While the importance of not deworming sick children was clarified in 96% of trainings, under-age children and those with a history of certain health conditions were only mentioned in 70% of the trainings.

Post-training, all participants (100%) cited the correct target age-group, up from only 61% in pre-training interviews. However, 5% percent of participants said that they would deworm sick children present during the MDA, a finding that needs to be addressed in future trainings.

#### 4.2.2 Drug and Drug Administration

All monitored trainers (100%) specified mebendazole as the drug used to treat STH, the provision of one tablet per child, as well as the use of the treatment register to record treatments. On the other hand, only 41% of trainers provided complete information on the correct steps to take in the event of any drug surplus, while 22% made no mention of steps to take in this situation. Coverage of other messages such as storage and safety of the drug are shown in **Table 2** below.

**Table 2: Messages on drug administration covered during the teacher trainings (n=27)**

MDA practice	Percent (Completely and partially covered)
STH drug is mebendazole	100%
One mebendazole tablet to be given to each child	100%
Register enrolled children prior to Deworming Day and non-enrolled children on Deworming Day, prior to treatment.	100%
Treatment register should be used to record treatment	100%
Under the program, all drugs are free, safe and effective	96%
Under no circumstances should a child be forced to swallow the medicine	96%
Drugs must be stored in a clean, safe, dry and cool location	88%
Facilitate hand washing prior to treatment	78%

Information on drugs and dosage was well covered during trainings, reflected in over 35 percentage point increases in knowledge of drug used to treat STH (61% vs. 98%) and the correct dosage (63% vs. 99%) between pre- and post-training interviews, on average.

Apart from having the right drug type and dosage, it is important to carefully follow certain drug administration steps. While each individual step was described across most of the trainings (at least 60%), they were not covered in the right order in 11% of the trainings. **Table 3** below lists steps, in the correct order, as completely or partially covered during the trainings.

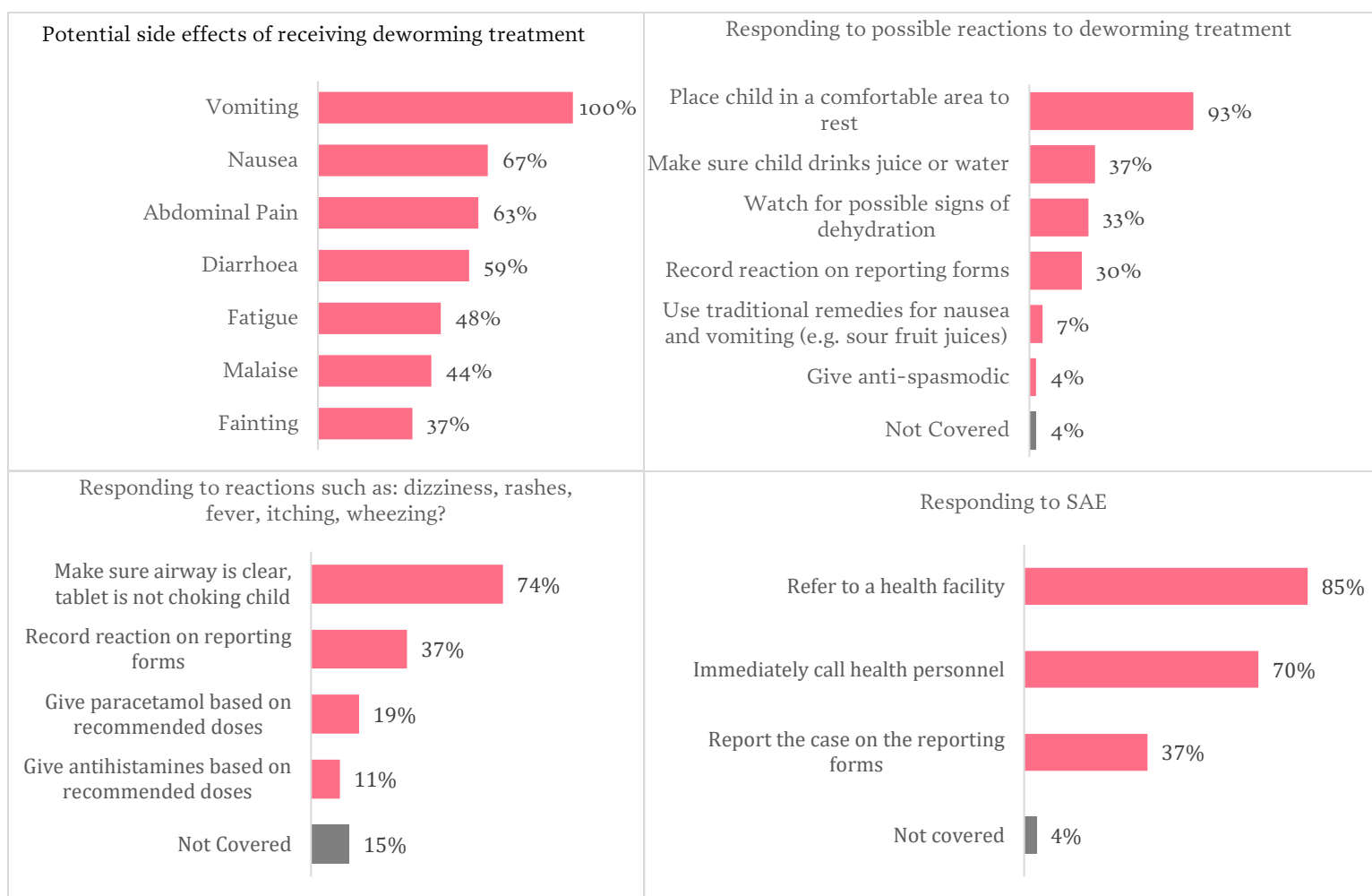
**Table 3: Drug administration steps covered during training (n=27)**

Drug administration step	Completely covered	Partially covered
Step 1: Arrange the drug distribution site	63%	22%
Step 2: Ensure necessary logistics are available and are in place	63%	33%
Step 3: Provide orientation to the children	85%	7%
Step 4: Organize children accordingly	59%	15%
Step 5: Let the child wash his/her hands.	63%	15%
Step 6: Register the child if non-enrolled	93%	7%
Step 7: Administer the mebendazole drug	100%	-
Step 8: Complete registration in the treatment register	81%	19%
Step 9: Observe the child for any side effects	85%	7%

#### 4.2.3 Side effects

Trainers provided information on potential side effects and SAEs to prepare teachers for the management of such situations. Vomiting as a side effect was covered in all the trainings while fainting was covered in only 37% trainings, which may be due to its lower likelihood of happening during STH treatment (**Figure 2**). Further information on knowledge of side effects and SAEs is reflected in the figures below.

**Figure 2: Messages on side effects covered in teacher trainings (n=27)**

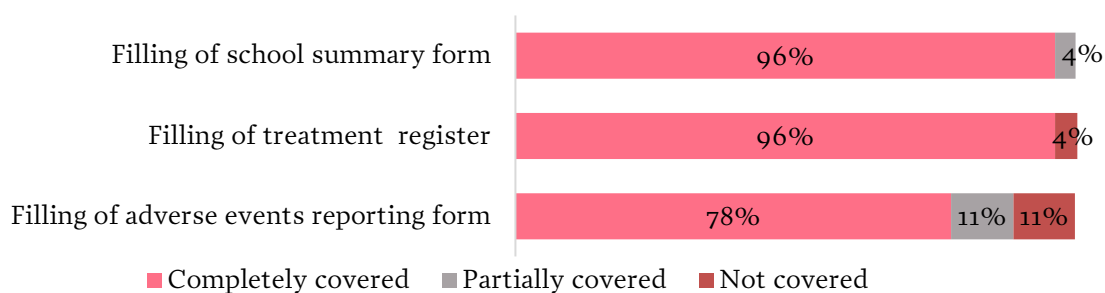


From post-training interviews, vomiting was most mentioned by participants (83%), likely related to the fact that it was mentioned by all trainers. The rest of the side effects were recalled by less than 40% of interviewed participants.

#### 4.2.4 Recording and reporting forms

Teachers record the number of children treated at class and school levels, which emphasizes the need for the trainer to comprehensively cover this aspect. Trainers completely covered information on the school summary and treatment register forms in 96% of trainings. The full coverage of reporting forms in training is shown in **Figure 3** below.

**Figure 3: Messages covered under recording and reporting forms (n=27)**



From post-training interviews, 90% of teachers correctly identified the treatment register as the primary form they would use to record treatments. On the other hand, only half (51%) of the participants were able to cite it as the source document for the school summary form, indicating a need to emphasize the cascade of forms in subsequent trainings.

#### 4.2.5 Roles and Responsibilities

Overall, teacher roles and responsibilities during deworming were covered in most trainings (apart from mobilization of non-enrolled population which was only covered in 70% of the trainings). The coverage of the roles of frontline health facility staff and NTD coordinators are shown in **Table 4** below.

**Table 4: MDA roles and responsibilities of various actors covered at the trainings (n=25)**

Roles and responsibilities	Percent
Key teacher roles	
Organizing drug administration	93%
Form recording and reporting	93%
Disseminating health education messages to children and parents	85%
Mobilization of non-enrolled children	70%
Key FLHF staff roles	
Managing side-effects	67%
Managing, referring and reporting any children with SAEs	63%
To communicate the rationale of the intervention to community leaders	48%
Participate in community awareness creation	44%
NTD coordinator and educational secretary roles	
Distributing appropriate quantities of drugs to teachers	63%
Compiling the treatment coverage report	48%
Receiving any unused drugs from the schools post-treatment	52%

A key observation is that community sensitization roles were infrequently mentioned during trainings. This is also evident from low coverage of community sensitization where less than 50% of the roles of FLHF staff regarding community sensitization were covered and teachers' roles were covered in less than 75% of trainings. For teachers who participated in last year's deworming, only 18% mentioned participating in community sensitization activities.

From post-training interviews, 80% of teachers correctly identified the role of FLHF staff in the management of SAEs.

### 4.3 Distribution of drugs and materials

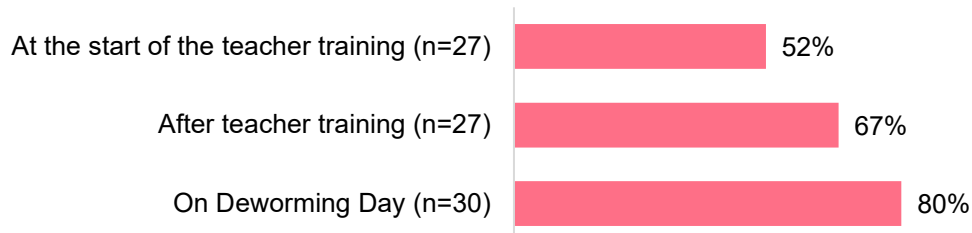
Trainers were meant to receive key materials (drugs, reporting forms, and posters) from LGA trainings to aid in teacher trainings, as well as to pass on to teachers.

In most trainings (81%) drugs were available before the sessions began. However, in 11% of trainings not all participants received drugs at the end of the session. Similarly, treatment forms (both the school summary and the treatment register) were present in only 70% of trainings and were not distributed to school representatives in 30% of trainings. A teacher training handout was present in all trainings and was distributed in 96% of the trainings.

On Deworming Day all (100%) schools had the required drugs, while summary forms and class registers were available in only 87% of schools. However, all these key materials (drugs, summary form, and class treatment register form) were available in only 80% of schools on Deworming Day, while only 67% of trainers distributed **all** these key materials to teachers (**Figure 4**). This shows that although drugs were supplied to schools that did not receive drugs during the training, the same is not true in supply of forms. Only 46% of teachers conducting deworming reported that they were trained on how to fill the forms. Additionally, knowledge of the reporting "reverse cascade" was varied with 73% of teachers stating that they would submit to FLHF facilities, 20% planning to submit to the LGA educational office, and 7% planning to keep forms at school until they were collected. These knowledge disparities and lack of forms in some trainings are important to note, as they directly impact coverage reporting.

From field reports, the gap in material availability at teacher trainings was due to either difficulty in trainers locating training venue or distance of the training venues from their duty stations. Going forward, planning should take into account the above issues.

**Figure 4: Availability of all key materials across the implementation cascade<sup>7</sup>**



From post-deworming interviews with head teachers, 97% indicated sufficiency of the initial drugs available. The single school reporting a deficiency received additional supply upon reaching out to the LGA NTD Coordinator. From 93% of schools reporting drug surplus, 75% planned for a mop-up before making any eventual returns to the LGA, in line with the program strategy, while immediate drug surplus returns to the LGA were planned in 25% of schools.

#### 4.3.1 Community sensitization materials

Prior to training start, 89% of trainings had posters available, but only 85% were observed to distribute them at the end of the session. On Deworming Day, 87% of schools were found to have posters available, with head teachers reporting an average of 2 posters. However, 19% of schools that received posters did not have any pinned, a finding which needs to be addressed given that posters can help enhance awareness.

### 4.4 Community Sensitization

Community sensitization prior to Deworming Day is an evidence-supported factor for MDA success. On Deworming Day, monitors held interviews with 82 parents; 59 of enrolled children and 23 of non-enrolled children. The intention of this interview was to gauge awareness for the day's MDA as well as their sources of MDA information.

It is important to note that we have faced some resistance in some deworming rounds in Oyo. Particularly the February 2018 round, during which rumors of students reacting badly or dying after receiving deworming drugs were spread, and several schools cancelling Deworming Day. A subsequent investigation, however, found that the children likely died of food poisoning unrelated to deworming, and there were no such instances in this reporting round.

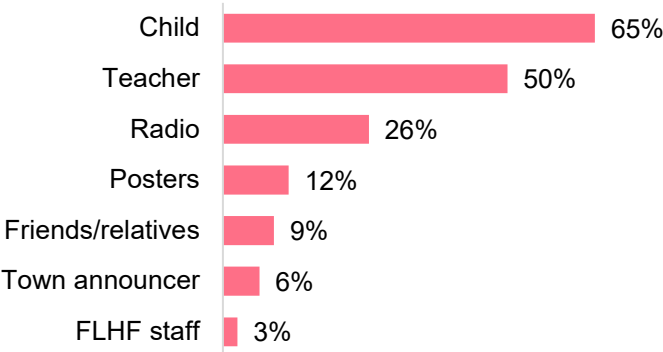
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<sup>7</sup> All key materials include: drugs, reporting forms, and posters

4.4.1 Implementation of community sensitization

Only 63% of head teachers reported sending someone from the school to mobilize children in the community for the MDA. The majority of head teachers indicated that this was either a teacher (79%) and/or student (58%). The child (65%) and/or teacher (50%) were also the dominant sources of Deworming Day information cited by parents (Figure 5).

Figure 5: Sources of Deworming Day information cited by parents





#### 4.4.2 Community knowledge

Prior to Deworming Day, only 85% of parents (97% of enrolled children and 47% of the non-enrolled children) were aware of Deworming Day. Parents of enrolled children were more likely (66%) to have taken their children for deworming before, compared to parents of non-enrolled children (10%). About 63% of parents of non-enrolled children had never heard about deworming compared to only 15% of parents of enrolled children.

Knowledge of other key deworming aspects (target age-group, worms being treated) was very low. Only 36% of parents knew the target age-group, albeit a higher proportion among the parents of enrolled than non-enrolled children (79% vs 20%). Similarly, the worm type being treated was correctly identified by only 53% of parents; 63% of parents of enrolled children against only 21% of parents of non-enrolled children.

At the end of these interviews, 90% of parents of enrolled children indicated that they would be sending their children for deworming compared to just 14% of parents of non-enrolled children. The most common reason given for not taking children for deworming was that parents thought it would be expensive, cited by 40% of parents to both enrolled and non-enrolled children. The other reasons cited by parents of non-enrolled children was not being aware of deworming (18%) while 11% mentioned no reason.

Community knowledge is a key opportunity for the program to increase coverage. Though the communication channels<sup>8</sup> preferred by parents of non-enrolled children (school teacher (74%), posters (63%), and FLHF staff (53%)) are all currently being used, awareness is still low. The program might want to consider placing more posters in health facilities, as 68% of parents mentioned health facility as the most common way they receive health-related information; radio was also mentioned by 57% of parents. Most schools (53%) reported to have engaged enrolled children to reach out to non-enrolled children, but this is not a commonly cited way in which households with non-enrolled children receive information.

### 4.5 Deworming Day

Thirty schools were visited on Deworming Day of which 80% were primary level schools, 7% were junior level and 13% boasted both levels. Of these, 53% were private

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<sup>8</sup> As part of the survey, parents were asked for their top three preferred methods of receiving future communication on deworming

while 47% were public. The purpose of the visit was to assess MDA procedures and interview the deworming team to assess knowledge and capability to deliver the MDA.

#### 4.5.1 Preparedness for Deworming Day

All head teachers indicated that they had made plans to deworm. Further, 97% of head teachers reported that either they or a teacher from the school had attended training within the last two weeks. This contrasts the 71% school representation noted during teachers training.

Monitors also observed school infrastructure and found that 47% lacked handwashing facilities, while a toilet facility was also lacking in 20% of the schools visited. Of those with hand washing facilities, only 47% had soap available.

#### 4.5.2 Deworming Day Delivery

##### 4.5.2.1 Adherence to MDA procedures

Monitors observed how deworming was conducted to assess if deworming teams adhered to drug administration guidelines. Adherence was generally high for aspects related to drug administration and recording of treatment (**Table 5**). The correct drug dosage was provided in all schools monitored, but the treatment register was present and being filled during treatment in only 80% of monitored schools.

**Table 5: MDA procedures observed by monitors during drug administration**

MDA practice	Percent
<b>Pre-deworming preparations</b>	
The deworming team comprised of two teachers	93%
Health education messages were given to children prior to treatment	93%
Teachers ensured children washed their hands prior to treatment	13%
<b>Drug Administration</b>	
Teachers who gave the correct dosage for mebendazole (1 tablet)	100%
The teacher asked child to chew the mebendazole tablet	97%
The teacher asked if child was sick or under medication before administering medicine	70%
<b>Recording treatment</b>	
All sections of the treatment register were filled out	83%
The treatment register was used to record treatment	83%
Teacher record in the treatment register, as the tablet was administered	80%

Handwashing prior to receiving treatment remains a challenge, with monitors observing this in only 19% of schools with hand washing facilities, down from 23% in the last round of deworming. The handwashing step was also poorly covered during training, as only 63% completely covered the message.

There was also no standard plan on how to treat non-enrolled children; 27% of schools planned to treat them with enrolled children, 59% separately, and 14% at a different time.

During deworming, cases of spoiled drugs were observed in 33% of the schools; spoiled drugs were observed to be left on the floor 30% of the time and only properly disposed 70% of the time.

#### 4.5.2.2 Management of side effects and referrals

Only one school reported side effects of treatment; specifically, one child incurred a headache post-deworming which was properly handled at the school.

#### 4.5.3 Attendance Rate

All eligible children were treated in 87% of schools. Refusal by either parents (75%) or children (50%) were the main reasons for which some eligible children were not treated. In 10% of the schools, children were forced to take drugs- i.e., a child initially refused to take the drugs but the teacher insisted. Twenty-seven percent of schools reported at least one absentee on Deworming Day, with 86% of these schools making note of absentees in anticipation of a mop-up day to cater for those not in attendance.

On Deworming Day, only 6 (20%) of the monitored schools reported the presence of at least one non-enrolled child for the day's activity, which the program could strive to increase going forward.

## 5.0 Recommendations

### 5.1 What worked well

1. Trainers successfully covered all key messages of the worms to be treated, target age-group, drug, and dosage. Post-training knowledge of these messages was also high (at least 95%).
2. All schools had received drugs in time to implement Deworming Day, including 11% of schools that did not receive drugs training sessions.
3. Trainers successfully covered the majority of key drug administration practices during trainings, reflected in the widespread observation of provision of health

messages prior to treatment administration (93%) and provision of the correct dosage (100%) on Deworming Day.

## 5.2 What can improve

1. Similar to the last deworming round, there was a low average teacher attendance rate at the trainings of 68%, with school representation estimated at 71%. Nearly half (48%) of participants also arrived late. Timely communication to the participants, a suitable central training venue, and engagement with school management to ensure their participation are recommended to ensure teacher attendance and arrival on time.
2. Both training and distribution of forms needs improvement. in particular;
  - a. Program should emphasize on trainers to completely cover this section probably through in-training practice where all attendees are guided and fill both treatment register and school summary.
  - b. Attendees should also be requested to train the deworming team. This only happened in 46% of the schools. Similarly, emphasis should be put on filing of form as drug is being administered and filling all sections of forms.
  - c. Where treatment forms should be taken after deworming (reverse cascade) should also be made clear during training.
  - d. During teacher training, all teachers should be given new treatment forms to use in the current deworming period, especially if there was a review of forms. In 64% of the training where forms were not distributed to all schools present the reason cited was “Forms given in previous deworming still available”.
3. Awareness of Deworming Day was 85% among all parents interviewed, however only 47% of parents of non-enrolled children were aware. The program should engage additional efforts to increase awareness of Deworming Day and understanding of key messages among parents of non-enrolled children. Potential activities could include the strategic and timely placement of posters in health facilities, reviewing the scope, timing and content in radio announcements, and encouraging teachers to reach these parents. These methods align with their preferred means of receiving information, and might have a better reach than present measures.
4. The target group for deworming needs to be clearly specified and emphasized in trainings and community sensitization as all children aged 5-14 years (**both enrolled and non-enrolled**), given that 75% of parents of enrolled children wrongly indicated the target as any enrolled children.

5. From a monitoring perspective, the monitoring team should exclude the survey administered to the FLHF. This adds no additional information to what is existent in other surveys and can free up monitors to conduct other activities pertinent to the deworming.