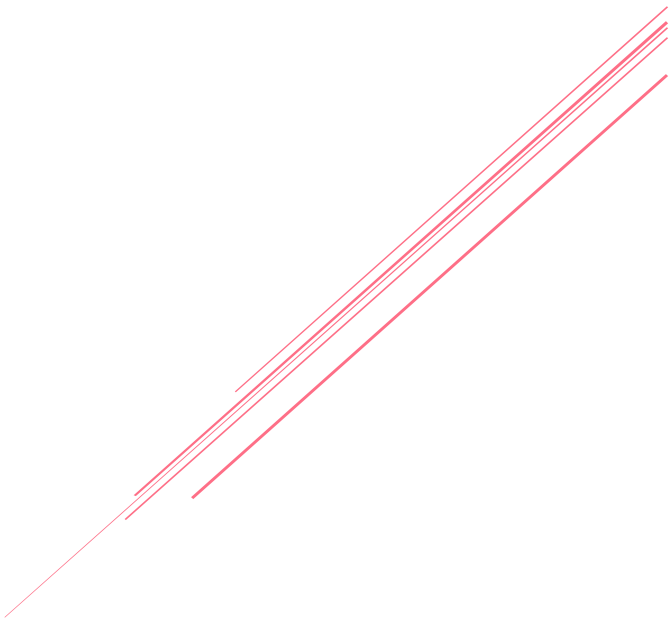
Evidence Action

Deworm the World Initiative

School-based Deworming in Rivers 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, Rivers 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 17 local government areas (LGAs) endemic for soil-transmitted helminths (STH) out of 22 total LGAs in Rivers. The state targeted 3,914 public and private primary and junior secondary schools for deworming.

On Deworming Day, all (100%) schools had the required key deworming materials (reporting forms and drugs). Post-training distribution of both materials was also high (92%). Similarly, 97% of schools had informational posters available with 93% of all schools having pinned the availed posters.

On average, attendance at teacher training sessions was at 63%, with representation from 81% of targeted schools. Of individuals in attendance, 74% arrived on time. Of the seven topic areas covered in training, only the topic messages on worms were fully covered across all trainings. Post-training interviews revealed that at least 99% of teachers were knowledgeable on the target age-group, drugs, and dosage.

Parental awareness of Deworming Day was 78% – albeit higher among parents of enrolled children (87%) as compared to parents of non-enrolled children (47%). Similarly, a larger proportion of parents of enrolled children (90%) indicated that they would send their children for deworming compared to the parents of non-enrolled children (34%). Children (56%) and/or teachers (42%) were the main sources of Deworming Day information cited by parents.

Adherence to a number of key drug administration steps was high, such as administration of the correct drug dosage (100%), requesting children to chew the mebendazole tablet (100%), and filling out all sections of the treatment register (83%). However, low compliance was noted for washing hands prior to treatment (only 20%), in spite of the fact that 60% of schools were observed to have hand washing facilities and 81% of trainers emphasized this message.

Coverage validation took place in two randomly selected LGAs: Eleme and Khana. Eleme achieved a program reach (proportion of children offered the drug) of 75%, while Khana achieved a 94% reach. Khana's surveyed coverage of 87% was above the minimum World Health Organization (WHO) recommended 75% target, while Eleme's surveyed coverage only reached 66%. Neither LGA's reported coverage was validated by the surveyed coverage confidence bounds: the reported coverage in Eleme is nine percentage points higher than the surveyed coverage, while that in Khana is nine

percentage points lower deductively implying that teachers may be either incorrectly reporting the ingestion of the drug or the population denominators across LGAs could be incorrect. A data quality assessment could help to identify where reporting may be breaking down.

2.0 Background

Evidence Action provides technical support to Rivers 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 July, the first round of its third year of statewide school-based deworming for 2019 took place in 17 out of 22 LGAs in Rivers state which are endemic for STH. A total of 1,443,098 enrolled and non-enrolled children aged 5-14 years were targeted to receive deworming treatment in both public and private primary and junior secondary schools. Teachers (4,669) were trained to properly administer the safe and effective deworming drugs.

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 26 teacher trainings, 30 schools on Deworming Day, and interviewed 86 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 17 LGAs that dewormed. A random sample of 26 teacher training sessions (out of 146) and 30 schools implementing deworming (out of 3,914) 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 at the end of the session was selected for post-training interview.

On Deworming Day, monitors conducted interviews at the sampled schools with:

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 to prepare for MDA.
3. One parent who brought their child for deworming, to understand their experience with deworming.
4. Three children (two enrolled in the class register and one non-enrolled child). This was conducted in different classes that were randomly selected.
5. FLHF staff, for feedback on Deworming Day and severe adverse event (SAE) referrals.
6. Finally, monitors observed one class as deworming occurred to assess adherence to guidelines, such as recording of treatment and administration of the right dosage to the correct age-group. Monitors made observations to assess school infrastructure, including WASH facilities, presence and location of sensitization materials, and where within the school deworming took place.

To assess the effectiveness of community mobilization and sensitization, two randomly selected households with enrolled children and one household with non-enrolled children within the school catchment area were interviewed.

3.2 Coverage Validation

Coverage evaluation surveys were conducted within two weeks of the MDA to minimize recall bias in two randomly selected LGAs, Eleme and Khana, with the purpose of measuring coverage within the LGA, validating reported treatment data, and identifying reasons for non-compliance. As children were on a school holiday at the time of the activity, only a community survey was administered following the WHO guidelines developed for communities post-deworming. For this exercise, 2,707 children were sampled from the two survey areas using a two-stage probability proportional to estimated size (PPES) sampling design. **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
Teacher training			
Total number of teacher training sessions	146	26	26

Pre-training interviews		104	99[1]
Post-training interviews		104	103
Deworming Day			
Head teachers interviewed		30	30
Total number of schools deworming	3,914	30	30
Parents interviewed		30	9[2]
Enrolled children interviewed		60	60
Non-enrolled children interviewed		30	2[3]
Community Mobilization			
FLHF staff	159	30	16[4]
Households surveyed - Parents of enrolled children		60	62
Households surveyed - Parents of non-enrolled children		30	24[5]
Coverage Validation			
Number of children		2707	1355[6]

4.0 Results

4.1 Review of teacher training

Of the 26 observed teacher training sessions, 96% of trainers reported that they had been trained prior to conducting the teacher training. SMS (64%), official memos

[1] In some trainings, the intended sample of four interviews was not achieved as participants arrived after the administration of pre-training interviews, when monitors had shifted their focus to other training aspects. After the training, some participants left immediately, making it difficult to interview the intended four participants post-training.

[2] Parents could not be found in 21 schools on Deworming Day

[3] Non-enrolled children were not available on Deworming Day in some of the monitored schools. From interviews with parents to non-enrolled children on Deworming Day in the community, only 37% indicated that would send their children for deworming, which could consequently explain the low proportion noted on Deworming Day.

[4] Fourteen of the FLHF staff could neither be reached on phone nor in person.

[5] There were difficulties in locating households where all children aged 5-14 do not attend school.

[6] Based on the WHO CES protocol, if a monitor visits a household and finds no target children, there should be no replacements made.

(46%), and phone calls (38%) were the most common means of inviting participants for training. An attendance sheet was present in 92% of trainings.

To share information and keep participants engaged, trainers are encouraged to use a combination of methods. The most common methods were lecture based presentations (100%) and encouragement of group discussions (85%). These were followed by demonstrations (54%), group work (27%), and role plays (23%).

4.1.1. Attendance during the teacher trainings

On average, 25 teachers were expected to attend each training, but only an average of 16 (63%) attended, representing 81% of expected schools. The attendance rate of 63% is 37 percentage points lower than head teachers' self-reported attendance on Deworming Day, when all (100%) head teachers reported either attending or sending another teacher to training. The difference in the two figures may be due to mop-up trainings organized by the program for those that failed to attend the first training. A quarter (26%) of participants arrived after training had started. The main reasons for late arrival included attending to duties at their school (60%) and late invitations (31%).

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 99 participants were interviewed prior to training start and 103 were interviewed at the end of the sessions[7]. Monitors assessed the coverage of individual messages as well as participants' pre- and post-training knowledge levels.

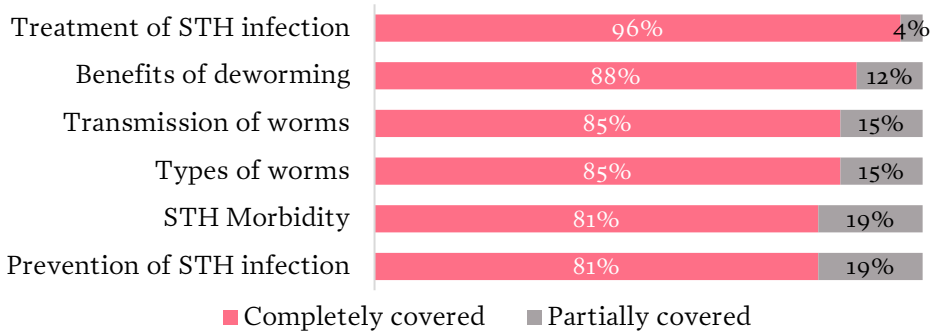
During training observations, the monitors had a checklist with which to indicate if a topic was either covered completely, partially, not covered, or if wrong information was delivered. "Completely covered" means all the information and messages in a given topic were relayed. The sections below discuss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

[7] In some trainings, the required sample of four participants per training was not achieved as participants arrived after the administration of the pre-training interviews, when monitors shifted their focus to other training aspects. After the training, some participants left immediately, making it difficult to conduct four post-training interviews.

4.2.1 Information on worms and target population

Trainers are supposed to cover six messages regarding worms, including type of worm, transmission, prevention, morbidity, treatment, and benefits of deworming. In all observed training sessions, all six of these messages were covered either partially or completely. Among these, only information on the treatment of STH infection received complete coverage in at least 90% of trainings, with other messages in at least 80% of trainings (**Figure 1**).

Figure 1: Messages covered under worms (n=26)



Post-training interviews revealed that all (100%) participants could cite the type of worms being treated, an 11 percentage point increase from pre-training. Additionally, in post-training, 96% of respondents could cite at least one way a child gets infected with worms, 10 percentage points up from 86% in pre-training interviews.

In all trainings, trainers explained the worms that would be treated as well as the target group comprising of all enrolled and non-enrolled children aged 5-14 years. To minimize adverse events, children under five and sick children are not to be treated on Deworming Day. While all trainings emphasized the importance of not deworming sick children, under-age children and those with a history of certain health conditions[8] were only mentioned in 62% and 69% of the trainings respectively.

Post-training, 99% of teachers cited the correct target age-group, up from only 61% pre-training. However, 6% 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 Drugs and Drug Administration

Coverage of key messages was high (coverage in at least 81% of trainings) under the drug administration topic. Only 19% of training sessions did not cover messages on hand washing, an improvement of 20 percentage points compared to the 39% noted in the last round. On the other hand, only 46% of trainers provided complete information

[8] These include epilepsy, sickle cell and central nervous disorders.

on the steps to take in the event of a drug surplus, while 11% made no mention of this. Coverage of other messages such as drug storage and safety are shown in **Table 2**.

Table 2: Messages on drug administration covered during the teacher trainings (n=26)

MDA practice	Percent (Completely and partially covered)
STH drug is mebendazole	96%
One mebendazole tablet to be given to each child	96%
Under the program, all drugs are free, safe and effective	96%
Register enrolled children prior to Deworming Day and non-enrolled children on Deworming Day, prior to treatment.	92%
Under no circumstances should a child be forced to swallow the medicine	88%
Drugs must be stored in a clean, safe, dry and cool location	85%
Facilitate hand washing prior to treatment	81%

From post-training interviews, all (100%) participants knew the correct drugs (an increase of 44 percentage points from pre- to post-training) and dosages (an increase of 24 percentage points), suggesting high knowledge retention among participants.

Apart from knowing the drug type and dosage, it is important to follow certain drug administration steps. While each step was described in at least half of the trainings, they were not covered in the right order in 27% of trainings. **Table 3** lists steps, in the correct order, as completely or partially covered during the trainings.

Table 3: Drug administration steps covered during training (n=26)

Drug administration step	Completely covered	Partially covered
Step 1: Arrange the drug distribution site	69%	19%
Step 2: Ensure necessary materials are available and are in place	77%	23%
Step 3: Provide orientation to the children	81%	19%
Step 4: Organize children accordingly	50%	23%
Step 5: Let the child wash his/her hands	65%	15%
Step 6: Register the child if non-enrolled	89%	4%
Step 7: Administer the mebendazole drug	100%	-
Step 8: Complete registration in the treatment register	92%	4%

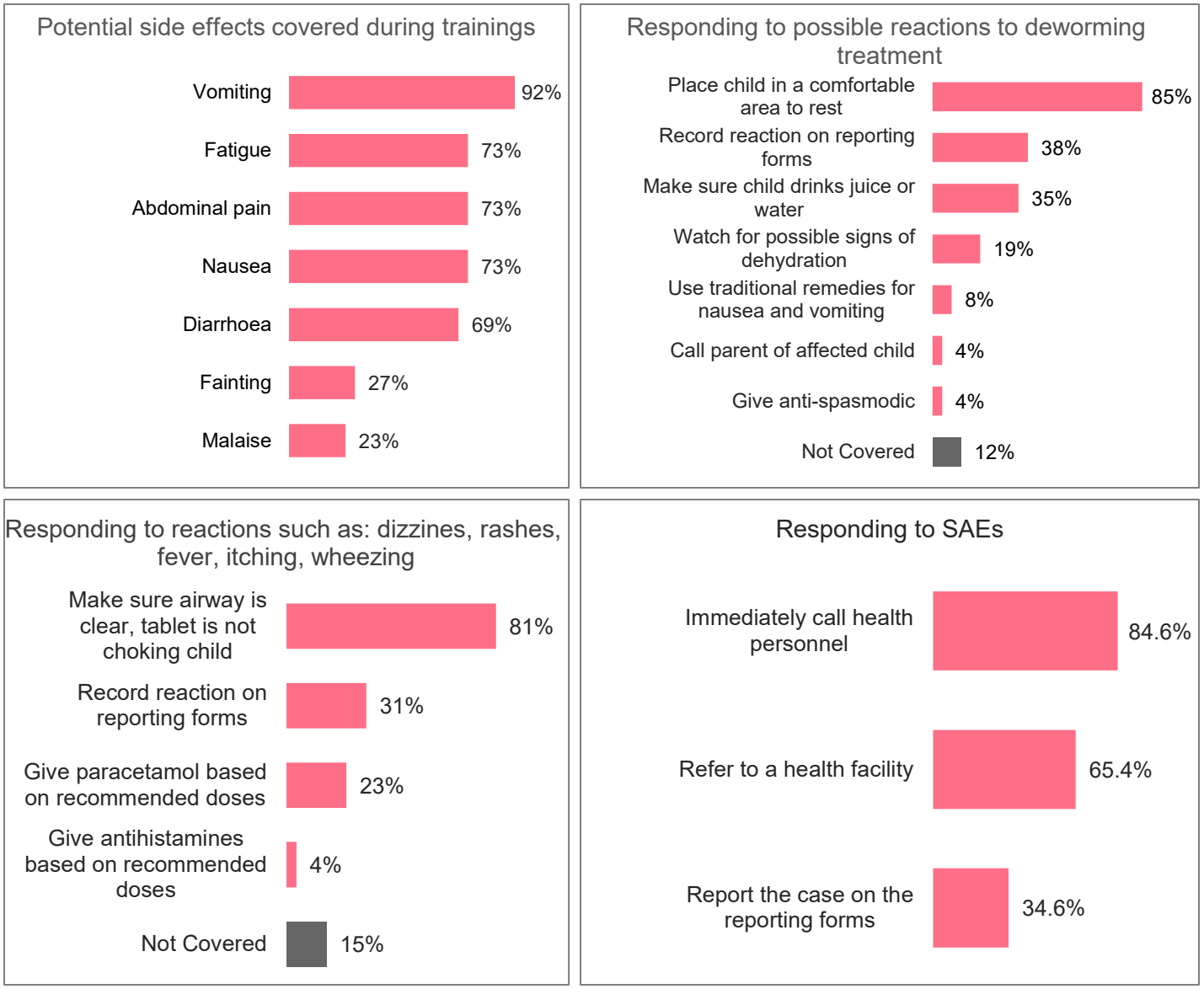
Step 9: Observe the child for any side effects	92%	7%

4.2.3 Side effects

Trainers provided information on potential side effects and SAEs to prepare teachers to manage such situations. Vomiting was mentioned as a side effect in 92% of trainings while fainting and malaise were covered in only 27% and 23% trainings, respectively, perhaps due to their lower likelihood during STH treatment (**Figure 2**).

Vomiting was most mentioned by participants in post-training interviews (73%), likely related to the fact that it was mentioned by all trainers. The rest of the side effects were recalled by less than 50% of interviewed participants.

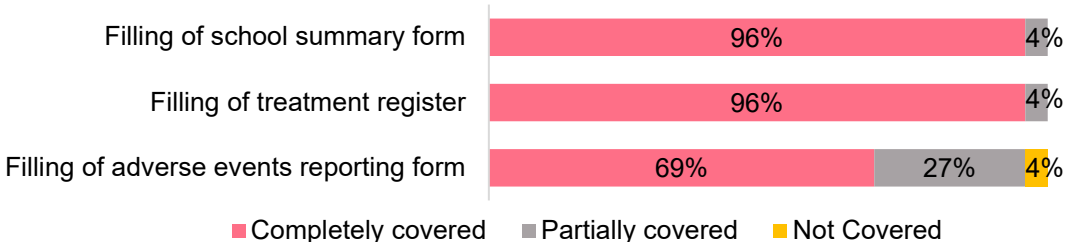
Figure 2: Messages on side effects (n=26)



4.2.4 Recording and reporting forms

Teachers are meant to record the number of children treated at class and school levels, and should be trained comprehensively on how to do so. Trainers completely explained the school summary form and treatment register in 96% of trainings (**Figure 3**), while all trainings held practice sessions to fill the register and school summary form.

Figure 3: Messages covered under recording and reporting forms (n=26)



From post-training interviews, 89% of teachers correctly identified the treatment register as the primary form they would use to record treatments. However, 41% of participants did not name it as the source document for the school summary form, indicating a need to more clearly explain the cascade of forms in subsequent trainings.

4.2.5 Roles and Responsibilities

Overall, teacher roles and responsibilities during deworming were covered in at least 62% of trainings. Coverage of the roles of FLHF staff and NTD coordinators are shown in **Table 4**. In post-training interviews, 83% of teachers correctly identified the role of FLHF staff in the management of SAEs.

Table 4: Key MDA roles and responsibilities of various actors covered at the trainings (n=26)

Roles and responsibilities	Percent
Key teacher roles	
Organizing drug administration	92%
Disseminating health education messages to children and parents	85%
Form recording and reporting	77%
Mobilization of non-enrolled children	62%
Key FLHF staff roles	
Managing side-effects	77%
Participate in community awareness creation	62%
Managing, referring and reporting any children with SAEs	54%
To communicate the rationale of the intervention to community leaders	35%
NTD coordinator and educational secretary roles	
Distributing appropriate quantities of drugs to teachers	69%
Compiling the treatment coverage report	42%

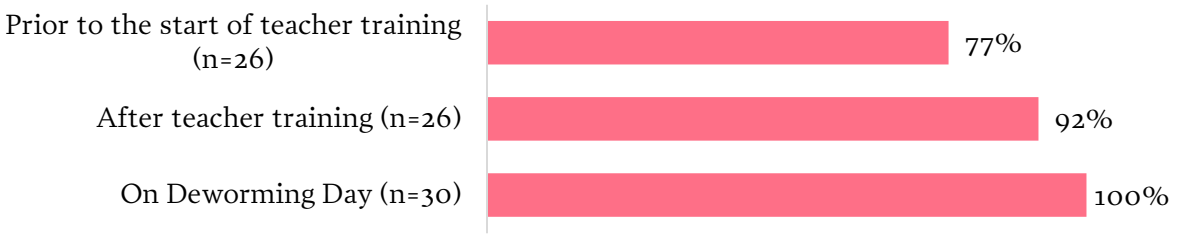
Receiving any unused drugs from the schools post-treatment	38%

4.3 Distribution of drugs and materials

Trainers are meant to receive key materials (drugs and reporting forms) from LGA training sessions to aid in teacher trainings, and to pass on to teachers. In most trainings (88%), drugs were available before the session began. Post-training, drugs were distributed in all but one training (96%). Distribution of treatment registers and school summary forms were observed in 96% and 92% of trainings, respectively. A teacher training handout was present and distributed in 96% of trainings.

On Deworming Day all (100%) schools had the required drugs, summary forms, and treatment registers, which points to a good supply chain for key materials **(Figure 4)**.

Figure 4: Availability of all key materials across the implementation cascade[9]



However, 7% of schools did not use the reporting forms to record treatment. Further, teacher knowledge of the reporting "reverse cascade" was varied, with 50% of teachers stating that they would submit to FLHF facilities, 57% planning to submit to the LGA educational office, and 7% planning to keep forms at school until they were collected. This contradicts the information provided in the trainings where 92% of trainers informed participants that they ought to return these to the FLHF staff. These knowledge disparities could negatively impact coverage reporting, as they may lead to incorrect submission of forms or failure to submit reporting forms.

In post-deworming interviews with head teachers, 90% indicated sufficiency of the drugs availed, and the three schools that reported a deficiency correctly reached out to the LGA NTD Coordinator. Of the 80% of schools that reported drug surplus, 79% planned for a mop-up before making any eventual returns to the LGA, while immediate drug returns to the LGA were planned in 21% of schools.

[9] All key materials include: drugs, and reporting forms (treatment registers and school summary form).

4.3.1 Community sensitization materials

Prior to training start, 96% of trainings had posters available, but only 85% of all trainings were observed distributing them at the end of the session. On Deworming Day, 97% of schools were found to have posters available, with head teachers reporting an average of three posters. In line with the guidance provided in most trainings (96%), the majority of head teachers had the posters pinned (93%) on Deworming Day.

4.4 Community Sensitization

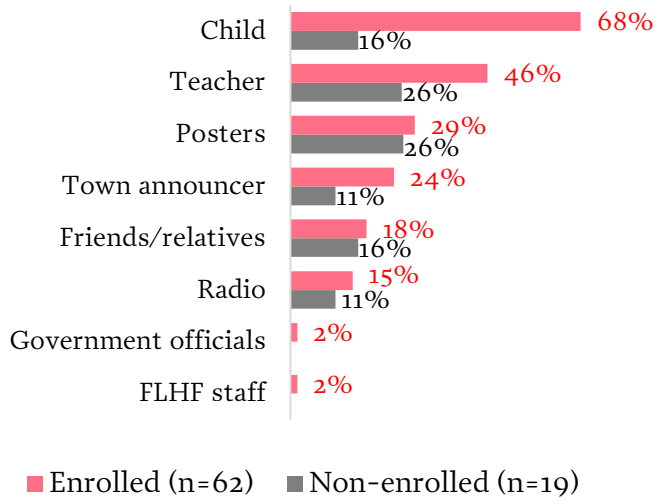
Community sensitization prior to Deworming Day is an evidence-supported key factor for MDA success. On Deworming Day, monitors interviewed 86 parents (62 of enrolled children, 24 of non-enrolled children). The purpose of this interview was to gauge awareness of the MDA, as well as sources of MDA information.

4.4.1 Implementation of community sensitization

Only 63% of head teachers reported sending someone from their school to mobilize children in the community for the MDA. The majority of head teachers indicated that this was a student (79%) and/or teacher (68%).

Children and/or teachers 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, 78% of parents (87% for parents of enrolled children and 47% for parents of non-enrolled children) were aware of Deworming Day. Parents of enrolled children were more likely to have taken their child for deworming in the past, compared to those of non-enrolled children (63% vs. 26%).

Knowledge of other program aspects (target age-group and worms being treated) was slightly lower. Only 77% of parents of enrolled and 32% of parents of non-enrolled children were aware of the target age-group. Parental knowledge of worm type was similar (73% for parents of enrolled children, 32% for non-enrolled children). This indicates a need for further clarification of treatment target groups during future trainings and increased sensitization for parents of non-enrolled children.

Only 78% of parents indicated that they would send their children for deworming, including a higher proportion of enrolled parents (90%) than parents of non-enrolled children (37%). Most of the parents that wouldn't send their children for deworming indicated that they were not aware of the activity (67%), while others indicated that they would deworm on their own (20%), did not trust the drug (7%) and that the child was non-enrolled (7%).

As part of the survey, parents were asked for their preferred methods of receiving future communication on deworming. Radio (59%), town announcers (47%) and teachers (43%) emerged as top methods. Town announcers (74%) and radio (68%) were preferred sources of information among parents of non-enrolled children; while these methods were used during this round, they each reached no more than a fifth of the parents of the non-enrolled children (**Figure 5**).

4.5 Deworming Day

Thirty schools were visited on Deworming Day, of which 70% were primary level, 17% were junior secondary, and 13% included both levels. By school type, 62% were public while 38% were private. The purpose of the visit was to assess MDA procedures and the deworming team's knowledge and capability to deliver the MDA.

4.5.1 Preparedness for Deworming Day

All (100%) head teachers had made plans to deworm, and all reported that either they or a teacher from the school had attended training within a month of the MDA. The 19 percentage point difference from the 81% school representation during the teacher training is likely due to attendance in unmonitored mop-up trainings.

With regard to infrastructure, monitors observed that 40% of schools lacked hand washing facilities, while all schools had at least one toilet facility, up from 78% in the second 2018 round.

4.5.2 Deworming Day Delivery

4.5.2.1 Adherence to MDA procedures

Monitors observed how MDA was conducted to assess if deworming teams adhered to drug administration guidelines. Adherence was generally high for drug administration and recording of treatment (averages of 88% and 93%, respectively). All schools gave the correct dosage of mebendazole to children (100%) and all teachers (100%) requested children to chew the tablet (**Table 5**). On the other hand, teachers at only 20% of schools ensured that children washed their hands prior to receiving treatment, although 60% of schools had handwashing facilities. Additionally, monitors found children being treated without asking if they were under medication in 37% of schools.

Table 5: MDA procedures observed by monitors during drug administration (n=30)

MDA practice	Percent
Pre-deworming preparations	
Deworming team comprised of two teachers	93%
Health education messages were given to children prior to treatment	70%
Teachers ensured children washed their hands prior to treatment	20%
Drug Administration	
Children were not forced to swallow drugs against their wishes	100%
Teachers gave the correct dosage for mebendazole (1 tablet)	100%
Teacher asked child to chew the mebendazole tablet	100%
Teacher asked if child was sick or under medication before administering medicine	63%
Recording treatment	
All sections of the treatment register were filled out	93%
The treatment register was used to record treatment	93%
The teacher had transferred the names from the class register to treatment register prior to the deworming exercise	93%

4.5.2.2 Management of side effects and referrals

Two occurrences of side effects were observed, related to nausea and abdominal discomfort. Both were effectively handled, with a referral made in one case.

4.5.3 Attendance Rate

All eligible children were treated in 73% of schools. Refusal by parents (50%) or children (25%) were the most common reasons that in schools where not all eligible children were not dewormed. There were no reports of children being forced to swallow drugs. Ninety-five percent (95%) of schools also took steps to plan for treating absentees when they returned to school, by recording their names on the treatment register.

However, while 93% of head teachers had made plans to deworm non-enrolled children, on Deworming Day only 10% of observed schools were treating non-enrolled children, a reduction of 34 percentage points from the last round of deworming (44%).

5.0 Coverage Validation

Coverage validation was conducted in two LGAs within Rivers state (Eleme and Khana) with 30 segments of about 50 households selected from each LGA, for a target sample of 2,707 children. Given that the coverage evaluation surveys were conducted at a time when children were on a school holiday, only a household survey was administered, as

opposed to household and school surveys[10]. Comparing the surveyed coverage[11] and reported coverage [12]in the two LGAs, reported coverage was understated in Khana and overstated in Eleme. Further, surveyed coverage in Eleme was below the WHO's recommended 75% threshold. Further breakdown of the results is shown in **Table 6** below.

Table 6: Coverage validation results for Eleme and Khana

		Program reach			Survey Coverage				
LGA	Category	Mean (%)	Lower bound (95% CI)	Upper bound (95% CI)	Mean (%)	Lower bound (95% CI)	Upper bound (95% CI)	Reported Coverage	Number of children interviewed
Overall									
Eleme		75%	72%	78%	66%	62%	70%	75%	705
Khana		94%	92%	96%	87%	84%	89%	78%	650
Disaggregation by gender									
Eleme	Male	76%	71%	81%	66%	60%	71%		331
	Female	75%	70%	79%	66%	61%	71%		374
Khana	Male	95%	92%	97%	89%	85%	92%		340
	Female	94%	90%	96%	85%	80%	88%		310
Disaggregation by enrolment status									
Eleme	Enrolled	76%	73%	79%	67%	63%	70%		687
	Non-enrolled	50%	26%	74%	39%	17%	64%		18
Khana	Enrolled	96%	94%	98%	91%	88%	93%		578
	Non-enrolled	78%	66%	87%	57%	45%	69%		72
Disaggregation by school type									
Eleme	Public	84%	79%	88%	77%	71%	82%		260
	Private	71%	66%	75%	61%	56%	65%		427
Khana	Public	97%	95%	99%	92%	89%	94%		472
	Private	92%	86%	97%	86%	78%	92%		106

Neither LGA's reported coverage was validated by the surveyed coverage confidence bounds. The reported coverage in Eleme is nine percentage points higher than the surveyed coverage, while that in Khana is nine percentage points lower. Deductively, teachers may be either incorrectly reporting the ingestion of the drug or the population

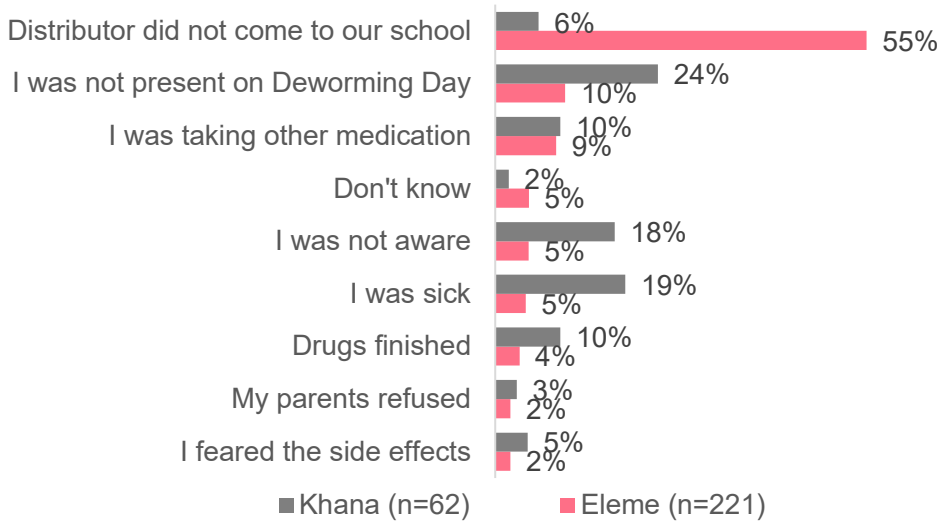
[10] There was a delay in implementation for this round of deworming activities which led to delayed CES timing. Due to this delay, CES coincidentally aligned with the school holidays.
[11] Surveyed coverage - proportion of children interviewed who indicated that they swallowed the drug.
[12] Reported coverage - the proportion of children within the program area whom head teachers reported as having taken the drug.

denominators across LGAs could be incorrect. A data quality assessment could help to identify where the reporting may be breaking down.

The disaggregation by gender and school type reveal consistent findings with those noted for the overall program reach and surveyed coverage. On the other hand, disaggregation by school type indicates a higher program reach for public schools than private schools. While the surveyed coverage and program reach for enrolled children are generally higher than those for the non-enrolled children, the analysis by enrollment status generally indicated mixed findings. Neither LGA reached 75% of the non-enrolled population, while only Khana exceeded this threshold (75%) for the enrolled population. The low proportions for non-enrolled children are consistent with reports of the schools that dewormed this group on Deworming Day (only 10%).

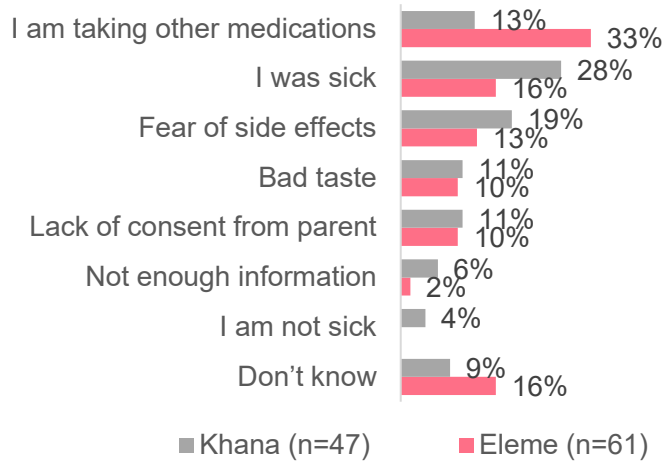
The majority of children who did not receive the drug in Eleme indicated that the distributor did not come to school, and the most common reason in Khana was that they were absent on Deworming Day (**Figure 6**). These were also the main reasons for not taking the drug when the analysis was disaggregated by enrollment status and school

Figure 6: Reasons drug was not given



Majority of those that did not swallow the drugs indicated that they were either taking medications or were sick (**Figure 7**).

Figure 7: Reasons drug was not swallowed



Thirty-seven percent of respondents in Eleme and 16% of respondents in Khana reported having received unprogrammed deworming outside the scope of this MDA, at least six months prior to Deworming Day.

6.0 Recommendations

6.1 What worked well

1. Trainers successfully covered 100% of key messages under the topic of worms during teacher trainings. Post-training knowledge of the target age-group, drug, and dosage were very high (at least 99%).
2. Key steps of drug administration and treatment recording were well performed, with all observed teachers providing the correct dosage, and no instances of children being forced to swallow drugs. All sections were filled out on 93% of reporting forms.
3. The supply chain was properly executed; all schools had the required materials (reporting forms and drugs) on Deworming Day. Posters availed by the program were also pinned in most schools (93%).

6.2 What can improve

1. Overall attendance of the teacher trainings was low (63%), and a quarter of those in attendance arrived late. To improve this, the program should review the methods of communicating to schools, and encourage head teachers to promptly request teachers to make necessary preparations to attend the training.
2. The proportion of parents indicating that they would send their children for deworming was somewhat low (78%) compared to the previous round, with a very low rate for parents of non-enrolled children (37%). This may relate to the generally low awareness of MDA dates and the targeted age-group, suggesting a couple of areas to strengthen community-directed messaging. The program should also consider more widespread use of radio and town announcers, as these are preferred sources of information suggested by parents of non-enrolled children, while considering the costs and benefits of this additional cost. Trainers should also be encouraged to emphasize the key role teachers play in mobilizing non-enrolled children as 37% of trainers made no mentions.
3. Several practices observed during MDA need to be addressed during future teacher trainings:

    a. In spite of hand washing facilities being present in 60% of schools and emphasized in 81% of trainings, compliance was only noted in 20% of schools.
    b. Though all schools had reporting forms available, 7% of schools did not utilize them. Understanding of the reverse cascade was also low, with head teachers unsure whether to submit forms to the LGA educational office or FLHF facilities.

c. In 27% of schools, teachers did not ask whether children were sick before administering mebendazole tablets. Additionally, in post-training interviews, 6% of teachers reported that they would administer drugs to sick children if present on Deworming Day.
d. Individual messages regarding SAEs on reporting forms received limited (not exceeding 40%) coverage in trainings. Trainers should be encouraged to emphasize these in subsequent trainings, especially in LGA trainings.

4. Neither LGA where coverage evaluation was conducted had its reported coverage validated within the surveyed coverage confidence bounds. This suggests that there could be a breakdown the reporting cascade and/or poor management of data during report filling or data aggregation.