Deworm the World Initiative - Kenya

Process Monitoring and Coverage Validation Report for Year 5 of the NSBDP

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# Glossary

**CHEW.** Community health extension worker

CHV. Community health volunteer

**ECD.** Early childhood development

MDA. Mass drug administration

**MOE.** Ministry of Education

MOH. Ministry of Health

NSBDP. National School-based Deworming Programme

SAE. Severe adverse events

SCH. Schistosomiasis

STH. Soil-transmitted helminths

# **Executive Summary**

Evidence Action's Deworm the World Initiative (DtWI) supports governments with technical assistance for school-based deworming, including for Kenya's National School-based Deworming Programme (NSBDP). Deworm the World has supported the government of Kenya since 2012in the implementation of large-scale mass drug administration (MDA) for soil-transmitted helminths (STH) and schistosomiasis.

Evidence Action regularly monitors all its programs to ensure effective implementation and to identify areas for improvement. The NSBDP in is monitored annually to assess the rollout of the program. Evidence Action observes and reviews the quality of sub-county trainings, teacher trainings, community health extension worker (CHEW) activities, community sensitization and MDA procedures. The following report presents the findings of year 5 (2017) data for the NSBDP in Kenya<sup>1</sup>.

The data shows that the year 5 training cascade was completed as planned. The majority of trainers distributed the required materials and covered the required topics at both sub-county and teacher trainings. High post-test scores among participants at both sub-county and teacher trainings attest to the effectiveness of the training. To improve the training cascade further, program implementers can work with trainers to ensure that content is covered thoroughly and to identify ways to improve attendance at trainings.

The data shows that the large majority of schools carried out Deworming Day systematically and used the correct protocol for drug administration. Ninety six percent of monitored schools had the appropriate drugs in place (albendazole for STH and praziquantel for schistosomiasis) prior to Deworming Day. Only 7% of schools ran out of drugs during the deworming exercise.

However, interviews conducted prior to Deworming Day with Early Childhood Development (ECD) centers found that teachers had a low level of understanding about the deworming exercise. Program implementers can identify ways to improve ECD awareness and preparedness for Deworming Day.

Parents of enrolled children were more likely to know that Deworming Day was happening compared to parents of non-enrolled children. However, the percentage of parents who knew the correct date and target population for Deworming Day was low amongst both sets of parents. The majority of parents of enrolled children heard about the Deworming Day from their children while parents of non-enrolled children got information from a broader range of sources. The data indicates that passing information from teacher to student remains the most effective means of community sensitization, but it also shows that important information can gets lost in this process. Program implementers can consider possible ways to ensure vital knowledge is more easily retained as it passes from teacher to parent.

<sup>&</sup>lt;sup>1</sup> In Kwale, albendazole was delivered at community level through the national LF program. Preparatory activities and treatment data for Kwale therefore are not included in this report.

# Introduction

Evidence Action's Deworm the World Initiative (DtWI) supports governments with technical assistance for school-based deworming, including for Kenya's National School-based Deworming Programme (NSBDP). Deworm the World has supported the government of Kenya since 2012in the implementation of large-scale mass drug administration (MDA) for soil-transmitted helminths (STH) and schistosomiasis.

To effectively implement the MDA, the NSBDP runs annual sub-county and teacher trainings to deliver vital information on community sensitization, correct drug dosage, use and administration. To monitor treatment coverage, schools are provided with forms to complete during the drug administration process, which are then returned to county health officials.

Evidence Action regularly monitors all its programs to ensure effective implementation and to identify areas for improvement. Every year, Evidence Action monitors NSBDP activities to assess the quality and impact of sub-county trainings, teacher trainings, community health extension worker (CHEW) activities, community sensitization, and deworming day procedures. The following report summarizes the process monitoring findings from 2017, or year 5 of the program.

# Methodology

To assess both the quality of sub-county and teacher training centers as well as implementation of the deworming process in schools, Evidence Action randomly sampled 35%, 10%, and 2% of the sub-county trainings, teacher trainings, and participating schools respectively.

Monitoring teams observed sub-county and teacher trainings and tested participants' pre and post training knowledge on key program content. Prior to Deworming Day, monitoring teams interviewed CHEWs, CHVs, parents and sampled schools. On Deworming, Day monitoring teams observed deworming activities in schools and interviewed ECD teachers, sampled school teachers, CHEWs and parents of non-enrolled children. To see the number of CHEWs, teachers and parents interviewed, refer to Table 1.

The Evidence Action monitoring team also carried out coverage validation surveys in schools post deworming to validate treatment coverage data. Treatment coverage was validated against the proportion of children who could correctly identify the deworming pill and the dosage offered. The survey targeted enrolled school-aged children (SAC). A multi-stage sampling approach at school and county level was used to select a total of 60 pupils for interview. At each school, nine pupils were randomly selected. The sample was determined in order to meet a 95% confidence level and 10% margin of error.

Table 1. Process monitoring activities and sample sizes

Process monitoring activities	Planned Sample	Actual Sample
Sub-county training	42	44
Teacher training	83	86
Pre-deworming day interviews	295	303
Deworming Day	295	296

# Results

# Sub county trainings

The monitoring team observed 44 sub-county trainings in year 5. Thirty-one of these focused on STH treatment and 13 were in areas that combined STH and schistosomiasis treatment, per the treatment strategy. The monitoring team assessed the attendance and time taken to complete trainings; whether the necessary training materials were distributed; and if all prescribed topics were covered. The monitoring team interviewed 184 sub-county officials prior to training and 134 officials after training to test pre and post-training knowledge on the core aspects of STH and schistosomiasis treatment.

### Distribution of materials

Ninety one percent of trainers distributed the designated training booklet to all participants at sub-county trainings. Tablet poles were available at 18% of trainings that covered schistosomiasis treatment. Most schools treating for schistosomiasis would already have been in possession of a tablet pole.

### Training attendance

On average, the two-day training took 6 hours to complete on both days. Table 2 shows that only 755 of the 984 participants who attended the training on day one arrived before the first session started. On day two only 630 out of the 856 participants were present prior to the start of training. There was overall lower attendance on the second day because, by cascade design, CHEWs only attend day one.

Table 2. Participant attendance on day one and day two of sub-county training (n=44)

Participant attendance at the training	Day 1	Day 2
Before training started	755	630
1 hour after training started	750	653
4 hours after training started	786	673
1-4 hours after training started	729	623
Before lunch	984	860
After lunch	978	856

# *Topics covered during training*

The percentage of topics that were 'completely' covered at trainings varied. The term "completely" refers to whether or not the trainer covered the prescribed content according to the training manual and

presentations. The topic *Reverse Cascade* was most frequently 'completely' covered in training, whilst *schistosomiasis forms* were least frequently covered (**figure 1**). This is due to the comparatively fewer schools that treat for schistosomiasis.



Figure 1. Topics 'completely' covered in sub-county trainings (n=31 for STH and schistosomiasis, n=13 for STH only)

# Sub-county training participants' pre and post-training knowledge on STH treatment

The monitoring team assessed training participants' pre and post-training knowledge on STH treatment. Prior to doing so, they checked whether participants had attended any previous training on STH, or had prior knowledge of the infections and their treatment. Ninety seven percent of interviewed participants had attended a previous training, or had prior knowledge. Figure 2 shows that in all content areas, participants' post-test knowledge was higher than their pre-test knowledge. It also shows that in the post-test, participants scored 93% or higher in all content areas. This suggests that even while trainees may retain some information in between treatment rounds, the training sessions are very useful in refreshing their knowledge and ability to carry out the program at a high quality.



Figure 2. Sub-county training participants pre and post-training knowledge on STH treatment (n=184 pre-training; n=134 post-training)

#### Sub-county training participants pre and post-training knowledge on schistosomiasis treatment

The monitoring team also assessed training participants' pre and post-training knowledge on schistosomiasis treatment. As described above, they asked whether participants had attended any prior trainings, or had prior knowledge schistosomiasis and its treatment. Thirty nine percent of participants

had attended a previous training on schistosomiasis or had prior knowledge of it. Figure 3 shows that in all subject areas, post-test knowledge was higher than pre-test knowledge; however, post-test scores for all content areas were lower for schistosomiasis than for STH treatment (**figure 3**).





### Conclusion

Sufficient training materials were distributed to sub-county trainings, suggesting an adequate level of preparedness. About 20% of participants were late to the sub-county trainings on either day one or day two. The data also found that the complete coverage of topics during training varied. The difference in topic coverage may be linked to the late arrival of training participants, which would reduce the time available for trainers to deliver the training.

Training participants' pre and post-test scores showed that knowledge across all content areas for both STH and schistosomiasis treatment improved post-training. However, when compared to STH treatment post-test knowledge was lower in all areas for schistosomiasis. This suggests that the content for schistosomiasis treatment is more complex, with participants struggling to internalize all the information.

# Teacher training observations

The monitoring team observed 86 teacher trainings in year 5, of which 58 focused on STH treatment and 28 combined STH and schistosomiasis. Similar to the monitoring for sub-county trainings, the team assessed attendance and time taken to complete the training; whether training materials were distributed; and if all topics were covered. The monitoring team also interviewed 366 teachers prior to training and 363 teachers after training to test their pre and post-training knowledge on STH and schistosomiasis treatment.

# Distribution of materials

In 91% of trainings, all teachers present received the required training materials. "Required" training materials are monitoring forms, posters, and drugs. Figure 4 shows a particularly high distribution rate (98%) of monitoring forms and posters at trainings. Drug distribution was observed in 75% of the trainings (figure 4).

### Figure 4. Materials distributed during teacher trainings (n=86)



# *Topics covered during the training*

In 85% of trainings the trainer covered all the steps in the prescribed checklist. The percentage of topics that were 'completely' covered at trainings varied. The term "completely" refers to whether or not the trainer covered the prescribed content according to the training manual and presentations. Content about *worms* was completely covered in 82% of observed trainings, while *monitoring forms* received the least thorough presentation, only completely covered in 64% of observed trainings (**figure 5**).

### Figure 5. Topics 'completely' covered during teacher trainings (n=86)



### Training attendance

On average, the teacher training took 4 hours to complete. The monitoring team observed that only 2,005 of the 2,585 participants who attended trainings were present before the first session started (**table 3**).

Table 3.	Participant	attendance	at teacher	training
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Participant attendance training	Number
Number of participants present before training started	2,005
Number of participants 1 hour after training started	2,297
Number of participants 4 hours after training started	2,585

# Teacher training participants pre and post-training knowledge on STH treatment

The monitoring team assessed training participants' pre and post-training knowledge on STH treatment. They first checked whether participants had attended any previous training on STH, or had prior knowledge of the infections and their treatment. Ninety two percent of interviewed participants had attended a previous training, or had previous knowledge. Figure 6 shows that, consistent with findings for sub-county trainings, teachers' post-test knowledge was higher than their pre-test knowledge in all areas. Both pre and post-test knowledge on the correct *age group* for STH was lower than knowledge on *drug dosage* and *drug to use* (**figure 6**).



Figure 6. Teacher training participants pre and post-training knowledge on STH treatment (n=366 pre-training; n=363 post-training)

### Teacher training participants pre and post-training knowledge on schistosomiasis treatment

The monitoring team assessed teachers' pre and post-training knowledge on schistosomiasis treatment as well, after checking for previous training experience or prior knowledge of the infection and treatment. Again, Figure 7 shows that in all subject areas, post-test knowledge was higher than pre-test knowledge. Pre and post-test knowledge on the correct *age group* was lower than knowledge on *drug dosage* and *drug to use*. Teachers' post-test knowledge on schistosomiasis treatment was lower than their post-test knowledge of STH treatment in all areas (**figure 7**).

*Figure 7. Teacher training participants pre and post-training knowledge on schistosomiasis treatment (n=366 pre-training; n=363 post-training)* 



# Conclusion

The required materials for training were available at most teacher training sessions. However, drugs were available at 75% of trainings which can be improved in the future. The thoroughness of content coverage during training varied, but generally the teacher trainings were more comprehensive than sub-county trainings.

All training participants' pre and post-test scores showed that knowledge of both STH and schistosomiasis treatment improved post-training. However, post-test knowledge was lower in all subject areas for schistosomiasis when compared to STH. As with sub-county training this suggests that the training content for schistosomiasis is more complex, with participants struggling to internalize all the information.

# CHEW pre-deworming interviews

The monitoring team interviewed 135 CHEWs one day prior to deworming. CHEWs were also interviewed alongside CHVs and health officers on Deworming Day. For the purpose of this analysis the majority of data has been taken from the pre Deworming Day interview. Any data sourced from the Deworming Day interview will be referenced in the text.

The monitoring team asked CHEWs to list their responsibilities on Deworming Day and demonstrate their awareness of handling severe adverse events (SAEs.) Eighty two percent of CHEWs interviewed had attended a training session on deworming in the past week. On average, each CHEW was responsible for sensitizing 20 community health volunteers (CHVs), 846 households, and monitoring Deworming Day at 13 schools.

# CHEW roles and responsibilities

Eighty five percent of CHEWs defined their main responsibility during the NSBDP as community sensitization, followed by supporting teachers on severe adverse events (**figure 8**).



Figure 8. CHEWs' definition of their responsibilities in NSBDP (n=99)

# Community sensitization methods used by CHEWs

Sixty seven percent of CHEWs displayed posters in local areas to sensitize the community, followed by discussing deworming day at community gatherings known as barazas (**figure 9**).

#### Figure 9. Community sensitization methods used by CHEWs (n=99)



Seventy eight percent of CHEWs use the content of the poster as a reference point when explaining details of the Deworming Day to community members. CHEWs also used the CHEW checklist (41%), the community sensitization supplement (34%), and the severe adverse events protocol (15%) to explain Deworming Day to community members.

# CHEW knowledge of side effects

CHEWs demonstrated a high level of knowledge on the side effects of STH and schistosomiasis treatment (**table 4**). Eighty five percent correctly said that children should be fed prior to treatment with Praziquantel to avoid side effects.

Side effects considered normal	STH treatment (n=95)	Schistosomiasis treatment ( <i>n=39</i> )
Nausea	79%	56%
Abdominal discomfort	65%	46%
Vomiting	53%	54%
Headache	46%	46%
Fatigue	27%	-
Other	14%	-
Fainting	-	41%

Table 4. CHEWs' definition of normal side effects for STH and schistosomiasis<sup>2</sup>

# Support requested from CHEWs by teachers

Sixty percent of CHEWs interviewed on Deworming Day said they were contacted by teachers requesting support for NSBDP. On average, each CHEW received phone calls from 3 teachers. CHEWs said the majority of teachers asked for support in obtaining additional drugs or on drug administration (**figure 10**).

<sup>&</sup>lt;sup>2</sup> Data not collected in Kwale

#### Figure 10. Types of support needed by teachers from CHEWs (n=150)



# CHV awareness and activities

The monitoring team interviewed CHVs to assess their awareness of Deworming Day and their sources of information on the deworming exercise. They also tested CHVs' level of awareness on the key aspects of Deworming Day. A total of 133 CHVs were interviewed one day prior to deworming. CHVs interviewed were responsible for providing health support to an average of 115 households.

Seventy nine percent of CHVs were aware that there would be deworming in their local primary school soon. Of those, 79% were able to give the correct treatment age for STH; 87% of CHVs had spoken to someone else about the Deworming Day; and 95% had a positive attitude towards the treatment process.

# Sources of information about the deworming program

Fifty percent of CHVs received their information on Deworming Day from CHEWs. The second most common source of information was primary school teachers (**figure 11**).

Figure 11. CHV information sources on NSBDP (n=111)



# Conclusion

Both CHEWs and CHVs were knowledgeable about the deworming process and the potential side effects of STH and SCH treatment. CHEWs defined their main responsibility in the deworming exercise as

community sensitization, followed by supporting teachers in handling severe adverse events. The majority of CHVs had learnt about NSBDP from CHEWs.

Posters remain the most common means by which CHEWs reportedly carry out community sensitization. They are also the most-cited print material that they use when explaining key elements of Deworming Day to community members.

# Pre deworming assessment

The monitoring team visited 303 primary schools prior to Deworming Day and interviewed the head teacher at each school. Of these schools, 98% planned to deworm.

The monitoring team also interviewed a total of 262 ECD teachers prior to Deworming Day. The location of these ECD centers was approximately 500 meters away from a primary school. The average number of children enrolled at the ECD center was 35, with the ages ranging between 3 and 6 years.

# Preparedness of schools

Fifty percent of primary schools planned to deworm their students outside the classroom and 35% planned to treat in the classroom. When asking head teachers who would administer the drugs, 33% said that the two teachers who attended training would administer the tablets during deworming (**figure 12**)<sup>3</sup>.

### Figure 12. How schools planned to administer drugs (n=287)



Sixty nine percent of head teachers intended to notify a nearby ECD center about the deworming day. In 65% of schools the head teacher communicated with the ECD center directly (**figure 13**).

### Figure 13. Methods used by head teachers to notify the ECD center (n=287)



<sup>&</sup>lt;sup>3</sup> Data not collected in Kwale

# Head teacher knowledge on the deworming treatment

Head teachers demonstrated very strong knowledge of the deworming treatment. Ninety seven percent of head teachers in schools treating STH correctly identified the type of worms to be treated. Ninety eight percent of head teachers could also correctly identify the drug to be used; 99% knew the correct dosage and 90% knew the correct age group targeted for treatment. Head teachers could also list a range of side effects considered normal for STH and schistosomiasis (**table 5**).

Ninety six percent of head teachers correctly knew how to minimize side effects of Praziquantel. Of those aware of the need to feed children before treatment, 54% planned to have children eat at home, 23% provided food at school, whist 10% had no plan.

### Table 5. Head teacher definition of normal side effects for STH and Schistosomiasis treatment

Side effects considered normal	STH ( <i>n=287</i> )	Schistosomiasis (n=25)
Headache	38 %	32 %
Nausea	65 %	68 %
Abdominal discomfort	41 %	44 %
Vomiting	59 %	76 %
Fainting	-	24 %

# Teacher sensitization

Eighty one percent of head teachers had sensitized others in the school on how to administer drugs. Seventy-nine percent of these head teachers had used the teacher training booklet to share information (**figure 14**). Of the teachers that used the booklet, 99% rated it as useful in sensitizing teachers at school.

Figure 14. Training materials teachers used to sensitize other teacher at school (n=287)



# Sensitization activities carried out by schools

Only 2% of head teachers said that their school had not carried out any sensitization prior to Deworming Day. All head teachers listed sensitization activities that were limited to the school i.e. teachers did not interact with the wider community when spreading the message about Deworming Day. The majority of schools encouraged children to share the message with their friends, siblings and parents (**figure 15**.)



#### Figure 15. Sensitization activities conducted by schools, reported by head teachers (n=287)

### ECD Awareness

The monitoring team found that 57% of ECD teachers knew the correct deworming date and 39% could identify the primary school as the venue for treatment. Sixty four percent of ECD teachers said that their main source of information on Deworming Day was primary schools teachers (**figure 16**).

Figure 16. ECD teachers sources of information on Deworming Day (n=196)



The majority of ECD teachers said their role was to supervise ECD children (**figure 17**). On Deworming Day, 71% of interviewed teachers brought children from the ECD center to the primary school for deworming.

#### Figure 17. ECD teacher's definition of their role on Deworming Day (n=196)



# Conclusion

Overall, monitoring teams found that schools were prepared for Deworming Day, with plans in place for treatment and handling of side effects in most cases. Head teacher knowledge about the treatment procedure and potential side effects of treating STH and schistosomiasis were high. The majority of head teachers interviewed also said they had trained additional teachers in schools as well as conducted school-based sensitization activities in preparation for Deworming Day.

Sixty nine percent of head teachers said their school had informed affiliated ECD centers. However, there was generally low awareness of Deworming Day amongst ECD teachers, even though 64% had been told about Deworming Day by primary school teachers. This suggests that primary teachers could provide more comprehensive or descriptive information on Deworming Day to ECD teachers.

### Deworming Day assessment

The monitoring team visited 296 schools on Deworming Day. The monitoring team observed the treatment process and the presence of the required materials for deworming (i.e., drugs/monitoring forms). Of the 296 schools sampled, 40 were treating schistosomiasis.

### Treatment observation

The monitoring team found that the majority of schools adhered to the key requirements of drug administration (**table 6**.) Based on the observation team's checklist for the drug administration process, 97% of schools completed deworming in a systematic way. At the monitored schools, 96% had the appropriate drugs in place (albendazole for STH and praziquantel for schistosomiasis) prior to deworming. Drugs ran out in only 7% of schools, and 89% of schools indicated that they had a sufficient supply of Form E for documenting treatment of enrolled children and 83% had pre-entered information as directed.

Table 6. Deworming Day procedure (schistosomiasis + STH, N=296, STH only N=40)

Deworming Day Procedure	Percentage
The percentage of schools with appropriate (STH everywhere, PZQ where needed) drugs in	96%
place prior to deworming day	
Percentage of schools where there were enough PZQ tablets for non-enrolled children	83%
Percentage teachers observed using tablet poles correctly (n=40)	97%
Percentage schools having teachers give the correct dose of drugs to children	87%
Percentage of schools running out of drugs on deworming days	7%
Percentage of schools were Deworming Day happened systematically	97%
Percentage of schools were teachers had sufficient copies of Form E	89%
Percentage of schools were teachers observed all children swallowing	91%
Teacher observed child taking ALB	97%
Teacher observed child taking PZQ	100%

# Treatment of non-Enrolled & ECD children

The monitoring team observed that 61% of schools treated non-enrolled children who attended Deworming Day, with 65% prioritizing the treatment of non-enrolled children. All the schools monitored prioritized treatment of ECD children, with 92% of schools treating ECD children on Deworming Day.

#### Conclusion

The majority of schools adhered to the key requirements of drug administration, with 97% of them implementing deworming in a systematic way. More schools treated ECD children in comparison to non-enrolled children.

### Pre deworming interviews with parents

The monitoring team interviewed parents of both enrolled and non-enrolled children prior to Deworming Day. The purpose of these interviews was to assess parent knowledge of the upcoming Deworming Day and to identify their sources of information on deworming. A total of 600 parents were interviewed of whom 365 were parents of enrolled children and 235 were parents of non-enrolled children.

### Parental awareness of Deworming Day

Seventy two percent of parents of enrolled children and 55% of parents of non-enrolled children were aware of deworming day. Of the parents who knew about Deworming Day 43% had heard about the program in the previous year, 32% this year and 15% two years ago.

### Parents' sources of information about deworming

The majority of parents of enrolled children heard about Deworming Day from their children or a primary school teacher. Other sources of information were uncommon. Most parents of non-enrolled children got their information from friends or a relative, followed by a child, the CHEW or CHV, or a primary school teacher (**table 7**). Despite a radio campaign being broadcast in communities prior to deworming, only 7%

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of parents of enrolled children and 9% of parents of non-enrolled children cited radio as a source of information about Deworming Day.

Source of Information	Parents of enrolled children	Parents of non-enrolled children
Children	63%	27%
Primary school teacher	33%	19%
CHEW/CHV	17%	22%
Friends/relatives	15%	41%
Posters	14%	14%
Radio	7%	9%
Town announcer	7%	6%
Government officials	4%	4%
Other	4%	7%

 Table 7. Parents primary source of information about Deworming Day (n=391)

# Information parents remembered from the radio

All parents who received information about deworming from the radio said they would encourage their children to take the deworming medicine and 86% shared the message with others in the community. Those who had heard about deworming on the radio most frequently remembered the location of deworming and the age group for treatment (**figure 18**).

*Figure 18. Information remembered by parents from the radio message (n=21)* 



# Information parents remembered from the poster

Parents who received information from the poster most frequently remembered the date and location of deworming (**figure 19**).

### *Figure 19. Information remembered by parents from the poster (n=92)*



# Parental knowledge of the deworming treatment

Fifty five percent of the parents of both enrolled and non-enrolled children knew the correct date of deworming, 73% knew the target group, and 51% were aware of the correct age group for treatment. Of the parents interviewed, 91% thought about the deworming program positively.

# Conclusion

The data shows that parents of non-enrolled children are less aware of Deworming Day than parents of enrolled children. The majority of parents of enrolled children heard about the Deworming Day from their children. The parents of non-enrolled children were informed by their children, friends and relatives, primary school teachers and CHEWs/CHVs. Despite radio campaigns running one week prior to deworming, it was not often cited as a key information source.

# **Coverage Validation**

### Results

In year 5 of the program, 94% of children interviewed from participating schools could identify both the deworming pill administered by the program and the dosage offered. Because this figure is higher than the corresponding figure of 82% coverage<sup>4</sup> as obtained by program reporting forms, it validates the coverage figure and increases confidence that the figure is accurate rather than reflecting any sort of over-reporting or inflation.

# Conclusion

Coverage validation results suggest that the reported treatment coverage rate of 82% is likely to be an accurate reflection of the program's achievement. While this surpasses the WHO's target of 75% SAC, there are still opportunities for improving future coverage. Absenteeism on the deworming day was cited

<sup>&</sup>lt;sup>4</sup> Coverage figure referenced here does not include Kwale treatments.

as the main reason children did not take the deworming pill. Ensuring 100% availability of drugs at the schools on the day of deworming could also further boost adoption.

# Conclusion

The report highlights several findings that can inform program implementers:

- 1. **Program implementers have been successful at disbursing required training materials:** In year 5, the program was successful in distributing the required materials at both sub-county and teacher trainings. However, more could be done to ensure that drugs are available at both sub-county and teacher trainings.
- 2. 'Complete' coverage of all training topics varied at both sub-county and teacher trainings: The extent to which topics were covered in depth in sub-county and teacher trainings varied. However, content was generally more thorough at teacher training than at sub-county training. Inability to discuss all topics in detail at the trainings may be linked to the late arrival of participants. This would reduce the overall length of time available to deliver the training.
- 3. Training participants post-training knowledge on schistosomiasis treatment was lower than for STH treatment: Training pre and post-test scores showed that knowledge of both STH and schistosomiasis treatment improved post-training. However, post-test knowledge was lower in all subject areas for schistosomiasis when compared to STH. This was the case at both sub-county and teacher training level. This suggests that schistosomiasis is more complex, making it harder to retain knowledge.
- 4. The majority of schools demonstrated preparedness for Deworming Day. Monitors observed that Deworming Day was completed systematically: Overall head teachers demonstrated that schools were prepared for Deworming Day, with plans in place for treatment and handling side effects in most cases. Efforts to train additional teachers and conduct sensitization activities were high across schools, as reported by head teachers. The majority of schools adhered to key requirements of drug administration and monitors observed that most schools took a systematic approach to deworming.
- 5. ECD teacher awareness of Deworming Day was low, despite having been told about Deworming Day by primary school teachers: 69% of head teachers said their school had informed affiliated ECD centers about Deworming Day. However, there was generally low awareness amongst ECD teachers, even though they verified that head teachers had told them about Deworming Day. This data suggests that primary teachers could provide more robust information on Deworming Day to ECD teachers.
- 6. Overall knowledge of Deworming Day is lower amongst parents of non-enrolled children compared to parents of enrolled children. Knowledge of the finer details of Deworming Day are generally low among all parents: The majority of parents of enrolled children heard about Deworming Day from their children. The parents of non-enrolled children got information from a greater variety of sources including children, friends and relatives, primary school teachers and CHEWs/CHVs.