



Independent Monitoring and Coverage Validation of National Deworming Day in Rajasthan - February 2016

**REPORT** 

July, 2016

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#### **EXECUTIVE SUMMARY**

The World Health Organization (WHO) estimates that more than 1.5 billion people globally, or 24% of the world's population, are infected with soil-transmitted helminths (STH). Over 270 million preschool-age and over 600 million school-age children live in areas where these parasites are endemic, and face physical, nutritive and cognitive impairment as a result of preventable STH infection. In 2001, WHO developed a strategy to control worm infection and recommended periodic mass deworming for all children living in endemic areas, with annual treatment in places where prevalence is between 20–50%, and twice annual treatment where prevalence exceeds 50%.

India has an estimated 220 million children at risk of STH infection- almost one quarter of the global burden. To combat the burden of STH, the Government of India launched National Deworming Day (NDD) as a part of National Health Mission in February 2015 to deworm all children between 1-19 years of age. The program provides supervised administration of albendazole tablets to all preschool and school-age children, including unregistered (1-5 years) and out-of-school (6-19 years) children. The fourth round of NDD in Rajasthan was observed in all 33 districts on February 10, 2016 followed by mop-up day (MUD) on February 15, 2016. Evidence Action-Deworm the World Initiative, as the technical assistance partner, facilitated planning and implementation of the deworming round in the state.

Evidence Action engaged an independent research agency to provide process monitoring on both deworming day and mop-up day to assess the preparedness of *anganwadis* and schools to implement deworming, followed by coverage validation to evaluate accuracy of the reporting data and coverage estimates. Approvals for the survey were obtained from Department of Health & Family Welfare, Government of Rajasthan.

On deworming day and mop-up day, 130 monitors visited 270 randomly selected government, government aided, and private schools, and 250 anganwadis, to observe deworming. Coverage validation was undertaken subsequently, from February 20-26, when 130 monitors visited 405 randomly selected government, government aided, and private schools and 375 anganwadis to verify the reported treatment figures. Findings highlight a very high degree of program uptake, with the relevant inputs available at schools and anganwadis in a timely manner, including:

- 97% of schools and 100% of anganwadis observed deworming on NDD and mop-up day.
- 98% of schools and 96% of anganwadis reported receiving sufficient drugs for deworming.
- 73% of schools and *anganwadis* received program posters and banners. However, integrated distribution of NDD kits<sup>2</sup> was relatively low for both schools (48%) and *anganwadis* (27%), indicating an area for improvement in future rounds.

<sup>&</sup>lt;sup>1</sup> WHO: Soil-transmitted helminth infections. www.who.int/mediacentre/factsheets/fs366/en/

<sup>&</sup>lt;sup>2</sup> Integrated distribution of NDD kits refers to distributing drugs, banners/posters, and handouts/reporting forms to school and AWC representatives during their trainings at block or PHC level.

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- 84% of schools and *anganwadis* received training for the recent round of deworming. 10 out of the 23 private schools reported being trained within the last two months.
- There was high awareness of the causes of worm infection (93% of teachers), and possible symptoms of adverse events (100% of teachers and *anganwadi* workers (AWWs) knew at least one symptom).
- Cases of adverse events were reported in 9% of schools and 4% of anganwadis.

The coverage validation survey assessed the accuracy of reported data by comparing ticks in class treatment registers with the aggregated figures reported in school reporting forms. Data revealed that:

- 87% of children in government schools were dewormed according to figures recorded in class registers, corresponding to the 90% coverage figure reported by the same schools. Thus, coverage validation found an overall inflation of 10% (verification factor of 0.91) in treatment figures reported at the state level.
- 87% of schools and 91% of *anganwadis* followed correct protocols for recording the number of children dewormed. 10% of schools did not adhere to the recording protocol.
- Over 40% of anganwadis did not have a list of unregistered preschool-age children.
- 100% of the interviewed school children received a deworming tablet.

The monitoring exercise highlights opportunities to strengthen future rounds. For instance, while training attendance was generally high, ensuring timely communication of training dates to schools and *anganwadis* would likely help to increase attendance, strengthening teachers' capacity for effective implementation in schools. The database of functionaries across all stakeholder departments needs to be regularly updated to ensure that program information is reaching the intended audience and allowing for action as needed.

Efforts are needed to strengthen the integrated distribution of deworming kits at trainings, to ensure availability of drugs and enable more widespread use of IEC materials for community awareness, potentially improving program reach. Enhanced engagement of ASHAs and AWWs is also critical for program improvement, including through continuing incentives for ASHA workers to motivate their mobilization of unregistered and out-of-school children.

Inflation in reporting at schools and *anganwadis* suggest that additional efforts are needed to increase accuracy of reporting during the aggregation process, including increased emphasis on the reporting protocols during training, in IEC materials, and through reinforcement messages (SMS).

#### MONITORING AND EVALUATION

## Study Background

Understanding program reach and quality is a key component of a successful deworming intervention. In order to fulfill this need, Evidence Action worked intensively with Government of Rajasthan's health and education departments to assess the quality of program planning and

implementation with an ultimate focus on developing recommendations for improvements in future rounds. The preparedness of schools, *anganwadis*, and health systems to undertake deworming; adherence to the prescribed deworming processes; and ensuring accurate coverage reporting are key components. Three types of monitoring and evaluation are included in each deworming program round: (1) process monitoring, (2) coverage reporting, and (3) coverage validation.

## Process Monitoring, Coverage Reporting, and Coverage Validation

Process Monitoring assesses the preparedness of schools, *anganwadis*, and health systems to implement mass deworming and the extent to which they have followed correct processes to ensure a high quality deworming program. Evidence Action assessed program preparedness during the pre-deworming phase and through selected independent monitors who observed the processes on deworming day and mop-up day by: a) telephone monitoring and cross verification, and b) physical verification by visiting schools and training venues.

Coverage Reporting assesses the estimated number of program beneficiaries, and is a crucial component to measure success. With close support from Evidence Action's state and field teams, the Department of Health collected and compiled the coverage report for NDD within the established reporting timelines. School teachers and *anganwadi* workers had been trained on the recording and reporting protocols. These protocols, along with the reporting cascade and timelines (refer to Figure A below), were shared with all districts through the state's directives.

In order to improve the accuracy of coverage reporting by the schools and anganwadis, every participating school and anganwadi was instructed to follow a recording protocol for deworming. Every teacher and anganwadi worker was required to put a single tick mark ( $\checkmark$ ) next to a child's name in the attendance register if they received albendazole on deworming day, and a double-tick mark ( $\checkmark\checkmark$ ) if received on mop-up day. Schools and anganwadis provided the number of enrolled/registered children dewormed by counting the single and double tick marks in the registers. Headmasters and anganwadi workers compiled the number of dewormed children from attendance registers, filled out the summary reporting format, and submitted it to the next level.

Figure A: Reporting cascade and timelines for Schools



Figure B: Reporting cascade and timelines for *Anganwadis* 

Anganwadi Worler (AWW)	•Report by February 17, 2015 to ASHA
ASHA Sahyogini	•To share with ANM by February 19, 2015
ANM	•ANM to share at block level by February 26
всмно	•Compile all forms and share with RCHO by March 10
RCHO	•Compile and share forms with Nodal officer of Health department (state level) by March 17

Coverage Validation is an ex-post check of the accuracy of the reporting data and coverage estimates. Coverage validation data was gathered through interviews with headmasters and three students (in three randomly selected classes) in each school, and by checking all class registers and reporting forms. These activities provided a framework to validate coverage reported by schools and to calculate the level of inaccuracy in the data by comparing the ticks with numbers reported in school reporting forms.

# Sampling and Sample Size

Through a competitive selection process, Evidence Action hired an experienced independent research agency, AMS, to implement monitoring across 125 blocks in all 33 districts of the state.

A two-stage probability sampling procedure was adopted to select schools for process monitoring and schools and *anganwadis* for coverage validation (Table A). For process monitoring, *anganwadis* near sampled schools were selected. Process monitoring was carried out on two days: NDD (February 10, 2016) and mop-up day (February 15, 2016). On each day, monitors aimed to visit 135 randomly selected government/government aided schools and 125 nearby *anganwadis* to observe deworming. Coverage validation was undertaken during February 20-26, 2016 during which monitors targeted to visit 405 randomly selected government/government aided schools and 375 *anganwadis* to verify the reported coverage numbers. Additionally, five monitors visited 23 private schools on NDD and mop-up day, and 31 private schools during coverage validation.

Process information was collected to check for adequacy of drugs and IEC materials; assess whether teachers had received training; and check knowledge of adverse event management and reporting protocols. During coverage validation, monitors collected information by interviewing school headmasters/teachers, anganwadi workers, checking attendance registers, and interviewing three children from each school.

Table A: Targets and coverage of schools and anganwadis during independent monitoring

Indicators	Process monitoring		ss monitoring   Coverage valida	
	Target	Achieved	Target	Achieved
Total number of districts	33	33	33	33
Total number of blocks	125	125	125	125
Total number of schools	270	270	405	405
Government/government aided schools	247	247	374	374
Private schools	23	23	31	31
Total number of children interviewed	NA	243	NA	1182
Total number of anganwadis	250	250	375	375

### **Independent Monitoring Formats**

To ensure comprehensive coverage and triangulation of data, four formats were administered: one each for process monitoring at schools and *anganwadis* on NDD and mop-up day, and one each for schools and *anganwadis* for coverage validation. Evidence Action designed and finalized formats in consultation with Department of Health, Government of Rajasthan. The formats were translated into the regional language, checked to ensure that the language was concise and easily understandable, and loaded onto tablet PCs. Using these four standard formats, monitors collected information on training, availability and use of IEC material, availability and submission of reporting forms, and frequency and management of adverse events.

#### Authorization from Government

The surveys were conducted with prior approval of the state government. An approval letter was issued by Department of Health, Government of Rajasthan. Each monitor carried copies of the letter explaining the process of monitoring and coverage validation, and requesting participation of school and *anganwadi* staff.

## Training of Trainers and Independent Monitors

A two-phase training program was organized at the state level. In the first phase, representatives from Evidence Action provided a one-day comprehensive training to six master trainers of AMS in Delhi on February 3, 2016. These master trainers conducted a two-day training of 160 monitors during February 7-8, 2016 in batches of 50-55 monitors, supervised by Evidence Action. A total of 160 trainees participated, including buffer monitors and 33 supervisors.

The training included discussions on the deworming initiative, importance of independent monitoring, and monitoring formats. Afterward, all relevant formats were shared. Monitors received a demonstration of the tablet PC and were briefed on Computer Assisted Personal Interview (CAPI) administration process and troubleshooting. Upon completion of these modules, each monitor used the tablet to complete at least one practice session in the presence of trainers. Trainers answered questions, and a live demonstration was conducted after the practice session. At the end of the training, all participants were tested on their comprehension and ability to work in the field.

## Field Implementation

Each monitor was allotted two schools and two *anganwadis* for process monitoring, and subsequently three schools and three *anganwadis* to survey for coverage validation. Monitors were provided a tablet device, charger, printed copy of monitoring formats, and albendazole tablets for demonstration. The details of sample schools were shared with them one day before fieldwork commenced to ensure that local educational authorities were not informed of their visit ahead of time, potentially biasing results.

For process monitoring, monitors were instructed to visit schools first and then a nearby anganwadi. In most cases, however, schools administered albendazole tablets after the mid-day meal, so monitors revisited those schools around noon after collecting information from anganwadis. For coverage validation, the strategy was slightly modified; if a school was closed or non-traceable, monitors covered the next school on their list, and returned to the first school at another time on a subsequent day. If the school was non-traceable or closed consistently after attempting three visits, a new school was substituted for the old one.

Supervisors assessed monitors' attendance and compliance with protocols. Monitors completed both formats by 4:00 pm, and reported to their supervisors. At this time, data was synced to the main server and assessed for comprehensiveness.

## **Quality Control**

Appropriate quality control measures were taken to ensure data collected was accurate and comprehensive. Approximately 20% of schools and *anganwadi*s were contacted over the phone within one day to confirm that they had participated in monitoring and validation. Evidence Action district coordinators made visits to spot check the monitoring processes and tele-callers contacted schools and *anganwadis* to verify visits. In all cases, school and *anganwadi* staff were asked to sign a participation form and provide an official stamp, verifying that the school or *anganwadi* was actually visited. The data synced to tablets was vetted as quickly as possible to ensure comprehensiveness, and errors were addressed by follow up visits or calls.

#### **KEY FINDINGS**

Key results from independent monitoring are provided below; detailed tables are included in the report annexures.

#### **Training**

For effective implementation of NDD, teachers and *anganwadi* workers are trained prior to the deworming day. Independent monitoring data demonstrated that teacher/headmasters from 85% of schools and 84% of *anganwadi* workers received training for the deworming round.<sup>3</sup> In schools where a headmaster/teacher attended training, 78% provided training to other teachers in their school (Annexure 1 – Table 1).

Among those who did not attend training, the primary reason for teachers (31%) and *anganwadi* workers (55%) was unawareness about the date and time of training as the main reason. Only 10 of the 23 sampled private schools reported to have received training on deworming in the last two months; this group also reported unawareness about training date and time as the major reason for not attending training. This information, along with 34% of *anganwadis* reporting that they did not receive an SMS about the deworming schedule, confirms the need to update the database

<sup>&</sup>lt;sup>3</sup> Findings from both process monitoring and coverage validation were grouped together for this indicator.

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of functionaries to ensure that program information reaches the intended audiences (Annexure 1 - Table 1).

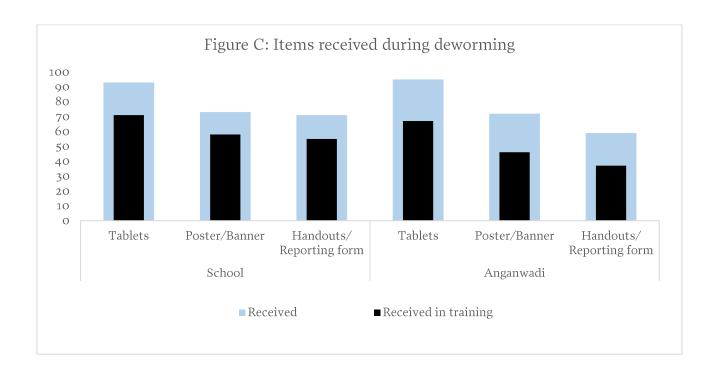
### Integrated Distribution of Materials and Drugs

NDD guidelines recommend an integrated distribution process, providing all necessary IEC and training materials along with deworming tablets to schools and anganwadi centers at Block level training.<sup>4</sup> Despite the well-defined NDD kit and integrated distribution cascade, findings from independent monitoring demonstrate that only 48% of schools and 27% of anganwadis in the state received integrated distribution of deworming materials (Annexure 1 — Tables 1).

Around 93% of schools and 95% of anganwadis received tablets in time for NDD; however, 71% of schools and 67% of anganwadis had received these tablets as a part of training, while others received the tablets separately. Overall, 73% of schools and 72% of anganwadis received poster/banners; whereas around 58% of schools and 46% of anganwadis received the banners/posters during training. About 71% of schools and 59% of anganwadis received handouts/reporting forms and 55% of schools and 37% of anganwadis received them during training. (Figure C, Annexure 1 — Tables 2)

Sixteen of the 23 private schools covered during process monitoring reported receiving deworming tablets and 10 reported receiving banner/posters for deworming. During coverage validation 20 out of 31 private schools reported to have received sufficient quantity of deworming tablets. These findings reveal the need for a future focus on improving the integrated training and distribution cascade, to maximize the opportunity for efficient program operations.

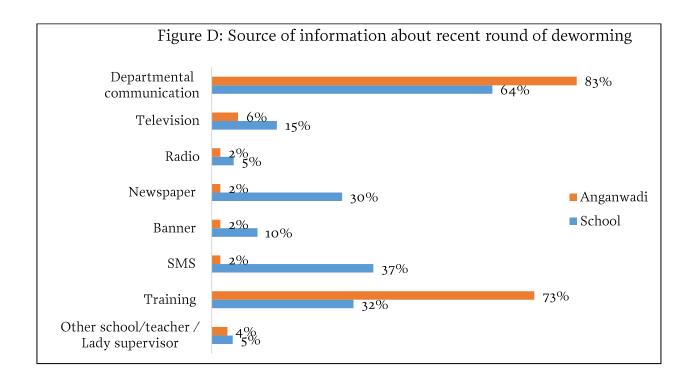
<sup>&</sup>lt;sup>4</sup> 'National Deworming Day, operational Guidelines 2016, Ministry of Health and Family Welfare, Government of India <a href="http://nrhm.gov.in/images/pdf/NDD-2016/Guidelines/Draft\_NDD\_2016\_Operational\_Guidelines.pdf">http://nrhm.gov.in/images/pdf/NDD-2016/Guidelines.pdf</a>



## Source of Information about Deworming

Departmental communication was the most commonly reported source of program information for schools (64%) and anganwadis (83%); this was also the case for 11 out of 23 private schools. These sources were followed by SMS (37%) for schools, and training (73%) for anganwadis; there is an opportunity to improve on the reach of SMS messaging for anganwadi workers. For schools, newspaper (30%) and television (15%) were other significant sources of information, while radio was not an effective source of information for these groups (Figure D & Annexure 1 — Table 1).

Most children reported their primary source of information about deworming to be verbal instructions and explanation from their teacher (99%), followed by the banner/poster (15%), newspapers (8%), and television (7%) (Annexure 1 – Table 5).



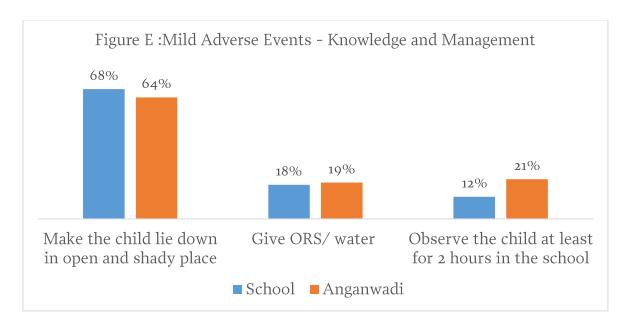
## Implementation of Deworming

Independent monitoring data showed that 90% of schools and 87% of anganwadis reported to conduct deworming on the appropriate day; however, monitors observed deworming first-hand in 68% of schools and 87% of anganwadis (Annexure 1 - Table 1 & 3). Coverage validation demonstrated that 97% of schools and 100% of anganwadis had dewormed children during deworming or mop-up day (Annexure 2 & 3 - Table 1). Out of all enrolled children interviewed on deworming day and mop-up day, 92% reported receiving a tablet on one of these days. This helps confirm that deworming occurred in a large proportion of schools and anganwadis (Annexure 1 - Table 5). Sixteen out of the 23 monitored private schools observed deworming on both NDD and mop-up day.

### Adverse Events - Knowledge and Management

On the whole, interviews revealed substantial awareness regarding potential adverse events, and understanding of appropriate protocols to follow in case of such events. However, only 4% were able report *all* the symptoms of an adverse event. The most commonly reported symptoms were abdominal pain, vomiting, and nausea, but less than a third (30%) of implementing staff recognized fatigue as a symptom (Annexure 1 - Table 1). When asked about proper responses to adverse events, 68% of teachers and 64% of *anganwadi* workers knew to have a child lie down in an open, shady place but 20% or less knew to give ORS/water and observe the child for two hours (Figure E). 36% of schools and 39% of *anganwadis* reported the need to call a PHC doctor if symptoms persisted (Annexure 1 - Table 1). Taken together, these findings indicate a need to more clearly communicate adverse event protocols going forward.

As a measure to prevent adverse events, 82% of teachers and 83% of anganwadi workers correctly asked children if they were sick before administering tablets; 91% of schools and 98% of anganwadi workers did not administer tablets to a sick child. Ultimately, around 9% of schools and 4% of anganwadis reported any cases of mild adverse event (Annexure 1 – Table 3).



# **Recording Protocol**

Coverage validation data found that 87% of schools and 91% of anganwadis followed correct recording protocols, while 13% percent of schools did not adhere to the protocols. Of these non-adhering schools, some mistakenly followed incorrect instructions while 3% did not make efforts to follow any protocol (Annexure 2 — Table 2). During training, teachers and anganwadi workers were instructed to retain a copy of school/anganwadi reporting forms; however, 12% of anganwadi workers interviewed during process monitoring were not aware of this requirement (Annexure 1 — Table 1). During coverage validation, reporting forms were available in 76% of schools and 52% of anganwadis. Among these, 95% of schools and 98% of anganwadis had completely filled the reporting forms (Annexure 2 — Table 2).

As per NDD guidelines, ASHAs were required to prepare a list of children not attending schools and *anganwadis* and submit it to *anganwadi* workers to increase coverage of these children in *anganwadi* centers; however, only 59% of *anganwadis* were observed to have lists of unregistered (1–5 years) children available (Annexure 1 — Table 1). Going forward, the program can work more closely with ASHAs to ensure they compile these lists that can improve coverage and correct reporting of out-of-school children, and to ensure that ASHAs are aware of the available government-issued incentives.

### Coverage Validation

Based on data from schools and *anganwadis* sampled for coverage validation, we calculated state-level verification factors. Verification factors are common indicators for Neglected Tropical Disease control programs around the world. The verification factor compares the aggregated number of ticks in school/*anganwadi* registers (indicating that children were dewormed, as per the established reporting protocol) to the aggregated figures reported by schools/*anganwadis* in forms submitted to the state. A verification factor of 1 means the schools reported the exact same figures that they recorded on deworming day. A factor less than 1 indicates over-reporting, and a factor greater than 1 indicates under-reporting.

The verification factor was estimated on the basis of availability of a copy of reporting forms at schools and anganwadis. As mentioned in the previous section, 76% of schools and 52% of anganwadis had a copy of the reporting form available after deworming and mop-up day. The state level verification factor for enrolled children was 0.91, indicating that for every 91 enrolled children who were recorded as dewormed in schools, the school reported that 100 enrolled children had been dewormed (Annexure 2 — Table 2). This corresponds to an overall 10% inflation of reporting for schools in the state, meaning that reported numbers appear to be approximately 10% higher than the numbers recorded in attendance registers. Similarly, the state level verification factors for anganwadi children (0.36) and non-registered (1-5 years) children (0.88) correspond to inflation of 178% and 14% respectively (Annexure 3 — Table 2). To address this in the future, the program will focus on ensuring high uptake of training and emphasizing reporting; training was found to increase the accuracy of reporting. Trained schools had 9% inflation in reporting, while untrained schools had 20% inflation in reporting (Annexure 2 — Table 2). Evidence Action will also coordinate a data quality assessment (DQA) to further understand the challenges in data reporting and management.

Further, attempts were made to understand the maximum number of enrolled children that could have been dewormed in the state. Coverage validation showed that 97% of schools did deworming on either of the treatment days and attendance data showed that 90% of the total school enrolled children were in attendance (Annexure 2 - Table 2). Moreover, 100% of children interviewed during coverage validation reported to have received a deworming tablet and consumed it under supervision in schools (Annexure 2 - Table 3). Based on these factors, a maximum of 87% of children could have been dewormed in the state. This corresponds closely to the state's reported coverage of 90% of children in government schools in the state.

#### RECOMMENDATIONS

Since the program follows a fixed-day approach and engages multiple stakeholders, it is critical that all components are aligned for successful implementation and to prevent gaps and delays. Of particular importance are IEC, training, drug logistics, and adverse event management related preparedness. Following are recommendations for program improvements that emerged from monitoring and evaluation of the February 2016 deworming round:

- 1. In coordination with all stakeholder departments, consensus on fixing target population will help to assess program coverage and expand reach to children not attending schools and *anganwadis*. This can be in part achieved through increased availability of ASHAgenerated lists as previously mentioned.
- 2. Training is a critical component of the program. Findings about training attendance suggest that quality and coverage can be improved in future rounds by ensuring that sessions are planned earlier and dates are communicated clearly. Better attendance at trainings may also be used to capture contact details, improving the ability to reach implementers with reinforcement messages. Improving attendance at trainings will likely benefit the distribution cascade as well, since drugs and materials are intended to be distributed at the time of training.
- 3. As many headmasters and *anganwadi* workers did not receive deworming SMS during NDD implementation, the contact database of stakeholder functionaries needs to be regularly updated to ensure comprehensive information dissemination to the relevant officials in a timely manner.
- 4. Findings suggest a need for greater focus on integrated distribution to ensure that sufficient drugs and materials reach schools before deworming day. This requires more efficient, timely planning for the integrated training and distribution cascade.
- 5. As many schools and *anganwadis* did not have a list of out-of-school and unregistered children, efforts are required to engage ASHAs proactively to prepare these lists in their communities. ASHAs and AWWs can be an asset to the program in this regard since they conduct community meetings, mobilize children, and conduct other health education activities. Providing ASHAs with incentives, as approved by the national government, should help motivate them to conduct these activities for the deworming program.
- 6. Coverage validation data, as well as differences in reporting between trained and untrained schools, suggest that a greater emphasis on recording protocols will improve the quality of coverage data in the future rounds.
- 7. The levels of reporting inflation suggest that additional efforts are needed to improve accuracy of coverage reporting, including increased emphasis on reporting protocols in trainings, IEC materials, and reminder SMS. Moreover, a DQA will inform understanding of the administrative and reporting challenges with program data management.

### **WAY FORWARD**

Program monitoring has given useful insights for increasing coverage in future rounds. Aligning to the NDD operational guidelines, Evidence Action will coordinate efforts to support the state in the aforementioned areas. As the program has achieved significant coverage for children enrolled in schools, moving forward the strategies will focus on increasing coverage of unregistered and out-of-school children, and reaching children in private schools. Efforts will be directed toward encouraging schools and *anganwadis* to follow standard recording protocols to improve the accuracy of coverage data. Further, timely implementation of a DQA will help to understand the data quality challenges and make additional recommendations for future improvements.

# Annexure-1: Analysis plan for Process Monitoring (School/Anganwadi)

Table-1: Interview with headmaster/headmistress/principal

Indicators	Scho (Total =		Anganwadi (Total = 250)	
indicators	Percentage		Percentage	Number
Type of School (N = 270)	Tereoritage	rumoer	rereentage	Tvalifoci
Govt./Govt. Aided schools	91.5%	247	NA	NA
Private Schools	8.5%	23	NA	NA
Respondent of the section (N = 270)		-		
Headmaster/Principal	76.7%	207	NA	NA
Vice principal	5.6%	15	NA	NA
Nodal Teacher	8.1%	22	NA	NA
Any other teacher	9.6%	26	NA	NA
Category of school (N= 270)				
Primary(1 to 5)	34.8%	94	NA	NA
Primary with upper primary(1 to 8)	33.0%	89	NA	NA
Primary with upper primary and secondary(1	12.6%	34	NA	NA
to 10)				
Primary with upper primary secondary and	0.7%	2	NA	NA
higher secondary(1 to 12)				
Upper primary only(6 to 8)	2.6%	7	NA	NA
Upper primary with secondary and higher	13.0%	35	NA	NA
secondary(6 to 12)				
upper primary with secondary(6 to 10)	1.9%	5	NA	NA
Secondary only (9 to 10)	0%	О	NA	NA
Secondary with higher secondary(9 to 12)	1.5%	4	NA	NA
Higher Secondary only or Jr. college(11 to 12)	0%	О	NA	NA
Did any teacher/ anganwadi worker attend	77.8%	210	73.2%	183
training in last 2 months (School N= 270)				
Did trained teacher provide training to				
other teachers¹				
Yes, trained all other teachers	77.6%	163	NA	NA
Yes, trained some other teachers	0%	О	NA	NA
No, did not train other teachers	19.5%	41	NA	NA
Don't know /don't remember	2.9%	6	NA	NA
Reason for not attending official training				
Location was too far away	3.4%	2	1.6%	1
Did not know the date/timings	31.0%	18	54.8%	34

T. 19	Scho		Anganwadi (Total = 250)	
Indicators	(Total = Percentage	Number	Percentage	Number
Busy in other official work	15.5%	9	6.5%	4
Attended Deworming training in the past	13.8%	8	45.2%	28
Not Necessary	10.3%	6	9.7%	6
Others	37.9%	22	37.1%	23
Source of information about recent round	37.970		37.270	_5
of Deworming program (School N= 270;				
Anganwadi N =250)				
Departmental communication	63.7%	172	82.8%	207
Television	14.8%	40	6.0%	15
Radio	5.2%	14	2.0%	5
Newspaper	29.6%	80	2.0%	5
Banner	10.4%	28	2.0%	5
SMS	36.7%	99	2.0%	5
Training	32.2%	87	73.2%	183
Other school/teacher	4.8%	13	3.6%	9
Others	11.5%	31	11.6%	29
Any source of information about	99%	269	100.0%	250
Deworming				
All the sources of information	0%	О	0.4%	1
Source of information about Deworming				
tablets distribution (Anganwadi N = 250)				
Departmental meeting	NA	NA	78.0%	195
Other Anganwadis	NA	NA	7.2%	18
Awareness about the ways a child can get	93.0%	251	NA	NA
worm infection				
Different ways that children can get worm				
infected (School N= 251; Anganwadi N =				
250)				
Having foods without washing hands	87.6%	220	82.8%	207
Not washing hands after using toilets	72.5%	182	60.4%	151
Not using sanitary latrine	38.6%	97	32.0%	80
Moving in bare feet	55.8%	140	51.6%	129
Consume vegetables and fruits without	43.4%	109	35.6%	89
washing	a 0'	-0	- · · · · · · · · · · · ·	1 -
Having long and dirty nails	31.1%	78	24.4%	61
Others	9.2%	23	13.2%	33
Any way a child can get worm infection	93.0%	251	95.6%	239

Indicators		Scho		Anganwadi	
Awareness about all the ways a child can get worm infection  Receive SMS about the Deworming program  Preference to receive the SMS (School N=270; Anganwadi N=250)  Morning  18.1% 49 18.8% 47 Afternoon 19.3% 52 15.2% 38 Evening 15.9% 43 18.8% 47 Any time 45.2% 122 39.6% 99 Do not prefer the SMS 1.5% 4 7.6% 19 Having integrated distribution (Tablets, Poster/Banner, handouts/reporting, adverse event reporting form) in training Having received Poster/Banner, handouts/reporting, adverse event reporting form in training Visibility over the Deworming Day Poster/Banner is posted (School N= 197; Anganwadi N = 179) Clearly posted/ visible to all Hidden in a room/partially visible. 11.7% 23 15.6% 28 Not posted/ not visible Availability of reporting form NA NA 81.0% 119 NA NA 81.0% 119 NA NA 98.4% 42 38.0% 68 Availability of reporting form NA NA NA 98.4% 147 Prescribed dose of 2-6 years of children Prescribed dose of 6-19 years of children Prescribed dose of 1-2 years of child	Indicators		<u> </u>		
Worm infection   Receive SMS about the Deworming program   97.4%   263   66.4%   166				~	
Receive SMS about the Deworming program   97.4%   263   66.4%   166		13.0%	34	7.6%	19
Preference to receive the SMS (School N=270; Anganwadi N= 250)					
N=270; Anganwadi N= 250    18.1%   49   18.8%   47		97.4%	263	66.4%	166
Morning	•				
Afternoon 19,3% 52 15,2% 38  Evening 15,9% 43 18.8% 47  Any time 45,2% 122 39.6% 99  Do not prefer the SMS 1.5% 4 7.6% 19  Having integrated distribution (Tablets, Poster/Banner, handouts/reporting, adverse event reporting form in training  Having received Poster/Banner, handouts/reporting, adverse event reporting form in training  Wisibility over the Deworming Day Poster/Banner is posted (School N= 197; Anganwadi N = 179)  Clearly posted/ visible to all 67.0% 132 46.4% 83  Hidden in a room/partially visible. 11.7% 23 15.6% 28  Not posted/ not visible 21.3% 42 38.0% 68  Availability of reporting form NA NA 81.0% 119  Has the ASHA submitted you a list of preschool non registered Children (1-5) in your community  Are non-registered (1-6 years) children NA NA 98.4% 140  also getting deworming tablets in your anganwadi today  Prescribed dose of 2-6 years of children NA NA 98.4% 246  Prescribed dose of 1-2 years of children NA NA 52.4% 131  Awareness about to whom to submit the completed School/anganwadi N= 250)  Retain a copy of the School/anganwadi 94.4% 255 77.6% 194					
Evening			49		
Any time		19.3%	52	15.2%	38
Do not prefer the SMS		15.9%	43	18.8%	47
Having integrated distribution (Tablets, Poster/Banner, handouts/reporting, adverse event reporting form) in training  Having received Poster/Banner, handouts/reporting, adverse event reporting form in training  Visibility over the Deworming Day Poster/Banner is posted (School N= 197; Anganwadi N = 179)  Clearly posted/ visible to all 67.0% 132 46.4% 83  Hidden in a room/partially visible. 11.7% 23 15.6% 28  Not posted/ not visible 21.3% 42 38.0% 68  Availability of reporting form NA NA 81.0% 119  Has the ASHA submitted you a list of preschool non registered Children (1-5) in your community  Are non-registered (1-6 years) children NA NA 90.4% 140  also getting deworming tablets in your anganwadi today  Prescribed dose of 2-6 years of children NA NA 90.4% 226  Prescribed dose of 1-2 years of children NA NA 98.4% 246  Prescribed School/anganwadi Reporting (School N= 270; Anganwadi N= 250)  Retain a copy of the School/anganwadi 94.4% 255 77.6% 194	The state of the s	45.2%	122	39.6%	99
Poster/Banner, handouts/reporting, adverse event reporting form) in training  Having received Poster/Banner, handouts/reporting, adverse event reporting form in training  Visibility over the Deworming Day Poster/Banner is posted (School N= 197; Anganwadi N = 179)  Clearly posted/ visible to all 67.0% 132 46.4% 83  Hidden in a room/partially visible. 11.7% 23 15.6% 28  Not posted/ not visible 21.3% 42 38.0% 68  Availability of reporting form NA NA 81.0% 119  Has the ASHA submitted you a list of preschool non registered Children (1-5) in your community  Are non-registered (1-6 years) children also getting deworming tablets in your anganwadi today  Prescribed dose of 2-6 years of children NA NA 98.4% 246  Prescribed dose of 1-2 years of children NA NA 98.4% 246  Prescribed School/anganwadi Reporting (School N= 270; Anganwadi N= 250)  Retain a copy of the School/anganwadi  94.4% 255 77.6% 194	Do not prefer the SMS	1.5%	4	7.6%	19
adverse event reporting form) in training  Having received Poster/Banner, handouts/reporting, adverse event reporting form in training  Visibility over the Deworming Day Poster/Banner is posted (School N= 197; Anganwadi N = 179)  Clearly posted/ visible to all Hidden in a room/partially visible.  Not posted/ not visible Availability of reporting form Has the ASHA submitted you a list of preschool non registered Children (1-5) in your community Are non-registered (1-6 years) children also getting deworming tablets in your anganwadi today Prescribed dose of 2-6 years of children Prescribed dose of 1-2 years of children Awareness about to whom to submit the completed School/anganwadi N= 250)  Retain a copy of the School/anganwadi  47.8%  47.8%  129  27.2% 68  47.8% 129  27.2% 68  47.8% 129  27.2% 68  47.8% 129  27.2% 68  47.8% 129  27.2% 68  47.8% 129  27.2% 68  47.8% 129  27.2% 68  47.8% 129  27.2% 68  47.8% 129  27.2% 68  47.8% 129  27.2% 68  47.8% 129  27.2% 68  47.8% 129  27.2% 68  47.8% 129  27.2% 68  47.8% 129  27.2% 68  47.8% 129  27.2% 68  47.8% 129  46.4% 83  11.7% 23  15.6% 28  NA	Having integrated distribution (Tablets,				
Having received Poster/Banner, handouts/reporting, adverse event reporting form in training  Visibility over the Deworming Day Poster/Banner is posted (School N= 197; Anganwadi N = 179)  Clearly posted/ visible to all Hidden in a room/partially visible.  Not posted/ not visible 21.3% Availability of reporting form NA NA NA 81.0% 119  Has the ASHA submitted you a list of preschool non registered Children (1-5) in your community  Are non-registered (1-6 years) children also getting deworming tablets in your anganwadi today  Prescribed dose of 2-6 years of children NA NA NA NA 90.4% 226 Prescribed dose of 6-19years of children NA NA NA 98.4% 246 Prescribed dose of 1-2 years of children NA NA NA 98.4% 131 Awareness about to whom to submit the completed School/anganwadi Reporting (School N= 270; Anganwadi N= 250) Retain a copy of the School/anganwadi  94.4% 255 77.6% 194	Poster/Banner, handouts/reporting,				
handouts/reporting, adverse event reporting form in training  Visibility over the Deworming Day Poster/Banner is posted (School N= 197; Anganwadi N = 179)  Clearly posted/ visible to all 67.0% 132 46.4% 83  Hidden in a room/partially visible. 11.7% 23 15.6% 28  Not posted/ not visible 21.3% 42 38.0% 68  Availability of reporting form NA NA 81.0% 119  Has the ASHA submitted you a list of preschool non registered Children (1-5) in your community  Are non-registered (1-6 years) children also getting deworming tablets in your anganwadi today  Prescribed dose of 2-6 years of children NA NA 90.4% 226  Prescribed dose of 6-19 years of children NA NA 98.4% 246  Prescribed dose of 1-2 years of children NA NA 98.4% 246  Prescribed School/anganwadi Reporting (School N= 270; Anganwadi N= 250)  Retain a copy of the School/anganwadi	adverse event reporting form) in training				
form in training  Visibility over the Deworming Day Poster/Banner is posted (School N= 197; Anganwadi N = 179)  Clearly posted/ visible to all Hidden in a room/partially visible. Not posted/ not visible Not posted/ not visible 21.3% Availability of reporting form NA NA S1.0% 119 Has the ASHA submitted you a list of preschool non registered Children (1-5) in your community Are non-registered (1-6 years) children also getting deworming tablets in your anganwadi today Prescribed dose of 2-6 years of children Prescribed dose of 1-2 years of children NA	Having received Poster/Banner,	47.8%	129	27.2%	68
Visibility over the Deworming Day Poster/Banner is posted (School N= 197; Anganwadi N = 179)  Clearly posted/ visible to all Hidden in a room/partially visible.  Not posted/ not visible Availability of reporting form  Has the ASHA submitted you a list of preschool non registered Children (1-5) in your community  Are non-registered (1-6 years) children also getting deworming tablets in your anganwadi today  Prescribed dose of 2-6 years of children Prescribed dose of 1-2 years of children  Awareness about to whom to submit the completed School/anganwadi N= 250)  Retain a copy of the School/anganwadi  Posted (School N= 197; Afo, 00	handouts/reporting, adverse event reporting				
Poster/Banner is posted (School N= 197; Anganwadi N = 179)  Clearly posted/ visible to all  Hidden in a room/partially visible.  Not posted/ not visible  Availability of reporting form  Has the ASHA submitted you a list of preschool non registered Children (1-5) in your community  Are non-registered (1-6 years) children also getting deworming tablets in your anganwadi today  Prescribed dose of 2-6 years of children  Prescribed dose of 1-2 years of children  Awareness about to whom to submit the completed School/anganwadi N= 250)  Retain a copy of the School/anganwadi  Posted Action 132  46.4%  83  Hidden in a room/partially visible  11.7%  23  15.6%  132  46.4%  83  Hidden in a room/partially visible  11.7%  23  15.6%  140  81.0%  119  NA  NA  NA  S8.8%  147  PNA  NA  NA  S9.4%  246  Prescribed dose of 2-6 years of children  NA  NA  S9.4%  131  Awareness about to whom to submit the completed School/anganwadi Reporting (School N= 270; Anganwadi N= 250)  Retain a copy of the School/anganwadi  School N= 270; Anganwadi  Prescribed dose of the School/anganwadi  School N= 270; Anganwadi  School N= 270; Anganwadi  Prescribed dose of the School/anganwadi  School N= 270; Anganwadi  School N= 270; Anganwadi  School N= 270; Anganwadi  School N= 250  Retain a copy of the School/anganwadi	form in training				
Anganwadi N = 179)  Clearly posted/ visible to all  Hidden in a room/partially visible.  Not posted/ not visible  Availability of reporting form  Has the ASHA submitted you a list of preschool non registered Children (1-5) in your community  Are non-registered (1-6 years) children also getting deworming tablets in your anganwadi today  Prescribed dose of 2-6 years of children  Prescribed dose of 6-19years of children  NA  NA  NA  NA  NA  NA  NA  NA  NA  N	Visibility over the Deworming Day				
Clearly posted/ visible to all         67.0%         132         46.4%         83           Hidden in a room/partially visible.         11.7%         23         15.6%         28           Not posted/ not visible         21.3%         42         38.0%         68           Availability of reporting form         NA         NA         81.0%         119           Has the ASHA submitted you a list of preschool non registered Children (1-5) in your community         NA         NA         58.8%         147           Are non-registered (1-6 years) children also getting deworming tablets in your anganwadi today         NA         NA         64.2%         140           Prescribed dose of 2-6 years of children Prescribed dose of 6-19years of children NA         NA         90.4%         226           Prescribed dose of 1-2 years of children NA         NA         98.4%         246           Prescribed dose of 1-2 years of children NA         NA         52.4%         131           Awareness about to whom to submit the completed School/anganwadi Reporting (School N= 270; Anganwadi N= 250)         66%         177         51.6%         129           Retain a copy of the School/anganwadi         94.4%         255         77.6%         194	<u> </u>				
Hidden in a room/partially visible.  Not posted/ not visible  Availability of reporting form  Has the ASHA submitted you a list of preschool non registered Children (1-5) in your community  Are non-registered (1-6 years) children also getting deworming tablets in your anganwadi today  Prescribed dose of 2-6 years of children  Prescribed dose of 6-19 years of children  Awareness about to whom to submit the completed School/anganwadi N= 250)  Retain a copy of the School/anganwadi  P19  11.7%  23  15.6%  28  15.6%  28  18.0%  NA  NA  NA  NA  58.8%  147  NA  NA  NA  58.8%  147  NA  NA  90.4%  226  140  140  140  140  140  140  140  14	Anganwadi N = 179)				
Not posted/ not visible  Availability of reporting form  NA  NA  NA  S1.0%  119  Has the ASHA submitted you a list of preschool non registered Children (1-5) in your community  Are non-registered (1-6 years) children also getting deworming tablets in your anganwadi today  Prescribed dose of 2-6 years of children  NA  NA  NA  NA  NA  NA  O4.2%  140  140  140  Prescribed dose of 6-19years of children  NA  NA  NA  NA  O9.4%  226  Prescribed dose of 1-2 years of children  NA  NA  NA  NA  S2.4%  131  Awareness about to whom to submit the completed School/anganwadi Reporting  (School N= 270; Anganwadi N= 250)  Retain a copy of the School/anganwadi  O4.4%  255  77.6%  194	Clearly posted/ visible to all	67.0%	132	46.4%	83
Availability of reporting form  Has the ASHA submitted you a list of preschool non registered Children (1-5) in your community  Are non-registered (1-6 years) children also getting deworming tablets in your anganwadi today  Prescribed dose of 2-6 years of children  Prescribed dose of 6-19 years of children  NA  NA  NA  NA  O4.2%  140  226  Prescribed dose of 1-2 years of children  NA  NA  NA  NA  98.4%  246  Prescribed dose of 1-2 years of children  NA  NA  NA  S2.4%  131  Awareness about to whom to submit the completed School/anganwadi Reporting  (School N= 270; Anganwadi N= 250)  Retain a copy of the School/anganwadi  94.4%  255  77.6%  194	Hidden in a room/partially visible.	11.7%	23	15.6%	28
Has the ASHA submitted you a list of preschool non registered Children (1-5) in your community  Are non-registered (1-6 years) children NA NA 64.2% 140 also getting deworming tablets in your anganwadi today  Prescribed dose of 2-6 years of children NA NA 90.4% 226 Prescribed dose of 6-19 years of children NA NA 98.4% 246 Prescribed dose of 1-2 years of children NA NA 52.4% 131 Awareness about to whom to submit the completed School/anganwadi Reporting (School N= 270; Anganwadi N= 250)  Retain a copy of the School/anganwadi 94.4% 255 77.6% 194	Not posted/ not visible	21.3%	42	38.0%	68
preschool non registered Children (1-5) in your community  Are non-registered (1-6 years) children also getting deworming tablets in your anganwadi today  Prescribed dose of 2-6 years of children Prescribed dose of 6-19years of children Prescribed dose of 1-2 years of children NA NA NA 90.4% 226 Prescribed dose of 1-2 years of children NA NA 98.4% 246 Prescribed dose of 1-2 years of children NA NA 52.4% 131 Awareness about to whom to submit the completed School/anganwadi Reporting (School N= 270; Anganwadi N= 250)  Retain a copy of the School/anganwadi 94.4% 255 77.6% 194	Availability of reporting form	NA	NA	81.0%	119
your community  Are non-registered (1-6 years) children also getting deworming tablets in your anganwadi today  Prescribed dose of 2-6 years of children NA NA 90.4% 226  Prescribed dose of 6-19 years of children NA NA 98.4% 246  Prescribed dose of 1-2 years of children NA NA 52.4% 131  Awareness about to whom to submit the completed School/anganwadi Reporting (School N= 270; Anganwadi N= 250)  Retain a copy of the School/anganwadi 94.4% 255 77.6% 194	Has the ASHA submitted you a list of	NA	NA	58.8%	147
Are non-registered (1-6 years) children also getting deworming tablets in your anganwadi today  Prescribed dose of 2-6 years of children NA NA 90.4% 226  Prescribed dose of 6-19 years of children NA NA 98.4% 246  Prescribed dose of 1-2 years of children NA NA 52.4% 131  Awareness about to whom to submit the completed School/anganwadi Reporting (School N= 270; Anganwadi N= 250)  Retain a copy of the School/anganwadi 94.4% 255 77.6% 194	preschool non registered Children (1-5) in				
Are non-registered (1-6 years) children also getting deworming tablets in your anganwadi today  Prescribed dose of 2-6 years of children NA NA 90.4% 226  Prescribed dose of 6-19 years of children NA NA 98.4% 246  Prescribed dose of 1-2 years of children NA NA 52.4% 131  Awareness about to whom to submit the completed School/anganwadi Reporting (School N= 270; Anganwadi N= 250)  Retain a copy of the School/anganwadi 94.4% 255 77.6% 194	your community				
anganwadi today  Prescribed dose of 2-6 years of children  NA  NA  90.4%  226  Prescribed dose of 6-19years of children  NA  NA  98.4%  246  Prescribed dose of 1-2 years of children  NA  NA  NA  52.4%  131  Awareness about to whom to submit the completed School/anganwadi Reporting  (School N= 270; Anganwadi N= 250)  Retain a copy of the School/anganwadi  94.4%  255  77.6%  194		NA	NA	64.2%	140
Prescribed dose of 2-6 years of children  NA  NA  90.4%  226  Prescribed dose of 6-19 years of children  NA  NA  98.4%  246  Prescribed dose of 1-2 years of children  NA  NA  NA  98.4%  131  Awareness about to whom to submit the completed School/anganwadi Reporting  (School N= 270; Anganwadi N= 250)  Retain a copy of the School/anganwadi  94.4%  255  77.6%  194	also getting deworming tablets in your				
Prescribed dose of 6-19years of children  NA  NA  98.4%  246  Prescribed dose of 1-2 years of children  NA  NA  NA  52.4%  131  Awareness about to whom to submit the completed School/anganwadi Reporting  (School N= 270; Anganwadi N= 250)  Retain a copy of the School/anganwadi  94.4%  255  77.6%  194	anganwadi today				
Prescribed dose of 1-2 years of children  NA  NA  S2.4%  131  Awareness about to whom to submit the completed School/anganwadi Reporting (School N= 270; Anganwadi N= 250)  Retain a copy of the School/anganwadi  94.4%  255  77.6%  194	Prescribed dose of 2-6 years of children	NA	NA	90.4%	226
Awareness about to whom to submit the completed School/anganwadi Reporting (School N= 270; Anganwadi N= 250)  Retain a copy of the School/anganwadi 94.4% 255 77.6% 194	Prescribed dose of 6-19years of children	NA	NA	98.4%	246
Awareness about to whom to submit the completed School/anganwadi Reporting (School N= 270; Anganwadi N= 250)  Retain a copy of the School/anganwadi 94.4% 255 77.6% 194	Prescribed dose of 1-2 years of children	NA	NA	52.4%	131
completed School/anganwadi Reporting (School N= 270; Anganwadi N= 250)  Retain a copy of the School/anganwadi  94.4%  255  77.6%  194	Awareness about to whom to submit the	66%	177	51.6%	129
Retain a copy of the School/anganwadi 94.4% 255 77.6% 194	completed School/anganwadi Reporting				
	(School N= 270; Anganwadi N= 250)				
	Retain a copy of the School/anganwadi	94.4%	255	77.6%	194
	Reporting Form at the school after				
submitting one copy	submitting one copy				

	Scho		Angan	
Indicators	(Total =	•	(Total =	
	Percentage	Number	Percentage	Number
Teachers/anganwadi who think any	32.2%	87	36.4%	91
adverse event can occur after taking the				
Deworming tablets				
Possible adverse events could be reported				
by children after taking the tablets				
(School N=87; Angnawadi N = 91)				
Mild abdominal pain	51.7%	45	54.9%	50
Nausea	54.0%	47	47.3%	43
Vomiting	74.7%	65	79.1%	72
Diarrhea	20.7%	18	16.5%	15
Fatigue	29.9%	26	22.0%	20
Other, specify	10.3%	9	5.5%	5
Any possible adverse event	100.0%	87	100.0%	91
All possible adverse event	8.4%	7	4.3%	4
Response in case a child complains of mild				
stomach ache, nausea, vomiting, and				
diarrhea after taking the tablets (School				
N=270; Anganwadi N = 241)				
Make the child lie down in open and shady	67.8%	183	63.5%	153
place				
Give ORS/ water	17.8%	48	19.1%	46
Observe the child at least for 2 hours in the	11.5%	31	20.7%	50
school				
Response in case the child continues to				
report symptoms of stomach ache,				
vomiting, diarrhea, etc. even after a few				
hours (School N= 270; Anganwadi N=225)				
Call PHC or emergency number	35.9%	97	39.6%	89
Take the child to the hospital /call doctor to	74.4%	201	77.8%	175
school				
Don't know / don't remember	5.6%	15	1.8%	4
Other, specify	7.0%	19	7.1%	16
Deworming activity going in your			·	
school/ <i>anganwadi</i> today (N= 270)				
Yes, getting now	62.6%	169	87.2%	218
Yes, after few hours	27.8%	75	NA	NA
No, will not administer today	9.6%	26	12.8%	32
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Table-2: Distribution of IEC material

		Schools			Anganwad	i
Items Received in			Received			Received
training	Received	Verified	in	Received	Verified	in
			training			training
Tablets	93.3%	96.4%	76.2%	95.2%	94.5%	70.2%
Poster/Banner	73.0%	93.9%	79.2%	71.6%	84.4%	64.8%
Handouts/ Reporting	71.1%	92.7%	77.1%	58.8%	83.0%	62.6%
form	/1.1%	92.7%	//.1%	50.0%	03.0%	02.0%
Others specify	6.7%	88.9%	83.3%	2.0%	0.0%	40.0%

Table-3: Observation of Deworming activity in the class/anganwadi

Indicators	Scho	ols	Anganwadi	
mulcators	Percentage	Number	Percentage	Number
Deworming activity is taking place in the	68.1%	184	86.7%	189
class/Anganwadi (School N=270;				
Anganwadi N = 218)				
Teachers/anganwadi worker giving any				
health education related to				
Deworming(School N = 184; Anganwadi N				
= 189)				
Yes	84.8%	156	58.7%	111
Could not observe as I reached late	1.1%	2	4.2%	8
What are being included by the teacher/				
anganwadi worker as a part of health				
education to children				
Harmful effects of worms	63.5%	99	52.3%	58
How worms get transmitted	71.2%	111	64.9%	72
Benefits of Deworming	53.2%	83	55.9%	62
Methods of worm infection prevention	42.3%	66	39.6%	44
Clean drinking water and glasses	NA	NA	81.5%	154
(Anganwadi N = 189)				
Teacher/ anganwadi worker were asking	81.5%	150	83.1%	157
the children if they are sick/under				
medication before giving the tablet (N=				
184)				
What teacher/ anganwadi worker did, if				
there was any sick child in the class room				

	Scho	Schools		wadi
Indicators	Percentage	Number	Percentage	Number
Gave Albendazole tablet to the child	8.7%	13	1.9%	3
Did not give the Albendazole tablet to the child	91.3%	137	98.1%	154
Students/children are told to chew the	93.5%	172	81.5%	154
tablet before swallowing it				
Half of a crushed albendazole tablet being	NA	NA	86.8	164
given to children 1 to 2 years age				
(Anganwadi N= 189)				
Deworming tablets were distributed by				
(School N = 184; Anganwadi N= 189)				
Teacher/headmaster	97.3%	179	NA	NA
Anganwadi worker	NA	NA	84.1%	159
Asha/ANM	0%	0	15.3%	29
Students	1.1%	2	0%	О
Others	1.6%	3	0.5%	1
Teacher/ anganwadi worker asking	99.5%	183	94.7%	179
students to take Albendazole tablets in				
the class/ anganwadi only (N= 184)				
Teachers/ anganwadi worker following	88.0%	162	69.3%	131
the protocol of putting single tick				
<b>√(</b> Deworming <b>day) or double tick √√</b>				
(mop-up day) on each child's name/roll				
no. in the attendance register after giving				
them the Deworming tablet				
Practice followed by teacher ,if the				
ticking/double ticking				
Protocol did not followed				
Prepare the separate list for dewormed child	36.4%	8	62.1%	36
Put different symbols	22.7%	5	6.9%	4
Nothing was done	40.9%	9	31.0%	18
Any child not given the prescribed dose of				
Albendazole tablet				
Yes, less than the prescribed doze	7.1%	13	7.4%	14
Yes ,more than the prescribed doze	1.1%	2	11.1%	21
No, the prescribed doze is being given	91.8%	169	81.5%	154
Any adverse event observed (nausea,	9.2%	17	4.2%	8
vomiting, stomach-pain				
Diarrhoea, etc.) after taking the tablet				

Indicators	Scho	ols	Anganwadi	
ilidicators	Percentage	Number	Percentage	Number
Is there a single tick (deworming day) in				
front of the children present on that day				
Yes to every children	NA	NA	63.2%	67
Yes, but in few children	NA	NA	23.6%	25
No	NA	NA	8.5%	9
Others	NA	NA	4.7%	5
Are there names which do not have a	NA	NA		
single tick on deworming day AND they			61.4%	
also do not have a double tick on mop-up			01.4%	51
day.				
Reason of not putting single tick or				
double tick in front of the name of				
all/some children				
They did not get deworming drugs as they	NA	NA	18.9%	17
were feeling unwell				
AWW did not follow the recording protocol	NA	NA	53.3%	48
correctly				
The parents of those children have refused	NA	NA	3.3%	3
to get their children dewormed				
Children refused to take the drug	NA	NA	7.8%	7
Others	NA	NA	24.4%	22

Table-4: Interview with teacher

Indicators	Percentage	Number
Attended any official training for Deworming program in the past 2	64.4%	174
months		
Received training for Deworming		
At official level training	54.6%	95
By Headmaster/ teacher	38.5%	67
Others (specify)'	6.9%	12
Awareness about the ways a child can get worm infection	90.0%	243
Different ways that children can get worm infected (N= 243)		
Having foods without washing hands	90.5%	220
Not washing hands after using toilets	70.8%	172
Not using sanitary latrine	39.9%	97
Moving in bare feet	44.0%	107
Consume vegetables and fruits without washing	42.8%	104

Having long and dirty nails	34.6%	84
Others	7.8%	19
Any way a child can get worm infection	100.0%	243
Awareness about all the ways a child can get worm infection	11.2%	29
If a child is unwell, albendazole can't be given	89.6%	242
Awareness about prescribed dose of albendazole		
One	98.9%	267
More than one	0.7%	2
Less than one	0.4%	1
Teachers who think any adverse event can occur after taking the	34.8%	94
Deworming tablets		
Possible adverse events could be reported by children after taking		
the tablets(N=94)		
Mild abdominal pain	63.8%	60
Nausea	55.3%	52
Vomiting	79.8%	75
Diarrhea	12.8%	12
Fatigue	27.7%	26
Other, specify	5.3%	5
Any adverse event	100.0%	94
All possible adverse event	4.1%	4
In case a child complains of mild stomach ache ,nausea, vomiting,		
and diarrhea after taking the tablets, Your response should be (N=		
270)		
Make the child lie down in open and shady place	69.3%	187
Give ORS/ water	20.0%	54
Observe the child at least for 2 hours in the school	20.4%	55
If the child continues to report symptoms of stomach ache,		
vomiting, diarrhea, etc. even after a few hours, Your response should		
be (N= 270)		
Call PHC or emergency number	35.6%	96
Take the child to the hospital /call doctor to school	75.6%	204
Don't know / don't remember	5.2%	14
Other, specify	5.9%	16

# Table-5: Interview with Child

Indicators	Percentage	Number
Single tick ✓ in front of the name of children present on Deworming day(N=126)		
Yes to every children	79.4%	100

Indicators	Percentage	Number
Yes, but in few children	10.3%	13
No	9.5%	12
Other (specify)	0.8%	1
There were names which do not have a single tick ✓ on Deworming Day and they also do not have a double tick ✓ on Mop-up Day	28.8%	34
Reason to not putting single tick ✓on Deworming day or double tick ✓✓ on mop-up day in front of the name of all/some children		
They did not get Deworming drugs as they were feeling unwell	30.6%	19
Teacher did not follow the recording protocol correctly	40.3%	25
Children refused to take the drug	4.8%	3
Other	29.0%	18
Child got a white tablet in school today	91.8%	223
Child was feeling sick before taking the tablet in the school today (N= 223)	4.9%	11
Child got tablet (N= 223)		
By Teacher / headmaster	98.2%	219
By Other student	1.8%	4
Child consume tablet (N= 223)	99.1%	221
Reason to not consume tablet		
Did not like the taste	50.0%	1
Don't know	50.0%	1
Awareness of child that, how to consume the tablet (N= 223)		
Chewed tablet before swallowing	97.3%	217
Swallowed tablet directly	1.8%	4
Other, specify	0.9%	2
Awareness of child that, why tablet is provided (N= 223)		
Deworming	85.2%	190
Any other answer(unrelated to Deworming)	4.5%	10
Don't know /don't remember	10.3%	23
Child was aware about Deworming activity (n=33)	24.2%	8
Source of information about Deworming activity (N= 195)		
Teacher / school	99.0%	193
Television	7.2%	14

Indicators	Percentage Number	
Radio	2.1%	4
Newspaper	7.7%	15
Poster/Banner	15.4%	30
Parents/siblings	6.7%	13
Any source of information	100.0%	195
All source of information	0.5%	1

# Annexure-2: Coverage Validation Indicators - Schools

Table-1: School Coverage Validation Indicators

Indicators	%	Number
Responses from the headmasters/principals interviewed:		
Attended training for Deworming program (N = 405)	90.1%	365
For schools that didn't attend training, reasons were (N= 365)		
Was not aware of the date/ timing of training	42.5%	17
Busy in other official work	20.0%	8
Attended Deworming training in the past	12.5%	5
Not necessary	7.5%	3
Other reasons	20.0%	8
Schools received the followings (N= 405)		
Tablets	98.5%	399
Poster	91.9%	372
Hand-outs/Reporting form	83.0%	336
Others	2.2%	9
Received SMS about Deworming program (N= 405)	88.4%	358
Schools had the sufficient drugs for Deworming (N= 394)	97.5%	384
Schools had surplus storage of drugs after Deworming (N= 384)		365
Schools where copy of school reporting form was available after Deworming Day and Mop-Up Day (N= 394)	75.9%	299
For schools that didn't have copy of school reporting form, reasons were (N=95)		
Did not receive	22.1%	21
Submitted to ANM	3.2%	3

Unable to locate	21.1%	20
Others <sup>5</sup>	53.7%	51
Schools had complete school reporting form (N= 299)	95.0%	284
Schools observed <b>Deworming</b> on Deworming Day or Mop-Up Day (N=405)	97.3%	394
Schools reported severe adverse event after taking the medicine	0.5%	2
Average number of adverse events reported per school	1.5	3

## Table-2: Coverage Validation Indicators

#### **Indicators**

Schools where all the classes followed the correct recording protocol= 87%

Schools where one or more of the classes followed the correct recording protocol= 91%

Schools where none of the classes followed the correct reporting protocol= 10%

Schools where one or more of the classes followed other recording protocol= 13%

Schools where no reporting protocol was followed= 3%

#### State level verification factor= 0.91

**State inflation rate** (which measures the extent to which the recording in school reporting forms exceeds records at schools)= 10%

State level inflation rate among trained schools (which measures how much the coverage reported in reporting forms exceeded school records in registers for schools that received training)= 9%

State level inflation rate among untrained schools (which measures how much coverage reported in reporting forms exceeded school records in registers for schools that were not trained)= 20%

School level inflation rate for schools that followed the correct recording protocol (measures how much coverage reported in reporting forms exceeded school records in registers, for schools that were following recording protocols, i.e., ticking).= 19%

<sup>&</sup>lt;sup>5</sup>Submitted to Nodal Officer and Submitted to BEO were main other responses.

Attendance on Deworming Day = 80%

Attendance on Mop-up day= 79%

Children who attended on both Deworming Day and Mop-up day= 69%

Maximum attendance of children on Deworming Day and Mop-Up Day according to the CV data= 90%

## Table-3: Interview of children on Coverage validation

Indicators

Children received Deworming tablets = 100%

Children aware about the Deworming tablets = 99%

Children who consumed tablets in front of teacher/headmaster = 99%

Children consumed tablet = 99.9%

Way children consumed the tablet = 97%

Reasons for not consuming the tablets

Feeling  $\overline{\text{sick}} = 0.08\%$ 

# Annexure-3: Coverage Validation Indicators - *Anganwadis*

Table-1: Anganwadi Coverage Validation Indicators

Indicators	%	Number
Responses from the anganwadi Workers interviewed:	100%	375
Attended training for Deworming program (N=375)	91.7%	344
For anganwadi Worker that didn't attend training, reasons were:		
(n=31)		
Location of training was far away	22.6%	7
Was not aware of the date/ timing of training	54.8%	17
Busy in other official work	35.5%	11
Attended Deworming training in the past	51.6%	16
Source of information about recent round of Deworming		
program(N=375)		
Departmental communication	58.9%	221
Television	4.0%	15
Radio	0.3%	1
Newspaper	7.5%	28
Banner	6.9%	26
SMS	37.3%	140
Training	33.3%	125
Lady supervisor	42.1%	158
Others	4.5%	17
Anganwadi received the followings		
Tablets	100%	375
Poster	94.9%	356
Handouts/Reporting form	84.5%	317
Others	0.3%	1
Received SMS about Deworming program	92.8%	348
Anganwadi had the sufficient drugs for Deworming (N= 375)	95.7%	359
Anganwadi had surplus storage of drugs after Deworming (N= 359)	81.9%	294
Anganwadi where copy of anganwadi reporting form was available	•	
after Deworming Day and Mop-Up Day (n=375)	52.0%	195
For Anganwadi that didn't have copy of Anganwadi reporting form,		
reasons were: (n=180)		
Did not received	11.7%	21
Submitted to ANM	87.2%	157
Unable to locate	1.1%	2

Anganwadi having list of non-registered children (1-6 years) (n=375)		45.3%	170	
Anganwadi had complet	e <i>anganwadi</i> reporting fo	orm(n=195)	97.9%	191
Anganwadi observed Deworming on Deworming Day or Mop-Up Day		100%	375	
Day when anganwadi O	bserved the Deworming			
Deworming Day	6.9%	26		
Mop-up Day	2.1%	8		
Both the days	90.7%	340	340	
Other	0.3%	1	1	
Anganwadi reported sev	vere adverse event after t	aking the medicine	0.5%	2
Anganwadi number of adverse events reported per school		0.5%	2	

Table-2: Coverage Validation Indicators

Indicators
Anganwadi where all the followed the correct recording protocol= 90.9%
State level verification factor for Registered children(1-5 years)=0.36
State level verification factor for non- registered children(1-5 years)= 0.88
State inflation rate (1-5 years) = 178%
(which measures the extent to which the recording in school reporting forms exceeds records at schools)
State inflation rate for non- registered children
(1-5 years) = 14%

## Annexure-4: Authorization Letter by ICDS, Rajasthan

D Gaiendra Year 2016/Lett 16 docs

राजस्थान सरकार निदेशालय, समेकित बाल विकास सेवाएँ 2 जलपथ, गांधी नगर, जयपुर

क्रमांक : F 26(4)() डी-वर्मिग/IEC/ICDS/2013/ 13312 - 350 उपनिदेशक, महिला एवं बाल विकास विभाग समस्त

दिनांक : | 0 - 2 - 16

विषय:- राष्ट्रीय कृमि मुक्ति दिवस (10 फरवरी, 2016) कार्यक्रम के संबंध में।

उपरोक्त विषयान्तर्गत निवेदन है कि राष्ट्रीय कृमि मुक्ति दिवस (10 फरवरी, 2016) कार्यक्रम के सफल संवालन हेतु Evidence Action: Deworm the World के जिला कार्यक्रम समन्वयक / मोनिटर्स, जिनका दायित्व कार्यक्रम का प्रशिक्षण देना, मोनिटरिंग करना, विभिन्न विभागों / एजेन्सियों में समन्वय स्थापित करना, आंगनबाड़ी केन्द्रों पर दवा प्रबन्धन तथा अन्य व्यवस्थाएं, कार्यक्रम की रिपोर्टिंग तथा प्रचार—प्रसार आदि विभिन्न कार्यों में सहयोग तथा सामंजस्य स्थापित करना है, उनको जिला / परियोजना आईसीडीएस कार्यालयों तथा आंगनबाड़ी केन्द्रों पर डी—वर्मिंग कार्यक्रम के संबंध में सम्पर्क तथा इन कार्यों को सम्पादित करने हेतु अधिकृत किया जाता है।

अतः समस्त बाल विकास परियोजना अधिकारियों, महिला पर्यवेक्षकों व आंगनबाड़ी कार्यकर्ताओं को कार्यक्रम में पूर्ण सहयोग प्रदान करने हेतु निर्देशित करावें।

(एम.पी. स्वामी) निदेशक समेकित बाल विकास सेवाए राजस्थान, जयपुर १८५

क्रमांक : F 26(4)() डी-वर्मिग/IEC/ICDS/2013/ 3357-353 प्रतिलिपि:-निम्न को सूचनार्थ एवं आवश्यक कार्यवाही हेत्:-

<sub>दिनांक</sub> : 10 . यू . 16

- 1. विशिष्ट शासन सचिव, चिकित्सा, स्वास्थ्य एवं परिवार कल्याण सेवाएँ एवं मिशन निदेशक, राष्ट्रीय स्वास्थ्य मिशन चिकित्सा, स्वास्थ्य एवं परिवार कल्याण सेवाएँ, स्वास्थ्य भवन, तिलक मार्ग, जयपुर को उनके पत्रांक 6567 दिनांक 29.01.2016 के क्रम में।
- 2. राज्य कार्यक्रम प्रबन्धक, Evidence Action : Deworm the World, Jaipur

3. एसीपी (उप निदेशक) निदेशालय, को भेजकर लेख है कि कम्प्यूटर पर अपलोड कर विभाग की वैबसाईट पर इसे डालने का श्रम करें।

> (महेश शर्मा) सहायक निदेशक (आईईसी) समेकित बाल विकास सेवाएं राजस्थान, जयपुर १०००

निदेशालय समेकित बाल विकास सेवाएँ, विभागीय वैबसाईट www.wcd.rajasthan.gov.in फैक्स नम्बर 0141-2700281, 2705638 दूरभाष नम्बर 0141-2713644