Evidence Action

Deworm the World Initiative

Independent Monitoring of National Deworming Day in Jharkhand

February, 2018

REPORT

May 2018

Independent Monitoring

During every round of National Deworming Day (NDD), Evidence Action conducts independent monitoring, which includes process monitoring on NDD and mop-up day and a coverage validation exercise post-NDD. This is conducted through independent survey agencies, to assess the planning, implementation and quality of NDD program implementation with an objective of identifying gaps and suggesting recommendations for improvements in future NDD rounds. Process monitoring is conducted to understand the individual state government's preparedness for NDD and adherence to the program's prescribed processes; coverage validation is an ex -post check of the accuracy of the reporting data and coverage estimates to verify government-reported treatment figures.

Jharkhand observed the February 2018 round of NDD on February 8, 2018; followed by mop-up day on February 15. Fieldwork for process monitoring was conducted on February 8 and February 15, while coverage validation in the state was conducted February 21 to March 10.

This extract is a summary of the broad findings from the surveys conducted in the state.

Survey Methodology

Using a two-stage probability sampling procedure, across 17 districts Evidence Action selected 200 schools (175 government schools and 25 private schools), and 200 *anganwadis* for process monitoring visits during NDD and mop-up days, and 500 schools (422 government schools and 78 private schools) and 500 *anganwadis* for coverage validation. Through a competitive review process, Evidence Action hired an independent survey agency to conduct process monitoring and coverage validation. Evidence Action designed and finalized survey tools with approvals from the Jharkhand government. One combined tool was used for process monitoring at schools and *anganwadis* on NDD and mop-up day, and one each for schools and *anganwadis* for coverage validation.

Implementation

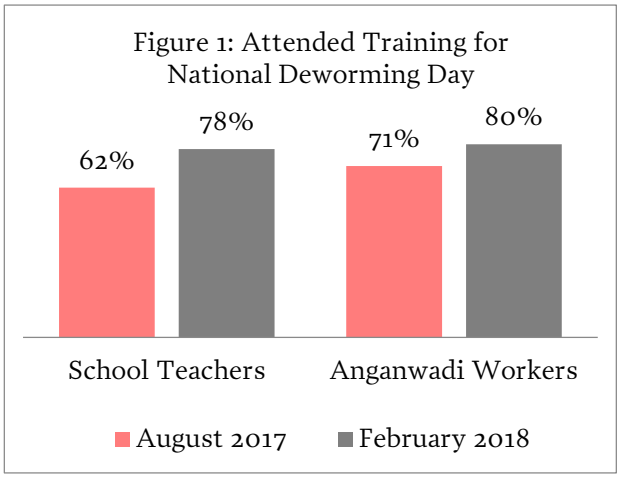
Prior to the survey, Evidence Action conducted a comprehensive training of master trainers who further conducted a three-day training of 100 surveyors and 20 supervisors. The training included an orientation on NDD, the importance of independent monitoring, details of the monitoring formats including CAPI practices, survey protocols and practical sessions. Each surveyor was allotted one school and one *anganwadi* for process monitoring on NDD and mop-up day, and subsequently five schools and five *anganwadis* for coverage validation. Surveyors were provided with a tablet computer, charger, printed copy of monitoring formats as backup, and albendazole tablets for demonstration during data collection. The details of sample schools were shared with them one day before the commencement of fieldwork to ensure that surveyors did not contact schools and *anganwadis* in advance.

Appropriate quality assurance measures were taken to ensure that the data collected was accurate, consistent and authenticated. For example, teachers and *anganwadi* workers (AWWs) were asked to sign a participation form with an official stamp to authenticate the surveyor visits to schools or *anganwadis*. Further, photographs of schools and *anganwadis* were also collected to authenticate the location of the interview. Evidence Action reviewed all data sets; shared feedback with the agency for any inconsistencies observed and ensured timely corrective actions. All analysis was performed using STATA and Microsoft Excel.

Key Findings

Training

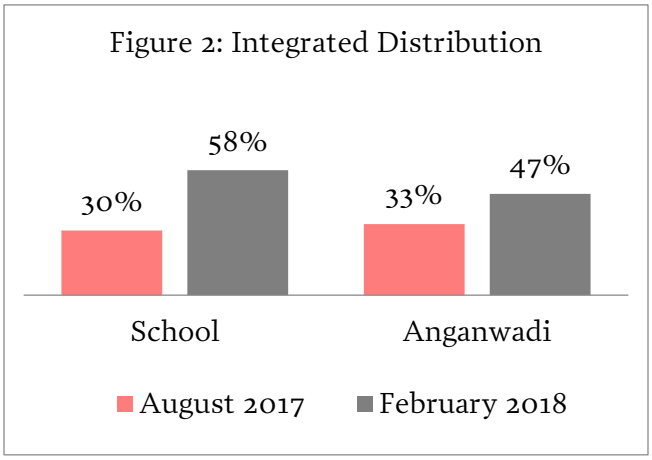
Prior to each NDD round, teachers and *anganwadi* workers are trained on NDD related processes and protocols to facilitate effective implementation. Figure 1 reveals that 78% of teachers and 80% of AWWs visited by the surveyors had attended training for the February 2018 NDD round. All teachers and AWWs are mandated to attend training for every NDD round, irrespective of whether they had attended training in earlier rounds, so it is heartening to note a sharp increase in attendance in training from the August 2017 round in both schools and *anganwadis*. (Annex Table PM1). However, private school training attendance was sub-optimal (51%) (Annex- Table PM7).



Among those who did not attend training, 38% of teachers and 49% of AWWs reported lack of information about NDD training as the main reason for not attending. Fifty-two percent of teachers provided training to other teachers at their school, which is an improvement of five percentage points since the August 2017 round. Sixty-four percent of teachers and 60% *anganwadi* workers had reported having received a SMS about NDD. A sub-optimal delivery of SMS to teachers and AWWs may be due to the lack of an updated database of mobile numbers. (Annex Table PM1)

Integrated Distribution of NDD Kit Including Drugs at Training

Although mandated in the NDD guidelines, integrated distribution of NDD kits was sub-optimal for both schools (58%) and *anganwadis* (47%). This is a considerable improvement comparted to the August 2017 round(Figure-2). Around 94% of schools and 95% of *anganwadis* received deworming tablets. Moreover, 75% of



schools and 74% of *anganwadis* received posters/banners, while 82% of schools and 80% of *anganwadis* received handouts/reporting forms (Annex-Table PM4). Around, 94% of schools and 93% of *anganwadis* reported having received sufficient drugs for deworming (Annex-Table PM3).

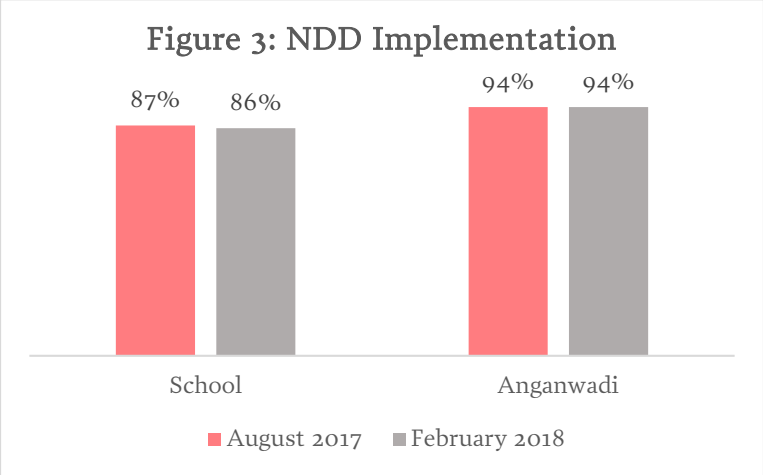
Among the sampled private schools, 63% received deworming tablets and among those, all reported having received sufficient quantity. Forty-five percent of the private schools covered during process monitoring received posters/banners and 59% received handouts/reporting forms. The corresponding figures for the August 2017 round were 56% and 63% respectively, showing marked improvements (Annex Table PM7).

Source of Information about the Recent Round of NDD

Training was the most reported source of information in schools (59%) and *anganwadis* (55%) on NDD. Fifty-four percent of schools and 47% of *anganwadis* had reported that they received information about NDD through SMS. Another important source of information was the newspaper, which was reported by 39% of schools and 30% of *anganwadis* as a source. Radio was the least effective source of information about NDD for the current round in both schools (18%) and *anganwadis* (17%) (Annex Table PM1).

NDD Implementation

The proportion of *anganwadis* implementing NDD remained high in August 2017 and February 2018 rounds. The data revealed that 86% (431 out of 500) of schools and 94% (470 out of 500) of *anganwadis* had dewormed children on either NDD or mop-up day (Annex Table CV1). NDD implementation in private schools was low (65%) compared to government schools (90%) this round. Out of the schools and *anganwadis* visited during process monitoring, surveyors were able to observe deworming activities in 48% of schools and 50% of *anganwadis.*



Adverse Events- Knowledge and Management

Interviews with headmasters/teachers, and AWWs reveals a high degree of awareness regarding potential adverse events due to deworming and understanding of the appropriate protocols to follow in case of such events. Vomiting was listed as a side effect by 86% of headmasters and 88% of AWWs, followed by mild abdominal pain (as reported by 84% of headmasters and 86% of AWWs). Knowledge about the management of adverse events was high in both schools and *anganwadis*, where 86% of teachers and 82% AWWs knew that

they had to make a child lie down in an open and shady place in case of an adverse event. Representatives from 40% of schools and *anganwadis* each had further recalled that during adverse events a child should be kept under observation for at least two hours in school/*anganwadi* premises. Seventy-four percent of teachers and 77% of AWWs could also recall that they will need to call a Primary Health Centre (PHC) doctor if symptoms persisted (Annex PM6).

Recording Protocol

As per coverage validation data, 46% of schools and 47% of *anganwadi*s followed the correct recording protocol (single and double ticks). Eighteen percent schools and 22% of *anganwadis* followed partial recording protocols, whereas 36% of schools and 31% of *anganwadis* did not follow any protocol (Annex CV3).

As recommended in NDD guidelines, teachers and AWWs were supposed to retain a copy of reporting forms; 88% of headmasters and 90% of AWWs were aware of this recording requirement. However, the reporting form was available for data verification in only 60% of schools and 58% of *anganwadis*.

Sahiyas are required to prepare a list of out-of-school children and children not registered in *anganwadis* and submit it to AWWs. But only 37% of *anganwadis* had received list of unregistered children (1-5 years) and only 36% had received the list of out-of-school children (6-19 years) (Annex CV1). Of the *Sahiyas* who were available at anganwadis at the time of surveyors visit, only 14% of *Sahiyas* reported receiving an incentive for the last round of NDD.

Coverage Validation

Coverage validation provides an opportunity to assess the accuracy of reported data and verify government-reported treatment figures. Verification factors[1] are common indicators to measure the accuracy of reported treatment values for neglected tropical disease control programs.[2] Coverage vaidation also gives us an idea about record keeping and data management at the service delivery point. The verification factor was estimated on the basis of the availability of a copy of reporting forms at schools and *anganwadis*. The state-level verification factor for school enrolled children was 0.37, indicating that on an average, for every 100 dewormed children reported by the school, thirty-seven were verified either through single or double tick or through other available documents at the schools. Similarly, overall state-level verification factor for children dewormed at *anganwadis* was 0.91, indicating that on an average, for every 100 dewormed children reported by the *anganwadis,* ninety-one were verified through available documents. (Annex CV3).

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[1] A verification factor of 1 means the schools reported the exact same figures that they recorded on deworming day. A verification factor less than 1 indicates over-reporting, while a verification factor greater than 1 indicates under-reporting.

[2] WHO (2013), Data Quality Assessment tool for Neglected Tropical Diseases: Guidelines for Implementation December 2013.

However, category-wise verification factors for registered (1-5 years), unregistered (1-5 years) and out-of-school (6-19 years) children were 0.68, 1.40 and 1.30 respectively for *anganwadis* (Annex CV3). The data suggests under reporting of coverage figures particularly for unregistered and out-of-school children in *anganwadis*, therefore, highlights a need for proper record keeping for these two groups. Further, interview of children suggests that the majority of the children present at schools on NDD or mop-up day received (98%) albendazole tablets on either NDD or mop-up day and out of those who received, 99% reported to consume it, based on children's interviews.

Against the state government reported 91% coverage in schools and 91% coverage for 1-5 years registered children in *anganwadis*, attempts were made to understand the maximum number of children that could have been dewormed at schools and *anganwadis* through coverage validation data. The NDD treatment coverage in schools was estimated considering the maximum attendance of children on NDD dates. Coverage validation data showed that 86% of schools conducted deworming on either NDD or mop-up day (Annex-Table CV1), a maximum of 75% of children were in attendance (Annex-Table CV3), 98% of children received an albendazole tablet, and 95% of children reported to consume the tablet under supervision (Annex-Table CV4). Considering these factors, 60%[3] (0.86*0.75*0.98*0.95) of enrolled children could have been dewormed at schools. Since interviews of children are not conducted in *anganwadis*, the verification factor of 1-5 years registered children from coverage validation data is applied to government reported coverage data for the same category. It was estimated that around 62% (0.68*0.91) of registered children (1-5 years) in *anganwadis* could have been dewormed. The calculation of verification factors is based on only those schools and *anganwadis* where a copy of the reporting form was available for verification. Therefore, adjusted coverage in *anganwadis* based on verification factor needs to be interpreted with caution.

Mid-Day Meal Program

Out of the total sampled schools (both private and government), 83% of schools were covered in the Mid-Day Meal program (MDM) and out of the covered schools, almost 93% of them send daily updates for MDM via an Integrate Voice Response System (IVRS)/SMS platform in the state. Eighty-two percent of headmasters among said schools are aware that it is required to send NDD related information by IVRS/SMS on NDD and mop up days. Out of the covered schools, 76% of teachers reported training as a source of information for NDD updates, followed by SMS (42%).

[3]This was estimated on the basis of NDD implementation status (86%), maximum attendance on NDD and mop-up day (75%), children received albendazole (98%) and supervised drug administration (95%). In absence of children interview in anganwadis, the government reported coverage was adjusted by implying state level verification factor.

Recommendations

The following are the key recommendations for program improvements that emerged from the independent monitoring exercise:

1. Block/sector level trainings should be planned and communicated to teachers and *anganwadi* workers 1-2 weeks prior to training and tracked and monitored by the respective departments at both levels. This round, based on field updates (tele-calling and district coordinator visits by Evidence Action), it was noticed that not all blocks of the Department of Education and WCD had scheduled the block/sector level trainings until the last week of January 2018, which impacted intensive community mobilization activities required at least a week before the NDD round. For the upcoming NDD round, the daily trackers shared by Evidence Action should be referenced to undertake corrective action or follow up with respective district and block on identified gaps to increase the participation in NDD trainings.

2. Efforts are required to strengthen integrated distribution and align the distribution cascade of NDD kits and hand over NDD kits to the teachers/headmasters and *anganwadi* workers at the time of training. For effective implementation of integrated distribution, timely IEC printing and drug procurement has to be ensured. Further, these materials need to be made available at blocks prior to NDD trainings.

3. Considering the scope for improvement highlighted in findings, engagement of *Sahiyas* in mobilizing unregistered preschool-age children and out-of-school children needs to be strengthened further with a focus on ensuring the presence of all *Sahiyas* at respective *anganwadis* on NDD and mop-up day. In addition, there is need to ensure participation of the state *Sahiya* cell representative in steering committee meetings and their active engagement in the dissemination of NDD guidelines (including guidance on the disbursement of *Sahiya* incentives) related to their role. Field level activities like community mobilization should be initiated well in advance providing sufficient time for community mobilization activities.

4. As a substantial proportion of schools and *anganwadis* did not receive SMS for this round, updating the contact database of department functionaries must be taken up by the concerned stakeholder departments (Department of Health, Education, and WCD) prior to the NDD round considering the identified challenges to ensure the effective use for communication on the NDD program.

5. The proportion of private schools conducted deworming was low in the February 2018 NDD round leading to a decline in NDD coverage among school-enrolled children in the state. Emphasis must be given to increase attendance on NDD days, including implementation of NDD in all schools to achieve maximum NDD coverage in the state.

Annexure

Table PM 1: Training and source of information about NDD among teachers/headmasters and *anganwadi* workers, February 2018

Indicators	School			Anganwadi		
	Denominator	Numerator	%	Denominator	Numerator	%
Attended training for current round of NDD	200	155	78	200	159	80
Ever attended training for NDD[4]	200	164	82	200	165	83
Never attended training for NDD	200	36	18	200	35	18
Reasons for not attending NDD training (Multiple Response)						
Location was too far away	45	4	10	41	2	5
Did not know the date/timings/venue	45	17	38	41	20	49
Busy in other official/personal work	45	5	11	41	1	2
Attended deworming training in the past	45	9	19	41	6	15
Not necessary	45	6	13	41	0	0
No incentives/no financial support	45	1	3	41	1	2
Trained teacher that provided training to other teachers in their schools						
All other teachers	155	80	52	NA	NA	NA
Few teachers	155	42	27	NA	NA	NA
No (himself/herself only teacher)	155	6	4	NA	NA	NA

[4] Includes those school teachers and *anganwadi* workers who attended training either for NDD February2018 or attended tanning in past.

Indicators	School			Anganwadi		
	Denominator	Numerator	%	Denominator	Numerator	%
No, did not train other teachers	155	26	17	NA	NA	NA
Source of information about current NDD round (Multiple Response)						
Television	200	62	31	200	43	22
Radio	200	35	18	200	33	17
Newspaper	200	78	39	200	59	30
Banner	200	69	34	200	60	30
SMS	200	109	54	200	93	47
Other school/teacher/*anganwadi* worker	200	57	29	200	75	38
WhatsApp message	200	54	27	200	26	13
Training	200	118	59	200	109	55
Others	200	14	7	200	18	9
Received SMS for current NDD round	200	127	64	200	119	60
Probable reasons for not receiving SMSs						
Changed Mobile number	73	22	30	81	23	28
Other family members use this number	73	9	12	81	18	22
Number not registered to receive such messages	73	27	37	81	19	24
Others	73	15	21	81	21	26

Table PM 2: Awareness about NDD among teachers/headmasters and *anganwadi* workers, February 2018

Indicators	School			Anganwadi		
	Denominator	Numerator	%	Denominator	Numerator	%
Awareness about the ways a child can get worm infection	200	169	85	200	169	85
Different ways a child can get worm infection (Multiple Response)						
Not using sanitary latrine	169	101	59	169	92	54
Having unclean surroundings	169	134	79	169	138	82
Consume vegetables and fruits without washing	169	122	72	169	131	78
Having uncovered food and drinking dirty water	169	111	66	169	112	66
Having long and dirty nails	169	127	75	169	108	64
Moving in bare feet	169	112	66	169	116	69
Having food without washing hands	169	128	75	169	117	69
Not washing hands after using toilets	169	104	61	169	94	56
Awareness about all the possible ways a child can get a worm infection[5]	169	42	25	169	43	25
Perceives that health education should be provided to children	200	191	96	200	189	95
Awareness about correct dose and right way of administration of albendazole tablet						
1-2 years of children (Crush the half tablet between two	NA	NA	NA	200	167	84

[5]Includes those who were aware that a child can get worm infection if she/he does not use sanitary latrine, have unclean surroundings, consume vegetable and fruits without washing, have uncovered food and drinking dirty water, have long and dirty nails, moves in bare fee, have food without washing hands and not washing hands after using toilets.

spoons and administer with water)						
2-3 years of children (Crush one full tablet between two spoons, and administer with water)	NA	NA	NA	200	97	49
3-5 years of children (one full tablet and child chewed the tablet properly)	NA	NA	NA	200	140	70
6-19 years of children (one full tablet and child chewed the tablet properly)	200	194	97	200	197	99
Awareness about non-administration of albendazole tablet to sick child						
Will administer albendazole tablet to sick child	200	22	11	200	25	13
Will not administer albendazole tablet to sick child	200	178	89	200	175	88
Awareness about consuming albendazole tablet						
Chew the tablet	200	198	99	200	200	100
Swallow the tablet directly	200	2	1	200	0	0
Awareness about consuming albendazole in school/*anganwadi*	200	197	98	200	199	100
Awareness about the last date (February 22, 2018) for submitting the reporting form	200	0	0	200	3	2
Awareness about submission of reporting forms to ANM	200	91	46	200	139	70
Awareness to retain a copy of the reporting form	200	177	88	200	179	90

Table PM 3: Deworming activity, drug availability, and list of unregistered and out-of-school children, February 2018

Indicators	School			Anganwadi		
	Denominator	Numerator	%	Denominator	Numerator	%
Albendazole tablet administered on the day of visit						
Yes, ongoing	200	106	53	200	110	55
Yes, already done	200	56	28	200	52	26
Yes, after sometime	200	20	10	200	13	7
No, will not administer today	200	18	9	200	25	13
Schools/*anganwadis* conducted deworming on either of the day[6]	200	188	94	200	184	92
Schools/*anganwadis* conducted deworming on NDD[7]	99	92	94	100	90	90
Schools/*anganwadis* conducted deworming on Mop-Up Day[8]	101	90	88	100	85	85
Reasons for not conducting deworming						
No information	12	7	59	16	3	19
Albendazole tablet not received	12	3	22	16	6	38
Apprehension of adverse events	12	0.5	4	16	-	-
Others[9]	12	2	16	16	7	44
Attendance on NDD[10]	23094	14836	64	NA	NA	NA

[6]Schools/*anganwadis* administered albendazole tablet to children either on NDD or Mop-Up Day
[7]Based on the samples visited on NDD.
[8]Based on the samples visited on Mop-Up Day only.
[9]Others include 'Parent pressure' and 'children not present'

Attendance on Mop-Up Day[11]	17257	10660	62	NA	NA	NA
Anganwadis having list of unregistered/out-of-school children	NA	NA	NA	200	84	42
Out-of-school children (Age 6-19 years) administered albendazole tablet	NA	NA	NA	200	139	70
Unregistered children (Age 1-5 years) administered albendazole tablet	NA	NA	NA	200	154	77
Sufficient quantity of albendazole tablets[12]	188	176	94	190	176	93

Table PM 4: Integrated distribution of albendazole tablets and IEC materials, February 2018

Indicators	Schools			*Anganwadi*		
	Denominator	Numerator	%	Denominator	Numerator	%
Items received by school teacher and anganwadi worker						
Albendazole tablet	200	188	94	200	190	95
Poster/banner	200	150	75	200	148	74
Handouts/ reporting form	200	164	82	200	159	80
Received all materials	200	140	70	200	129	65
Items verified during Independent Monitoring						
Albendazole tablet	188	181	96	190	181	95
Poster/banner	150	143	95	148	141	95
Handouts/ reporting form	164	159	97	159	149	94
Received all materials	140	136	98	129	120	93

[10]Based on those schools conducted deworming on NDD
[11] Based on those schools conducted deworming on Mop-Up-Day
[12] This indicator is based on the sample that received albendazole tablet.

No of school teachers/anganwadi worker attended training and received items during training						
Albendazole tablet	154	147	95	154	135	88
Poster/banner	127	122	96	122	111	91
Handouts/ reporting form	140	134	96	130	117	90
Received all materials	140	115	83	129	93	72
Integrated Distribution of albendazole tablet IEC and training materials[13]	200	115	58	200	93	47

Table PM 5: Implementation of deworming activity and observation of surveyor, February 2018

Indicators	Schools			Anganwadi		
	Denominator	Numerator	%	Denominator	Numerator	%
Deworming activity was taking place	106	96	91	110	99	90
Albendazole tablets were administered by						
Teacher/headmaster	106	104	98	110	6	5
Anganwadi worker	106	2	2	110	102	93
ASHA (*Sahiyas*)	106	0	0	110	2	2
Teacher/Anganwadi worker asked children to chew the tablet	106	103	97	110	105	95
Followed any recording protocol[14]	162	138	85	162	128	79
Protocol followed						
Putting single/double tick	138	114	82	128	90	70

[13] Integrated distribution of NDD kits includes albendazole, banner/poster and handout/reporting forms and provided to schools and AWC during the trainings.

[14]Any recording protocol implies putting single tick (✓), double tick (✓✓), any other symbol or preparing separate list for all those children administered albendazole tablets on NDD or Mop-Up Day.

Put different symbols	138	5	4	128	8	6
Prepare the separate list for dewormed	138	17	12	128	30	23
Visibility of poster/banner during visits	150	117	78	148	122	82

Table PM 6: Awareness about Adverse events and Its Management, February 2018

Indicators	Schools			Anganwadi		
	Denominator	Numerator	%	Denominator	Numerator	%
Opinion of occurrence of an adverse event after administering albendazole tablet	200	97	49	200	97	49
Awareness about possible adverse events (Multiple Response)						
Mild abdominal pain	97	82	84	97	83	86
Nausea	97	52	53	97	57	59
Vomiting	97	83	86	97	85	88
Diarrhea	97	36	37	97	39	40
Fatigue	97	40	41	97	44	45
All possible adverse event[15]	97	19	19	97	28	29
Awareness about mild adverse event management						
Make the child lie down in open and	200	172	86	200	164	82

[15]Includes those who are aware that a mild abdominal pain and nausea and vomiting and diarrhea and fatigue can be reported by a child after taking albendazole tablet.

shade/shaded place						
Give ORS/water	200	99	50	200	98	49
Observe the child at least for 2 hours in the school	200	81	40	200	79	40
Don't know/don't remember	200	20	10	200	27	14
Awareness about severe adverse event management						
Call PHC or emergency number	200	148	74	200	154	77
Take the child to the hospital /call doctor to school	200	135	67	200	126	63
Don't know/don't remember	200	15	8	200	14	7
Available contact numbers of the nearest ANM or MO-PHC	200	161	81	200	171	86
Asha (*Sahiyas*) present in Anganwadi center	NA	NA	NA	200	100	50

Table PM 7: Selected Indicators of Process Monitoring in Private Schools, February 2018

Indicators[16]	Denominator	Numerator	%
Attended training for current round of NDD	14	7	51
Received albendazole tablets	14	9	63
Sufficient quantity of albendazole tablets	9	9	100
Received poster/banner	14	6	45
Received handouts/ reporting form	14	8	59
Received SMS for current NDD round	14	6	45
Albendazole administered to children	14	8	60
Reasons for not conducting deworming			
No information	7	3	43
Albendazole tablets not received	7	0.13	2
Already dewormed all children on deworming day[17]	7	2	22
Others[18]	7	2	26
Albendazole tablet administered to children by teacher/headmaster[19]	5	5	99
Perceive that health education should be provided to children	14	11	82
Awareness about correct dose and right way of albendazole administration	14	12	90
Awareness about non-administration of albendazole tablet to sick child	14	14	100
Opinion of occurrence of an adverse event after taking albendazole tablet	14	5	37
Awareness about occurrence of possible adverse events			

[16]These indicators are based on small samples; therefore, precautions should be taken while interpreting the results as these are not representative of all private schools in the state
[17]Based on the samples that did not conduct deworming on Mop-Up Day.
[18]Others include 'No comments'
[19]This indicator is based on samples where deworming was ongoing.

Mild abdominal pain	5	4	71
Nausea	5	3	63
Vomiting	5	5	93
Diarrhea	5	2	38
Fatigue	5	4	83
Awareness about mild adverse event management			
Let the child rest in an open and shaded place	14	7	48
Provide clean water to drink/ORS	14	3	23
Contact the ANM/nearby PHC	-	-	-
Available contact numbers of the nearest ANM or MO-PHC	14	9	63
Followed correct[20] recording protocol	6	3	55

Table PM 8: Indicators on MDM

Indicators	Schools		
	Denominator	Numerator	%
Covered under MDM	200	166	83
Send daily update from MDM	166	155	93
Aware to send NDD updates through MDM platform	166	136	82
Source of information for NDD updates through MDM platform			
Training	136	103	76
SMS	136	57	42
IVRS	136	18	13
Others	136	39	28

[20]Correct recording protocol implies putting single tick (✓) on NDD and double tick (✓✓) for all those children administered albendazole tablets.

Table CV1: Findings from School and *Anganwadi* Coverage Validation Data

Sr.No	Indicators	Schools			Anganwadis		
		Denominator	Numerator	%	Denominator	Numerator	%
1	Percentage of schools/*anganwadis* Conducted deworming[21]	500	431	86	500	470	94
	Percentage of government schools conducted deworming	425	382	90	Not Applicable		
	Percentage of private schools conducted deworming	75	49	65	Not Applicable		
1a	Percentage of school and *anganwadis* administered albendazole on day of - **(Multiple Response)**						
	a. National Deworming Day	431	419	97	470	463	98
	b. Mop-up day	431	350	81	470	388	82
	c. Between NDD and mop-up Day	431	38	9	470	42	9
	d. Both days (NDD and mop-up day)	431	346	80	470	384	82
1b	Reasons for not conducting deworming						
	a. No information	69	45	65	30	16	55
	b. Drugs not received	69	20	29	30	10	36
	c. Apprehension of adverse events	69	3	4	30	0	0
	d. Others[22]	69	1	2	30	3	9
2	Percentage of schools and *anganwadis* left over with	431	206	48	470	227	48

[21]Schools and *anganwadis* that conducted deworming on NDD or mop-up day.
[22] Other includes 'Don't know', 'No response'

	albendazole tablet after deworming						
2a	Number of albendazole tablets left after deworming						
	a. Less than 50 tablets	206	159	77	227	173	77
	b. 50-100 tablets	206	28	14	227	37	16
	c. More than 100 tablets	206	19	9	227	17	7
3	Copy of filled in reporting form was available for verification	431	260	60	470	271	58
	Copy of filled in reporting form was available for verification in government school	383	238	62	Not Applicable		
	Copy of filled in reporting form was available for verification in private school	48	22	46	Not Applicable		
3a	Reasons for non-availability of copy of reporting form[23]						
	a. Did not received	125	73	58	146	60	41
	b. Submitted to ANM	125	29	23	146	47	32
	c. Unable to locate	125	11	9	146	20	14
	d. Other[24]	125	12	10	146	19	13
4	Percentage of Anganwadi center where ASHA (*Sahiyas)* administered albendazole	Not Applicable			470	215	46
5	*Anganwadis* having list of unregistered children (aged 1-5 years)	Not Applicable			470	175	37
6	*Anganwadis* having list of out-of-school children	Not Applicable			470	169	36

[23] In 47 schools and 53 anganwadis blank reporting form was available.
24 Others includes Don't know already submitted or missed

	(aged 6-19 years)				

Table CV2: Selected indicators based on ASHA's (*Sahiyas'*) interview at *Anganwadi* Centre, Coverage Validation Data

Sr. No.	Indicators	Anganwadis		
		Denominator	Numerator	%
1	ASHA *(Sahiyas)*[25] conducted meetings with parents to inform about NDD	219	191	87
2	ASHA (*Sahiyas)* prepared list of unregistered and out-of-school children	219	133	61
3	ASHA (*Sahiyas)* shared the list of unregistered and out-of-school children with *angnawadis* teacher[26]	133	108	82
4	ASHA *(Sahiyas)* administered albendazole to children	219	194	88
5	ASHA *(Sahiyas)* received incentive for NDD Aug 2017 round	219	31	14

[25] Surveyors were instructed to call ASHA *(Sahiyas)* at *anganwadi* centers during coverage validation and collect relevant information. Surveyors could only cover those ASHA's *(Sahiyas')* who were able to join for interview because it was not mandatory for ASHA's *(Sahiyas')* to attend.
[26]Based on sub-sample who reported to prepare the said list.

Table CV3: Recording protocol, verification factor and schools attendance

Sr.No.	Indicators	Schools/Children			Anganwadis/Children		
		Denominator	Numerator	%	Denominator	Numerator	%
1	Followed correct[27] recording protocol	312	142	46	470	223	47
	Followed correct recording protocol in government school	279	134	48	Not Applicable		
	Followed correct recording protocol in school	32	9	27	Not Applicable		
2	Followed partial[28] recording protocol	312	55	18	470	103	22
3	Followed no[29] recording protocol[12]	312	115	36	470	144	31
4	State-level verification factor[30] (children enrolled/registered)	55,753	20,742	37	25,821	23,493	91
	a. Children registered with *anganwadis*	Not Applicable			17,091	11,668	68
	b. Children	Not Applicable			4,873	6,825	140

[27]Correct recording protocol includes schools/*anganwadis* where all the classes/registers put single tick (✓) on NDD and double tick (✓✓) on mop-up day to record the information of dewormed children.
[28]Partial recording protocol includes /*anganwadis* where all the classes/registers did not follow correct protocol, put different symbols and prepared separate list to record the information of dewormed children.
[29]No protocol includes all those /*anganwadis* where none of the classes/registers followed any protocol to record the information of dewormed children.
[30]Ratio of recounted value of the dewormed children to the reported value. This calculation is based on only those schools (n=260) and *anganwadis* (n=271) where deworming was conducted and copy of reporting form was available for verification.
[12] Rest 121 cases are missing for 'school following protocol'

	unregistered with *anganwadis* (Aged 1-5)						
	c. Out-of-school children (Aged 6-19)	Not Applicable			3,857	5,000	130
5	Attendance on previous day of NDD (children enrolled)	1,24,953	84,307	67	Not Applicable		
6	Attendance on NDD (children enrolled)	1,24,953	82,720	66	Not Applicable		
7	Attendance on mop-up day (children enrolled)	1,24,953	76,749	61	Not Applicable		
8	Children who attended on both NDD and mop-up day (Children enrolled)	1,24,953	66,342	53	Not Applicable		
9	Maximum attendance of children on NDD and mop-up day[31] (Children enrolled)	1,24,953	93,127	75	Not Applicable		
10	Estimated NDD coverage[32][33]	60			62		

[31]Maximum attendance refers to the total attendance of children who were exclusively present in school either on NDD or mop-up day and children who attended school on both days.

[32] This was estimated on the basis of NDD implementation status, attendance on NDD and mop-up day, whether child received albendazole and its supervised administration. Since no child interview is conducted at *anganwadis*; this has not been estimated for *anganwadis.*

[33]This was estimated by implying state-level verification factor on government reported coverage for 1-5 years registered children in AWC.

11	Estimated NDD coverage in government schools	60	Not Applicable
12	Estimated NDD coverage in private school	48	Not Applicable

Table CV4: Description on children (6-19 years) interviewed in the schools (431) during coverage validation

Sr.No.	Indicators	Denominator	Numerator	%
1	Children received albendazole tablets	930	916	98
2	Children aware about the albendazole tablets	916	752	82
	Source of information about deworming among children (Multiple response)			
3	a. Teacher/school	752	743	99
	b. Television	752	143	19
	c. Radio	752	74	10
	d. Newspaper	752	109	14
	e. Poster/Banner	752	124	17
	f. Parents/siblings	752	72	10
	g. Friends/neighbors	752	74	10
4	Children aware about the worm infection	916	592	65
5	Children awareness about different ways a child can get worm infection (Multiple response)			
	a. Not using sanitary latrine	592	364	62
	b. Having unclean surroundings	592	349	59
	c. Consume vegetables and fruits without washing	592	359	61
	d. Having uncovered food and drinking dirty water	592	278	47

	e. Having long and dirty nails	592	346	58
	f. Moving in bare feet	592	267	45
	g. Having food without washing hands	592	279	47
	h. Not washing hands after using toilets	592	165	28
6	Children consumed albendazole tablet	916	910	99
7	Way children consumed the tablet			
	a. Chew the tablet	910	886	97
	b. Swallow tablet directly	910	24	3
8	Supervised administration of tablets	910	866	95
9	Reasons for not consuming albendazole tablet			
	a. Feeling sick	6	1	15
	b. Afraid of taking the tablet	6	5	85
	c. Parents told me not to have it	6	0	0
	d. Do not have worms so don't need it	6	0	0
	e. Did not like the taste	6	0	0