Evidence Action

Deworm the World Initiative

Independent Monitoring of National Deworming Day in Rajasthan February, 2018

REPORT

May 2018

Background

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 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, 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.

Rajasthan observed the February 2018 round of NDD on February 8, followed by mop-up day on February 15. Fieldwork for process monitoring was conducted on February 8 and 15, while coverage validation was conducted February 21 -27.

This extract is a summary of the broad findings from the state of Rajasthan for the 2018 February round of NDD.

Methodology

Using a two-stage probability sampling procedure, across all 33 districts Evidence Action selected 248 schools (Government schools=171 and Private schools = 77), and 249 *anganwadi*s for process monitoring visits during NDD and mop-up days; 623 schools (Government schools=391 and Private schools = 232) and 625 *anganwadi*s were selected 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 Rajasthan's government. One combined tool was used for process monitoring at schools and *anganwadi*s on NDD and mop-up day, and one each for schools and *anganwadi*s for coverage validation.

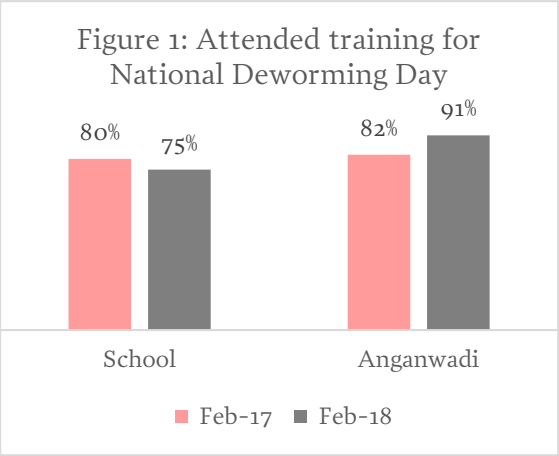
Implementation

Prior to the survey, Evidence Action conducted comprehensive training of master trainers who further conducted a three-day training of 125 surveyors and 25 supervisors at Jaipur. The training included an orientation on NDD, the importance of independent monitoring, details of the monitoring formats including computer-assisted personal interview (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 *anganwadi* 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 and *anganwadis* were shared with them one day before the commencement of fieldwork to ensure that surveyors did not contact schools and *anganwadis* in advance, as this could cause bias in the results. Appropriate quality assurance measures were taken to ensure that the data collected was accurate, consistent and authenticated. These measures included: teachers and *anganwadi* workers (AWWs) were asked to sign a participation form with an official stamp to authenticate surveyor visits to schools or *anganwadis*.

Further, photographs of teachers and AWWs were also collected to authenticate the location of the interview. Evidence Action reviewed all the data sets and shared the feedback to the agency for any inconsistencies observed. The analysis was carried out using STATA and Microsoft Excel.

Key Findings

Training

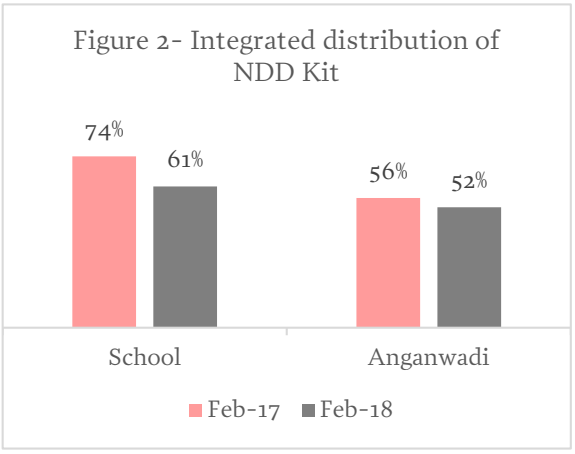


Prior to each NDD round, teachers and *anganwadi* workers are trained on the processes and protocols of NDD to ensure effective implementation of NDD, including the integrated distribution of IEC materials and drugs. Finding shows that 75% of teachers and 91% of AWWs attended training for the February 2018 round (Figure 1). The training attendance among private school teachers has also declined significantly from 62% in February 2017 to 58% in February 2018. The declined training attendance in schools may be due to delay training schedule caused by drug shortages.

Among those who did not attend training sessions, 51% of teachers and 50% of AWWs reported no information about NDD training date/venue/timing as the main reason for not attending the training (Annex- Table PM1). More than half (55%) of the teachers reported that they had provided training to other teachers where they worked (Annex- Table PM1).

Due to quality issues in the frontline workers contact database available at the state level, 71% of AWWs and 70% of teachers received NDD program related SMSs, which is similar to the February 2017 round for schools, but a decline of 11 percentage points for *anganwadis* (Annex- Table PM1).

Integrated Distribution of NDD Kit including Drugs at Training



With the mandate from the NDD guideline and a well-defined distribution plan, integrated distribution on NDD kit was 61% in schools and 52% in *anganwadis* during the training sessions, which is a decline of 13 and 4 percentage points respectively this year as compared to the February 2017 round. This may be due to delays in printing and distribution of IEC and training material, and delays in drugs distribution to districts from the state. The drug availability at schools and *anganwadis* was ensured through Block Chief Medical Health officers (BCMHOs), drugs were transported directly to schools and

anganwadis outside of block level training (Annex- Table PM4). The non-availability of reporting forms at schools and *anganwadis* would lead to a lower rate of coverage report submission, and although schools/*anganwadis* may conduct deworming, they would not be able to report so. Around 83% of schools and 71% of *anganwadis* received handouts/reporting forms (Annex- Table PM4).

Among private schools that were part of the sample, 79% received tablets for deworming and 72% of these schools reported having received a sufficient quantity of the tablets. Further, 60% of private schools covered during process monitoring received posters/banners and 70% received handouts/reporting forms. The corresponding figures for the February 2017 round were 68% for posters/banners and 69% for handouts/reporting forms. (Annex Table PM7).

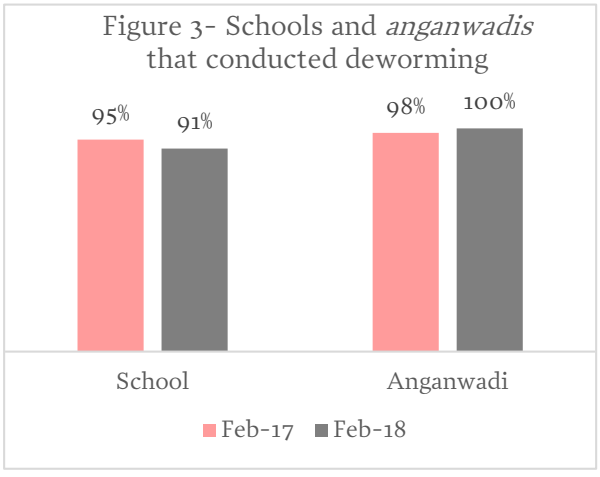
Source of Information about Recent Round of NDD

SMS was the most reported source of information on NDD. More than half of teachers (51%) and AWWs (53%) reported having received information about NDD through SMS, followed by trainings (teachers - 40% and *anganwadi* workers – 50%). Gram Pradhan/Panchayati Raj Institutions were the least mentioned source of information about NDD for this round by teachers (6%) and *anganwadis* workers (9%) (Annex- Table PM1).

NDD Implementation

The percentage of *anganwadis* that conducted deworming has remained high and consistent (Figure 3), while in schools it declined slightly due to unavailability of albendazole tablets at schools. Drugs administered in unregistered preschool-age children (78%) and out-of-school children (67%) have decreased by 7 and 14 percentage points respectively in comparison to the February 2017 round. One of the most commonly cited reason for schools not conducting deworming was no information about NDD was received. Out of the schools and *anganwadis* visited during process monitoring, surveyors were able to observe deworming activities only in 63% of schools and 67% of *anganwadis* (Annex- Table PM5).

Figure 3- Schools and *anganwadis* that conducted deworming



Adverse Events - Knowledge and Management

Interviews with headmasters/teachers and AWWs revealed moderate level of awareness regarding potential adverse events due to deworming and a high level of understanding of the appropriate protocols to follow in the case of such events. Vomiting was listed as one of the side effects by about 84% the schools and 91% *anganwadis* followed by nausea (75% schools) and mild abdominal pain (78% *anganwadis*) (Annex- Table PM6).

Out of the total interviewed, 86% of teachers and 89% of AWWs mentioned making the child lie down in open and shaded place, and 44% of teachers mentioned observing the child for at least for two hours in the school and 41% of AWWs mentioned giving ORS/water in the case of any side effects. Further, 79% of teachers and 92% of AWWs mentioned the availability of the contact numbers of the nearest Auxiliary nurse midwife (ANM) or Medical officer of Primary Health Centre (MO-PHC), and contacting them if symptoms persisted (Annex- Table PM6).

Recording Protocol

As per coverage validation data, 35% of schools and 70% of *anganwadis* followed the correct (single and double ticks) recording protocols. Around 4% of schools and 10% of *anganwadis* followed partial protocols (marking down different symbols or making lists of dewormed children). However, 61% of schools and 20% of *anganwadis* did not follow any protocol or keep records of dewormed children (Annex- Table CV3).

As recommended in the NDD guidelines, all schools and *anganwadis* are supposed to retain a copy of reporting forms. The findings from process monitoring suggests that 91% of schools and 86% of AWWs were aware of this requirement (Annex –Table PM2).; however, 80% of schools and only 54% of *anganwadis* retained a copy of the reporting form for verification (Annex –Table CV1).

Accredited Social Health Activists (ASHAs) are required to prepare a list of out-of-school children and children unregistered in *anganwadis* and submit it to AWWs. However, only 55% of *anganwadis* reported to have the list of unregistered (1-5 years) children and 51% reported having the list of out-of-school children (6-19 years).

Out of the ASHAs interviwed during coverage validation, 70% reported to prepare the list of unregistered and out-of-school children. Out of which, 77% had shared it with the AWWs. Only 19% ASHA workers (who were available at the *anganwadis* at the time of surveyors visit) reported receiving incentives for the previous round of NDD (Annex – Table CV2).

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 validation 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 overall state-level verification factors for children dewormed at schools and *anganwadis* were 0.63 and 0.81 respectively. This indicates that on an average, for every 100 dewormed children reported by the school, sixty-three were verified either through

[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.

single/double tick or through any other available documents at the schools. Similarly, for every 100 dewormed children reported by the *anganwadis*, eighty-one were verified through available documents.

However, category-wise verification factors in *anganwadis* for registered (1-5 years), unregistered (1-5 years) and out-of-school (6-19 years) children were 1.03, 1.69 and 1.44 (Annex-Table CV3). Results clearly indicate the lack of proper record management at schools. Despite challenges in reporting and documentation of NDD coverage data, based on children's interviews, the majority of the children present (99%) on NDD or mop-up day received tablets and all of them consumed the albendazole tablet on either on NDD or mop-up day. (Annex-Table CV4).

Alongside the state government reported 89% coverage in schools and 86% for 1-5 years registered children in *anganwadis*, attempts were made to understand the maximum number of children that could have been dewormed in 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 91% of schools conducted deworming on either NDD or mop-up day (Annex-Table CV1), a maximum of 98% of children were in attendance (Annex-Table CV3), 99% of children received an albendazole tablet, and 98% of children reported to consume the tablet under supervision (Annex-Table CV4). Considering these factors, 87%[3] (0.91*0.98*0.99*0.98) of enrolled children could have been dewormed in the 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 89% (0.86*1.03) of children in *anganwadis* could have been dewormed in category of 1-5 years registered children. 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 factors needs to be interpreted with caution.

Mid-Day Meal Program

Out of the sampled schools (both private and government), 58% of schools were covered by the Mid-Day Meal program (MDM) and almost 91% of them send daily updates for MDM via an Integrate Voice Response System (IVRS)/SMS platform in the state. Also, 85% 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.

[3]This was estimated on the basis of NDD implementation status (91%), maximum attendance on NDD and mop-up day (98%), children received albendazole (99%) and supervised drug administration (98%). In absence of children interview in *Anganwadis*, the government reported coverage was adjusted by implying state level verification factor.

Recommendations

The key recommendations based on the above findings are as follows:

1. Training participation of teachers in the current NDD round has declined compared to the February 2017 round. The most common reason reported was lack of information. Block level trainings should be planned and communicated to teachers and AWWs one week prior and tracked and monitored by the respective departments at the district and block levels. Delayed block level trainings impact intensive community mobilization activities required at least a week before the NDD. The overall training attendance of teachers was relatively low due to less participation of private schools in training (Government schools= 88% vs. Private schools = 58%). Additional efforts need to made to improve training participation among private teachers to ensure high training attendance in upcoming round. The participation of the teachers irrespective of government and private schools, and AWWs needs to be leveraged in the next round of NDD to ensure the successful implementation of a high quality NDD program.

2. Integrated distribution has declined in both schools and *anganwadis* due to a shortage of drugs and delay in IEC printing. Procurement and distribution of drugs, printing of IEC and training materials needs to be undertaken as per the NDD round specific operational plan so as to ensure their distribution during block/sector level trainings.

3. The percentage of drug administration to 1-5 years unregistered and 6-19 years out-of-school children has declined compared to the previous round. Strengthening is required in the role of ASHAs in mobilizing unregistered preschool-age children and out-of-school children (especially urban ASHAs) with a focus on ensuring the presence of all ASHAs at respective *anganwadis* on NDD and mop-up day.

4. Receipt of NDD related SMS has declined in *anganwadis* due to the poor quality of the contact database. The contact database must be updated by the concerned stakeholder departments (Department of Health, Education and Women and Child Development) considering the identified challenges to ensure the effective use of communication on the NDD program.

5. There is a slight decline in the percentage of schools that conducted deworming in the February 2018 NDD round as compared to previous round. Emphasis should be given to maintain high level of school attendance on NDD days including implementation of NDD in all schools to achieve high NDD coverage in the state.

Annexure

Table PM 1: Training and source of information about NDD among teachers/headmasters and *anganwadi* workers, February2018

Indicators	School			Anganwadi		
	Denominator	Numerator	%	Denominator	Numerator	%
Attended training for current round of NDD	248	185	75	249	227	91
Ever attended training for NDD[4]	248	189	76	249	232	93
Never attended training for NDD	248	59	24	249	17	7
Reasons for not attending NDD training (Multiple Response)						
Location was too far away	63	5	8	22	0	0
Did not know the date/timings/venue	63	32	51	22	11	50
Busy in other official/personal work	63	15	24	22	4	18
Attended deworming training in the past	63	4	7	22	5	23
Not necessary	63	4	7	22	1	5
No incentives/no financial support	63	1	2	22	1	5
Trained teacher that provided training to other teachers in their schools						
All other teachers	185	101	55	NA	NA	NA
Few teachers	185	34	19	NA	NA	NA
No (himself/herself only teacher)	185	23	13	NA	NA	NA
No, did not train other teachers	185	26	14	NA	NA	NA
Source of information about current NDD round (Multiple Response)						

[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	%
Television	248	64	26	249	68	27.3
Radio	248	22	9	249	24	10
Newspaper	248	84	34	249	56	23
Banner	248	43	17	249	45	18
SMS	248	126	51	249	131	53
Other school/teacher/*anganwadi*worker	248	59	24	249	70	28
WhatsApp message	248	83	34	249	27	11
Training	248	98	40	249	124	50
Gram Pradhan/PRI	248	14	6	249	22	9
Others	248	23	9	249	40	16
Received SMS for current NDD round	248	174	70	249	176	71
Probable reasons for not receiving SMSs						
Changed Mobile number	74	26	35	73	12	16
Other family members use this number	74	7	9	73	21	29
Number not registered to receive such messages	74	30	41	73	22	30
Others	74	11	15	73	18	25

Table PM 2: Awareness about NDD among teachers/headmasters and *anganwadi* workers, February2018

Indicators	School			Anganwadi		
	Denominator	Numerator	%	Denominator	Numerator	%
Awareness about the ways a child can get worm infection	248	216	87	249	226	91

Different ways a child can get worm infection (Multiple Response)						
Not using sanitary latrine	216	139	64	226	136	60
Having unclean surroundings	216	171	79	226	172	76
Consume vegetables and fruits without washing	216	162	75	226	154	68
Having uncovered food and drinking dirty water	216	130	60	226	136	60
Having long and dirty nails	216	128	59	226	131	58
Moving in bare feet	216	132	61	226	126	56
Having food without washing hands	216	144	66	226	155	69
Not washing hands after using toilets	216	124	57	226	100	44
Awareness about all the possible ways a child can get a worm infection[5]	216	43	20	226	36	16
Perceives that health education should be provided to children	248	235	95	249	237	95
Awareness about correct dose and right way of administration of albendazole tablet						
1-2 years of children (Crush the half tablet between two spoons and administer with water)	NA	NA	NA	249	208	84
2-3 years of children (Crush one full tablet between two spoons, and administer with water)	NA	NA	NA	249	117	47
3-5 years of children (one full tablet and child chewed the tablet properly)	NA	NA	NA	249	218	88

[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.

6-19 years of children (one full tablet and child chewed the tablet properly)	248	235	95	249	246	99
Awareness about non-administration of albendazole tablet to sick child						
Will administer albendazole tablet to sick child	248	31	13	249	30	12
Will not administer albendazole tablet to sick child	248	217	87	249	219	88
Awareness about consuming albendazole tablet						
Chew the tablet	248	238	96	249	247	99
Swallow the tablet directly	248	10	4	249	2	1
Awareness about consuming albendazole in school/*anganwadi*	248	248	100	249	249	100
Awareness about the last date (February 20, 2018) for submitting the reporting form	248	120	48	249	94	38
Awareness about submission of reporting forms to PEEO/ANM by February 20, 2018	248	21	9	249	137	55
Awareness to retain a copy of the reporting form	248	226	91	249	215	86

Table Pm 3: Deworming activity, drug availability, and list of unregistered and out-of-school children, February2018

Indicators	School			Anganwadi		
	Denominator	Numerator	%	Denominator	Numerator	%
Albendazole tablet administered on the day of visit						
Yes, ongoing	248	164	66	249	176	71
Yes, already done	248	35	14	249	47	19
Yes, after sometime	248	10	4	249	10	4

No, will not administer today	248	39	16	249	16	6
Schools/*anganwadis* conducted deworming on either of the day[6]	248	223	90	249	246	99
Schools/*anganwadis*conducted deworming on NDD[7]	122	109	89	124	122	98
Schools/*anganwadis*conducted deworming on Mop-Up Day[8]	126	114	91	125	124	99
Reasons for not conducting deworming						
No information	25	19	78	16	1	6
Albendazole tablet not received	25	4	15	16	1	6
Apprehension of adverse events	25	1	3	16	0	0
Others[9]	25	1	3	16	1	6
Attendance on NDD[10]	20222	16707	83	NA	NA	NA
Attendance on Mop-Up Day[11]	21790	17532	80	NA	NA	NA
*Anganwadis*having list of unregistered/out-of-school children	NA	NA	NA	249	146	59
Out-of-school children (Age 6-19 years) administered albendazole tablet	NA	NA	NA	249	167	67
Unregistered children (Age 1-5 years) administered albendazole tablet	NA	NA	NA	249	195	78
Sufficient quantity of albendazole tablets[12]	221	211	95	243	229	94

[6]Schools/*anganwadis*administeredalbendazole 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]School administer the albendazole tablet to children a day before holiday, children/student absent, postponed due to festival.
[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.

Table PM 4: Integrated distribution of albendazole tablets and IEC materials, February2018

Indicators	Schools			*Anganwadi*		
	Denominator	Numerator	%	Denominator	Numerator	%
Items received by school teacher and anganwadi worker						
Albendazole tablet	248	221	89	249	243	98
Poster/banner	248	188	76	249	177	73
Handouts/ reporting form	248	205	83	249	173	71
Received all materials	248	176	71	249	149	60
Items verified during Independent Monitoring						
Albendazole tablet	221	202	92	243	225	93
Poster/banner	188	161	86	177	153	86
Handouts/ reporting form	205	183	89	173	152	88
Received all materials	176	145	82	149	121	81
No of school teachers/anganwadi worker attended training and received items during training						
Albendazole tablet	184	178	97	224	198	88
Poster/banner	163	160	98	168	158	94
Handouts/ reporting form	174	166	96	165	155	94
Received all materials	157	152	97	144	130	90
Integrated Distribution of albendazole tablet IEC and training materials[13]	248	152	61	249	130	52

Table PM 5: Implementation of deworming activity and observation of surveyor, February2018

Indicators	Schools			Anganwadi		
	Denominator	Numerator	%	Denominator	Numerator	%
Deworming activity was taking place	164	157	96	176	167	95
Albendazole tablets were administered by						
Teacher/headmaster	164	160	98	176	1	1
Anganwadi worker	164	3	2	176	150	85
ASHA	164	0	0	176	23	13

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

ANM	164	0	0	176	1	1
Student	164	1	1	176	1	1
Teacher/Anganwadi worker asked children to chew the tablet	164	157	63	176	162	65
Followed any recording protocol[14]	199	155	78	223	176	79
Protocol followed						
Putting single/double tick	155	125	81	176	131	74
Put different symbols	155	21	14	176	39	22
Prepare the separate list for dewormed	155	9	6	176	6	3
Visibility of poster/banner during visits	188	157	84	177	130	100

Table PM 6: Awareness about Adverse events and Its Management, February2018

Indicators	Schools			Anganwadi		
	Denominator	Numerator	%	Denominator	Numerator	%
Opinion of occurrence of an adverse event after administering albendazole tablet	248	176	71	249	189	76
Awareness about possible adverse events (Multiple Response)						
Mild abdominal pain	176	129	73	189	147	78
Nausea	176	132	75	189	137	72
Vomiting	176	148	84	189	172	91
Diarrhea	176	67	38	189	64	34
Fatigue	176	60	34	189	62	33
All possible adverse	176	26	15	189	63	14

[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.

event[15]						
Awareness about mild adverse event management						
Make the child lie down in open and shade/shaded place	248	213	86	249	222	89
Give ORS/water	248	97	39	249	102	41
Observe the child at least for 2 hours in the school	248	108	44	249	97	39
Don't know/don't remember	248	21	9	249	23	9
Awareness about severe adverse event management						
Call PHC or emergency number	248	185	76	249	191	77
Take the child to the hospital /call doctor to school	248	171	69	249	163	66
Don't know/don't remember	248	9	4	249	9	4
Available contact numbers of the nearest ANM or MO-PHC	248	197	79	249	229	92
Asha present in Anganwadi center	NA	NA	NA	249	192	77

Table PM 7: Selected Indicators of Process Monitoring in Private Schools, February2018

Indicators[16]	Denominator	Numerator	%
Attended training for current round of NDD	108	63	58
Received albendazole tablets	108	85	79
Sufficient quantity of albendazole tablets	85	77	72
Received poster/banner	108	65	60

[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.

[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

Received handouts/ reporting form	108	75	70
Received SMS for current NDD round	108	45	51
Albendazole administered to children	108	86	80
Reasons for not conducting deworming			
No information	22	17	77
Albendazole tablets not received	22	2	9
Apprehension of adverse events	22	2	9
Others[17]	22	1	5
Albendazole tablet administered to children by teacher/headmaster[18]	66	62	95
Perceive that health education should be provided to children	108	99	92
Awareness about correct dose and right way of albendazole administration	108	16	15
Awareness about non-administration of albendazole tablet to sick child	108	91	85
Opinion of occurrence of an adverse event after taking albendazole tablet	108	81	75
Awareness about occurrence of possible adverse events			
Mild abdominal pain	81	52	64
Nausea	81	61	76
Vomiting	81	64	79
Diarrhea	81	30	38
Fatigue	81	19	24
Awareness about mild adverse event management			
Let the child rest in an open and shaded place	108	82	76
Provide clean water to drink/ORS	108	37	34
Contact the ANM/nearby PHC	108	75	69
Available contact numbers of the nearest ANM or MO-PHC	108	75	70
Followed correct[19] recording protocol	78	50	64

[17]School administer the albendazole tablet to children a day before holiday, children/student absent, postponed due to festival

[18]This indicator is based on samples where deworming was ongoing.

Table 8: Indicators on MDM and Hygiene

Indicators	Schools		
	Denominator	Numerator	%
Covered under MDM	248	145	58
Send daily update from MDM	145	132	91
Aware to send NDD updates through MDM platform	145	123	85
Source of information for NDD updates through MDM platform	123	89	72
Training	123	57	46
SMS	123	15	12
Departmental communication	123	02	2
Others	123	02	2

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[20]	623	564	91	625	623	100
	Percentage of government schools conducted deworming	389	382	98	Not Applicable		
	Percentage of private schools conducted deworming	234	182	78	Not Applicable		
1a	Percentage of school and *anganwadis* administered albendazole on day of - **(Multiple Response)**						
	a. National Deworming Day	564	552	98	623	611	98
	b. Mop-up day	564	500	89	623	581	93

[19]Correct recording protocol implies putting single tick (✓) on NDD and double tick (✓✓) for all those children administered albendazole tablets.
[20]Schools and *anganwadis* that conducted deworming on NDD or mop-up day.

	c. Between NDD and mop-up Day	564	6	1	623	22	3
	d. Both days (NDD and mop-up day)	564	487	86	623	573	92
1b	Reasons for not conducting deworming						
	a. No information	59	37	63	2	2	100
	b. Drugs not received	59	14	24	2	0	0
	c. Apprehension of adverse events	59	5	7	2	0	0
	d. Others[21]	59	2	4	2	0	0
2	Percentage of schools and *anganwadis* left over with albendazole tablet after deworming	564	398	71	623	452	73
2a	Number of albendazole tablets left after deworming						
	a. Less than 50 tablets	398	336	85	452	356	79
	b. 50-100 tablets	398	44	11	452	82	18
	c. More than 100 tablets	398	17	4	452	14	3
3	Copy of reporting form was available for verification	564	450	80	623	338	54
	Copy of reporting form was available for verification in Government	382	329	86	Not Applicable		
	Copy of reporting form was available for verification in Private	182	121	66	Not Applicable		
3a	Reasons for non-availability of copy of reporting form[22]						
	a. Did not received	91	31	34	255	86	34
	b. Submitted to ANM	91	23	26	255	123	48
	c. Unable to locate	91	27	29	255	27	11
	d. Others[23]	91	10	11	255	19	7

[21] Other includes mainly strike of *anganwadi* worker and no incentives for deworming.
[22] In 23 schools and 30 anganwadis blank reporting form was available.

4	Percentage of *Anganwadi* center where ASHA administered albendazole	Not Applicable	623	415	67
5	*Anganwadis* having list of unregistered children (aged 1-5 years)	Not Applicable	623	345	55
6	*Anganwadis* having list of out-of-school children (aged 6-19 years)	Not Applicable	623	315	51

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

Sr. No.	Indicators	Anganwadis		
		Denominator	Numerator	%
1	ASHA[24] conducted meetings with parents to inform about NDD	356	330	93
2	ASHA prepared list of unregistered and out of school children	356	250	70
3	ASHA shared the list of unregistered and out of school children with *angnawadis* teacher[25]	250	192	77
4	ASHA administered albendazole to children	356	333	94
5	ASHA received incentive for NDD Feb 2017 round	356	67	19

[23]Other includes mainly kept at home, submitted to BEO office, misplaced

[24]Surveyors were instructed to call ASHA at *anganwadi* centers during coverage validation and collect relevant information. Surveyors could only cover those ASHA's who were able to join for interview because it was not mandatory for ASHA's to attend.

[25]Based on sub-sample who reported to prepare the said list.

Table CV3: Recording protocol, verification factor and school attendance

Sr.No.	Indicators	Schools/Children			Anganwadis/Children		
		Denominator	Numerator	%	Denominator	Numerator	%
1	Followed correct[26] recording protocol	564	194	35	623	434	70
2	Followed partial[27] recording protocol	564	24	4	623	62	10
3	Followed no[28] recording protocol	564	346	61	623	126	20
	Followed correct recording protocol in Government schools	382	153	40	Not Applicable		
	Followed correct recording protocol in Private schools	182	41	22	Not Applicable		
4	State-level verification factor[29](children enrolled/registered)	85,649	53,800	63	31,649	25,493	81
	a. Children registered with *anganwadis*	Not Applicable			15,749	16,242	103
	b. Children unregistered with *anganwadis*(	Not Applicable			5,650	9,522	169

[26]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.

[27]Partial recording protocol includes schools/*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.

[28]No protocol includes all those schools/*anganwadis* where none of the classes/registers followed any protocol to record the information of dewormed children.

[29]Ratio of recounted value of the dewormed children to the reported value. This calculation is based on only those schools (n=450) and *anganwadis* (n=338) where deworming was conducted and copy of reporting form was available for verification.

	Aged 1-5)						
	c. Out-of-school children (Aged 6-19)	Not Applicable			4,094	5,881	144
5	Attendance on previous day of NDD (children enrolled)	125,048	108,805	87	Not Applicable		
6	Attendance on NDD (children enrolled)	125,048	109,856	88	Not Applicable		
7	Attendance on mop-up day (children enrolled)	125,048	104,821	84	Not Applicable		
8	Children who attended on both NDD and mop-up day (children enrolled)	125,048	92,346	74	Not Applicable		
9	Maximum attendance of children on NDD and mop-up day[30] (children enrolled)	125,048	122,332	98	Not Applicable		
10	Estimated NDD coverage[31][32]	87			89		
11	Estimated NDD coverage in Government Schools	90			Not Applicable		
12	Estimated NDD coverage in Private	73			Not Applicable		

[30]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.
[31] 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.*
[32]This was estimated by implying state-level verification factor on government reported coverage for 1-5 years registered children in AWC.

	Schools		

Table CV4: Description on children (6-19 years) interviewed in the schools (n=564) during coverage validation

Sr.No.	Indicators	Denominator	Numerator	%
1	Children received albendazole tablets	872	864	99
2	Children aware about the albendazole tablets	864	825	96
	Source of information about deworming among children (Multiple response)			
3	a. Teacher/school	825	824	100
	b. Television	825	40	5
	c. Radio	825	10	1
	d. Newspaper	825	44	5
	e. Poster/Banner	825	93	11
	f. Parents/siblings	825	85	10
	g. Friends/neighbors	825	19	2
4	Children aware about the worm infection	864	651	75
5	Children awareness about different ways a child can get worm infection (Multiple response)			
	a. Not using sanitary latrine	651	332	51
	b. Having unclean surroundings	651	431	66
	c. Consume vegetables and fruits without washing	651	377	58
	d. Having uncovered food and drinking dirty water	651	281	43
	e. Having long and dirty nails	651	379	58
	f. Moving in bare feet	651	352	54
	g. Having food without washing hands	651	312	48
	h. Not washing hands after using toilets	651	202	32
6	Children consumed albendazole tablet	864	863	100

7	Way children consumed the tablet			
	a. Chew the tablet	863	847	98
	b. Swallow tablet directly	863	16	2
8	Supervised administration of tablets	864	843	98
9	Reasons for not consuming albendazole tablet			
	a. Feeling sick	0	0	0
	b. Afraid of taking the tablet	0	0	0
	c. Parents told me not to have it	0	0	0
	d. Do not have worms so don't need it	0	0	0
	e. Did not like the taste	0	0	0