



Coverage Validation of
National Deworming Day in Uttarakhand
February 2018 round

REPORT
May 2018

Background

Evidence Action conducted coverage validation exercise post-NDD through an independent survey agency to assess the planning, implementation and quality of the NDD program with an objective of identifying gaps and suggesting recommendations for improvements in future NDD rounds. Coverage validation is an ex-post check of the accuracy of the reporting data and coverage estimates to verify government-reported treatment figures.

Uttarakhand observed the February 2018 NDD round on February 10, followed by mop-up day on February 15. Fieldwork for coverage validation in the state was conducted March 19-April 4.

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

Survey Methodology

Using a two stage probability sampling procedure, across all 13 districts, a total of 402 schools (Government schools=305 and Private schools=96) and 404 *anganwadis* were selected for coverage validation. Through a competitive review process, Evidence Action hired an independent survey agency to conduct coverage validation activities approved by the government. Evidence Action designed and finalized survey tool with approval from Uttarakhand's state government. Two separate tools each for schools and *anganwadis* were used for coverage validation.

Implementation

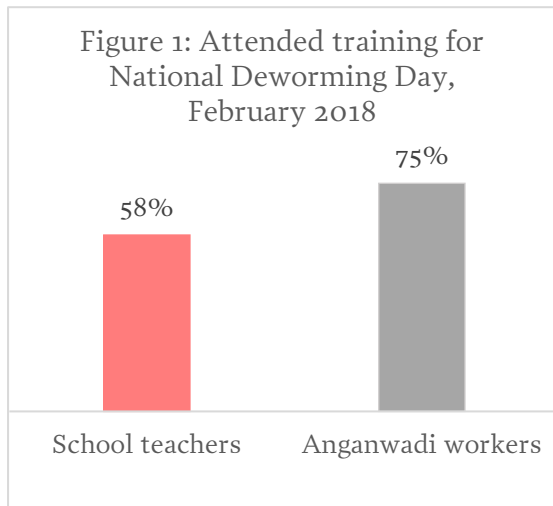
Prior to the survey, Evidence Action conducted a comprehensive training of master trainers who further conducted a two-day training of 80 surveyors and 16 supervisors at Dehradun. The training included an orientation on NDD, the importance of coverage validation, details of the formats including CAPI practices, survey protocols and practical sessions. Each surveyor was allotted five schools and five *anganwadis* for coverage validation. Surveyors were provided with a tablet computer having latest CAPI version downloaded, battery charger, printed copy of formats as backup, and albendazole tablets for demonstration during data collection. The details of sampled schools were shared with surveyors 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. For example, school and *anganwadi* workers (AWWs) were asked to sign a participation form with an official stamp to authenticate the visits of 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 NDD implementation. All teachers and AWWs are mandated to attend training for every round of NDD, irrespective of whether they had attended training in earlier rounds. As per data in figure-1, 58% of teachers and 75% of *anganwadi* workers visited by the surveyors had attended training for the

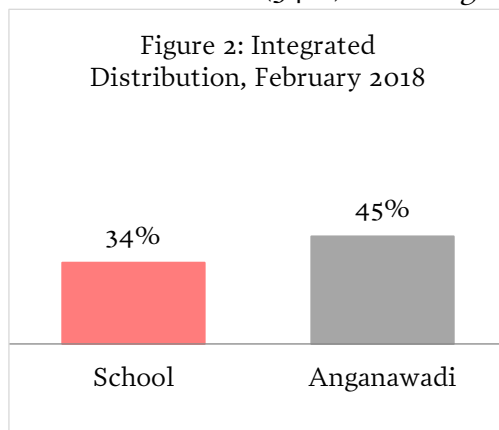


February 2018 NDD round. The training attendance among private school teachers was also low (61%). Among those who did not attend training, 36% of teachers and 52% of AWWs reported lack of information about NDD training as the main reason for not attending. Only 44% of teachers reported to have provided training to other teachers at their school. Half of sampled teachers (51%), 37% of AWWs, and 34% of private school teachers reported having received a SMS about NDD. Lack of an updated contact database is largely responsible for the sub-optimal

delivery of SMS to teachers and *anganwadi* workers.

Integrated Distribution of NDD Materials Including Drugs at Trainings

Although mandated in the NDD guidelines, integrated distribution of NDD kit was low for both schools (34%) and *anganwadi* (45%). Lower participation of teachers at



trainings could have contributed towards the low integrated distribution of the NDD kit for schools as compared to the *anganwadis*. Around 96% of schools and 97% of *anganwadis* received deworming tablets. Further, 80% of schools and 87% of *anganwadis* received posters/banners and about 75% of schools and 73% of *anganwadis* received handouts/reporting forms (Annex-Table CV3). Around 89% of schools and 95% of *anganwadis* reported having received sufficient drugs for deworming (Annex-Table CV2).

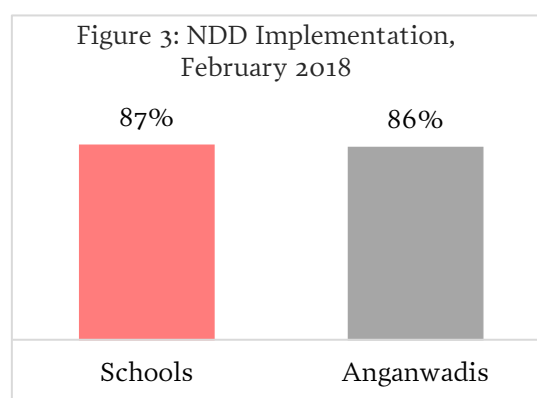
Among the private schools that were part of the sample, 86% received deworming tablets and among those, 74% reported having received a sufficient quantity. Sixty-six percent of private schools covered during coverage validation reported to have received posters/banners and 67% said they received handouts/reporting forms (Annex-Table CV9).

Source of Information about the Recent Round of NDD

Other teachers and AWWs were the most reported source of information in schools (44%) and *anganwadis* (60%) on NDD. Around, 23% of schools and 24% of *anganwadis* reported receiving information via training. Another source of information was SMS, which was reported by 28% of schools and 23% of *anganwadis*. Radio was the least reported sources of information for the current round of NDD by teachers and AWWs. The Gram Pradhan/PRI was reported as a source of information by 10% of teachers and 9% of AWWs (Annex-Table CV1).

NDD Implementation

Findings show that around 87% of schools and 86% of *anganwadis* dewormed children on either NDD or mop-up day during the February 2018 round. Around 73% of private schools conducted deworming activities, which is considerably lower as compare to government schools (93%). The majority of schools (82%) and *anganwadis* (81%) did not conduct deworming activities as they did not have any information about NDD or mop-up day.



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 a high level of understanding of the appropriate protocols to follow in the case of such events. Nausea was listed as a side effect by 80% of teachers and 75% of AWWs; followed by vomiting (as reported by 75% of teachers/ headmaster and 81% of AWWs).

About 84% of teachers and 83% of *anganwadi* workers knew that they had to make a child lie down in an open and shaded place in the case of an adverse event. Representatives from 30% of schools and *anganwadis* each had further recalled that during adverse events a child should be given ORS or water. Approximately 69% of teachers and 67% of AWWs could also recall that they will need to call a Primary Health Centre (PHC) doctor if symptoms persisted.

Recording Protocol

As per coverage validation data, only 29% of schools and 38% of *anganwadis* followed correct recording protocols (single and double ticks). Around 19% of schools and 16% of *anganwadis* followed partial protocols (marking down different symbols or making lists of dewormed children), whereas 52% of schools and 46% of *anganwadis* did not follow any protocol (Annex CV7).

As recommended in NDD guidelines, teachers and AWWs were supposed to retain a copy of reporting forms; whereas only 31% of headmasters who were interviewed and 22% of AWWs had copy of the reporting form available with them.

Accredited Social Health Activists (ASHAs) are required to prepare a list of out-of-school children and children not registered in *anganwadis* and submit it to *anganwadi* workers. However, only 18% of *anganwadis* had received lists of unregistered children (1-5 years) whereas 99% had received the list of out-of-school children (6-19 years) (Annex CV5). Only 12% of surveyed ASHA workers (who were available at the *anganwadis* at the time of surveyors visit) reported receiving incentive for the last round of NDD. On the positive side, 84% of ASHAs conducted meetings with parents to inform them about NDD.

Coverage Validation

Coverage validation provides an opportunity to assess the accuracy of reported data and verify government-reported treatment figures. Coverage validation provides an opportunity to assess the accuracy of reported data and verify government-reported treatment figures. Verification factors¹ are common indicators to measure the accuracy of reported treatment values for neglected tropical disease control programs².

The state-level verification factor for school enrolled children was 0.54, indicating that on an average, for every 100 dewormed children reported by the school, fifty-four were verified either through single/double tick or through any other available documents at the schools. Similarly, overall state-level verification factor for children dewormed at *anganwadis* was 1.12, indicating that on an average, for every 100 dewormed children reported by the *anganwadi*, one hundred and twelve children were verified through available documents. (Annex CV7) However, category-wise verification factors for registered (1-5 years), unregistered (1-5 years) and out-of-school (6-19 years) children were 1.03, 1.32 and 1.35 respectively for *anganwadis*. (Annex CV7). The data suggests under reporting of coverage figures particularly for unregistered and out-of-school children in *anganwadis*, therefore, highlighting a need for proper record keeping. Further, based on children's interviews, the majority of the children present at schools on NDD or mop-up day received (94%) and consumed (99%) the albendazole tablet on either NDD or mop-up day.

Against the state government reported 87% coverage in schools and 92% 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 87% of schools conducted deworming on either NDD or mop-up day (Annex-Table CV5), a maximum of 94% of children were in attendance (Annex-Table CV7), 94% of children received an albendazole tablet, and 97% of children reported to consume the tablet under supervision (Annex-Table CV8). Considering these factors,

¹A verification factor of 1 means of 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.

²WHO (2013), *Data quality assessment tools for Neglected Tropical Disease: Guideline for implementation December 2013*.

75%³ (0.87*0.94*0.94*0.97) of enrolled children could have been dewormed at schools. Since interviews of children are not conducted at *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 95% (0.92*1.03) 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.

RECOMMENDATIONS

The following are the key recommendation for program improvements that emerged from the coverage validation exercise:

1. Block trainings should be planned and communicated to teachers/*anganwadis* in advance, tracked and monitored by the respective departments at the district and block levels. Delays or rescheduling should be avoided at all counts by effective planning and coordination between stakeholder departments. Ensure that all sessions/topics of training are covered as per the NDD training module and share guidelines to improve its quality. Teachers and headmasters who attend training must be mandated to impart adequate training to other teachers in their schools.
2. Robust and efficiently planned integrated distribution of drugs and materials at trainings is important to mitigate the gap. This is all the more critical considering the difficult geographical terrain with accessibility issues in the state.
3. Monitoring visits by officials of the Department of Health, Women Empowerment and Child Development and Education Department during trainings and on NDD and mop-up days should be planned for quality training.
4. Strengthened private school engagement through participation of their representatives at state coordination and district-level coordination committee meetings is recommended. State communication to district magistrates must be facilitated at least two months in advance to inform them about engaging private schools in the program.
5. Concerted efforts are required to engage with state ASHA cells for active engagement in the planning and dissemination of required communication/guidelines, which includes information on roles and responsibilities, and the disbursement of incentives. The role of ASHAs in mobilizing unregistered and out-of-school children should be discussed in detail during trainings. Considering localities with limited accessibility due to difficult terrain, field-level activities should be initiated well in advance of NDD providing sufficient time for community mobilization efforts. Moreover, existing platforms like Village Health, Sanitation and Nutrition Committee, ASHA Divas and

³This was estimated on the basis of NDD implementation status (87%), maximum attendance on NDD and mop-up day (94%), children received albendazole (94%) and supervised drug administration (97%). In absence of children's interview in *anganwadis*, the Government reported coverage was adjusted by implying state-level verification factor.

monthly meetings at cluster and blocks should be capitalized to better sensitize groups about community mobilization activities.

6. Initiate sending targeted messages via SMS early to concerned functionaries at all levels in order to disseminate training schedules on time and reinforce key messages related to drug administration, training and reporting timelines. In order to increase the reach of these SMS, regular and timely updates to the contact database should be done at least three months prior to NDD.
7. While there is an adherence to correct recording procedures, protocol has been found to be limited at both schools and *anganwadis*. It is critical to ensure that technical sessions devote time to cover recording and reporting protocols and a copy of reporting forms is available at trainings. Additional practical sessions should be organized during training for better retention. The same can also be strengthened through reinforcement SMS.
8. To achieve higher NDD coverage, emphasis should be given to achieving maximum attendance of children at schools on NDD and mop-up day through active mobilization by teachers and ASHA workers in community. More specifically, efforts must be made to mobilize the participation of private schools in the NDD program.

Annexure

Table A: Sample Description including Number of Schools and *Anganwadis* Covered during Coverage Validation⁴

Sample/Sites Detail	Number
Total number of districts in the state	13
• <i>Total number of NDD districts in the state</i>	13
• <i>Number of districts covered under coverage validation</i>	13
Number of trained surveyors deployed during coverage validation	80
Number of trained supervisors deployed during coverage validation	16
Number of blocks in the state	95
• <i>Number of blocks in NDD districts</i>	95
• <i>Number of blocks⁵ covered through coverage validation</i>	80
Total number of schools covered ⁶	402
• <i>Total number of government schools covered</i>	305
• <i>Total number of private schools covered</i>	96
• <i>Madarasa</i>	1
Total number of <i>anganwadis</i> covered ⁷	404

Table CV1: Training, awareness and source of information about National Deworming Day among respondents (teacher/headmaster/*anganwadi* worker) March, 2018

Indicators ⁸	School			<i>Anganwadi</i>		
	Denominator	Numerator	%	Denominator	Numerator	%
Attended training for current round of NDD	402	232	58	404	303	75
Ever attended training for NDD ⁹	402	257	64	404	324	80
Never attended training for NDD	402	145	36	404	80	20
Reasons for not attending official training						
Location was too far away	170	24	14	101	16	16
Did not know the date/timings/venue	170	61	36	101	52	52
Busy in other official/personal work	170	21	12	101	10	10
Not necessary because already attended deworming training in past	170	25	15	101	20	20
Do not feel the need	170	14	8	101	6	6
No incentives/no financial support	170	5	3	101	5	5

⁴Coverage validation in the state was conducted during March 19-April 04, 2018.

⁵These are sampled blocks selected from U-DISE data, 2016-17.

⁶These are the actual schools covered during Coverage Validation visits. Numbers given in subsequent tables (numerator and denominator) are weighted. The weights are used in order to generalize the findings at state level.

⁷These are the actual *anganwadis* covered during Coverage Validation visits. Numbers given in subsequent tables (numerator and denominator) are weighted. The weights are used in order to generalize the findings at state level.

⁸Weighted percentages and numbers are presented against each indicator in all the coverage validation tables.

⁹ Includes those school teachers and *anganwadi* workers who attended training either for NDD February 2018 or attended training in past.

Others	170	55	32	101	18	18
Trained teacher provided training to						
All other teachers	232	102	44	Not Applicable		
Few teachers	232	79	34	Not Applicable		
No (himself/herself only teacher)	232	26	11	Not Applicable		
No, did not train other teachers	232	25	11	Not Applicable		
Source of information about current NDD round						
Television	402	104	26	404	72	18
Radio	402	32	8	404	15	4
Newspaper	402	87	22	404	42	10
Banner	402	59	15	404	52	13
SMS	402	111	28	404	95	23
Other school/teacher/ <i>anganwadi</i> worker	402	176	44	404	242	60
WhatsApp message	402	82	20	404	33	8
Training	402	90	23	404	96	24
Gram Pradhan	402	38	10	404	37	9
Others	402	59	15	404	44	11
Receive SMS for current NDD round	402	206	51	404	150	37
Probable reasons for not receiving SMSs						
Changed Mobile number	196	65	33	254	82	32
Other family members use this number	196	23	12	254	58	23
Number not registered to receive such messages	196	83	43	254	78	31
Others	196	25	12	254	36	14

Table CV2: Awareness about NDD among teachers/headmasters and *anganwadi* workers, March 2018

Indicators	School			<i>Anganwadi</i>		
	Denominator	Numerator	%	Denominator	Numerator	%
Awareness about the ways a child can get worm infection	402	378	94	404	379	94
Different ways a child can get worm infection (Multiple Response)						
Not using sanitary latrine	378	174	46	379	167	44
Having unclean surroundings	378	272	72	379	256	68
Consume vegetables and fruits without washing	378	245	65	379	203	54
Having uncovered food and drinking dirty water	378	281	75	379	266	70
Having long and dirty nails	378	235	62	379	239	63
Moving in bare feet	378	196	52	379	190	50
Having food without washing hands	378	229	61	379	198	52
Not washing hands after using toilets	378	153	41	379	138	36
Awareness about all the possible ways a child can get a worm infection¹⁰	378	23	6	379	15	4
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)	Not Applicable			404	296	73
2-3 years of children (Crush one full tablet between two spoons, and administer with water)	Not Applicable			404	131	32
3-5 years of children (one full tablet and child chewed the tablet properly)	Not Applicable			404	360	89
6-19 years of children (one full tablet and child chewed the tablet properly)	402	391	97	404	396	98
Awareness about non-administration of albendazole tablet to sick child						
Will administer albendazole tablet to sick child	402	49	12	404	48	12
Will not administer albendazole tablet to sick child	402	143	36	404	161	40
Awareness about consuming albendazole tablet						
Chew the tablet	402	385	96	404	393	97
Swallow the tablet directly	402	17	4	404	11	3
Awareness about consuming albendazole in school/<i>anganwadi</i>	402	381	95	404	395	98
Sufficient quantity of albendazole tablets¹¹	384	343	89	391	373	95

¹⁰Includes 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.

¹¹ This indicator is based on the sample that received albendazole tablet.

Table CV3: Integrated distribution of albendazole tablets and IEC materials

Indicators	Schools			<i>Anganwadi</i>		
	Denominator	Numerator	%	Denominator	Numerator	%
Items received by school teacher and <i>anganwadi</i> worker						
Albendazole tablet	402	384	96	404	391	97
Poster/banner	402	322	80	404	353	87
Handouts/ reporting form	402	300	75	404	295	73
Adverse Event Reporting Form	402	78	19	404	93	23
Received all materials*	402	74	18	404	88	22
Items verified during Coverage Validation						
Albendazole tablet	384	186	48	391	189	48
Poster/banner	322	252	78	353	274	78
Handouts/ reporting form	300	154	51	295	135	46
Adverse Event Reporting Form	78	24	31	93	39	41
Received all materials*	74	22	30	88	35	39
No of school teachers/<i>anganwadi</i> worker attended training and received items during training						
Albendazole tablet	228	185	81	298	259	87
Poster/banner	197	167	86	275	242	88
Handouts/ reporting form	189	152	81	237	191	81
Adverse Event Reporting Form	52	35	68	80	51	64
Received all materials*	51	34	67	76	46	61
Integrated Distribution of albendazole tablet IEC and training materials ¹²	402	135	34	404	181	45

¹²Integrated distribution of NDD kits includes albendazole, banner/poster and handout/reporting forms and provided to all sampled schools and AWC during the trainings.

Table CV4: Awareness about Adverse events and Its Management, March 2018

Indicators	Schools			<i>Anganwadi</i>		
	Denominator	Numerator	%	Denominator	Numerator	%
Opinion of occurrence of an adverse event after administering albendazole tablet	402	93	23	404	79	20
Awareness about possible adverse events (Multiple Response)						
Mild abdominal pain	93	68	73	79	56	71
Nausea	93	75	80	79	59	75
Vomiting	93	70	75	79	64	81
Diarrhea	93	18	19	79	28	35
Fatigue	93	29	32	79	22	28
All possible adverse event ¹³	93	10	11	79	9	12
Awareness about mild adverse event management						
Make the child lie down in open and shade/shaded place	402	338	84	404	333	83
Give ORS/water	402	122	30	404	121	30
Observe the child at least for 2 hours in the school	402	73	18	404	79	20
Don't know/don't remember	402	24	6	404	38	9
Awareness about severe adverse event management						
Call PHC or emergency number	402	277	69	404	270	67
Take the child to the hospital /call doctor to school	402	182	45	404	182	45
Don't know/don't remember	402	6	2	404	14	3

Table CV5: Findings from School and *Anganwadi* Coverage Validation Data

Indicators	Schools			<i>Anganwadis</i>		
	Denominator	Numerator	%	Denominator	Numerator	%
Percentage of schools/ <i>anganwadis</i> Conducted deworming ¹⁴	402	350	87	404	350	86
Percentage of conducted deworming in Government schools	286	265	93	<i>Not Applicable</i>		
Percentage of conducted deworming in Private schools	116	85	73	<i>Not Applicable</i>		
Percentage of school and <i>anganwadis</i> administered albendazole on day of - (Multiple Response)						
a. National Deworming Day	350	339	97	350	341	98

¹³Includes 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.

¹⁴Schools and *anganwadis* that conducted deworming on NDD or mop-up day.

b. Mop-up day	350	209	60	350	181	52
c. Between NDD and mop-up day	350	21	6	350	14	4
d. Both days (NDD and mop-up day)	350	200	57	350	176	50
Reasons for not conducting deworming						
a. No information	52	42	82	54	44	81
b. Drugs not received	52	4	7	54	4	7
c. Apprehension of adverse events	52	1	1	54	2	4
d. Others ¹⁵	52	5	10	54	4	8
Percentage of schools and <i>anganwadis</i> left over with albendazole tablet after deworming	384	106	28	391	111	28
Number of albendazole tablets left after deworming						
a. Less than 50 tablets	106	99	93	111	108	97
b. 50-100 tablets	106	6	6	111	1	1
c. More than 100 tablets	106	1	1	111	2	2
Copy of reporting form was available for verification	350	107	31	350	77	22
<i>Copy of reporting form was available for verification in Government school</i>	265	86	33	<i>Not Applicable</i>		
<i>Copy of reporting form was available for verification in Private school</i>	85	21	25	<i>Not Applicable</i>		
Reasons for non-availability of copy of reporting form¹⁶						
a. Did not received	226	46	20	262	43	16
b. Submitted to ANM	226	153	68	262	199	76
c. Unable to locate	226	15	7	262	9	4
d. Others ¹⁷	226	12	5	262	11	4
Percentage of <i>Anganwadi</i> center where ASHA administered albendazole	Not Applicable			350	94	27
<i>Anganwadis</i> having list of unregistered children (aged 1-5 years)	Not Applicable			350	63	18
<i>Anganwadis</i> having list of out-of-school children (aged 6-19 years)	Not Applicable			350	345	99

¹⁵Other includes mainly strike of *anganwadi* worker and no incentives for deworming.

¹⁶In 17 schools and 11 *anganwadis* blank reporting form was available.

¹⁷Other includes mainly kept at home, given to ASHA, submitted to BIO and misplaced.

Table CV6: Selected indicators based on ASHA's interview at *Anganwadi* Centre, Coverage Validation Data

Indicators	<i>Anganwadis</i>		
	Denominator	Numerator	%
ASHA ¹⁸ conducted meetings with parents to inform about NDD	94	79	84
ASHA prepared list of unregistered and out of school children	94	43	46
ASHA shared the list of unregistered and out of school children with <i>anganwadis</i> teacher	43	25	57
ASHA administered albendazole to children	94	64	68
ASHA received incentive for NDD August 2017 round	94	11	12

Table CV7: Recording protocol, verification factor and school's attendance

Indicators	Schools			<i>Anganwadis</i>		
	Denominator	Numerator	%	Denominator	Numerator	%
Followed correct¹⁹ recording protocol	350	103	29	350	133	38
Followed partial²⁰ recording protocol	350	66	19	350	56	16
Followed no²¹ recording protocol	350	181	52	350	161	46
<i>Followed correct recording protocol in government school</i>	<i>265</i>	<i>83</i>	<i>31</i>	<i>Not Applicable</i>		
<i>Followed correct recording protocol in private school</i>	<i>85</i>	<i>20</i>	<i>23</i>	<i>Not Applicable</i>		
State-level verification factor²² (children enrolled/registered)	8355	4539	54	1425	1596	112
a. Children registered with <i>anganwadis</i>	Not Applicable			1000	1032	103
b. Children unregistered with <i>anganwadis</i> (Aged 1-5)	Not Applicable			315	415	132
c. Out-of-school children (Aged 6-19)	Not Applicable			110	149	135
Attendance on previous day of NDD (children enrolled)	35737	31219	87	Not Applicable		
Attendance on NDD (children enrolled)	35737	30224	85	Not Applicable		

¹⁸ 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.

¹⁹Correct recording protocol includes schools where all the classes put single tick (✓) on NDD and double tick (✓✓) on mop-up day to record the information of dewormed children.

²⁰Partial recording protocol includes schools where all the classes did not follow correct protocol, put different symbols and prepared separate list to record the information of dewormed children.

²¹No protocol includes all those schools where none of the classes followed any protocol to record the information of dewormed children.

²²Ratio of recounted value of the dewormed children to the reported value. This calculation is based on only those schools (n=107) and *anganwadis* (n=77) where deworming was conducted and copy of reporting form was available for verification.

Attendance on mop-up day (children enrolled)	35737	30651	86	Not Applicable
Children who attended on both NDD and mop-up day (children enrolled)	35737	27119	76	Not Applicable
Maximum attendance of children on NDD and mop-up day ²³ (children enrolled)	35737	33676	94	Not Applicable
Estimated NDD coverage ^{24, 25}	75		95	
<i>Estimated NDD coverage in Government schools</i>	81		<i>Not Applicable</i>	
<i>Estimated NDD coverage in Private schools</i>	57		<i>Not Applicable</i>	

Table CV8: Description on children (6-19 years) interviewed in the schools (n=350) during coverage validation

Indicators	Denominator	Numerator	%
Children received albendazole tablets	1049	988	94
Children aware about the albendazole tablets	988	903	91
Source of information about deworming among children (Multiple response)			
a. Teacher/school	903	894	99
b. Television	903	54	6
c. Radio	903	14	2
d. Newspaper	903	48	5
e. Poster/Banner	903	53	6
f. Parents/siblings	903	23	3
g. Friends/neighbors	903	3	1
Children aware about the worm infection	988	786	80
Children awareness about different ways a child can get worm infection (Multiple response)			
a. Not using sanitary latrine	786	277	35
b. Having unclean surroundings	786	456	58
c. Consume vegetables and fruits without washing	786	404	51
d. Having uncovered food and drinking dirty water	786	451	57
e. Having long and dirty nails	786	459	58
f. Moving in bare feet	786	332	42
g. Having food without washing hands	786	365	47
h. Not washing hands after using toilets	786	191	24
Children consumed albendazole tablet	988	979	99
Way children consumed the tablet			
a. Chew the tablet	979	909	93
b. Swallow tablet directly	979	70	7
Supervised administration of tablets	979	946	97
Reasons for not consuming albendazole tablet			
a. Feeling sick	8	0	0
b. Afraid of taking the tablet	8	1	7
c. Parents told me not to have it	8	0	0
d. Do not have worms so don't need it	8	7	93
e. Did not like the taste	8	0	0

²³Maximum 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.

²⁴This 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*.

²⁵This was estimated by implying state-level verification factor on government reported coverage for 1-5 years registered children in AWC.

Table CV9: Selected Indicators of Coverage Validation in Private Schools, February 2018

Indicators ²⁶	Denominator	Numerator	%
Attended training for current round of NDD	116	70	61
Received albendazole tablets	116	100	86
Sufficient quantity of albendazole tablets	100	74	74
Received poster/banner	116	77	66
Received handouts/ reporting form	116	78	67
Received SMS for current NDD round	116	40	34
Albendazole administered to children	116	85	73
Reasons for not conducting deworming			
No information	31	27	85
Albendazole tablets not received	31	2	8
Others ²⁷	31	2	7
Awareness about correct dose and right way of albendazole administration	116	113	97
Awareness about non-administration of albendazole tablet to sick child	116	46	39
Followed correct ²⁸ recording protocol	85	20	23

²⁶These 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

²⁷Others include 'No comments'

²⁸Correct recording protocol implies putting single tick (✓) on NDD and double tick (✓✓) for all those children administered albendazole tablets.